
UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

☐ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2021

or

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from to

Commission file number 001-38791

LUMINAR TECHNOLOGIES, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

2603 Discovery Drive

Suite 100

Orlando

Florida

(Address of Principal Executive Offices)

83-1804317

(I.R.S. Employer Identification No.)

32826

(Zip Code)

(407) 900-5259

Registrant's telephone number, including area code

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading symbol(s)	Name of each exchange on which registered
Class A common stock, par value of \$0.0001 per share	LAZR	The Nasdaq Stock Market LLC

Securities registered pursuant to Section 12(g) of the Act: **None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports); and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☐ No ☒

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

☐

Accelerated filer

☐

Non-accelerated filer

☐

Smaller reporting company

☐

Emerging growth company

☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

The aggregate market value of the voting stock held by non-affiliates of the registrant was approximately \$4.6 billion as of June 30, 2021 (the last business day of the registrant's most recently completed second fiscal quarter) based upon the closing sale price on The Nasdaq Stock Market reported for such date. Shares of Common Stock held by each officer and director and by each person who may be deemed to be an affiliate have been excluded. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of February 18, 2022, the registrant had 252,252,472 shares of Class A common stock and 97,088,670 shares of Class B common stock, par value \$0.0001 per share, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

None.

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CAUTIONARY NOTE REGARDING FORWARD LOOKING STATEMENTS

This Annual Report on Form 10-K (this “Form 10-K”) includes forward-looking statements in addition to historical information. These forward-looking statements are included throughout this Form 10-K, including in the sections entitled “Business,” “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” and in other sections of this Form 10-K and include statements regarding product plans, future growth, market opportunities, strategic initiatives, industry positioning, customer acquisition and retention, revenue growth and anticipated impacts on our business of the ongoing COVID-19 pandemic and related public health measures. In some cases, you can identify these statements by forward-looking words such as “outlook,” “believes,” “expects,” “future,” “potential,” “continues,” “may,” “will,” “should,” “could,” “seeks,” “approximately,” “predicts,” “intends,” “plans,” “estimates,” “anticipates” or the negative version of these words or other comparable words or phrases, but the absence of these words does not mean that a statement is not forward-looking. These forward-looking statements, which are subject to risks, uncertainties and assumptions about us, may include projections of our future financial performance, our anticipated growth strategies and anticipated trends in our business.

These statements are only predictions based on our current expectations and projections about future events. There are important factors that could cause our actual results, level of activity, performance or achievements to differ materially from the results, level of activity, performance or achievements expressed or implied by the forward-looking statements, including, our history of losses and our expectation that we will continue to incur significant expenses, including substantial R&D costs, and continuing losses for the foreseeable future as well as our limited operating history which makes it difficult to evaluate our future prospects and the risks and challenges we may encounter; our strategic initiatives which may prove more costly than we currently anticipate and potential failure to increase our revenue to offset these initiatives; whether our lidar products are selected for inclusion in autonomous driving or ADAS systems by automotive OEMs or their suppliers, and whether we will be de-selected by any customers; the lengthy period of time from a major commercial win to implementation and the risks of cancellation or postponement of the contract or unsuccessful implementation; potential inaccuracies in our forward looking estimates of certain metrics and our future cost of goods sold (COGS) and bill of materials (BOM) and total addressable market; the discontinuation, lack of success of our customers in developing and commercializing products using our solutions or loss of business with respect to a particular vehicle model or technology package and whether end automotive consumers will demand and be willing to pay for such features; our inability to reduce and control the cost of the inputs on which we rely, which could negatively impact the adoption of our products and our profitability; the effect of continued pricing pressures, competition from other lidar manufacturers, automotive original equipment manufacturers (“OEMs”) cost reduction initiatives and the ability of automotive OEMs to re-source or cancel vehicle or technology programs which may result in lower than anticipated margins, or losses, which may adversely affect our business; general economic uncertainty and the effect of general economic conditions on our industry in particular, including the level of demand and financial performance of the autonomous vehicle industry and market adoption of lidar as well as developments in alternative technology and the increasingly competitive environment in which we operate; our ability to manage our growth and expand our business operations effectively, including into international markets, such as China, which exposes us to operational, financial and regulatory risks; adverse impacts due to limited availability and quality of materials, supplies, and capital equipment, or dependency on third-party service providers whether we will be able to successfully transition our engineering designs into high volume manufacturing, including our ability to transition to an outsourced manufacturing business model and whether we and our outsourcing partners and suppliers can successfully operate complex machinery; whether we can successfully select, execute or integrate our acquisitions; whether the complexity of our products results in undetected defects and reliability issues which could reduce market adoption of our new products, limit our ability to manufacture, damage our reputation and expose us to product liability, warranty and other claims; our ability to maintain and adequately manage our inventory; our ability to remediate the material weakness in our internal controls over financial reporting; our ability to protect and enforce our intellectual property rights; changes in personnel and availability of qualified personnel and dependence on Austin Russell, our Founder, President and Chief Executive Officer; the amount and timing of future sales and whether the average selling prices of our products could decrease rapidly over the life of the product as well as our dependence on a few key customers, who are often large corporations with substantial negotiating power; the effects of the ongoing coronavirus (COVID-19) pandemic or other infectious diseases, health epidemics, pandemics and natural disasters on Luminar’s business; interruption or failure of our information technology and communications systems and cybersecurity risks to our operational systems, security systems, infrastructure, integrated software in our lidar solutions; and those other factors discussed in the section entitled “Risk Factors” in this Form 10-K. You should specifically consider the numerous risks outlined in the section of this Form 10-K entitled “Risk Factors.” Given these risks, uncertainties and other factors, you should not place undue reliance on these forward-looking statements. Although we believe the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, level of activity, performance or achievements. We undertake no obligation to update any forward-looking statements made in this Form 10-K to reflect events or circumstances after the date of this Form 10-K or to reflect new information or the occurrence of unanticipated events, except as required by law.

In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this Annual Report on Form 10-K, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain, and investors are cautioned not to unduly rely upon these statements.

PART I
ITEM 1. BUSINESS.

Overview

Luminar is a global automotive technology company ushering in 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.

Founded in 2012 by President and Chief Executive Officer Austin Russell, Luminar built a new type of lidar from the chip-level up, with technological breakthroughs across all core components. As a result, we have created what we believe is the lidar sensor that meets the demanding performance, safety, and cost requirements for Level 3 through Level 5 (see Market Outlook for definition of levels of automation) autonomous vehicles in production, bypassing the traditional limitations of legacy lidar technology, while also enabling Level 0 through Level 3 (Advanced Driving Assistance Systems (“ADAS”) and/or Luminar Proactive SafetyTM) with our Proactive SafetyTM solution. Integrating this advanced hardware with our custom developed software stack enables a turn-key autonomous solution to accelerate widespread adoption across automakers at series production scale.

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.

Our full-stack hardware and software autonomy solution for cars and trucks as well as our standalone lidar technology offerings have made us one of the leading technology partners for the world’s top OEMs.

Market Outlook

There continues to be a worldwide trend towards mobility and e-mobility and with a focus on safety and autonomy, specifically next generation ADAS systems and highway autonomy for passenger and commercial vehicles. The roadmap from existing driver assistance and comfort features all the way to self-driving value can be built through improved vehicle situational awareness provided by sensors and software installed on the vehicle.

Our products provide this situational awareness in a broad range of driving environments and allow for confident detection and planning at all vehicle speeds. Our portfolio encompasses sensor hardware, and perception and decision-making software that improve existing vehicle features and enable new levels of vehicle automation for consumer and commercial applications.

The Society of Automotive Engineers (“SAE”) defines levels of automation as follows, which SAE updates from time to time:

- **Level 0—No Driving Automation:** In this level, the human is fully responsible for all dynamic driving tasks (“DDT”) at all times, even if an active safety system assists in the task. “L0” is defined as driver support features that are limited to warnings or momentary emergency intervention. Examples of warnings include blind spot warning or lane departure warnings. Examples of features with momentary assistance include automated emergency braking (“AEB”) and lane keep assist (“LKA”). These features are viewed as the basis of active safety, with AEB designed to reduce and/or mitigate the severity of low speed accidents, and LKA designed to prevent vehicles from crossing over into neighboring lanes or even worse, oncoming traffic.
- **Level 1—Driver Assistance:** In this level, the human is fully responsible for all DDT at all times, even if an active safety system assists in the task. “L1” is defined as driver support features that performs part of the DDT by executing either the longitudinal or the lateral vehicle motion control subtask, and disengages immediately upon driver request. Examples include lane centering support (“LCS”) or the more widely adopted adaptive cruise control (“ACC”). These features are viewed as comfort features, easing the driving load from the driver during extended highway drives.
- **Levels 2—Partial Driving Automation:** In this level, the human is fully responsible for all DDT at all times, even if an active safety system assists in the task. “L2” is defined as driver support features that performs part of the DDT by executing the longitudinal and the lateral vehicle motion control subtask, and disengages immediately upon driver request.

The term L2+ is often used for today’s higher capability systems, many of which add a driver monitoring system, such as camera or steering wheel sensing to ensure the human driver remains engaged, but require the driver remain attentive at all times. These systems are currently limited in Europe to certain operational design domains (“ODD”)

where they are often limited by roadway type such as divided highways, but are more broadly allowed in the United States, China, and other regions.

- **Levels 3—Conditional Driving Automation:** In this level, the automated driving system (“ADS”) performs the entire DDT while engaged. The driver is responsible to verify the operational readiness of the ADS, determine whether to engage the system, and becomes the fallback-ready user when the ADS is engaged - the human driver must take back full control of the vehicle when requested. The ADS permits engagement and operation only within its ODD.
- **Levels 4—High Driving Automation:** In this level, the ADS performs the entire DDT while engaged. The driver is responsible to verify the operational readiness of the ADS, determine whether to engage the system, and becomes a passenger when the ADS is engaged (when physically present in the vehicle) - the human driver is not required to perform the DDT or be the DDT fallback-ready user. “L4” assures the ADS will determine how to achieve the minimal risk condition (i.e., degraded state). The human driver may perform the DDT after the ADS reaches its ODD limit. He or she may request that the ADS disengage, or may become the driver after a requested disengagement. The ADS permits engagement and operation only within its ODD.
- **Levels 5—Full Driving Automation:** In this level, the ADS performs the entire DDT while engaged. The driver is responsible to verify the operational readiness of the ADS, determine whether to engage the system, and becomes a passenger when the ADS is engaged (when physically present in the vehicle) - the human driver is not required to perform the DDT or be the DDT fallback-ready user. The ADS permits engagement under all driver-manageable on-road conditions. “L5” is essentially the same as L4, but without the ODD restriction. It is the designation for vehicles that when placed in automated driving mode, can drive everywhere and in all conditions without human intervention or even occupants.

We believe the market is currently segmented in two distinct categories: (1) ADAS or driver-assistance systems, where a human is in the driving loop and responsible, at minimum, to be a safety fallback and in most circumstances directly control part or all of the dynamic driving tasks; and (2) autonomous driving, where a human is “out-of-the-loop” (colloquially, “hands off” the steering wheel and “eyes off” the road).

Within these two segments, we believe the largest business opportunities exist in the areas of active safety and highway autonomy due to trends in safety technology standardization and consumer pain-point priority. These two applications have well aligned technology requirements that allow us to remain focused on a single product/solution that will allow OEM partners to achieve both. The broader autonomy market segment, specifically robo-taxis, represents strong long-term opportunity, but lidar technology must be seeded now during development even though high-volume production and deployment remains many years away.

These trends and safety needs apply to both the passenger and commercial vehicle markets. The autonomy use case and business case for commercial vehicles are simple: reduce operational costs and increase efficiencies. Passenger vehicles are more complex since the ability to deliver autonomy is more focused on the consumer’s comfort and convenience. We are working to help OEMs and consumers achieve these goals, but with the proper level of safety included.

Our initial focus for lidar technology is L3/L4 Highway Autonomy, and we aim to offer the sensing, perception, and function turn key system that will truly add value and give driving time back to the end consumer. This market is still developing, but we estimate it represents significant growth, and where we are a technology leader. In addition, vehicles enabled with our lidar will be capable of Proactive Safety™ in which accidents are potentially completely avoided, which can benefit other autonomy solutions such as L0/L1/L2.

Passenger Vehicles

The passenger vehicle market is very large. We expect that approximately 100 million new passenger vehicles or more will be manufactured annually through 2030 and beyond. It is very difficult to replicate this volume in other markets, but it is also important to recognize that highway autonomy is not yet standard equipment. In order to realize a vehicle feature’s maximum societal benefits, the ultimate goal in the automotive industry is to achieve widespread adoption of next-gen safety and highway autonomous features in all vehicles. We expect a technology adoption ramp-up over time as automated functionality matures, costs and pricing are reduced, and consumers become more familiar with the full benefits and capabilities of a safe autonomy system. We believe there is a substantial market opportunity for our products when Proactive Safety™ is coupled with autonomy due to the public benefit of the overall anticipated safety increase.

ADAS

ADAS volumes are primarily driven by both the European and North American markets. The European New Car Assessment Program (“NCAP”) requires a minimum level of crash mitigation functionality such as AEB (for vehicles, pedestrians, and cyclists), LKA, speed alert systems and other ADAS features for a vehicle to have a 5-star rating. Furthermore, the European Union is moving toward mandates of these advanced functions.

The U.S. is less focused on mandates at this time and instead allows the U.S. NCAP (known as the “Stars on Cars” program) and designations such as the Insurance Institute for Highway Safety “Top Safety Pick” and “Top Safety Pick+” to drive adoption and provide consumers with an understanding of the vehicle’s advanced crash avoidance capability. Additionally, in working with the National Highway Traffic Safety Administration (“NHTSA”), 20 automakers pledged to voluntarily equip virtually all new passenger vehicles by September 1, 2022 with a low-speed AEB system that includes forward-collision warning. With global safety rating programs and the OEMs competing to deliver more safety and comfort features to their customers, it is reasonable to expect near complete adoption of ADAS functionalities in new vehicles produced by Europe, U.S., Japan, and South Korea by 2026. We expect adoption rates to increase significantly in China as well.

We expect OEMs will demand Proactive Safety™ and limited autonomy with the ability to upgrade functionality over time without hardware change. This expectation aligns well with the increasing number of OEMs developing new vehicle platforms that span their lineups.

Proactive Safety™

While the increased application of existing ADAS technology should help reduce the number of accidents and fatalities, we believe there is significant room for improvement concerning standard ADAS and crash avoidance. Today, the ADAS systems are designed to mitigate or reduce the severity of accidents and only avoid them under certain low-speed or ideal environmental conditions. Data suggests that the number of automotive fatalities globally still exceeds one million annually and the social costs of accidents continue to exceed \$500 billion in the United States alone. As the autonomy market matures, we expect that OEMs and global NCAP programs will extend the functionality to intersection and crossing scenarios, which requires wider fields-of-view and faster detection. Global safety rating programs are also considering night and low-light performance in the future, further pushing the existing technology’s limits. We believe there is a significant opportunity to be able to reduce collisions with a capable lidar sensing system and software which can enable an understanding of the environment, which can help to avoid collisions by taking over the steering wheel and braking systems proactively. We believe our lidar is capable of significantly increasing the effectiveness of these active safety systems and supports proactive safety and greater crash avoidance measures using our long-range, high resolution, wide field-of-view, and perception software to be able to detect pedestrians and cyclists in the most challenging and complicated environmental sensing conditions. Furthermore, high-speed safety performance, specifically AEB, is increasingly important as hands-free highway driving assist systems are further delivered to the market, and the vehicles take on more of the driving responsibility.

Highway Autonomy

Since inception, our focus has been to enable safe and ubiquitous autonomy and we view highway autonomy, in combination with Proactive Safety™, as providing the most value to the end consumer for the foreseeable future. The market appears to be trending in this direction, targeting hands-off and eyes-off operations in a more controlled setting than the urban environment. While there is a significant focus on investment and development of robo-taxi solutions, passenger vehicles continue to be a voluminous market, and we expect the continued growth of highway automated functions over the next several years.

Commercial Trucking Market Outlook

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 transport is at an all-time high. The business case for trucking highway autonomy includes: lower operating costs, increased availability of the vehicles and time spent on the road.

The first mandate for a vehicle AEB was in Europe in 2013, and there has been a growing application of the functionality since. Similar to passenger vehicles, Europe leads the market in a unified safety direction and has put mandates in place to drive lane keeping functions and expand the AEB functionality to include pedestrians and cyclists. This leadership is also a result of a market driven by the trucking manufacturers who set the technology distribution of vehicles and the ADAS vehicles and systems architectures. The trucking market in North America is driven by the fleet operators’ specifications and is fragmented. The lack of mandates from governing bodies has resulted in a market for ADAS that is very difficult to quantify and gain economies of scale across a small set of partners as is the case in Europe. As in passenger vehicles, we believe our lidar technology and sensing capability could greatly improve the L0 and L1 functionality for the trucking market as well. That said, our focus presently continues to be on L4 highway autonomous driving.

L4 highway autonomy is the target ODD for trucking because that is where a majority of the physical truck’s time is spent. The sensing needs among Europe, North America, South Korea, Japan, and other regions globally all differ slightly, but have similarities in the requirement for (i) long range detection to aid in extra braking time, (ii) farther detection of lanes to aid in proper lane centering and placement of potential obstacles in the correct lanes, and (iii) the vertical field of view and high placement on the cab to support close proximity detection in front of the vehicle, as well as overhead obstacles (such as bridges and overhead signs).

Robo-Taxi and Delivery Market Outlook

The robo-taxi industry continues to evolve through investment and partnerships among technology companies, both established and startup, and mainstays from the automotive industry dominate the industry's attention. This application is, however, the most difficult vehicle autonomy feature to solve for technically. It requires the ability to detect and classify hundreds of objects and predict motion for many of those objects, including pedestrians, electric scooters, and bicycles—all of which present as pedestrians, but move in very different ways. The environment consists of dynamic weather, steam from manholes and exhaust pipes, and oftentimes construction equipment causing dust and debris. Given the economic benefit an automated robo-taxi driving system could unlock, billions of dollars in funding and engineering efforts have been focused on developing solutions. The majority of the autonomous vehicle companies are operating in this space, awaiting a market that requires complex governmental support, funding for infrastructure, and a sensing and compute solution that must anticipate every possible mixed-traffic scenario.

Additionally, the initial ODD only requires low to medium speed operation, which can be met with less capable sensors. We expect that ultimately, the ODD will need to expand to the highway as robo-taxis and automated shuttle services move people from city centers to the airport and back, in particular. We expect limited robo-taxi R&D programs will continue to operate in varying levels of development and testing the rest of this decade.

Adjacent Markets

Although not our primary focus, the adjacent markets offer use cases uniquely suited for and potentially served by our technology. Our goal is to scale our core markets and utilize our robust solutions to best serve these adjacent markets where it makes sense for us and our partners. One adjacent market we are focused on in the near-term is the Aerospace and Defense market. We have a partnership with Airbus UpNext, Airbus SE's subsidiary created to give future technologies a fast-track. The primary goal of the partnership is to use our technology to increase aircraft safety and ultimately enable operation with automatic obstacle detection. Additionally, we have invested in and have a partnership with Robotic Research OpCo, LLC ("Robotic Research"), a global leader in autonomous mobility and robotic solutions. We are working with Robotic Research on opportunities to advance autonomy, and they have selected us as their long-range lidar provider.

Our Products

Our Hydra, Iris and other products are described in further detail below:

Hydra lidar sensors are dynamically configurable dual-axis scan sensors that detect objects up to 500 meters away over a horizontal field of view of 120° and a software configurable vertical field of view of up to 30°. High point densities in excess of 200 points per square degree enable long-range detection, tracking, and classification over the whole field of view. We plan to stop new production and shipments of Hydra in 2022 as we transition to newer products.

Iris lidar sensors leverage the same core technology components in Hydra, but Iris is refined to meet the size, weight, cost, power, and reliability requirements of automotive qualified series production. Iris features two fully custom integrated circuits – driving both laser transmitter and receiver.

We expect to become a commercially viable long-range lidar supplier for automotive applications in L3 through L5 of vehicle autonomy, including full highway autonomy and urban and suburban autonomous driving. Iris is designed to be an efficient, automotive-grade, and affordable solution for series-production programs starting production in late 2022 or early 2023.

Autonomy Compute: Our electronic compute unit ("ECU") is designed to accelerate the development of perception systems. Raw point-cloud inputs via ethernet, from up to four lidar sensors, are sent through a pipeline of processing layers to provide automated field coverage, enriched point-clouds, and ultimately, the perception outputs required for fusion and path planning.

Software

If a vehicle is to take an action on the road (e.g., accelerate, brake or steer) without human control, or even override human control, it must have an understanding of the driving environment. This understanding is called perception. The requirements for perception, and subsequently for the sensors providing necessary information underlying it, ultimately come from questions the vehicle system needs to have answered continuously to execute driving maneuvers safely in the real world. These questions are the same ones the human brain must continually assess to drive:

- Where is the road, how is it organized into lanes, and which is the proper lane?
- What driving rules apply to these lanes (e.g., lane change permission, speed, direction, traffic type)?
- How is the vehicle moving now (speed, direction)?
- What obstacles and other fellow travelers are in or near the roadway?

- Where are these external objects (which lane, sidewalk, etc.), and how are they moving?

With a confident and continuous understanding of the driving environment from our perception software, routes can be planned, risks can be assessed and actions can be sent to the vehicle's control system. We, working closely with our partners, expect to deliver this full vehicle system capability.

Core Sensor Software: Our lidar sensors are configurable and capture valuable information extracted from the raw point-cloud to promote the development and performance of perception software. Therefore, core sensor software features help our commercial partners to integrate, control, and enrich the sensor data stream before perception processing. These features include:

- Automatic sensor discovery to expedite system startup time;
- Extrinsic calibration to automate multi-lidar geometrical alignment;
- Proprietary middleware to streamline advanced user interaction with both our hardware and software;
- Horizon tracking to automate region-of-interest scanning focused where it matters most, the road ahead;
- Normal vector point attributes to associate common surfaces like drivable space quickly and accurately assess object headings without multiple frames; and
- Velocity vector point attribute to provide both radial and crossing velocities, point-by-point within each frame.

Perception Software: Our plans for advanced perception software is to build on the core sensor software features and transform lidar point-cloud data into actionable information about the integrated vehicle and its environment. We anticipate these features to include:

- **Semantic Segmentation**—Each measured point contains an object class attribute. This feature is expected to enable smart detection and tracking algorithms as well as intelligent vehicle reactions to different types of objects.
- **Instance detection and Tracking**—Frame-level instance detection of objects, lane markings as well as road surfaces and free space combined with our highway-focused tracking algorithms are intended to provide reliable, safe and stable data for decision-making algorithms.
- **State Estimation**—Continually predicting and correcting an object's location, velocity, and orientation through lidar odometry, real-time mapping, and localization.

Sentinel: In March 2021, we announced our plans for a full-stack hardware and software solution, Sentinel. Development of Sentinel continues, and we plan to allow customers to purchase Sentinel as a complete “turn-key” solution that enables Proactive Safety™ and Highway Autonomy functions or just components of Sentinel. We are in the preliminary designing and coding phase of the development and have not reached technological feasibility. We anticipate these features to include:

- **Highway Autonomy:** In order to deliver highway autonomy to OEMs like Volvo, we are leveraging Zenseact and other ecosystem partners to further our internal understanding of the full autonomy systems. Highway autonomy will enable exit to exit functionality that takes full responsibility of the driving task even if the driver does not resume control in edge case emergencies. Early roll outs will be in limited highways, in limited environmental conditions and broaden as validation activities ensure safe ODD expansion. This capability is meant to allow passenger vehicles and commercial trucks alike to take occupants out of the driving loop so that they can utilize their time on other tasks. Further, highway autonomy systems will leverage over the air updates allowing them to grow even safer over time and expand their ODD through the life of the vehicle.
- **Proactive Safety™:** Our Proactive Safety™ capabilities in development are expected to represent a new generation of vehicle safety, meant to enable accident avoidance instead of merely mitigating crash severity. It is expected to serve as a continuously monitoring system that assesses risk to the vehicle and recommends corrective actions and more importantly intercedes proactively when a crash is imminent. This feature is expected to utilize our extended range of confident situational awareness to broaden the ODD of legacy ADAS features, new safety features, and driver out-of-the-loop autonomous features.

As of the end of 2021, we demonstrated initial Proactive Safety™ functions as part of alpha prototype of Sentinel. The technical feasibility of the final Sentinel solution and perception software had not been established and these products are still in the designing and coding phase of development.

Competition

The market for lidar-enabled vehicle features, on and off road, is an emerging one with many potential applications in the development stage. As a result, we face competition for lidar hardware business from a range of companies seeking to have their products incorporated into these applications. We believe we hold a strong position based on both hardware product performance and maturity, and also our growing ability to develop deeply integrated software capabilities needed to provide autonomous and safety solutions to our customers.

Although we believe our lidar sensor solution for automotive autonomy applications achieves the industry's requirements and perception capabilities to enable safe hand-off, eyes-off driving, we face potential competition from Tier 1 companies, and other technology companies. We face competition from various emerging technology companies who we believe offer presently more limited solutions for niche applications and in certain cases are non-automotive grade solutions. We also compete with certain OEMs who have their own internal lidar products and approaches. In the meantime, our on-going software development will further differentiate our product offerings away from "lidar only" competitors. While lidar competitors may continue to emerge, we believe our high performance lidar with a strong intellectual property portfolio and software products help establish a competitive advantage for Luminar.

Within the automotive autonomy software space, the competitive landscape is still nascent and primarily focused on developing robo-taxi technologies as opposed to autonomous software solutions for passenger vehicles. Other autonomous software providers include: (i) in-house OEM software teams (e.g. GM/Cruise and Ford/Argo); (ii) automotive silicon providers (e.g. NVIDIA and Intel/Mobileye); (iii) large technology companies (e.g. Google/Waymo and Amazon/Zoox); and (iv) newer technology companies focused on autonomous software (e.g. Aurora and TuSimple). We partner with several of these autonomous software providers to provide our Lidar and other products.

Beyond automotive, the adjacent markets, including delivery bots and mapping, among others, are highly competitive. There are entrenched incumbents and competition, including from China, particularly around ultra-low cost products that are widely available.

Intellectual Property

Our success and competitive advantage depend in part upon our ability to develop and protect our core technology and intellectual property. We own a portfolio of intellectual property, including patents and registered trademarks, confidential technical information, and expertise in the development of lidar technology and software for autonomous vehicles.

We have filed patent and trademark applications in order to further secure these rights and strengthen our ability to defend against third parties who may infringe on our rights. We also rely on trade secrets, design and manufacturing know-how, continuing technological innovations, and licensing and exclusivity opportunities to maintain and improve our competitive position. Additionally, we protect our proprietary rights through agreements with our commercial partners, supply-chain vendors, employees, and consultants, as well as close monitoring of the developments and products in the industry.

As of January 2022, we had 109 issued patents (107 U.S. and 2 international), 93 pending applications (63 U.S. and 30 international), of which one U.S. application has been allowed. In addition, we have three registered U.S. trademarks, 16 registered foreign trademarks and five pending trademark applications. Our patents and patent applications cover a broad range of system level and component level aspects of our key technology including, among other things, lidar system, laser, scanner, receiver, and perception technology.

Manufacturing Process

We build and design certain critical components in-house, for example, our receiver ASIC and InGaAs photonic diode. We have an internal advanced manufacturing line located in Orlando, Florida, where we develop the manufacturing and testing processes, including capturing any related intellectual property, necessary to develop our products. Our manufacturing processes and knowledge are a key differentiator for us in the market.

Extended component lead times and bottlenecks in the supply chain have created supply challenges for the entire market, and we expect these challenges to continue through 2022.

In May 2021, we announced our series manufacturing partnerships with Celestica and Fabrinet.

Research and Development

Our research and development activities occur in Orlando, Palo Alto, Colorado Springs and Boston in the United States, and in Munich, Germany. Our Orlando site is primarily focused on developing sensor hardware, firmware, and controllers. Our Palo Alto and Germany sites are primarily focused on software development. The Colorado Springs and Boston locations create the custom ASIC chips and photonic diodes used in our lidar sensors.

Our research and development team is responsible for creating new technology and expanding lidar and perception software functionality. The team also designs the physical product, ensures it is designed for manufacturability and performs testing. The team also partners with our operations and supply chain functions to develop scalable commercial and reliable manufacturing processes and direct production material procurement.

Sales and Marketing

We use customer feedback to specifically tailor our product and approach to build and expand our relationships with potential commercial partners. We collect feedback directly from commercial partners to garner insights that help drive the business and product. We also work with analysts and higher education institutions to conduct studies, test and validate technology performance, providing key proof points for commercial partners considering our products. In parallel, marketing and communications drive our brand equity and narrative through ongoing announcements, campaigns, events, speaking opportunities, and public relations efforts.

The automotive value chain characteristically involves research and feasibility studies, followed by long-term product development cycles including testing and qualification with the automakers, and long-term production supply. In general, automaker agreements do not guarantee potential volumes, vehicle models, or supply timing to suppliers during this product development cycle. Instead, typically, after initial research and feasibility agreements and extensive competitive negotiations, automakers enter into development agreements that establish collaborations or partnerships to develop and integrate technology into the automaker's vehicles or platforms intended for series production, frequently accompanied by non-recurring engineering ("NRE") projects. While these collaboration or partnership agreements provide automakers the right to terminate the relationship without purchasing any production volume, in practice, factors like difficulty of integrating complex technologies, sunken costs relating to NRE projects, impact on product roadmap, time to market, and risk of being unable to secure future supply creates significant cause for automakers to cancel collaboration or development agreements. Automakers typically only enter into blanket purchase orders or other definitive supply agreements with binding commitments and order fulfillment several months before production begins. We identify major commercial wins only when we have entered into a collaboration or partnership agreement and have reason to believe that such engagement is expected to result in future series production. Given the customary business practices in the automotive industry, there remains potential risk that our major commercial wins may not ultimately generate any significant revenue (See Item 1A, Risk Factors for definition of major commercial win and further discussion of risk).

Government Regulation

Automotive safety regulation in the area of autonomy is split between two categories: (1) SAE Level 0-2 (including active safety, driver assist, and conditional autonomy); and (2) SAE Level 3-5 (partial through full autonomy) (commonly referred to as "higher autonomy"). In general, throughout the world, there is a positive legal environment that encourages consumer sale and use of SAE Level 0-2 functionality. The legal environment for SAE Level 3-5 functionality varies, generally encouraging the safe testing and development of higher autonomy functions, but restricting consumer use in personal vehicles and commercial use, as in automated trucking and taxis in many regions.

In the U.S., at both the federal and state level, nearly all SAE Level 0-2 functionality is permitted, while SAE Level 3-5 enjoys a positive environment for on-road testing and development, but mixed opportunities to deploy in consumer and commercial use. Federal regulation does not prohibit higher levels of autonomy today, but if National Highway Traffic Safety Administration deems an autonomy system unsafe, it would order a recall to remove vehicles from the road. Thus far, several U.S. states have expressly permitted SAE Level 4-5 levels of autonomy, while many remain silent, and others have laws that limit driverless operation. We believe regulations related to automotive autonomy technologies will continue to evolve to remove hurdles as state and federal regulators gain more experience with the technology.

In Europe, China, and the rest of the world, most automotive safety is regulated by a common system under the United Nations Economic Commission for Europe (UN/ECE). Under current UN/ECE standards, SAE Level 0-2 functionality may be deployed with certain restrictions such as road type and with driver monitoring, but higher SAE Level 3-5 functionality is limited to testing only. Safety regulators continue to work on standards for autonomy, but we expect this development process to be slower than in the U.S. However, China has increasingly departed from the common UN/ECE standards and is more likely to create its own regulation allowing higher levels of autonomy in the nearer term with a timeline more aligned with the U.S.

Given the intense work in these regulatory areas, there is a positive environment for deploying our lidar technology and Proactive Safety™ today in SAE Level 0-2 systems. While there is risk that SAE Level 3-5 systems may be delayed by regulation in some countries, we expect a workable path forward over the next several years as a more permissive regulatory and political environment develops.

Employees

We have always prioritized the team's importance, with values-based hiring that encompasses competency, ingenuity, and culture. Through multiple growth phases, we have drawn talent and leadership from the automotive, aerospace, consumer electronics and other technology industries to achieve our vision. As of December 31, 2021, excluding contractors, we had almost 500 full-time employees California, Florida, Colorado, Massachusetts, in the United States, Munich, Germany and other locations. None of our employees are represented by a labor union.

Our human capital resources objectives include, as applicable, identifying, recruiting, retaining, incentivizing and integrating our existing and new employees, advisors and consultants. The principal purposes of our equity and cash incentive plans are to attract, retain and reward personnel through the granting of stock-based and cash-based compensation awards, in order to increase stockholder value and the success of our company by motivating such individuals to perform to the best of their abilities and achieve our objectives.

Corporate Social Responsibilities and Sustainability

We are committed to active and responsible corporate citizenship. Our Corporate Social Responsibility ("CSR") program is divided into seven elements (diversity and inclusion; human resources; finance/accounting; responsible sourcing; environmental, health and safety; trade compliance; and business ethics), each spearheaded by company leaders and subject matter experts in their respective areas. The CSR team supports, advises, and provides oversight for each element. We expect ADAS and automated driving technologies to provide strong social benefits including reducing roadway injuries and fatalities, including in urban areas, more efficient roadways that reduce commuting times and CO2 emissions, and offer improved productivity.

Available Information

Our Annual Report on Form 10-K reports, along with all other reports and amendments filed with or furnished to the SEC, are publicly available free of charge on the Investors section of our website at www.luminartech.com or at www.sec.gov as soon as reasonably practicable after these materials are filed with or furnished to the SEC. We also use our website as a tool to disclose important information about the company and comply with our disclosure obligations under Regulation Fair Disclosure. Our governance guidelines, code of conduct and Board committee charters are also posted on the Investors section of our website. The information on our website (or any webpages referenced in this Annual Report on Form 10-K) is not part of this or any other report we file with, or furnish to, the SEC.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

Our executive officers as of March 1, 2022 are as follows:

Austin Russell, 26, has served as our President and Chief Executive Officer and as Chairperson and member of our board of directors since December 2020 and prior to this, served as President and Chief Executive Officer of Luminar Technologies, Inc. prior to its business combination with Gores Metropoulos, Inc. ("Legacy Luminar") and as a member of its board of directors since founding Legacy Luminar. Mr. Russell developed his first visioning system at age eleven by building prototype supercomputers and optoelectronic systems with real-world applications in mind. He wrote his first patent application at 12, and over the next four years worked on a host of photonics and imaging related technologies before he later became an independent researcher at the Beckman Laser Institute. After being recruited to Stanford for Applied Physics, he was awarded the Thiel Fellowship at 17 to pursue Legacy Luminar full-time with a vision to develop a new kind of sensing technology to make autonomous vehicles both safe and ubiquitous.

Thomas J. Fennimore, 46, has served as our Chief Financial Officer since December 2020 and prior to this, held the same position with Legacy Luminar since July 2020. Prior to joining Luminar, Mr. Fennimore served as the Global Head of Automotive and the Co-Head of the Industrials Group at Jefferies Group, LLC from September 2014 to May 2020. From July 1997 to September 2014, Mr. Fennimore worked at Goldman Sachs in a variety of roles with increasing responsibility, most notably as Global Head of Automotive and Co-Head of the Asia Industrials Group. Mr. Fennimore holds a B.A. in mathematics and a B.S. in engineering from Swarthmore College.

Alan Prescott, 43, has served as our Chief Legal Officer and Corporate Secretary since April 2021 and is an automotive and autonomous industry legal expert, engineer, and 20-year veteran from top OEM and technology companies. Mr. Prescott joined Luminar from Tesla, where he spent four years, acting most recently as General Counsel. Prior to Tesla, he led Uber's Advanced Technology Group's legal team as senior counsel, overseeing commercial, regulatory, litigation, privacy, and cybersecurity. Mr. Prescott's career began at Ford Motor Company as a safety engineer before receiving his law degree from Georgetown University, after which he spent over ten years leading various legal operations within the automaker, concentrating on product development and manufacturing, as well as several years as Special Counsel to the General Counsel.

ITEM 1A. RISK FACTORS.

Risk Factor Summary

Investing in our securities involves a high degree of risk. You should carefully consider all information in this Annual Report on Form 10-K, including our consolidated financial statements and related notes appearing elsewhere in this prospectus and “Management’s discussion and analysis of financial condition and results of operations,” before purchasing our securities. These risks are discussed more fully in the section titled “Risk Factors.” These risks and uncertainties include, but are not limited to, the following:

- our history of losses and our expectation that we will continue to incur significant expenses, including substantial R&D costs, and continuing losses for the foreseeable future as well as our limited operating history which makes it difficult to evaluate our future prospects and the risks and challenges we may encounter;
- our strategic initiatives which may prove more costly than we currently anticipate and potential failure to increase our revenue to offset these initiatives;
- whether our lidar products are selected for inclusion in autonomous driving or ADAS systems by automotive OEMs or their suppliers, and whether we will be de-selected by any customers;
- the lengthy period of time from a major commercial win to implementation and the risks of cancellation or postponement of the contract or unsuccessful implementation;
- potential inaccuracies in our forward looking estimates of certain metrics and our future cost of goods sold (COGS) and bill of materials (BOM) and total addressable market;
- the discontinuation, lack of success of our customers in developing and commercializing products using our solutions or loss of business with respect to a particular vehicle model or technology package and whether end automotive consumers will demand and be willing to pay for such features;
- our inability to reduce and control the cost of the inputs on which we rely, which could negatively impact the adoption of our products and our profitability;
- the effect of continued pricing pressures, competition from other lidar manufacturers, automotive original equipment manufacturers (“OEMs”) cost reduction initiatives and the ability of automotive OEMs to re-source or cancel vehicle or technology programs which may result in lower than anticipated margins, or losses, which may adversely affect our business;
- general economic uncertainty and the effect of general economic conditions on our industry in particular, including the level of demand and financial performance of the autonomous vehicle industry and market adoption of lidar as well as developments in alternative technology and the increasingly competitive environment in which we operate;
- our ability to manage our growth and expand our business operations effectively, including into international markets, such as China, which exposes us to operational, financial and regulatory risks;
- adverse impacts due to limited availability and quality of materials, supplies, and capital equipment, or dependency on third-party service providers;
- whether we will be able to successfully transition our engineering designs into high volume manufacturing, including our ability to transition to an outsourced manufacturing business model and whether we and our outsourcing partners and suppliers can successfully operate complex machinery;
- whether we can successfully select, execute or integrate our acquisitions;
- whether the complexity of our products results in undetected defects and reliability issues which could reduce market adoption of our new products, limit our ability to manufacture, damage our reputation and expose us to product liability, warranty and other claims;
- our ability to maintain and adequately manage our inventory;
- our ability to remediate the material weakness in our internal controls over financial reporting;
- our ability to protect and enforce our intellectual property rights;
- changes in personnel and availability of qualified personnel and dependence on Austin Russell, our Founder, President and Chief Executive Officer;
- the amount and timing of future sales and whether the average selling prices of our products could decrease rapidly over the life of the product as well as our dependence on a few key customers, who are often large corporations with substantial negotiating power;
- the effects of the ongoing coronavirus (COVID-19) pandemic or other infectious diseases, health epidemics, pandemics and natural disasters on Luminar’s business;
- interruption or failure of our information technology and communications systems and cybersecurity risks to our operational systems, security systems, infrastructure, integrated software in our lidar solutions;
- strict government regulation that is subject to amendment, repeal or new interpretation and our ability to comply with modified or new laws and regulations applying to our business;
- whether the concentration of our stock ownership and voting power limits the ability of our stockholders to influence corporate matters; and
- risks related to our indebtedness.

Risk Factors

Risks Related to Our Business and Industry

We are an early stage company with a history of losses, and we expect to incur significant expenses and continuing losses for the foreseeable future.

We have incurred net losses on an annual basis since our inception. We incurred net losses of \$238.0 million, \$362.3 million and \$94.7 million for the years ended December 31, 2021, 2020 and 2019, respectively. We believe that we will continue to incur operating and net losses each quarter until at least the time we begin commercial deliveries of our lidar-based products, which are not expected to begin until late 2022 or early 2023 and may occur later or not at all as we face challenges setting up outsourced manufacturing. Even if we successfully develop and sell our lidar and software solutions, there can be no assurance that they will be commercially successful. Our potential profitability is dependent upon the successful development and successful commercial introduction and acceptance of our lidar solutions, which may not occur.

We expect the rate at which we will incur losses to be significantly higher in future periods as we:

- expand our software development;
- continue to utilize our third-party partners for design, testing and commercialization;
- expand our production capabilities to produce our lidar solutions, including costs associated with outsourcing the production of our lidar solutions;
- expand our design, development, installation and servicing capabilities to address more products for more customers in more countries;
- build up inventories of parts and components for our lidar solutions;
- produce an inventory of our lidar solutions; and
- increase our sales and marketing activities and develop our distribution infrastructure.

Because we will incur the costs and expenses from these efforts before we receive incremental revenues with respect thereto, our losses in future periods will be significant. In addition, we may find that these efforts are more expensive than we currently anticipate or that these efforts may not result in revenues, which would further increase our losses.

Our limited operating history makes it difficult to evaluate our future prospects and the risks and challenges we may encounter.

We have been focused on developing lidar products for autonomous driving systems since 2012. This relatively limited operating history makes it difficult to evaluate our future prospects and the risks and challenges we may encounter. Risks and challenges we have faced or expect to face include our ability to:

- produce and deliver lidar and software products of acceptable performance, volume, cost, and quality;
- forecast our revenue and budget for and manage our expenses;
- attract new customers and retain existing customers in the automotive supply chain where sourcing and volume production targets are not guaranteed;
- comply with existing and new or modified laws and regulations applicable to our business;
- plan for and manage capital expenditures for our current and future products, and manage our supply chain and supplier relationships related to our current and future products;
- anticipate and respond to macroeconomic changes and changes in the markets in which we operate;
- maintain and enhance the value of our reputation and brand;
- effectively manage our growth and business operations, including the impacts of the COVID-19 pandemic on our business;
- develop and protect intellectual property;
- hire, integrate and retain talented people at all levels of its organization; and
- successfully develop new solutions to enhance the experience of customers and consumers.

If we fail to address the risks and difficulties that we face, including those associated with the challenges listed above as well as those described elsewhere in this “Risk Factors” section, our business, financial condition and results of operations

could be adversely affected. Further, because we have limited historical financial data and operate in a rapidly evolving market, any predictions about our future revenue and expenses may not be as accurate as they would be if we had a longer operating history or operated in a more predictable market. We have encountered in the past, and will encounter in the future, risks and uncertainties frequently experienced by growing companies with limited operating histories in rapidly changing industries. If our assumptions regarding these risks and uncertainties, which we use to plan and operate our business, are incorrect or change, or if we do not address these risks successfully, our results of operations could differ materially from our expectations and our business, financial condition and results of operations could be adversely affected.

We continue to implement strategic initiatives designed to grow our business. These initiatives may prove more costly than we currently anticipate and we may not succeed in increasing our revenue in an amount sufficient to offset the costs of these initiatives and to achieve and maintain profitability.

We continue to make investments and implement initiatives designed to grow our business, including:

- investing in R&D;
- expanding our sales and marketing efforts to attract new customers;
- investing in new applications and markets for our products;
- investing in our manufacturing processes and partnerships to scale production;
- protecting our intellectual property; and
- investing in legal, accounting, human resources, and other administrative functions necessary to support our operations as a public company.

These initiatives may prove more expensive than we currently anticipate, and we may not succeed in increasing our revenue, if at all, in an amount sufficient to offset these higher expenses and to achieve and maintain profitability. The market opportunities we are pursuing are at an early stage of development, and it may be many years before the end markets we expect to serve generate demand for our products at scale. Our revenue may be adversely affected for a number of reasons, including the development and/or market acceptance of new technology that competes with our lidar products, if certain automotive OEMs or other market participants change their autonomous vehicle technology, failure of our customers to commercialize autonomous systems that include our solutions, our ability to create, validate, and manufacture at high volume, and ship product to customers, our inability to effectively manage our inventory or manufacture products at scale, our inability to enter new markets or help our customers adapt our products for new applications or our failure to attract new customers or expand orders from existing customers or increasing competition. Furthermore, it is difficult to predict the size and growth rate of our target markets, customer demand for our products, commercialization timelines, developments in autonomous sensing and related technology, the entry of competitive products, or the success of existing competitive products and services. For these reasons, we do not expect to achieve profitability over the near term. If our revenue does not grow over the long term, our ability to achieve and maintain profitability may be adversely affected, and the value of our business may significantly decrease.

If our lidar products are not selected for inclusion in autonomous driving systems or ADAS by automotive OEMs or their suppliers, our business will be materially and adversely affected.

Automotive OEMs and their suppliers design and develop autonomous driving and ADAS technology over several years. These automotive OEMs and suppliers undertake extensive testing or qualification processes prior to placing orders for large quantities of products such as our lidar products, because such products will function as part of a larger system or platform and must meet certain other specifications. We spend significant time and resources to have our products selected by automotive OEMs and their suppliers. We define the term “major win” or “major commercial win” to have occurred when (a) we have obtained a written agreement (e.g. non-binding expression of interest arrangement or an agreement for non-recurring engineering project) or public announcement with a major industry player, and (b) based on past experience in high volume production, leadership in autonomy, or market leadership of said major industry player we expect to ultimately be awarded a significant commercial program, including OEM series production programs. If we do not achieve a major commercial win with respect to a particular vehicle model, we may not have an opportunity to supply our products to the automotive OEM for that vehicle model for a period of many years. In many cases, this period can be as long as five to seven or more years. If our products are not selected by an automotive OEM or its suppliers for one vehicle model or if our products are not successful in that vehicle model, it is unlikely that our product will be deployed in other vehicle models of that OEM. If we fail to win a significant number of vehicle models from one or more of automotive OEMs or their suppliers, our business, results of operations and financial condition will be materially and adversely affected. For more information about certain risks related to product selection, see the Risk Factor captioned “*The period of time from a major commercial win to implementation is long and we are subject to the risks of cancellation or postponement of the contract or unsuccessful implementation.*”

The period of time from a major commercial win to implementation is long and we are subject to the risks of cancellation or postponement of the contract or unsuccessful implementation.

Prospective customers, including those in the automotive industry, generally must make significant commitments of resources to test and validate our products and confirm that they can integrate with other technologies before including them in any particular system, product or model. While certain customers have executed non-binding expression of interest arrangement or engaged us for non-recurring engineering projects while they are evaluating our products, none of our customers make contractual commitments to use our lidar sensors and software until all test and validation activities have been completed, they have finalized plans for integrating our systems, have a positive expectation of the market demand for our features, and unrelated to us, have determined that vehicle is ready for market and there is appropriate consumer demand. We expect that only after this point, will our customers consider entering into definitive volume production agreements. Through the end of 2021, none of our customers have completed their on-going testing and validation or have entered into definitive volume production agreements with us and there is no assurance or guarantee that any of our customers, including any for which we have announced a “major win” or “major commercial win” will ever complete such testing and validation or enter into a definitive volume production agreement with us or that we will receive any revenues forecasted in connection with such “major win” or “major commercial win”. The development cycles of our products with new customers varies widely depending on the application, market, customer and the complexity of the product. In the automotive market, for example, this development cycle can be as long as seven or more years. The development cycle in certain other markets can be several months to a few years. These development cycles result in us investing our resources prior to realizing any revenue from the commercialization or obtaining any firm commitments of pricing, volume or timing of purchases of our products by our customers. Further, we are subject to the risk that customers cancel or postpone implementation of our technology, as well as that we will not be able to integrate our technology successfully into a larger system with other sensing modalities. Further, our revenue could be less than forecasted if the system, product or vehicle model that includes our lidar products is unsuccessful, including for reasons unrelated to our technology. Long development cycles and product cancellations or postponements may adversely affect our business, results of operations and financial condition. Thus, even if we are successful or have been successful in obtaining major commercial wins, long development cycles and product cancellations or postponements and failures to successfully integrate our technology may materially and adversely affect our business, results of operations and financial condition.

Our forward looking estimates of certain financial metrics may prove inaccurate.

We use various estimates in formulating our business plans. We base our estimates upon a number of assumptions that are inherently subject to significant business and economic uncertainties and contingencies, many of which are beyond our control. These estimates include our assessment of whether a “major win” or “major commercial win” has occurred. Our estimates therefore may prove inaccurate, causing the actual amount to differ from our estimates. These factors include, without limitation:

- the extent to which customers who have selected Luminar for a major commercial win which include our hardware and software products;
- the extent to which Luminar meets contractual terms and conditions;
- the extent to which our technology is successfully integrated into our customers’ vehicles;
- the timing of when our customers adopt our technology into their vehicles on a commercial basis which could be delayed for regulatory, safety or reliability issues unrelated to our technology;
- undetected or unknown errors, defects or reliability issues in our hardware or software which could reduce the market adoption of our new products or delay or stop production;
- loss of business with respect to, the failure or lack of commercial success of a vehicle model for which we are a significant supplier for reasons unrelated to our technology; For more information about certain risks related to discontinuation or loss of business, see the Risk Factor captioned “*The discontinuation, lack of commercial success, or loss of business with respect to a particular vehicle model or technology package for which we are a significant supplier could reduce our sales and adversely affect our profitability;*”
- a decline, for any reason, in the production levels of our customers, particularly with respect to models which incorporate our technology;
- customer cancellations of their contracts;
- if Luminar’s products are included as part of a vehicle option package, the extent to which end customers select it; and
- other risk factors set forth in this Annual Report.

The discontinuation, lack of commercial success, or loss of business with respect to a particular vehicle model or technology package for which we are a significant supplier could reduce our sales and adversely affect our profitability.

If we are able to secure major commercial wins and our solutions are included in these autonomous driving and ADAS products, we expect to enter into supply agreements with the relevant customer. Market practice dictates that these supply agreements typically require us to supply a customer's requirements for a particular vehicle model or autonomous driving or ADAS product, rather than supply a set number of products. These contracts can have short terms and/or can be subject to renegotiation, sometimes as frequently as annually, all of which may affect product pricing, and may be terminated by our customers at any time. Therefore, even if we are successful in obtaining major commercial wins and the systems into which our products are built are commercialized, the discontinuation of, the loss of business with respect to, or a lack of commercial success of a particular vehicle model or technology package for which we are a significant supplier could mean that the expected sales of our products will not materialize, materially and adversely affecting our business.

Information concerning our future cost of goods sold (COGS) and bill of materials (BOM) estimates may prove inaccurate.

We periodically provide estimates of future cost of goods sold and bill of materials, which by necessity, are projections based on anticipated rates of future production of our customers and the timing of related expenditures, and there are uncertainties inherent in the creation and interpretation of such data.

Pricing negotiated in our supply agreements for key components like the receiver, ASIC and laser are dependent on volume estimates which may not be realized. Most of our components are manufactured using technologies that are highly complex and consequently, estimates of BOM and cost of goods sold may fluctuate due to many variable factors and assumptions, including but not limited to the following:

- meeting certain volume estimates;
- our reliance on key inputs and our inability to reduce and control the cost of such inputs;
- our dependence on producing or sourcing certain key components and raw materials at acceptable price levels and our ability to adequately reduce and control the costs of such key components; For more information about certain risks related to our reliance on key inputs and our inability to reduce and control the costs of such inputs, see the Risk Factor captioned *"We are reliant on key inputs and our ability to reduce and control the cost of such inputs could negatively impact the adoption of our products and our profitability;"*
- the risk of shortages and long lead times in the supply of key components and the risk that our suppliers discontinue or modify components used in its products; For more information about certain risks related to reliance on third party suppliers, see the Risk Factor captioned *"We rely on third-party suppliers and because some of the raw materials and key components in our products come from limited or single source suppliers, we are susceptible to supply shortages, long lead times for components, and supply changes, any of which could disrupt our supply chain and could delay deliveries of our products to customers;"*
- lack of consistency and adequate quality and quantity of piece parts, other raw materials and other bill of materials items;
- contract negotiations and the execution of firm supply agreements;
- future versions of our product design incorporating new components meeting our customers' requirements and specifications. For more information about certain risks related to product selection, see the Risk Factor captioned *"The period of time from a major commercial win to implementation is long and we are subject to the risks of cancellation or postponement of the contract or unsuccessful implementation;"*
- the qualification of new versions of our key components. For more information about certain risks related to qualification, see the Risk Factor captioned *"If our lidar products are not selected for inclusion in autonomous driving systems or ADAS by automotive OEMs or their suppliers, our business will be materially and adversely affected;"*
- defects in production processes (including system assembly) either within our facilities or at our suppliers;
- any transitions or changes in our production process, planned or unplanned; and
- other risk factors set forth in this Annual Report.

We are reliant on key inputs and our inability to reduce and control the cost of such inputs could negatively impact the adoption of our products and our profitability.

The production of our sensors is dependent on producing or sourcing certain key components and raw materials at acceptable price levels. If we are unable to adequately reduce and control the costs of such key components, we will be unable

to realize manufacturing costs targets, which could reduce the market adoption of our products, damage our reputation with current or prospective customers, and harm our brand, business, prospects, financial condition and operating results.

Continued pricing pressures, automotive OEM cost reduction initiatives and the ability of automotive OEMs to re-source or cancel vehicle or technology programs may result in lower than anticipated margins, or losses, which may adversely affect our business.

Cost-cutting initiatives adopted by our customers often result in increased downward pressure on pricing. We expect that our agreements with automotive OEMs may require step-downs in pricing over the term of the agreement or, if commercialized, over the period of production. In addition, our automotive OEM customers often reserve the right to terminate their supply contracts for convenience, which enhances their ability to obtain price reductions. Automotive OEMs also possess significant leverage over their suppliers, including us, because the automotive component supply industry is highly competitive, serves a limited number of customers and has a high fixed cost base.

Accordingly, we expect to be subject to substantial continuing pressure from automotive OEMs and Tier 1 suppliers to reduce the price of our products. It is possible that pricing pressures beyond our expectations could intensify as automotive OEMs pursue restructuring, consolidation and cost-cutting initiatives. If we are unable to generate sufficient production cost savings in the future to offset price reductions, our gross margin and profitability would be adversely affected.

We expect to incur substantial R&D costs and devote significant resources to identifying and commercializing new products, which could significantly reduce our profitability and may never result in revenue to us.

Our future growth depends on penetrating new markets, adapting existing products to new applications and customer requirements, and introducing new products that achieve market acceptance. We plan to incur substantial, and potentially increasing, R&D costs as part of our efforts to design, develop, manufacture and commercialize new products and enhance existing products. Our R&D expenses were \$88.9 million, \$38.7 million and \$37.0 million for the years ended December 31, 2021, 2020 and 2019, respectively, and are likely to grow in the future. Because we account for R&D as an operating expense, these expenditures will adversely affect our results of operations in the future. Further, our R&D program may not produce successful results, and our new products may not achieve market acceptance, create additional revenue or become profitable.

Market adoption of lidar is uncertain. Developments in alternative technology may adversely affect the demand for our lidar technology. If market adoption of lidar does not continue to develop, or develops more slowly than we expect, or our investments in educating our customers about the advantages of lidar fail, our business will be adversely affected.

While our lidar-based ADAS and autonomous driving solutions can be applied to different use cases across end markets, nearly all of our revenue is generated from automotive applications. Despite the fact that the automotive industry has engaged in considerable effort to research and test lidar products for ADAS and autonomous driving applications, the automotive industry may not introduce lidar products in commercially available vehicles. We continually study emerging and competing sensing technologies and methodologies and we may add new sensing technologies. However, lidar products remain relatively new and it is possible that other sensing modalities, or a new disruptive modality based on new or existing technology, including a combination of technology, will achieve acceptance or leadership in the ADAS and autonomous driving industries. For example, significant developments in alternative technologies, such as cameras and radar, may materially and adversely affect our business in ways we do not currently anticipate. Existing and other camera and radar technologies may emerge as customers' preferred alternative to our solutions. Any failure by us and our R&D efforts to develop new or enhanced technologies or processes, or to react to changes in existing technologies, could materially delay our development and introduction of new and enhanced products in the autonomous vehicle industry, which could result in the loss of competitiveness of our lidar solutions, decreased revenue and a loss of market share to competitors. As technologies change, we plan to upgrade or adapt our lidar solutions with the latest technology. However, our solutions may not compete effectively with alternative systems if we are not able to source and integrate the latest technology into our existing lidar solutions.

Even if lidar products are used in initial generations of autonomous driving technology and certain ADAS products, we cannot guarantee that lidar products will be designed into or included in subsequent generations of such commercialized technology. In addition, we expect that initial generations of autonomous vehicles will be focused on limited applications, such as robo-taxis, and that mass market adoption of autonomous technology may lag behind these initial applications significantly. The speed of market growth for ADAS or autonomous vehicles is difficult if not impossible to predict, and it is more difficult to predict this market's future growth in light of the economic consequences of the COVID-19 pandemic. Educating customers about lidar, its advantages over other sensing technologies and lidar's ability to convey value in different industries and deployments is also an integral part of developing new business and the lidar market generally and if customers have a negative perception of, or experience with, lidar or a competitor's lidar products they may be reluctant to adopt lidar in general or specifically our products. Our investments and efforts to educate potential customers and the market generally and to counter any adverse statements made by competitors or other market participants thus may not be successful.

Although we currently believe we are a leader in lidar-based systems for the autonomous vehicle market, by the time mass market adoption of autonomous vehicle technology is achieved, we expect competition among providers of sensing technology based on lidar and other modalities to increase substantially. If commercialization of lidar products is not successful, or not as successful as we or the market expects, or if other sensing modalities gain acceptance by developers of autonomous driving systems or ADAS, automotive OEMs, regulators and safety organizations or other market participants by the time autonomous vehicle technology achieves mass market adoption, our business, results of operations and financial condition will be materially and adversely affected.

We are investing in and pursuing market opportunities outside of the automotive markets, including in the aerospace and defense and aviation. We believe that our future revenue growth, if any, will depend in part on our ability to expand within new markets such as these and to enter new markets as they emerge. Each of these markets presents distinct risks and, in many cases, requires us to address the particular requirements of that market.

Addressing these requirements can be time-consuming and costly. The market for lidar technology outside of automotive applications is relatively new, rapidly developing and unproven in many markets or industries. Many of our customers outside of the automotive industry are still in the testing and development phases and we cannot be certain that they will commercialize products or systems with our lidar products or at all. We cannot be certain that lidar will be sold into these markets, or any market outside of automotive market, at scale. Adoption of lidar products, including our products, outside of the automotive industry will depend on numerous factors, including: whether the technological capabilities of lidar and lidar-based products meet users' current or anticipated needs, whether the benefits of designing lidar into larger sensing systems outweigh the costs, complexity and time needed to deploy such technology or replace or modify existing systems that may have used other modalities such as cameras and radar, whether users in other applications can move beyond the testing and development phases and proceed to commercializing systems supported by lidar technology and whether lidar developers such as us can keep pace with rapid technological change in certain developing markets and the global response to the COVID-19 pandemic and the length of any associated work stoppages. If lidar technology does not achieve commercial success outside of the automotive industry, or if the market develops at a pace slower than we expect, our business, results of operation and financial condition will be materially and adversely affected.

We may experience difficulties in managing our growth and expanding our operations.

We expect to experience significant growth in the scope and nature of our operations. Our ability to manage our operations and future growth will require us to continue to improve our operational, financial and management controls, compliance programs and reporting systems. We are currently in the process of strengthening our compliance programs, including our compliance programs related to export controls, privacy and cybersecurity and anti-corruption. We may not be able to implement improvements in an efficient or timely manner and may discover deficiencies in existing controls, programs, systems and procedures, which could have an adverse effect on our business, reputation and financial results.

We rely on third-party suppliers and because some of the raw materials and key components in our products come from limited or single source suppliers, we are susceptible to supply shortages, long lead times for components, and supply changes, any of which could disrupt our supply chain and could delay deliveries of our products to customers.

Some of the components that go into the manufacture of our solutions are sourced from third-party suppliers. To date, we have produced our products in relatively limited quantities for use in R&D programs. Although we do not have any experience in managing our supply chain to manufacture and deliver our products at scale, our future success will depend on our ability to manage our supply chain to manufacture and deliver our products at scale. Some of the key components used to manufacture our products come from limited or single source suppliers. We are therefore subject to the risk of shortages and long lead times in the supply of these components, including integrated circuits which are in short supply in the near term, and the risk that our suppliers discontinue or modify components used in its products. For example, electronics industry is presently experiencing supply shortages and long lead times from semiconductor suppliers. We have a global supply chain and the COVID-19 pandemic and other health epidemics and outbreaks may adversely affect our ability to source components in a timely or cost effective manner from our third-party suppliers due to, among other things, work stoppages or interruptions. For example, our products depend on lasers and we currently consume a substantial portion of the available market. Any shortage of these lasers could materially and adversely affect our ability to manufacture our solutions. In addition, the lead times associated with certain components are lengthy and preclude rapid changes in quantities and delivery schedules. We have in the past experienced and may in the future experience component shortages and price fluctuations of certain key components and materials, and the predictability of the availability and pricing of these components may be limited. Component shortages or pricing fluctuations could be material in the future. In the event of a component shortage, supply interruption or material pricing change from suppliers of these components, we may not be able to develop alternate sources in a timely manner or at all in the case of sole or limited sources. Developing alternate sources of supply for these components may be time-consuming, difficult, and costly and we may not be able to source these components on terms that are acceptable to us, or at all, which may undermine our ability to meet our requirements or to fill customer orders in a timely manner. Any interruption or delay in the supply of any of these

parts or components, or the inability to obtain these parts or components from alternate sources at acceptable prices and within a reasonable amount of time, would adversely affect our ability to meet our scheduled product deliveries to our customers. This could adversely affect our relationships with our customers and channel partners and could cause delays in shipment of our products and adversely affect our operating results. In addition, increased component costs could result in lower gross margins. Even where we are able to pass increased component costs along to our customers, there may be a lapse of time before we are able to do so such that we must absorb the increased cost. If we are unable to buy these components in quantities sufficient to meet our requirements on a timely basis, we will not be able to deliver products to our customers, which may result in such customers using competitive products instead of ours.

Because our sales have been primarily to customers making purchases for R&D projects and our orders are project-based, we expect our results of operations to fluctuate on a quarterly and annual basis, which could cause our stock price to fluctuate or decline.

Our quarterly results of operations have fluctuated in the past and may vary significantly in the future. As such, historical comparisons of our operating results may not be meaningful. In particular, because our sales to date have primarily been to customers making purchases for R&D, sales in any given quarter can fluctuate based on the timing and success of our customers' development projects. Accordingly, the results of any one quarter should not be relied upon as an indication of future performance. Our quarterly financial results may fluctuate as a result of a variety of factors, many of which are outside of our control and may not fully reflect the underlying performance of our business. These fluctuations could adversely affect our ability to meet our expectations or those of securities analysts, ratings agencies or investors. If we do not meet these expectations for any period, the value of our business and our securities could decline significantly. Factors that may cause these quarterly fluctuations include, without limitation, those listed below:

- the timing and magnitude of orders and shipments of our products in any quarter;
- pricing changes we may adopt to drive market adoption or in response to competitive pressure;
- our ability to retain our existing customers and attract new customers;
- our ability to develop, introduce, manufacture and ship in a timely manner products that meet customer requirements;
- disruptions in our sales channels or termination of its relationship with important channel partners;
- delays in customers' purchasing cycles or deferrals of customers' purchases in anticipation of new products or up-dates from us or our competitors;
- fluctuations in demand pressures for our products;
- the mix of products sold in any quarter;
- the duration of the global COVID-19 pandemic and the time it takes for economic recovery;
- the timing and rate of broader market adoption of autonomous systems utilizing our solutions across the automotive and other market sectors;
- market acceptance of lidar and further technological advancements by our competitors and other market participants;
- the ability of our customers to commercialize systems that incorporate our products;
- any change in the competitive dynamics of our markets, including consolidation of competitors, regulatory developments and new market entrants;
- our ability to effectively manage our inventory;
- changes in the source, cost, availability of and regulations pertaining to materials we use;
- adverse litigation, judgments, settlements or other litigation-related costs, or claims that may give rise to such costs; and
- general economic, industry and market conditions, including trade disputes.

Our transition to an outsourced manufacturing business model may not be successful, which could harm our ability to deliver products and recognize revenue.

We are in the initial stages of transitioning from a manufacturing model in which we primarily manufactured and assembled our products at our Orlando, Florida location, to one where we rely on third-party manufacturers in Mexico, Thailand and potentially other foreign and domestic locations. We believe the use of third-party manufacturers will have

benefits, but in the near term, while we are beginning manufacturing with new partners, we may lose revenue, incur increased costs and potentially harm our customer relationships.

Reliance on third-party manufacturers reduces our control over the manufacturing process, including our ability to finalize changes through validation, reduced control over quality, product costs and product supply and timing. We may experience delays in shipments or issues concerning product quality from our third-party manufacturers. If any of our third-party manufacturers experience interruptions, delays or disruptions in supplying our products, including by natural disasters, the global COVID-19 pandemic, other health epidemics and outbreaks, or work stoppages or capacity constraints, our ability to ship products to distributors and customers would be delayed. In addition, unfavorable economic conditions could result in financial distress among third-party manufacturers upon which we rely, thereby increasing the risk of disruption of supplies necessary to fulfill our production requirements and meet customer demands. Additionally, if any of our third-party manufacturers experience quality control problems in their manufacturing operations and our products do not meet customer or regulatory requirements, we could be required to cover the cost of repair or replacement of any defective products. These delays or product quality issues could have an immediate and material adverse effect on our ability to fulfill orders and could have a negative effect on our operating results. In addition, such delays or issues with product quality could adversely affect our reputation and our relationship with our channel partners. If third-party manufacturers experience financial, operational, manufacturing capacity or other difficulties, or experience shortages in required components, or if they are otherwise unable or unwilling to continue to manufacture our products in required volumes or at all, our supply may be disrupted, we may be required to seek alternate manufacturers and we may be required to re-design our products. It would be time-consuming, and could be costly and impracticable, to begin to use new manufacturers and designs, and such changes could cause significant interruptions in supply and could have an adverse effect on our ability to meet our scheduled product deliveries and may subsequently lead to the loss of sales. While we take measures to protect our trade secrets, the use of third-party manufacturers may also risk disclosure of our innovative and proprietary manufacturing methodologies, which could adversely affect our business.

Our sales and operations in international markets, including our manufacturing operations, expose us to operational, financial and regulatory risks.

International sales comprise a significant amount of our overall revenue. Sales to international customers accounted for 29%, 71% and 17% of our revenue in 2021, 2020, and 2019, respectively. We are committed to growing our international sales. While we have committed resources, and are working closely with OEMs and other collaborators outside the United States, to expand our international operations and sales channels, these efforts may not be successful. We have also commenced international manufacturing operations. International operations, including any manufacturing operations, are subject to a number of other risks, including:

- foreign currency and exchange rate fluctuations;
- local economic conditions;
- political and economic instability, international terrorism and anti-American sentiment, particularly in emerging markets;
- global or regional health crises, such as the COVID-19 pandemic or other health epidemics and outbreaks;
- potential for violations of anti-corruption laws and regulations, such as those related to bribery and fraud;
- tariffs, other trade barriers and restrictions and preference for locally branded products, and laws and business practices favoring local competition;
- potential consequences of, and uncertainty related to, the “Brexit” process in the United Kingdom, which could lead to additional expense and complexity in doing business there;
- increased difficulty in managing inventory;
- difficulties in collecting receivables from foreign entities;
- less effective protection of intellectual property;
- foreign government regulatory requirements and stringent regulation of the autonomous or other systems or products using our products and stringent consumer protection and product compliance regulations, including but not limited to General Data Protection Regulation in the European Union, European competition law, the Restriction of Hazardous Substances Directive, the Waste Electrical and Electronic Equipment Directive and the European Ecodesign Directive that are costly to comply with and may vary from country to country;
- difficulties and costs of staffing and managing foreign operations;
- import and export laws and requirements and the impact of tariffs;

- potentially adverse tax consequences and changes in local tax and customs duty laws or changes in the enforcement, application or interpretation of such laws; and
- U.S. government's restrictions on certain technology transfer to certain countries of concern.

The occurrence of any of these risks could negatively affect our international business or increase our costs and decrease our profit margins and consequently materially and adversely affect our business, operating results and financial condition.

We, our outsourcing partners and our suppliers may rely on complex machinery for our production, which involves a significant degree of risk and uncertainty in terms of operational performance and costs.

We, our outsourcing partners and our suppliers may rely on complex machinery for the production, assembly and installation of our lidar solutions, which will involve a significant degree of uncertainty and risk in terms of operational performance and costs. Our production facilities and the facilities of our outsourcing partners and suppliers consist of large-scale machinery with high capital expense combining many components. These components may suffer unexpected malfunctions from time to time and will depend on repairs and spare parts to resume operations, which may not be available when needed. Unexpected malfunctions of these components may significantly affect the intended operational efficiency. Operational performance and costs can be difficult to predict and are often influenced by factors outside of our control, such as, but not limited to, scarcity of natural resources, environmental hazards and remediation, costs associated with decommissioning of machines, labor disputes and strikes, difficulty or delays in obtaining governmental permits, damages or defects in electronic systems, industrial accidents, fire, seismic activity and natural disasters. Should operational risks materialize, it may result in the personal injury to or death of workers, the loss of production equipment, damage to production facilities, monetary losses, delays and unanticipated fluctuations in production, environmental damage, administrative fines, increased insurance costs and potential legal liabilities, all which could have a material adverse effect on our business, prospects, financial condition or operating results.

As part of growing our business, we may make acquisitions. If we fail to successfully select, execute or integrate our acquisitions, then our business, results of operations and financial condition could be materially adversely affected, and our stock price could decline.

From time to time, we may undertake acquisitions to add new products and technologies, acquire talent, gain new sales channels or enter into new markets or sales territories. In addition to possible stockholder approval, we may need approvals and licenses from relevant government authorities for the acquisitions and to comply with any applicable laws and regulations, which could result in increased delay and costs, and may disrupt our business strategy if we fail to do so. Furthermore, acquisitions and the subsequent integration of new assets, businesses, key personnel, customers, vendors and suppliers require significant attention from our management and could result in a diversion of resources from our existing business, which in turn could have an adverse effect on our operations. Acquired assets or businesses may not generate the financial results we expect. Acquisitions could result in the use of substantial amounts of cash, potentially dilutive issuances of equity securities, the occurrence of significant goodwill impairment charges, amortization expenses for other intangible assets and exposure to potential unknown liabilities of the acquired business. Moreover, the costs of identifying and consummating acquisitions may be significant.

To date, we have limited experience with acquisitions and the integration of acquired technology and personnel. Failure to successfully identify, complete, manage and integrate acquisitions could materially and adversely affect our business, financial condition and results of operations and could cause our stock price to decline.

Any failure to grow our relationship with Chinese customers and our proposed international expansion into China could expose us to substantial business, regulatory, political, financial and economic risks.

We have entered into relationships with Chinese customers pursuant to which we plan to establish a presence in China to support the collaboration between the parties and enable series production of autonomous vehicles utilizing our technology by 2023. Any failure in our ability to establish our presence in China, grow our relationship with Chinese OEMs, or to realize the anticipated benefits of our relationships could harm our brand, prospects, financial condition and operating results and have an adverse effect on our business. Our proposed expansion into China could also expose us to substantial risks associated with doing business in China, such as, taxation, inflation, manufacturing, environmental and other regulations, foreign currency exchange rates, political risks, intellectual property risks, the labor market and property and financial regulations. Additionally, we would need to maintain compliance with the market's ongoing development of standards to define deployment requirements for higher levels of autonomy. Our ability to operate in China may be adversely affected by changes in, or our failure to comply with, Chinese laws, regulations and standards. As we hire personnel to maintain our operations in China, we would also be exposed to risks associated with any changes to the employment and labor laws in China, which could increase our operating costs in China. There is also significant uncertainty about the future relationship between the United States and China with respect to political risks, including but not limited to, trade policies, treaties, government regulations and tariffs.

The complexity of our products could result in unforeseen delays or expenses from undetected defects, errors or reliability issues in hardware or software which could reduce the market adoption of our new products, damage our reputation with current or prospective customers, expose us to product liability and other claims and adversely affect our operating costs.

Our products are highly technical and very complex and require high standards to manufacture and have in the past and will likely in the future experience defects, errors or reliability issues at various stages of development. We may be unable to timely release new products, manufacture existing products, correct problems that have arisen or correct such problems to our customers' satisfaction. Additionally, undetected errors, defects or security vulnerabilities, especially as new products are introduced or as new versions are released, could result in serious injury to the end users of technology incorporating our products, or those in the surrounding area, our customers never being able to commercialize technology incorporating our products, litigation against us, negative publicity and other consequences. These risks are particularly prevalent in the highly competitive autonomous driving and ADAS markets. Some errors or defects in our products may only be discovered after they have been tested, commercialized and deployed by customers. If that is the case, we may incur significant additional development costs and product recall, repair or replacement costs. These problems may also result in claims, including class actions, against us by our customers or others. Our reputation or brand may be damaged as a result of these problems and customers may be reluctant to buy our products, which could adversely affect our ability to retain existing customers and attract new customers and could adversely affect our financial results.

In addition, we could face material legal claims for breach of contract, product liability, fraud, tort or breach of warranty as a result of these problems. Defending a lawsuit, regardless of its merit, could be costly and may divert management's attention and adversely affect the market's perception of us and our products. In addition, our business liability insurance coverage could prove inadequate with respect to a claim and future coverage may be unavailable on acceptable terms or at all. These product-related issues could result in claims against us and our business could be adversely affected.

We may be subject to product liability or warranty claims that could result in significant direct or indirect costs, which could adversely affect our business and operating results.

Our customers use our solutions in autonomous driving and ADAS applications, which present the risk of significant injury, including fatalities. We may be subject to claims if a product using our lidar technology is involved in an accident and persons are injured or purport to be injured. Any insurance that we carry may not be sufficient or it may not apply to all situations. Similarly, our customers could be subjected to claims as a result of such accidents and bring legal claims against us to attempt to hold us liable. In addition, if lawmakers or governmental agencies were to determine that the use of our products or autonomous driving or certain ADAS applications increased the risk of injury to all or a subset of our customers, they may pass laws or adopt regulations that limit the use of our products or increase our liability associated with the use of our products or that regulate the use of or delay the deployment of autonomous driving and ADAS technology. Any of these events could adversely affect our brand, relationships with customers, operating results or financial condition.

We typically provide a limited-time warranty on our products. The occurrence of any material defects in our products could make us liable for damages and warranty claims. In addition, we could incur significant costs to correct any defects, warranty claims or other problems, including costs related to product recalls. Any negative publicity related to the perceived quality of our products could affect our brand image, partner and customer demand, and adversely affect our operating results and financial condition. Also, warranty, recall and product liability claims may result in litigation, including class actions, the occurrence of which could be costly, lengthy and distracting and adversely affect our business and operating results.

If we do not maintain sufficient inventory or if we do not adequately manage our inventory, we could lose sales or incur higher inventory-related expenses, which could negatively affect our operating results.

To ensure adequate inventory supply, we must forecast inventory needs and expenses, place orders sufficiently in advance with our suppliers and manufacturing partners and manufacture products based on our estimates of future demand for particular products. Fluctuations in the adoption of lidar products may affect our ability to forecast our future operating results, including revenue, gross margins, cash flows and profitability. Our ability to accurately forecast demand for our products could be affected by many factors, including the rapidly changing nature of the autonomous driving and ADAS markets in which we operate, the uncertainty surrounding the market acceptance and commercialization of lidar technology, the emergence of new markets, an increase or decrease in customer demand for our products or for products and services of our competitors, product introductions by competitors, the COVID-19 pandemic, other health epidemics and outbreaks, and any associated work stoppages or interruptions, unanticipated changes in general market conditions and the weakening of economic conditions or consumer confidence in future economic conditions. If our lidar products are commercialized in autonomous driving and ADAS applications, both of which are experiencing rapid growth in demand, we may face challenges acquiring adequate supplies to manufacture our products and/or we and our manufacturing partners may not be able to manufacture our products at a rate necessary to satisfy the levels of demand, which would negatively affect our revenue. This risk may be exacerbated by the fact that we may not carry or be able to obtain for our manufacturers a significant amount of inventory to satisfy short-term

demand increases. If we fail to accurately forecast customer demand, we may experience excess inventory levels or a shortage of products available for sale.

Inventory levels in excess of customer demand may result in inventory write-downs or write-offs and the sale of excess inventory at discounted prices, which would adversely affect our financial results, including our gross margin, and have a negative effect on our brand. Conversely, if we underestimate customer demand for our products, we, or our manufacturing partners, may not be able to deliver products to meet our requirements, and this could result in damage to our brand and customer relationships and adversely affect our revenue and operating results.

The average selling prices of our products could decrease rapidly over the life of the product, which may negatively affect our revenue and gross margin.

We may experience declines in the average selling prices of our products generally as our customers seek to commercialize autonomous systems at prices low enough to achieve market acceptance. In order to sell products that have a falling average unit selling price and maintain margins at the same time, we will need to continually reduce product and manufacturing costs. To manage manufacturing costs, we must engineer the most cost-effective design for our products. In addition, we continuously drive initiatives to reduce labor cost, improve worker efficiency, reduce the cost of materials, use fewer materials and further lower overall product costs by carefully managing component prices, inventory and shipping cost. We also need to continually introduce new products with higher sales prices and gross margin to maintain our overall gross margin. If we are unable to manage the cost of older products or successfully introduce new products with higher gross margin, our revenue and overall gross margin would likely decline.

Adverse conditions in the automotive industry or the global economy more generally could have adverse effects on our results of operations.

While we make our strategic planning decisions based on the assumption that the markets we are targeting will grow, our business is dependent, in large part on, and directly affected by, business cycles and other factors affecting the global automobile industry and global economy generally. Automotive production and sales are highly cyclical and depend on general economic conditions and other factors, including consumer spending and preferences, changes in interest rates and credit availability, consumer confidence, fuel costs, fuel availability, environmental impact, governmental incentives and regulatory requirements, and political volatility, especially in energy-producing countries and growth markets. In addition, automotive production and sales can be affected by our automotive OEM customers' ability to continue operating in response to challenging economic conditions and in response to labor relations issues, regulatory requirements, trade agreements and other factors, such as COVID-19 impact on supply of semiconductors for automobiles. The volume of automotive production in North America, Europe and the rest of the world has fluctuated, sometimes significantly, from year to year, and we expect such fluctuations to give rise to fluctuations in the demand for our products. Any significant adverse change in any of these factors may result in a reduction in automotive sales and production by our automotive OEM customers and could have a material adverse effect on our business, results of operations and financial condition.

Because lidar is new and since many of the markets in which we compete are new and rapidly evolving, it is difficult to forecast long-term end-customer adoption rates and demand for our products.

We are pursuing opportunities in markets that are undergoing rapid changes, including technological and regulatory changes, and it is difficult to predict the timing and size of the opportunities. For example, autonomous driving and lidar-based ADAS applications require complex technology. Because these automotive systems depend on technology from many companies, commercialization of autonomous driving or ADAS products could be delayed or impaired on account of certain technological components of our or others not being ready to be deployed in vehicles. Although we currently are engaged with multiple commercial customers, these companies may not be able to commercialize our technology immediately, or at all. Regulatory, safety or reliability developments, many of which are outside of our control, could also cause delays or otherwise impair commercial adoption of these new technologies, which will adversely affect our growth. Our future financial performance will depend on our ability to make timely investments in the correct market opportunities. If one or more of these markets experience a shift in customer or prospective customer demand, our products may not compete as effectively, if at all, and they may not be designed into commercialized products. Given the evolving nature of the markets in which we operate, it is difficult to predict customer demand or adoption rates for our products or the future growth of the markets in which we operate. As a result, any financial projections in this Annual Report and any market opportunity estimates and forecasts of market growth necessarily reflect various estimates and assumptions that may not prove accurate and these projections could differ materially from actual results due to the risks included in this "Risk Factors" section, among others. If demand does not develop or if we cannot accurately forecast customer demand, the size of our markets, inventory requirements or our future financial results, our business, results of operations and financial condition will be adversely affected. Even if markets experience the forecasted growth described in this Annual Report, we may not grow our business at similar rates, or at all, since our business is subject to many risks and uncertainties set forth in this Annual Report. Accordingly, the forecasts and estimates of market size

and growth described in this Annual Report, including our estimates of the size of our total addressable market should not be taken as indicative of our future growth.

We currently have and target customers that are large corporations with substantial negotiating power, exacting product standards and potentially competitive internal solutions. If we are unable to sell our products to these customers, our prospects and results of operations will be adversely affected.

Many of our customers and potential customers are large, multinational corporations with substantial negotiating power relative to us and, in some instances, may have internal solutions that are competitive to our products. These large, multinational corporations also have significant development resources, which may allow them to acquire or develop independently, or in partnership with others, competitive technologies. Meeting the technical requirements and securing major commercial wins with any of these companies will require a substantial investment of our time and resources. We cannot assure you that our products will secure major commercial wins from these or other companies or that we will generate meaningful revenue from the sales of our products to these key potential customers. If our products are not selected by these large corporations or if these corporations develop or acquire competitive technology, it will have an adverse effect on our business.

We are substantially dependent on our partnership with a few key customers, and our business could be materially and adversely affected if our partnership with any of such customers were terminated. Our financial position and results could be materially and adversely affected if we were unable to collect our invoices for any of our key customers.

We are dependent on a collection of large customers with strong purchasing power. In 2021, 2020 and 2019, our top 10 customers represented 87%, 94% and 79% of our revenue, respectively. In 2021, Daimler and Volvo, in 2020, Volvo and in 2019, Volvo, Toyota and Northrop Grumman accounted for more than 10% of our annual revenue. The loss of business from any of our major customers (whether by lower overall demand for our products, cancellation of existing contracts or product orders or the failure to design in our products or award us new business) could have a material adverse effect on our business.

To the extent autonomous vehicle and ADAS systems become accepted by major automotive OEMs, we expect that we will rely increasingly for our revenue on Tier 1 suppliers through which automotive OEMs procure components. We expect that these Tier 1 suppliers will be responsible for certain hardpoint and software configuration activities specific to each OEM, and they may not exclusively carry our solutions.

There can be no assurance that we will be able to maintain our relationship with any of our key customers, for example Volvo, Daimler etc. and secure orders for our products. If we are unable to maintain our relationship any of our key customers, or if our arrangement is modified so that the economic terms become less favorable to us, then our business, financial results and position would be materially adversely affected. There is also a risk that one or more of our major customers could be unable to pay our invoices as they become due or that a customer will simply refuse to make such payments if it experiences financial difficulties. If a major customer were to enter into bankruptcy proceedings or similar proceedings whereby contractual commitments are subject to stay of execution and the possibility of legal or other modification, we could be forced to record a substantial loss.

If we are unable to establish and maintain confidence in our long-term business prospects among customers and analysts and within our industry or are subject to negative publicity, then our financial condition, operating results, business prospects and access to capital may suffer materially.

Customers may be less likely to purchase our lidar solutions if they are not convinced that our business will succeed or that our service and support and other operations will continue in the long term.

Similarly, suppliers and other third parties will be less likely to invest time and resources in developing business relationships with us if they are not convinced that our business will succeed. Accordingly, in order to build and maintain our business, we must maintain confidence among customers, suppliers, analysts, ratings agencies and other parties in our products, long-term financial viability and business prospects. Maintaining such confidence may be particularly complicated by certain factors including those that are largely outside of our control, such as our limited operating history, customer unfamiliarity with our lidar solutions, any delays in scaling production, delivery and service operations to meet demand, competition and uncertainty regarding the future of autonomous vehicles or our other services and our production and sales performance compared with market expectations.

We operate in a highly competitive market and some market participants have substantially greater resources. We compete against a large number of both established competitors and new market entrants.

The markets for sensing technology applicable to autonomous solutions in the automobile industry are highly competitive. Our future success will depend on our ability to remain a leader in our targeted markets by continuing to develop and protect from infringement advanced lidar technology in a timely manner and to stay ahead of existing and new competitors. Our competitors are numerous and they compete with us directly by offering lidar products and indirectly by attempting to solve some of the same challenges with different technology. We face competition from camera and radar companies, other

developers of lidar products, Tier 1 suppliers and other technology and automotive supply companies, some of which have significantly greater resources than we do. In the automotive market, our competitors have commercialized both lidar and non-lidar-based ADAS technology that has achieved market adoption, strong brand recognition and may continue to improve. Other competitors are working towards commercializing autonomous driving technology and either by themselves, or with a publicly announced partner, have substantial financial, marketing, R&D and other resources. Some of our customers in the autonomous vehicle and ADAS markets have announced development efforts or made acquisitions directed at creating their own lidar-based or other sensing technologies, which would compete with our solutions. We do not know how close these competitors are to commercializing autonomous driving systems or novel ADAS applications. In markets outside of the automotive industry, our competitors, like us, seek to develop new sensing applications across industries. Even in these emerging markets, we face substantial competition from numerous competitors seeking to prove the value of their technology.

Additionally, increased competition may result in pricing pressure and reduced margins and may impede our ability to increase the sales of our products or cause us to lose market share, any of which will adversely affect our business, results of operations and financial condition.

The markets in which we compete are characterized by rapid technological change, which requires us to continue to develop new products and product innovations and could adversely affect market adoption of our products.

While we intend to invest substantial resources to remain on the forefront of technological development, continuing technological changes in sensing technology, lidar and the markets for these products, including the ADAS and autonomous driving industries, could adversely affect adoption of lidar and/or our products, either generally or for particular applications. Our future success will depend upon our ability to develop and introduce a variety of new capabilities and innovations to our existing product offerings, as well as introduce a variety of new product offerings, to address the changing needs of the markets in which we offer our products. For example, we are currently working on developing perception software products. We cannot guarantee that such software or other new products will be released in a timely manner, or at all, or achieve market acceptance. Delays in delivering new products that meet customer requirements could damage our relationships with customers and lead them to seek alternative sources of supply. In addition, our success to date has been based on the delivery of our solutions to R&D programs in which developers are investing substantial capital to develop new systems. Our continued success relies on the success of the R&D phase of these customers as they expand into commercialized projects. As autonomous technology reaches the stage of large-scale commercialization, we will be required to develop and deliver solutions at price points that enable wider and ultimately mass-market adoption. Delays in introducing products and innovations, the failure to choose correctly among technical alternatives or the failure to offer innovative products or configurations at competitive prices may cause existing and potential customers to purchase our competitors' products or turn to alternative sensing technology.

If we are unable to devote adequate resources to develop products or cannot otherwise successfully develop products or system configurations that meet customer requirements on a timely basis or that remain competitive with technological alternatives, our products could lose market share, our revenue will decline, we may experience operating losses and our business and prospects will be adversely affected.

We may need to raise additional capital in the future in order to execute our business plan, which may not be available on terms acceptable to us, or at all.

In the future, we may require additional capital to respond to technological advancements, competitive dynamics or technologies, customer demands, business opportunities, challenges, acquisitions or unforeseen circumstances and we may determine to engage in equity or debt financings or enter into credit facilities for other reasons. In order to further business relationships with current or potential customers or partners, we may issue equity or equity-linked securities to such current or potential customers or partners. We may not be able to timely secure additional debt or equity financing on favorable terms, or at all. If we raise additional funds through the issuance of equity or convertible debt or other equity-linked securities or if we issue equity or equity-linked securities to current or potential customers to further business relationships, our existing stockholders could experience significant dilution. Any debt financing obtained by us in the future could involve restrictive covenants relating to our capital raising activities and other financial and operational matters, which may make it more difficult for us to obtain additional capital and to pursue business opportunities, including potential acquisitions. If we are unable to obtain adequate financing or financing on terms satisfactory to us, when we require it, our ability to continue to grow or support our business and to respond to business challenges could be significantly limited.

We have identified material weaknesses in our internal control over financial reporting as of December 31, 2021, 2020 and 2019. If we are unable to achieve and maintain an effective system of internal control over financial reporting, we may not be able to accurately report our financial results in a timely manner, which may adversely affect investor confidence in us and materially and adversely affect our business and operating results.

In connection with our financial statement close process for the years ended December 31, 2021, 2020 and 2019, we identified material weaknesses in the design and operating effectiveness of our internal control over financial reporting. The material weaknesses we identified resulted from a lack of sufficient number of qualified personnel within our accounting and internal audit function who possessed an appropriate level of expertise to effectively perform functions relating to control environment, control activities, information and communication and monitoring. In addition, these material weaknesses contributed to material weaknesses in information technology controls and journal entry review. For a further discussion of these material weaknesses, see “Management’s Report on Internal Control over Financial Reporting” in Item 9A. Controls and Procedures.

A material weakness is a deficiency or combination of deficiencies in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of our financial statements would not be prevented or detected on a timely basis. These deficiencies could result in additional material misstatements to our consolidated financial statements that may not be prevented or detected on a timely basis.

Our management is working on finalizing implementation of a remediation plan which includes hiring additional accounting and finance personnel with technical public company accounting and financial reporting experience, risk assessment, and design and implementation controls over financial reporting and information technology process. The material weaknesses will not be fully remediated until management can demonstrate the full effectiveness of controls over a sufficient period of time. Our management is monitoring the status, design and implementation of our remediation plan and will make changes management determines to be appropriate.

If not remediated, these material weaknesses could result in material misstatements to our annual or interim consolidated financial statements that might not be prevented or detected on a timely basis, or in delayed filing of required periodic reports. If we are unable to assert that our internal control over financial reporting is effective, if our independent registered public accounting firm is unable to express an unqualified opinion as to the effectiveness of the internal control over financial reporting, investors may lose confidence in the accuracy and completeness of our financial reports, the market price of the Common Stock could be adversely affected, and we could become subject to litigation or investigations by Nasdaq, the SEC, or other regulatory authorities, which could require additional financial and management resources.

Further, additional weaknesses in our internal controls may be discovered in the future. Any failure to further develop or maintain effective controls, or any difficulties encountered in our implementation or improvement, could adversely affect our operating results or cause us to fail to meet our reporting obligations and may result in a restatement of our financial statements for prior periods.

Our ability to use our net operating loss carryforwards and certain other tax attributes may be limited.

As of December 31, 2021, we had \$469.6 million of U.S. federal and \$420.6 million of state net operating loss carryforwards available to reduce future taxable income. Of the \$469.6 million in U.S. federal operating loss carryforwards, \$426.9 million will be carried forward indefinitely for U.S. federal tax purposes and \$42.7 million will expire between 2035 and 2037. The \$420.6 million of our U.S. state net operating loss carryforwards will expire between 2035 and 2037. It is possible that we will not generate taxable income in time to use these net operating loss carryforwards before their expiration or at all. Under legislative changes made in December 2017, U.S. federal net operating losses incurred in 2018 and in future years may be carried forward indefinitely, but the deductibility of such net operating losses is limited. It is uncertain if and to what extent various states will conform to the newly enacted federal tax law. In addition, the federal and state net operating loss carryforwards and certain tax credits may be subject to significant limitations under Section 382 and Section 383 of the U.S. Tax Code, respectively, and similar provisions of state law. Under those sections of the U.S. Tax Code, if a corporation undergoes an “ownership change,” the corporation’s ability to use its pre-change net operating loss carryforwards and other pre-change attributes, such as research tax credits, to offset its post-change income or tax may be limited. In general, an “ownership change” will occur if there is a cumulative change in our ownership by “5-percent shareholders” that exceeds 50 percentage points over a rolling three-year period. Similar rules may apply under state tax laws.

We are highly dependent on the services of Austin Russell, our Founder, President and Chief Executive Officer.

We are highly dependent on Austin Russell, our Founder, President and Chief Executive Officer. Mr. Russell created our first lidar product and he remains deeply involved in all aspects of our business, including product development. The loss of Mr. Russell would adversely affect our business because his loss could make it more difficult to, among other things, compete with other market participants, manage our R&D activities and retain existing customers or cultivate new ones. Negative public perception of, or negative news related to, Mr. Russell may adversely affect our brand, relationship with customers or standing in the industry.

Our business depends substantially on the efforts of our executive officers and highly skilled personnel, and our operations may be severely disrupted if we lost their services.

Competition for highly-skilled personnel is often intense, especially in Orlando, Florida and the San Francisco Bay Area, where two of our offices are located, and we may incur significant costs to attract highly-skilled personnel. We may not be successful in attracting, integrating, or retaining qualified personnel to fulfill our current or future needs. We have, from time to time, experienced, and we expect to continue to experience, difficulty in hiring and retaining highly skilled employees with appropriate qualifications. In addition, job candidates and existing employees often consider the value of the equity awards they receive in connection with their employment. If the perceived value of our equity or equity awards declines, it may adversely affect our ability to retain highly skilled employees. If we fail to attract new personnel or fail to retain and motivate our current personnel, our business and future growth prospects could be adversely affected.

Our business could be materially and adversely affected by the current global COVID-19 pandemic or other health epidemics and outbreaks.

The ongoing COVID-19 pandemic as well as other possible health epidemics and outbreaks could result in a material adverse impact on our or our customers' business operations including reduction or suspension of operations in the U.S. or certain parts of the world. The ongoing COVID-19 pandemic may have the effect of heightening many of the other risks described in this "Risk Factors" section, such as the demand for our products, our ability to achieve or maintain profitability and our ability to raise additional capital in the future. Our corporate headquarters and R&D and manufacturing base are located in Florida, which has a high number of COVID-19 pandemic cases. Our engineering and manufacturing operations, among others, cannot all be conducted in a remote working structure and often require on-site access to materials and equipment. We have customers with international operations in varying industries. We also depend on suppliers and manufacturers worldwide. Depending upon the duration of the ongoing COVID-19 pandemic and the associated business interruptions, our customers, suppliers, manufacturers and partners may suspend or delay their engagement with us, which could result in a material adverse effect on our financial condition. Our response to the ongoing COVID-19 pandemic may prove to be inadequate and we may be unable to continue our operations in the manner we had prior to the outbreak, and may endure interruptions, reputational harm, delays in our product development and shipments, all of which could have an adverse effect on our business, operating results, and financial condition. In addition, when the pandemic subsides, we cannot assure you as to the timing of any economic recovery, which could continue to have a material adverse effect on our target markets and our business.

Interruption or failure of our information technology and communications systems could impact our ability to effectively provide our services.

We plan to include in-vehicle services and functionality that utilize data connectivity to monitor performance and timely capture opportunities to enhance performance and functionality. The availability and effectiveness of our services depend on the continued operation of information technology and communications systems. Our systems will be vulnerable to damage or interruption from, among others, physical theft, fire, terrorist attacks, natural disasters, power loss, war, telecommunications failures, viruses, denial or degradation of service attacks, ransomware, social engineering schemes, insider theft or misuse or other attempts to harm our systems. We utilize reputable third-party service providers or vendors for all of our data other than our source code, and these providers could also be vulnerable to harms similar to those that could damage our systems, including sabotage and intentional acts of vandalism causing potential disruptions. Some of our systems will not be fully redundant, and our disaster recovery planning cannot account for all eventualities. Any problems with our third-party cloud hosting providers could result in lengthy interruptions in our business. In addition, our in-vehicle services and functionality are highly technical and complex technology which may contain errors or vulnerabilities that could result in interruptions in our business or the failure of our systems.

We are subject to cybersecurity risks to operational systems, security systems, infrastructure, integrated software in our lidar solutions and customer data processed by us or third-party vendors or suppliers and any material failure, weakness, interruption, cyber event, incident or breach of security could prevent us from effectively operating our business.

We are at risk for interruptions, outages and breaches of: operational systems, including business, financial, accounting, product development, data processing or production processes, owned by us or our third-party vendors or suppliers; facility security systems, owned by us or our third-party vendors or suppliers; in-product technology owned by us or our third-party

vendors or suppliers; the integrated software in our lidar solutions; or customer or driver data that we process or our third-party vendors or suppliers process on our behalf. Such cyber incidents could materially disrupt operational systems; result in loss of intellectual property, trade secrets or other proprietary or competitively sensitive information; compromise certain information of customers, employees, suppliers, drivers or others; jeopardize the security of our facilities; or affect the performance of in-product technology and the integrated software in our lidar solutions. A cyber incident could be caused by disasters, insiders (through inadvertence or with malicious intent) or malicious third parties (including nation-states or nation-state supported actors) using sophisticated, targeted methods to circumvent firewalls, encryption and other security defenses, including hacking, fraud, trickery or other forms of deception. The techniques used by cyber attackers change frequently and may be difficult to detect for long periods of time. Although we maintain information technology measures designed to protect us against intellectual property theft, data breaches and other cyber incidents, such measures will require updates and improvements, and we cannot guarantee that such measures will be adequate to detect, prevent or mitigate cyber incidents. The implementation, maintenance, segregation and improvement of these systems requires significant management time, support and cost. Moreover, there are inherent risks associated with developing, improving, expanding and updating current systems, including the disruption of our data management, procurement, production execution, finance, supply chain and sales and service processes. These risks may affect our ability to manage our data and inventory, procure parts or supplies or produce, sell, deliver and service our solutions, adequately protect our intellectual property or achieve and maintain compliance with, or realize available benefits under, applicable laws, regulations and contracts. We cannot be sure that the systems upon which we rely, including those of our third-party vendors or suppliers, will be effectively implemented, maintained or expanded as planned. If we do not successfully implement, maintain or expand these systems as planned, our operations may be disrupted, our ability to accurately and timely report our financial results could be impaired, and deficiencies may arise in our internal control over financial reporting, which may impact our ability to certify our financial results. Moreover, our proprietary information or intellectual property could be compromised or misappropriated and our reputation may be adversely affected. If these systems do not operate as we expect them to, we may be required to expend significant resources to make corrections or find alternative sources for performing these functions.

A significant cyber incident could impact production capability, harm our reputation, cause us to breach our contracts with other parties or subject us to regulatory actions or litigation, any of which could materially affect our business, prospects, financial condition and operating results. In addition, our insurance coverage for cyber-attacks may not be sufficient to cover all the losses we may experience as a result of a cyber incident.

Legal and Regulatory Risks Related to Our Business

We are subject to governmental export and import control laws and regulations. Our failure to comply with these laws and regulations could have an adverse effect on our business, prospects, financial condition and results of operations.

Our products and solutions are subject to export control and import laws and regulations, including the U.S. Export Administration Regulations, U.S. Customs regulations and various economic and trade sanctions regulations administered by the U.S. Treasury Department's Office of Foreign Assets Controls. U.S. export control laws and regulations and economic sanctions prohibit the shipment of certain products and services to U.S. embargoed or sanctioned countries, governments and persons. In addition, complying with export control and sanctions regulations for a particular sale may be time-consuming and result in the delay or loss of sales opportunities. Exports of our products and technology must be made in compliance with these laws and regulations. If we fail to comply with these laws and regulations, we and certain of our employees could be subject to substantial civil or criminal penalties, including the possible loss of export or import privileges, fines, which may be imposed on us and responsible employees or managers and, in extreme cases, the incarceration of responsible employees or managers.

Changes to trade policy, tariffs and import/export regulations may have a material adverse effect on our business, financial condition and results of operations.

Changes in global political, regulatory and economic conditions or in laws and policies governing foreign trade, manufacturing, development and investment in the territories or countries where we currently purchase our components, sell our products or conduct our business could adversely affect our business. The U.S. has recently instituted or proposed changes in trade policies that include the negotiation or termination of trade agreements, the imposition of higher tariffs on imports into the U.S., economic sanctions on individuals, corporations or countries, and other government regulations affecting trade between the U.S. and other countries where we conduct our business. A number of other nations have proposed or instituted similar measures directed at trade with the United States in response. As a result of these developments, there may be greater restrictions and economic disincentives on international trade that could adversely affect our business. For example, such changes could adversely affect the automotive market, our ability to access key components or raw materials needed to manufacture our products (including, but not limited to, rare-earth metals), our ability to sell our products to customers outside of the U.S. and the demand for our products. It may be time-consuming and expensive for us to alter our business operations to adapt to or comply with any such changes, and any failure to do so could have a material adverse effect on our business, financial condition and results of operations.

We have in the past and may become involved in legal and regulatory proceedings and commercial or contractual disputes, which could have an adverse effect on our profitability and consolidated financial position.

We may be, from time to time, involved in litigation, regulatory proceedings and commercial or contractual disputes that may be significant. These matters may include, without limitation, disputes with our suppliers and customers, intellectual property claims, stockholder litigation, government investigations, class action lawsuits, personal injury claims, environmental issues, customs and value-added tax disputes and employment and tax issues. In addition, we have in the past and could face in the future a variety of labor and employment claims against us, which could include but is not limited to general discrimination, wage and hour, privacy, ERISA or disability claims. In such matters, government agencies or private parties may seek to recover from us very large, indeterminate amounts in penalties or monetary damages (including, in some cases, treble or punitive damages) or seek to limit our operations in some way. These types of lawsuits could require significant management time and attention or could involve substantial legal liability, adverse regulatory outcomes, and/or substantial expenses to defend. Often these cases raise complex factual and legal issues and create risks and uncertainties. No assurances can be given that any proceedings and claims will not have a material adverse impact on our operating results and consolidated financial position or that our established reserves or our available insurance will mitigate this impact.

We are subject to, and must remain in compliance with, numerous laws and governmental regulations concerning the manufacturing, use, distribution and sale of our products. Some of our customers also require that we comply with their own unique requirements relating to these matters.

We manufacture and sell products that contain electronic components, and such components may contain materials that are subject to government regulation in both the locations where we manufacture and assemble our products, as well as the locations where we sell our products. For example, certain regulations limit the use of lead in electronic components. Since we operate on a global basis, this is a complex process which requires continual monitoring of regulations and an ongoing compliance process to ensure that we and our suppliers are in compliance with existing regulations in each market where we operate. If there is an unanticipated new regulation that significantly impacts our use and sourcing of various components or requires more expensive components, that regulation could materially adversely affect our business, results of operations and financial condition.

Our products are used for autonomous driving and ADAS applications, which are subject to complicated regulatory schemes that vary from jurisdiction to jurisdiction. These are rapidly evolving areas where new regulations could impose limitations on the use of lidar generally or our products specifically. If we fail to adhere to these new regulations or fail to continually monitor the updates, we may be subject to litigation, loss of customers or negative publicity and our business, results of operations and financial condition will be adversely affected.

We are subject to various environmental laws and regulations that could impose substantial costs upon us and cause delays in building our production facilities.

Concerns over environmental pollution and climate change have produced significant legislative and regulatory efforts on a global basis, and we believe this will continue both in scope and in the number of countries participating. In addition, as climate change issues become more prevalent, foreign, federal, state and local governments and our customers have been responding to these issues. The increased focus on environmental sustainability may result in new regulations and customer requirements, or changes in current regulations and customer requirements, which could materially adversely impact our business, results of operations and financial condition. If we are unable to effectively manage real or perceived issues, including concerns about environmental impacts or similar matters, sentiments toward us or our products could be negatively impacted, and our business, results of operations or financial condition could suffer.

Our operations are and will be subject to international, federal, state and local environmental laws and regulations, and such laws and regulations could directly increase the cost of energy, which may have an effect on the way we manufacture products or utilize energy to produce our products. In addition, any new regulations or laws in the environmental area might increase the cost of raw materials or key components we use in our products. Environmental regulations require us to reduce product energy usage, monitor and exclude an expanding list of restricted substances and to participate in required recovery and recycling of our products. Environmental and health and safety laws and regulations can be complex, and we have limited experience complying with them. Capital and operating expenses needed to comply with environmental laws and regulations can be significant, and violations may result in substantial fines and penalties, third-party damages, suspension of production or a cessation of our operations. Contamination at properties we operate, we formerly operated or to which hazardous substances were sent by us, may result in liability for us under environmental laws and regulations, including, but not limited to, the Comprehensive Environmental Response, Compensation and Liability Act, which can impose liability for the full amount of remediation-related costs without regard to fault, for the investigation and cleanup of contaminated soil and ground water, for building contamination and impacts to human health and for damages to natural resources. The costs of complying with environmental laws and regulations and any claims concerning noncompliance, or liability with respect to contamination in the future, could have a material adverse effect on our financial condition or operating results. We may face unexpected delays in

obtaining the required permits and approvals in connection with our planned production facilities that could require significant time and financial resources and delay our ability to operate these facilities, which would adversely impact our business, prospects, financial condition and operating results.

Our business may be adversely affected by changes in automotive and laser regulations or concerns that drive further regulation of the automobile and laser market.

Government product safety regulations are an important factor for our business. Historically, these regulations have imposed ever-more stringent safety regulations for vehicles and laser products. These safety regulations often require, or customers demand that, vehicles have more safety features per vehicle and more advanced safety products.

While we believe increasing automotive and laser safety standards will present a market opportunity for our products, government safety regulations are subject to change based on a number of factors that are not within our control, including new scientific or technological data, adverse publicity regarding the industry recalls and safety risks of autonomous driving and ADAS, accidents involving our products, domestic and foreign political developments or considerations, and litigation relating to our products and our competitors' products. Changes in government regulations, especially in the autonomous driving and ADAS industries, could adversely affect our business. If government priorities shift and we are unable to adapt to changing regulations, our business may be materially and adversely affected.

Federal and local regulators impose more stringent compliance and reporting requirements in response to product recalls and safety issues in the automotive and laser industry. As cars that carry our sensors go into production, the obligations of complying with safety regulations and reporting requirements could increase and it could require increased resources and adversely affect our business.

Autonomous and ADAS features may be delayed in adoption by OEMs, and our business impacted, as additional emissions and safety requirements are imposed on vehicle manufacturers.

Vehicle regulators globally continue to consider new and enhanced emissions requirements, including electrification, to meet environmental and economic needs as well as pursue new safety standards to address emerging traffic risks. To control new vehicle prices, among other concerns, OEMs may need to dedicate technology and cost additions to new vehicle designs to meet these emissions and safety requirements and postpone the consumer cost pressures of new autonomous and ADAS features.

Our business may be adversely affected if we fail to comply with the regulatory requirements under the Federal Food, Drug, and Cosmetic or the Food and Drug Administration (the "FDA").

As a lidar technology company, we are subject to the Electronic Product Radiation Control Provisions of the Federal Food, Drug, and Cosmetic Act. These requirements are enforced by the FDA. Electronic product radiation includes laser technology. Regulations governing these products are intended to protect the public from hazardous or unnecessary exposure. Manufacturers are required to certify in product labeling and reports to the FDA that their products comply with applicable performance standards as well as maintain manufacturing, testing, and distribution records for their products. Failure to comply with these requirements could result in enforcement action by the FDA, which could require us to cease distribution of our products, recall or remediate products already distributed to customers, or subject us to FDA enforcement.

Failures, or perceived failures, to comply with privacy, data protection, and information security requirements in the variety of jurisdictions in which we operate may adversely impact our business, and such legal requirements are evolving, uncertain and may require improvements in, or changes to, our policies and operations.

Our current and potential future operations and sales subject us to laws and regulations addressing privacy and the collection, use, storage, disclosure, transfer and protection of a variety of types of data. For example, the European Commission has adopted the General Data Protection Regulation and California recently enacted the California Consumer Privacy Act of 2018, both of which provide for potentially material penalties for non-compliance. These regimes may, among other things, impose data security requirements, disclosure requirements, and restrictions on data collection, uses, and sharing that may impact our operations and the development of our business. While, generally, we do not have access to, collect, store, process, or share information collected by our solutions unless our customers choose to proactively provide such information to us, our products may evolve both to address potential customer requirements or to add new features and functionality. Therefore, the full impact of these privacy regimes on our business is rapidly evolving across jurisdictions and remains uncertain at this time.

We may also be affected by cyber-attacks and other means of gaining unauthorized access to our products, systems, and data. For instance, cyber criminals or insiders may target us or third parties with which we have business relationships to obtain data, or in a manner that disrupts our operations or compromises our products or the systems into which our products are integrated.

We are assessing the continually evolving privacy and data security regimes and measures we believe are appropriate in response. Since these data security regimes are evolving, uncertain and complex, especially for a global business like ours, we may need to update or enhance our compliance measures as our products, markets and customer demands further develop, and these updates or enhancements may require implementation costs. In addition, we may not be able to monitor and react to all developments in a timely manner. The compliance measures we do adopt may prove ineffective. Any failure, or perceived failure, by us to comply with current and future regulatory or customer-driven privacy, data protection, and information security requirements, or to prevent or mitigate security breaches, cyber-attacks, or improper access to, use of, or disclosure of data, or any security issues or cyber-attacks affecting us, could result in significant liability, costs (including the costs of mitigation and recovery), and a material loss of revenue resulting from the adverse impact on our reputation and brand, loss of proprietary information and data, disruption to our business and relationships, and diminished ability to retain or attract customers and business partners. Such events may result in governmental enforcement actions and prosecutions, private litigation, fines and penalties or adverse publicity, and could cause customers and business partners to lose trust in us, which could have an adverse effect on our reputation and business.

Regulations related to conflict minerals may cause us to incur additional expenses and could limit the supply and increase the costs of certain metals used in the manufacturing of our products.

We are subject to the requirements under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, or the Dodd-Frank Act, that will require us to determine, disclose and report whether our products contain conflict minerals. The implementation of these requirements could adversely affect the sourcing, availability and pricing of the materials used in the manufacture of components used in our products. In addition, we will incur additional costs to comply with the disclosure requirements, including costs related to conducting diligence procedures to determine the sources of conflict minerals that may be used in or necessary to the production of our products and, if applicable, potential changes to products, processes or sources of supply as a consequence of such verification activities. It is also possible that our reputation may be adversely affected if we determine that certain of our products contain minerals not determined to be conflict-free or if we are unable to alter our products, processes or sources of supply to avoid use of such materials.

Risks Related to Our Intellectual Property

Despite the actions we are taking to defend and protect our intellectual property, we may not be able to adequately protect or enforce our intellectual property rights or prevent unauthorized parties from copying or reverse engineering our solutions. Our efforts to protect and enforce our intellectual property rights and prevent third parties from violating our rights may be costly.

The success of our products and our business depends in part on our ability to obtain patents and other intellectual property rights and maintain adequate legal protection for our products in the United States and other international jurisdictions. We rely on a combination of patent, service mark, trademark and trade secret laws, as well as confidentiality procedures and contractual restrictions, to establish and protect our proprietary rights, all of which provide only limited protection.

We cannot be assured that any patents will be issued with respect to our currently pending patent applications or that any trademarks will be registered with respect to our currently pending applications in a manner that gives us adequate defensive protection or competitive advantages, if at all, or that any patents issued to us or any trademarks registered by us will not be challenged, invalidated or circumvented. We have filed for patents and trademarks in the United States and in certain international jurisdictions, but such protections may not be available in all countries in which we operate or in which we seek to enforce our intellectual property rights, or may be difficult to enforce in practice. Our currently-issued patents and trademarks and any patents and trademarks that may be issued or registered, as applicable, in the future with respect to pending or future applications may not provide sufficiently broad protection or may not prove to be enforceable in actions against alleged infringers. We cannot be certain that the steps we have taken will prevent unauthorized use of our technology or the reverse engineering of our technology. Moreover, others may independently develop technologies that are competitive to us or infringe our intellectual property.

Protecting against the unauthorized use of our intellectual property, products and other proprietary rights is expensive and difficult, particularly internationally. We believe that our patents are foundational in the area of lidar products and intends to enforce the intellectual property portfolio we have built over the years. Unauthorized parties may attempt to copy or reverse engineer our lidar technology or certain aspects of our solutions that we consider proprietary. Litigation may be necessary in the future to enforce or defend our intellectual property rights, to prevent unauthorized parties from copying or reverse engineering our solutions, to determine the validity and scope of the proprietary rights of others or to block the importation of infringing products into the United States.

Any such litigation, whether initiated by us or a third party, could result in substantial costs and diversion of management resources, either of which could adversely affect our business, operating results and financial condition. Even if we obtain

favorable outcomes in litigation, we may not be able to obtain adequate remedies, especially in the context of unauthorized parties copying or reverse engineering our solutions.

Further, many of our current and potential competitors have the ability to dedicate substantially greater resources to defending intellectual property infringement claims and to enforcing their intellectual property rights than we have. Attempts to enforce our rights against third parties could also provoke these third parties to assert their own intellectual property or other rights against us or result in a holding that invalidates or narrows the scope of our rights, in whole or in part. Effective patent, trademark, service mark, copyright and trade secret protection may not be available in every country in which our products are available and competitors based in other countries may sell infringing products in one or more markets. Failure to adequately protect our intellectual property rights could result in our competitors offering similar products, potentially resulting in the loss of some of our competitive advantage and a decrease in our revenue, which would adversely affect our business, operating results, financial condition and prospects.

Third-party claims that we are infringing intellectual property, whether successful or not, could subject us to costly and time-consuming litigation or expensive licenses, and our business could be adversely affected.

Although we hold key patents related to our products, a number of companies, both within and outside of the lidar industry, hold other patents covering aspects of lidar products. In addition to these patents, participants in this industry typically also protect their technology, especially embedded software, through copyrights and trade secrets. As a result, there is frequent litigation based on allegations of infringement, misappropriation or other violations of intellectual property rights. We have received, and in the future may receive, inquiries from other intellectual property holders and may become subject to claims that we infringe their intellectual property rights, particularly as we expand our presence in the market, expand to new use cases and face increasing competition. In addition, parties may claim that the names and branding of our products infringe their trademark rights in certain countries or territories. If such a claim were to prevail, we may have to change the names and branding of our products in the affected territories and we could incur other costs.

We currently have a number of agreements in effect pursuant to which we have agreed to defend, indemnify and hold harmless our customers, suppliers, and channel partners and other partners from damages and costs which may arise from the infringement by our products of third-party patents or other intellectual property rights. The scope of these indemnity obligations varies, but may, in some instances, include indemnification for damages and expenses, including attorneys' fees. Our insurance may not cover all intellectual property infringement claims. A claim that our products infringe a third party's intellectual property rights, even if untrue, could adversely affect our relationships with our customers, may deter future customers from purchasing our products and could expose us to costly litigation and settlement expenses. Even if we are not a party to any litigation between a customer and a third party relating to infringement by our products, an adverse outcome in any such litigation could make it more difficult for us to defend our products against intellectual property infringement claims in any subsequent litigation in which we are a named party. Any of these results could adversely affect our brand and operating results.

Our defense of intellectual property rights claims brought against us or our customers, suppliers and channel partners, with or without merit, could be time-consuming, expensive to litigate or settle, divert management resources and attention and force us to acquire intellectual property rights and licenses, which may involve substantial royalty or other payments and may not be available on acceptable terms or at all. Further, a party making such a claim, if successful, could secure a judgment that requires us to pay substantial damages or obtain an injunction. An adverse determination also could invalidate our intellectual property rights and adversely affect our ability to offer our products to our customers and may require that we procure or develop substitute products that do not infringe, which could require significant effort and expense. Any of these events could adversely affect our business, operating results, financial condition and prospects.

Our intellectual property applications for registration may not issue or be registered, which may have a material adverse effect on our ability to prevent others from commercially exploiting products similar to ours.

We cannot be certain that we are the first inventor of the subject matter to which we have filed a particular patent application, or if we are the first party to file such a patent application. If another party has filed a patent application to the same subject matter as we have, we may not be entitled to the protection sought by the patent application. We also cannot be certain whether the claims included in a patent application will ultimately be allowed in the applicable issued patent. Further, the scope of protection of issued patent claims is often difficult to determine. As a result, we cannot be certain that the patent applications that we file will issue, or that our issued patents will afford protection against competitors with similar technology. In addition, our competitors may design around our issued patents, which may adversely affect our business, prospects, financial condition and operating results.

In addition to patented technology, we rely on our unpatented proprietary technology, trade secrets, processes and know-how.

We rely on proprietary information (such as trade secrets, know-how and confidential information) to protect intellectual property that may not be patentable or subject to copyright, trademark, trade dress or service mark protection, or that we believe is best protected by means that do not require public disclosure. We generally seek to protect this proprietary information by entering into confidentiality agreements, or consulting services or employment agreements that contain non-disclosure and non-use provisions with our employees, consultants, contractors and third parties. However, we may fail to enter into the necessary agreements, and even if entered into, these agreements may be breached or may otherwise fail to prevent disclosure, third-party infringement or misappropriation of our proprietary information, may be limited as to their term and may not provide an adequate remedy in the event of unauthorized disclosure or use of proprietary information. We have limited control over the protection of trade secrets used by our current or future manufacturing partners and suppliers and could lose future trade secret protection if any unauthorized disclosure of such information occurs. In addition, our proprietary information may otherwise become known or be independently developed by our competitors or other third parties. To the extent that our employees, consultants, contractors, advisors and other third parties use intellectual property owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain protection for our proprietary information could adversely affect our competitive business position. Furthermore, laws regarding trade secret rights in certain markets where we operate may afford little or no protection to our trade secrets.

We also rely on physical and electronic security measures to protect our proprietary information, but we cannot provide assurance that these security measures will not be breached or provide adequate protection for our property. There is a risk that third parties may obtain and improperly utilize our proprietary information to our competitive disadvantage. We may not be able to detect or prevent the unauthorized use of such information or take appropriate and timely steps to enforce our intellectual property rights.

We may be subject to damages resulting from claims that we or our employees have wrongfully used or disclosed alleged trade secrets of our employees' former employers.

We may be subject to claims that we or our employees have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of an employee's former employers. Litigation may be necessary to defend against these claims. If we fail in defending such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. A loss of key personnel or their work product could hamper or prevent our ability to commercialize our products, which could severely harm our business. Even if we are successful in defending against these claims, litigation could result in substantial costs and demand on management resources.

Risks Related to Being a Public Company

We continue to incur increased costs as a result of operating as a public company, and our management continues to devote substantial time to new public company compliance initiatives.

As a public company, we continue to incur significant legal, accounting and other expenses that we did not incur as a private company. We are subject to the reporting requirements of the Exchange Act, the Sarbanes-Oxley Act and the Dodd-Frank Act, as well as rules adopted, and to be adopted, by the SEC and Nasdaq. Our management and other personnel continue to devote a substantial amount of time to these compliance initiatives. Moreover, we expect these rules and regulations to substantially increase our legal and financial compliance costs and to make some activities more time-consuming and costly. The increased costs will increase our net loss. For example, our director and officer liability insurance remained expensive and market trends for such insurance are increasing, and we may be forced to accept reduced policy limits or incur substantially higher costs to maintain the same or similar coverage. We cannot predict or estimate the amount or timing of additional costs we may incur to respond to these requirements. The impact of these requirements could also make it more difficult for us to attract and retain qualified persons to serve on our Board, our Board committees or as executive officers.

Our management team has limited experience managing a public company.

Most of the members of our management team have limited experience managing a publicly traded company or have been recently hired. Our management team may not successfully or efficiently manage their new roles and responsibilities. Our transition to being a public company subjects us to significant regulatory oversight and reporting obligations under the federal securities laws and the continuous scrutiny of securities analysts and investors. These new obligations and constituents will require significant attention from our senior management and could divert their attention away from the day-to-day management of our business, which could adversely affect our business, financial condition, and operating results.

Risks Related to Ownership of Our Shares

Our Second Amended and Restated Certificate of Incorporation provides, subject to limited exceptions, that the Court of Chancery of the State of Delaware (the “Chancery Court”) will be the sole and exclusive forum for certain stockholder litigation matters, which could limit our stockholders’ ability to obtain a chosen judicial forum for disputes with us or our directors, officers, employees or stockholders.

Our Second Amended and Restated Certificate of Incorporation requires, to the fullest extent permitted by law, that derivative actions brought in our name, actions against directors, officers and employees for breach of fiduciary duty and other similar actions may be brought in the Chancery Court or, if that court lacks subject matter jurisdiction, another federal or state court situated in the State of Delaware. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock shall be deemed to have notice of and consented to the forum provisions in our Second Amended and Restated Certificate of Incorporation. In addition, our Second Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws provide that the federal district courts of the United States shall be the exclusive forum for the resolution of any complaint asserting a cause of action under the Securities Act and the Exchange Act.

In March 2020, the Delaware Supreme Court issued a decision in *Salzburg et al. v. Sciabacucchi* which found that an exclusive forum provision providing for claims under the Securities Act to be brought in federal court is facially valid under Delaware law. We intend to enforce this forum provision, but we do not know whether courts in other jurisdictions will agree with this decision or enforce it.

This choice of forum provision may limit a stockholder’s ability to bring a claim in a judicial forum of its choosing for disputes with us or any of our directors, officers, other employees or stockholders, which may discourage lawsuits with respect to such claims. Alternatively, if a court were to find the choice of forum provision contained in our Second Amended and Restated Certificate of Incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could harm our business, operating results and financial condition.

Our charter documents and Delaware law could prevent a takeover that stockholders consider favorable and could also reduce the market price of our stock.

Our Second Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws contain provisions that could delay or prevent a change in control. These provisions could also make it more difficult for stockholders to elect directors and take other corporate actions. These provisions include:

- providing for a classified board of directors with staggered, three-year terms;
- authorizing our Board to issue Preferred Stock with voting or other rights or preferences that could discourage a takeover attempt or delay changes in control;
- prohibiting cumulative voting in the election of directors;
- providing that vacancies on our Board may be filled only by a majority of directors then in office, even though less than a quorum;
- prohibiting the adoption, amendment or repeal of the Amended and Restated Bylaws or the repeal of the provisions of our Second Amended and Restated Certificate of Incorporation regarding the election and removal of directors without the required approval of at least two-thirds of the shares entitled to vote at an election of directors;
- prohibiting stockholder action by written consent;
- limiting the persons who may call special meetings of stockholders; and
- requiring advance notification of stockholder nominations and proposals.

These provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our Board, which is responsible for appointing the members of our management. In addition, we are governed by the provisions of Section 203 of the Delaware General Corporation Law (the “DGCL”). These provisions may prohibit large stockholders, in particular those owning 15% or more of our outstanding voting stock, from merging or combining with us for a certain period of time without the consent of our Board.

These and other provisions in our Second Amended and Restated Certificate of Incorporation and our Amended and Restated Bylaws and under Delaware law could discourage potential takeover attempts, reduce the price investors might be willing to pay in the future for shares of Class A common stock and result in the market price of Class A common stock being lower than it would be without these provisions.

Claims for indemnification by our directors and officers may reduce our available funds to satisfy successful third-party claims against us and may reduce the amount of money available to us.

Our Second Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws provide that we will indemnify our directors and officers, in each case to the fullest extent permitted by Delaware law.

In addition, as permitted by Section 145 of the DGCL, the Amended and Restated Bylaws and the indemnification agreements that we have entered into with our directors and officers provide that:

- we will indemnify our directors and officers for serving us in those capacities or for serving other business enterprises at our request, to the fullest extent permitted by Delaware law. Delaware law provides that a corporation may indemnify such person if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the registrant and, with respect to any criminal proceeding, had no reasonable cause to believe such person's conduct was unlawful;
- we may, in our discretion, indemnify employees and agents in those circumstances where indemnification is permitted by applicable law;
- we will be required to advance expenses, as incurred, to our directors and officers in connection with defending a proceeding, except that such directors or officers shall undertake to repay such advances if we are ultimately determined that such person is not entitled to indemnification;
- we will not be obligated pursuant to our Amended and Restated Bylaws to indemnify a person with respect to proceedings initiated by that person against us or our other indemnitees, except with respect to proceedings authorized by our Board or brought to enforce a right to indemnification;
- the rights conferred in the Amended and Restated Bylaws are not exclusive, and we are authorized to enter into indemnification agreements with our directors, officers, employees and agents and to obtain insurance to indemnify such persons; and
- we may not retroactively amend our Amended and Restated Bylaw provisions to reduce our indemnification obligations to directors, officers, employees and agents.

The dual class structure of our Common Stock has the effect of concentrating voting control with Austin Russell, our Founder, President and Chief Executive Officer. This will limit or preclude your ability to influence corporate matters, including the outcome of important transactions, including a change in control.

Shares of our Class B common stock, \$0.0001 par value per share ("Class B common stock"), have 10 votes per share, while shares of Class A common stock have one vote per share. Austin Russell, our Founder, President and Chief Executive Officer, holds all of the issued and outstanding shares of Class B common stock. Accordingly, Mr. Russell held approximately 79.5% of the voting power of our outstanding capital stock as of December 31, 2021 and will be able to control matters submitted to our stockholders for approval, including the election of directors, amendments of our organizational documents and any merger, consolidation, sale of all or substantially all of our assets or other major corporate transactions. Mr. Russell may have interests that differ from yours and may vote in a way with which you disagree and which may be adverse to your interests. This concentrated control may have the effect of delaying, preventing or deterring a change in control of us, could deprive our stockholders of an opportunity to receive a premium for their capital stock as part of a sale of us, and might ultimately affect the market price of shares of Class A common stock.

In connection with the execution of the Merger Agreement, Austin Russell entered into a voting agreement, dated as of August 24, 2020, with Gores (the "Voting Agreement"). Under the Voting Agreement, Mr. Russell agreed that, following the consummation of the Business Combination, solely if he is involuntarily terminated from his position as the Chief Executive Officer of the Company and as a result of his conviction of, or pleading guilty or nolo contendere to, a felony that has a material negative impact on the Company, at any meeting of the stockholders of the Company at which directors are to be elected following the consummation of the Business Combination, Mr. Russell, or any of his permitted successors or assigns, will not vote more than 10% of the Class B common stock he or they beneficially own in any director election.

We are a controlled company within the meaning of The Nasdaq Stock Market listing standards, and, as a result, qualify for exemptions from certain corporate governance requirements that provide protection to stockholders of other companies. To the extent we utilize any of these exemptions, you will not have the same protections afforded to stockholders of companies that are subject to such requirements. We do not currently intend to rely on the exemptions afforded to controlled companies at this time.

So long as more than 50% of the voting power for the election of our directors is held by an individual, a group or another company, we will qualify as a "controlled company" under The Nasdaq Stock Market listing requirements. Austin Russell controls a majority of the voting power of our outstanding capital stock. As a result, we are a "controlled company"

under the Nasdaq Stock Market rules. As a controlled company, we are exempt from certain Nasdaq corporate governance requirements, including those that would otherwise require our Board to have a majority of independent directors and require that we establish a compensation committee comprised entirely of independent directors, or otherwise ensure that the compensation of our executive officers and nominees for directors are determined or recommended to our Board by the independent members of our Board. While we do not currently intend to rely on any of these exemptions, we will be entitled to do so for as long as we are considered a “controlled company,” and to the extent we rely on one or more of these exemptions, holders of our capital stock will not have the same protections afforded to stockholders of companies that are subject to all of Nasdaq’s corporate governance requirements.

Our dual class structure may depress the trading price of the Class A common stock.

We cannot predict whether our dual class structure will result in a lower or more volatile market price of the Class A common stock or in adverse publicity or other adverse consequences. For example, certain index providers have announced restrictions on including companies with multiple-class share structures in certain of their indexes. S&P Dow Jones and FTSE Russell have announced changes to their eligibility criteria for inclusion of shares of public companies on certain indices, including the S&P 500, pursuant to which companies with multiple classes of shares of common stock are excluded. In addition, several stockholder advisory firms have announced their opposition to the use of multiple class structures. As a result, the dual class structure of our Common Stock may cause stockholder advisory firms to publish negative commentary about our corporate governance practices or otherwise seek to cause us to change our capital structure. Any such exclusion from indices or any actions or publications by stockholder advisory firms critical of our corporate governance practices or capital structure could adversely affect the value and trading market of the Class A common stock.

Sales of shares of Class A common stock in the public market or the perception that these sales or conversions might occur may depress the market price of Class A common stock and could impair our ability to raise capital through the sale of additional equity securities. It is difficult to predict the effect that such sales or conversions may have on the prevailing market price of the Class A common stock.

We do not intend to pay dividends for the foreseeable future.

We have never declared or paid any cash dividends on our capital stock and do not intend to pay any cash dividends in the foreseeable future. We expect to retain future earnings, if any, to fund the development and growth of our business. Any future determination to pay dividends on our capital stock will be at the discretion of our Board. Accordingly, investors must rely on sales of our Class A common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investments.

The market price and trading volume of Class A common stock may be volatile and could decline significantly.

The stock markets, including Nasdaq on which we list our shares of Class A common stock, have from time to time experienced significant price and volume fluctuations. Even if an active, liquid and orderly trading market develops and is sustained for the Class A common stock, the market price of Class A common stock may be volatile and could decline significantly. In addition, the trading volume in Class A common stock may fluctuate and cause significant price variations to occur. If the market price of Class A common stock declines significantly, you may be unable to resell your shares at an attractive price (or at all). We cannot assure you that the market price of Class A common stock will not fluctuate widely or decline significantly in the future in response to a number of factors, including, among others, the following:

- the realization of any of the risk factors presented in this Annual Report;
- actual or anticipated differences in our estimates, or in the estimates of analysts, for our revenues, Adjusted EBITDA, results of operations, level of indebtedness, liquidity or financial condition;
- additions and departures of key personnel;
- failure to comply with the requirements of Nasdaq, Sarbanes-Oxley Act or other laws or regulations;
- future issuances, sales, resales or repurchases or anticipated issuances, sales, resales or repurchases, of our securities;
- publication of research reports about us;
- the performance and market valuations of other similar companies;
- commencement of, or involvement in, litigation involving us;
- broad disruptions in the financial markets, including sudden disruptions in the credit markets;
- speculation in the press or investment community;

- actual, potential or perceived control, accounting or reporting problems;
- changes in accounting principles, policies and guidelines; and
- other events or factors, including those resulting from infectious diseases, health epidemics and pandemics (including the ongoing COVID-19 public health emergency), natural disasters, war, acts of terrorism or responses to these events.

In the past, securities class-action litigation has often been instituted against companies following periods of volatility in the market price of their shares. This type of litigation could result in substantial costs and divert our management's attention and resources, which could have a material adverse effect on us.

If securities or industry analysts do not publish or cease publishing research or reports about us, our business, or our market, or if they change their recommendations regarding our Class A common stock adversely, then the price and trading volume of our Class A common stock could decline.

The trading market for our Class A common stock will be influenced by the research and reports that industry or securities analysts may publish about us, our business, our market, or our competitors. Securities and industry analysts do not currently, and may never, publish research on us. If no securities or industry analysts commence coverage of us, our stock price and trading volume would likely be negatively impacted. If any of the analysts who may cover us change their recommendation regarding our stock adversely, or provide more favorable relative recommendations about our competitors, the price of our Class A common stock would likely decline. If any analyst who may cover us were to cease coverage of us or fail to regularly publish reports on us, we could lose visibility in the financial markets, which could cause our stock price or trading volume to decline.

Future issuances of debt securities and equity securities, including from the exercise of warrants for our Class A common stock, may adversely affect us, including the market price of the Class A common stock and may be dilutive to existing stockholders.

In the future, we may incur debt or issue equity ranking senior to the Class A common stock. Those securities will generally have priority upon liquidation. Such securities also may be governed by an indenture or other instrument containing covenants restricting its operating flexibility. Additionally, any convertible or exchangeable securities that we issue in the future may have rights, preferences and privileges more favorable than those of the Class A common stock. Because our decision to issue debt or equity in the future will depend on market conditions and other factors beyond our control, we cannot predict or estimate the amount, timing, nature or success of our future capital raising efforts. As a result, future capital raising efforts may reduce the market price of Class A common stock and be dilutive to existing stockholders.

In addition, as of December 31, 2021, we had warrants to purchase an aggregate of 7.2 million shares of our Class A common stock outstanding. To the extent remaining warrants are exercised, additional shares of Class A common stock will be issued, which will result in dilution to the then-existing holders of Class A common stock and increase the number of shares eligible for resale in the public market. Sales of substantial numbers of such shares in the public market or the fact that such warrants may be exercised could adversely affect the market price of our Class A common stock.

Our failure to meet the continued listing requirements of Nasdaq could result in a delisting of our securities.

If we fail to satisfy the continued listing requirements of Nasdaq such as the corporate governance requirements or the minimum closing bid price requirement, Nasdaq may take steps to delist our securities. Such a delisting would likely have a negative effect on the price of the securities and would impair your ability to sell or purchase the securities when you wish to do so. In the event of a delisting, we can provide no assurance that any action taken by us to restore compliance with listing requirements would allow our securities to become listed again, stabilize the market price or improve the liquidity of our securities, prevent our securities from dropping below the Nasdaq minimum bid price requirement or prevent future non-compliance with Nasdaq's listing requirements. Additionally, if our securities are not listed on, or become delisted from, Nasdaq for any reason, and are quoted on the OTC Bulletin Board, an inter-dealer automated quotation system for equity securities that is not a national securities exchange, the liquidity and price of our securities may be more limited than if we were quoted or listed on Nasdaq or another national securities exchange. You may be unable to sell your securities unless a market can be established or sustained.

Risks Related to Our Indebtedness

Our indebtedness and liabilities could limit the cash flow available for our operations, expose us to risks that could adversely affect our business, financial condition and results of operations and impair our ability to satisfy our obligations under the notes.

As of December 31, 2021, our total consolidated indebtedness was \$609.0 million, representing the 2026 Convertible Senior Notes, net of unamortized debt discount and issuance costs, finance leases and certain secured equipment loans. We may

also incur additional indebtedness to meet future financing needs. Our indebtedness could have significant negative consequences for our security holders and our business, results of operations and financial condition by, among other things:

- increasing our vulnerability to adverse economic and industry conditions;
- limiting our ability to obtain additional financing;
- requiring the dedication of a substantial portion of our cash flow from operations to service our indebtedness, which will reduce the amount of cash available for other purposes;
- limiting our flexibility to plan for, or react to, changes in our business;
- diluting the interests of our existing stockholders as a result of issuing shares of our Class A common stock upon conversion of the notes; and
- placing us at a possible competitive disadvantage with competitors that are less leveraged than us or have better access to capital.

Our business may not generate sufficient funds, and we may otherwise be unable to maintain sufficient cash reserves, to pay amounts due under our indebtedness, including the notes, and our cash needs may increase in the future. In addition, any future indebtedness that we may incur may contain, financial and other restrictive covenants that limit our ability to operate our business, raise capital or make payments under our other indebtedness. If we fail to comply with these covenants or to make payments under our indebtedness when due, then we would be in default under that indebtedness, which could, in turn, result in that and our other indebtedness becoming immediately payable in full.

We may be unable to raise the funds necessary to repurchase the notes for cash following a fundamental change, or to pay any cash amounts due upon conversion, and our other indebtedness may limit our ability to repurchase the notes or pay cash upon their conversion.

Noteholders may, subject to a limited exception described in this offering memorandum, require us to repurchase their notes following a fundamental change at a cash repurchase price generally equal to the principal amount of the notes to be repurchased, plus accrued and unpaid interest, if any. See Exhibit 4.1 Indenture, dated as of December 17, 2021, between Luminar Technologies, Inc. and U.S. Bank National Association, as trustee in the Form 8-K filed with the Securities Exchange Commission on December 17, 2021. In addition, upon conversion, we will satisfy part or all of our conversion obligation in cash unless we elect to settle conversions solely in shares of our Class A common stock. We may not have enough available cash or be able to obtain financing at the time we are required to repurchase the notes or pay any cash amounts due upon conversion. In addition, applicable law, regulatory authorities and the agreements governing any future indebtedness may restrict our ability to repurchase the notes or pay any cash amounts due upon conversion. Our failure to repurchase notes or to pay any cash amounts due upon conversion when required will constitute a default under the indenture. A default under the indenture or the fundamental change itself could also lead to a default under agreements governing our other indebtedness, which may result in that other indebtedness becoming immediately payable in full. We may not have sufficient funds to satisfy all amounts due under the other indebtedness and the notes.

The accounting method for the notes could adversely affect our reported financial condition and results.

In August 2020, the Financial Accounting Standards Board published an Accounting Standards Update, which we refer to as ASU 2020-06, to reduce the number of accounting models for convertible debt instruments. We early adopted ASU 2020-06, effective January 1, 2021. When effective, we expect the elimination of the separate accounting described above to reduce the interest expense that we expect to recognize for the notes for accounting purposes. Under ASU 2020-06, the embedded conversion features are no longer separated from the host contract for convertible instruments with conversion features that are not required to be accounted for as derivatives under Topic 815, or that do not result in substantial premiums accounted for as paid-in capital. Consequently, the notes are accounted for as a single liability measured at amortized cost. Further, ASU 2020-06 eliminates the use of the treasury stock method for convertible instruments that can be settled in whole or in part with equity, and instead requires application of the “if-converted” method. Under that method, diluted earnings per share would generally be calculated assuming that all the notes were converted solely into shares of Class A common stock at the beginning of the reporting period, unless the result would be anti-dilutive. The application of the if-converted method may reduce our reported diluted earnings per share.

Furthermore, if any of the conditions to the convertibility of the notes is satisfied, then we may be required under applicable accounting standards to reclassify the liability carrying value of the notes as a current, rather than a long-term, liability. This reclassification could be required even if no noteholders convert their notes and could materially reduce our reported working capital.

The capped call transactions may affect the value of the notes and our Class A common stock.

In connection with the Senior Convertible Notes, we entered into privately negotiated capped call transactions with the option counterparties. The capped call transactions are expected generally to reduce the potential dilution to our Class A common stock upon any conversion of the notes and/or offset any potential cash payments we are required to make in excess of the principal amount of converted notes, as the case may be, with such reduction and/or offset subject to a cap.

We have been advised that, in connection with establishing their initial hedges of the capped call transactions, the option counterparties or their respective affiliates entered into various derivative transactions with respect to our Class A common stock and/or purchased shares of our Class A common stock.

In addition, the option counterparties and/or their respective affiliates may modify their hedge positions by entering into or unwinding various derivatives with respect to our Class A common stock and/or purchasing or selling our Class A common stock or other securities of ours in secondary market transactions following the pricing of the notes and from time to time prior to the maturity of the notes (and are likely to do so following any conversion of the notes, any repurchase of the notes by us on any fundamental change repurchase date, any redemption date or any other date on which the notes are retired by us, in each case if we exercise the relevant election to terminate the corresponding portion of the capped call transactions). This activity could also cause or avoid an increase or a decrease in the market price of our Class A common stock.

We are subject to counterparty risk with respect to the capped call transactions and, if effected, the ASR program, and the capped call transactions and ASR program may not operate as planned.

The option counterparties are, and the ASR counterparty will be, financial institutions, and we will be subject to the risk that they might default under the capped call transactions or, if effected, the ASR program. Our exposure to the credit risk of the option counterparties or ASR counterparty will not be secured by any collateral. Global economic conditions have from time to time resulted in the actual or perceived failure or financial difficulties of many financial institutions, including the bankruptcy filing by Lehman Brothers Holdings Inc. and its various affiliates. If an option counterparty or ASR counterparty becomes subject to insolvency proceedings, we will become an unsecured creditor in those proceedings with a claim equal to our exposure at that time under our transactions with that option counterparty or the ASR counterparty. Our exposure will depend on many factors, but, generally, the increase in our exposure will be correlated with increases in the market price or the volatility of our Class A common stock. In addition, upon a default by an option counterparty or the ASR counterparty, we may suffer more dilution than we currently anticipate with respect to our Class A common stock. We can provide no assurances as to the financial stability or viability of any option counterparty or ASR counterparty.

In addition, the capped call transactions are complex, and they may not operate as planned. For example, the terms of the capped call transactions may be subject to adjustment, modification or, in some cases, renegotiation if certain corporate or other transactions occur. Accordingly, these transactions may not operate as we intend if we are required to adjust their terms as a result of transactions in the future or upon unanticipated developments that may adversely affect the functioning of the capped call transactions.

Our repurchases of shares of our Class A common stock, including pursuant to an ASR program, may affect the value of the notes and our Class A common stock.

In addition to the payment of the premium for the capped call transactions, we intend to use up to \$312.5 million of the net proceeds of the offering of our Senior Convertible Notes to repurchase shares of our Class A common stock pursuant to our previously announced share repurchase program. Such repurchases are expected to be effected by (i) repurchases from purchasers of the notes in privately negotiated transactions through one of the initial purchasers or its affiliate, as our agent, concurrently with or following the pricing of the notes offering; and (ii) additional repurchases in the open market. Such repurchases may also include the use of an ASR program with the ASR counterparty, which may be one of the initial purchasers and/or an affiliate thereof, following the closing of this offering.

We expect that the ASR counterparty will purchase shares of our Class A common stock in secondary market transactions, and may execute other transactions in our Class A common stock, or in derivative transactions relating to our Class A common stock, beginning on the first trading day during the term of the ASR program. These activities and our other repurchases of shares of our Class A common stock may cause an increase or avoid a decrease in the market price of our Class A common stock or the notes, and, to the extent the activity occurs during any observation period related to a conversion of notes, it could affect the amount and value of the consideration that holders will receive upon conversion of the notes.

General Risks

Unanticipated changes in effective tax rates or adverse outcomes resulting from examination of our income or other tax returns could adversely affect our financial condition and results of operations.

We will be subject to income taxes in the United States and other jurisdictions, and our tax liabilities will be subject to the allocation of expenses in differing jurisdictions. Our future effective tax rates could be subject to volatility or adversely affected by a number of factors, including:

- changes in the valuation of our deferred tax assets and liabilities;
- expected timing and amount of the release of any tax valuation allowances;
- tax effects of stock-based compensation;
- costs related to intercompany restructurings;
- changes in tax laws, regulations or interpretations thereof; or
- lower than anticipated future earnings in jurisdictions where we have lower statutory tax rates and higher than anticipated future earnings in jurisdictions where we have higher statutory tax rates.

In addition, we may be subject to audits of our income, sales and other transaction taxes by taxing authorities. Outcomes from these audits could have an adverse effect on our financial condition and results of operations.

Changes in laws, regulations or rules, or a failure to comply with any laws, regulations or rules, may adversely affect our business, investments and results of operations.

We are subject to laws, regulations and rules enacted by national, regional and local governments and Nasdaq. In particular, we are required to comply with certain SEC, Nasdaq and other legal or regulatory requirements. Compliance with, and monitoring of, applicable laws, regulations and rules may be difficult, time consuming and costly. Those laws, regulations or rules and their interpretation and application may also change from time to time and those changes could have a material adverse effect on our business, investments and results of operations. In addition, a failure to comply with applicable laws, regulations or rules, as interpreted and applied, could have a material adverse effect on our business and results of operations.

We are subject to U.S. and foreign anti-corruption and anti-money laundering laws and regulations. We can face criminal liability and other serious consequences for violations, which can harm our business.

We are subject to the U.S. Foreign Corrupt Practices Act of 1977, as amended, the U.S. domestic bribery statute contained in 18 U.S.C. § 201, the U.S. Travel Act, the USA PATRIOT Act and possibly other anti-bribery and anti-money laundering laws in countries in which we conduct activities. Anti-corruption laws are interpreted broadly and prohibit companies and their employees, agents, contractors and other collaborators from authorizing, promising, offering or providing, directly or indirectly, improper payments or anything else of value to recipients in the public or private sector. We can be held liable for the corrupt or other illegal activities of our employees, agents, contractors and other collaborators, even if we do not explicitly authorize or have actual knowledge of such activities. Any violations of the laws and regulations described above may result in substantial civil and criminal fines and penalties, imprisonment, the loss of export or import privileges, debarment, tax reassessments, breach of contract and fraud litigation, reputational harm and other consequences.

Changes in tax laws or exposure to additional income tax liabilities could affect our future profitability.

Factors that could materially affect our future effective tax rates include but are not limited to:

- changes in tax laws or the regulatory environment;
- changes in accounting and tax standards or practices;
- changes in the composition of operating income by tax jurisdiction; and
- our operating results before taxes.

Because we do not have a long history of operating at our present scale and we have significant expansion plans, our effective tax rate may fluctuate in the future. Future effective tax rates could be affected by operating losses in jurisdictions where no tax benefit can be recorded under GAAP, changes in the composition of earnings in countries with differing tax rates, changes in deferred tax assets and liabilities, or changes in tax laws.

On December 22, 2017, the Tax Cuts and Jobs Act of 2017 (the “Tax Act”) was signed into law making significant changes to the U.S. Tax Code. In particular, sweeping changes were made to the U.S. taxation of foreign operations. Changes

include, but are not limited to, a reduction to the corporate income tax rate, limiting interest deductions, adopting elements of a territorial tax system, assessing a repatriation tax or “toll-charge” on undistributed earnings and profits of U.S.-owned foreign corporations, and introducing certain anti-base erosion provisions, including a new minimum tax on global intangible low-taxed income (“GILTI”) and base erosion and anti-abuse tax (“BEAT”). The new legislation had no effect on our provision for income taxes for 2020 and 2019, because we generated net tax losses and offset our deferred tax assets on the balance sheet with a full valuation allowance due to our current loss position and forecasted losses for the near future. The overall impact of this tax reform is uncertain, and our business and financial condition, including with respect to our non-U.S. operations, could be adversely affected.

In addition to the impact of the Tax Act on our federal taxes, the Tax Act may impact our taxation in other jurisdictions, including with respect to state income taxes. State legislatures have not had sufficient time to respond to the Tax Act. Accordingly, there is uncertainty as to how the laws will apply in the various state jurisdictions. Additionally, other foreign governing bodies may enact changes to their tax laws in reaction to the Tax Act that could result in changes to our global tax position and materially adversely affect our business, results of operations and financial condition. Additionally, the Internal Revenue Service, (the “IRS”) and several foreign tax authorities have increasingly focused attention on intercompany transfer pricing with respect to sales of products and services and the use of intangibles. Tax authorities could disagree with our future intercompany charges, cross-jurisdictional transfer pricing or other matters and assess additional taxes. If we do not prevail in any such disagreements, our profitability may be affected.

Our business is subject to the risks of earthquakes, fire, floods and other natural catastrophic events, global pandemics, and interruptions by man-made problems, such as terrorism. Material disruptions of our business or information systems resulting from these events could adversely affect our operating results.

A significant natural disaster, such as an earthquake, fire, flood, hurricane or significant power outage or other similar events, such as infectious disease outbreaks or pandemic events, could have an adverse effect on our business and operating results. One of our offices is located in the San Francisco Bay Area, a region known for seismic activity. In addition, natural disasters, acts of terrorism or war could cause disruptions in our remaining manufacturing operations, our or our customers’ or channel partners’ businesses, our suppliers’ or the economy as a whole. We also rely on information technology systems to communicate among our workforce and with third parties. Any disruption to our communications, whether caused by a natural disaster or by man made problems, such as power disruptions, could adversely affect our business. We do not have a formal disaster recovery plan or policy in place and do not currently require that our suppliers’ partners have such plans or policies in place. To the extent that any such disruptions result in delays or cancellations of orders or impede our suppliers’ ability to timely deliver product components, or the deployment of our products, our business, operating results and financial condition would be adversely affected.

ITEM 1B. UNRESOLVED STAFF COMMENTS.

None.

ITEM 2. PROPERTIES.

Our corporate headquarters is located in Orlando, Florida, where we lease a complex of three buildings with 120,716 square feet pursuant to leases that expire between October 2022 and September 2024. The Orlando facilities contain manufacturing, engineering, research and development, and administrative functions. We also lease 36,419 square feet of office and engineering space in two facilities in Palo Alto, California, 12,900 square feet of office and engineering space in a facility in Colorado Springs, Colorado, and 5,567 square feet of office and engineering space in a facility in Boston, Massachusetts. The Company believes its existing facilities are adequate for its current requirements.

ITEM 3. LEGAL PROCEEDINGS.

From time to time, we may become involved in actions, claims, suits, and other legal proceedings arising in the ordinary course of our business, including assertions by third parties relating to intellectual property infringement, breaches of contract or warranties or employment-related matters. We are not currently a party to any actions, claims, suits or other legal proceedings the outcome of which, if determined adversely to us, would individually or in the aggregate have a material adverse effect on our business, financial condition, and results of operations.

ITEM 4. MINE SAFETY DISCLOSURES.

Not applicable.

PART II
ITEM 5. MARKET FOR THE REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES.

Market Information

Our shares of Class A common stock have traded on the Nasdaq Global Select Market under the symbol "LAZR," since December 3, 2020. Prior to that date, our common stock traded under the symbol "GMHI," since March 25, 2019.

Holders

As of February 18, 2022, there were 373 holders of record of our Class A common stock. The number of record holders is based upon the actual number of holders registered on our books at such date and does not include holders of shares in street name or persons, partnerships, associations, corporations or other entities identified in security position listings maintained by depository trust companies.

Dividend Policy

We have never declared or paid any cash dividends on our common stock. We currently intend to retain any future earnings and do not expect to pay any dividends in the foreseeable future. Any future determination to declare cash dividends will be made at the discretion of our board of directors, subject to applicable laws, and will depend on a number of factors, including our financial condition, results of operations, capital requirements, contractual restrictions, including under any future loan facilities, general business conditions and other factors that our board of directors may deem relevant.

Recent Sales of Unregistered Securities

In connection with our investment in units of Robotic Research OpCo, LLC ("Robotic Research"), on December 9, 2021, we sold 618,924 shares of Class A common stock to Robotic Research pursuant to a private placement exempt from registration under the Securities Act of 1933, as amended, in reliance on Section 4(a)(2) thereof.

On July 9, 2021, we entered into a Stock Purchase Agreement whereby we agreed to issue to stockholders of OptoGration, Inc. ("OptoGration") shares of our Class A common stock in consideration for the purchase by us of all outstanding shares of capital stock of OptoGration. Pursuant to the Stock Purchase Agreement, we agreed to issue 370,034 shares of Class A common stock in a private placement exempt from registration under the Securities Act of 1933, as amended, in reliance on Section 4(a)(2) thereof. Upon the closing of the consummation of the transactions contemplated by the Stock Purchase Agreement, the shares of Class A common stock were issued on August 3, 2021.

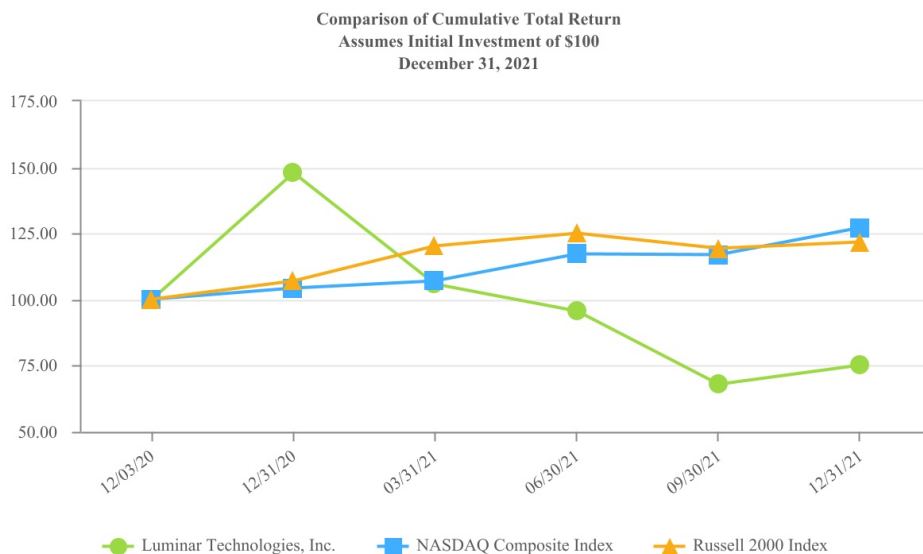
Purchases of Equity Securities by the Issuer and Affiliated Purchasers

In December 2021, our Board of Directors authorized a program for us to repurchase shares of \$12.5 million of the Company's Class A common stock. The Company's share repurchase program does not obligate the Company to acquire any specific number of shares. Under the program, shares may be repurchased in privately negotiated and/or open market transactions, including under plans complying with Rule 10b5-1 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Our stock repurchase program may be accelerated, suspended, delayed or discontinued at any time. As of December 31, 2021, approximately \$76.6 million remained available for stock repurchases pursuant to our stock repurchase program. The following table summarizes the stock repurchase activity for the three months ended November 30, 2021 and the approximate dollar value of shares that may yet be purchased pursuant to our stock repurchase program (in thousands, except share and per share amounts):

Period	(a) Total Number of Shares Purchased	(b) Average Price Paid per Share	(c) Total Number of Shares Purchased as Part of Publicly Announced Program	(d) Approximate Dollar Value of Shares that May Yet Be Purchased Under the Program
October 1, 2021 — October 31, 2021	—	\$ —	—	\$ —
November 1, 2021 — November 30, 2021	—	\$ —	—	\$ —
December 1, 2021 — December 31, 2021	15,263,761	\$ 15.45	15,263,761	\$ 76,629
Total	15,263,761	\$ 15.45	15,263,761	

Stock Performance Graph

The graph below compares the cumulative total return on our common stock with that of the NASDAQ Composite Index and the Russell 2000 Index. The period shown commences on December 3, 2020 and ends on December 31, 2021. The graph assumes \$100 was invested at the close of market on December 3, 2020 in the common stock of Luminar, the NASDAQ Composite Index and the Russell 2000 Index, and assumes the reinvestment of any dividends. The stock price performance on the following graph is not intended to forecast or be indicative of future stock price performance of our common stock.



This performance graph shall not be deemed “soliciting material” or to be “filed” with the SEC for purposes of Section 18 of the Exchange Act, or otherwise subject to the liabilities under that Section, and shall not be deemed to be incorporated by reference into any filing of Luminar Technologies, Inc. under the Securities Act of 1933, as amended, or the Securities Act of 1934 Exchange, as amended.

index	\$100 investment in stock or	December 3, 2020	December 31, 2020	March 31, 2021	June 30, 2021	September 30, 2021	December 31, 2021
Luminar Technologies, Inc.	\$	100.00	\$ 147.95	\$ 105.79	\$ 95.52	\$ 67.89	\$ 75.15
NASDAQ Composite Index		100.00	104.13	107.03	117.18	116.74	127.18
Russell 2000 Index		100.00	106.82	120.11	124.98	119.24	121.64

ITEM 6. RESERVED.

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, 2021 and 2020, 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 matters 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, 2020 as compared to the year ended December 31, 2019 is included in Item 7 of our Annual Report on Form 10-K for the fiscal year ended December 31, 2020, filed with the SEC on April 14, 2021.

Overview

Our vision is to make autonomous transportation safe and ubiquitous. As a global leader in lidar autonomous driving technology, we are enabling the world's first autonomous solutions for automotive series production in passenger cars and commercial trucks.

Founded in 2012 by President and Chief Executive Officer Austin Russell, we built a new type of lidar from the chip-level up, with technological breakthroughs across all core components. As a result, we have created what we believe is a lidar sensor that meets the demanding performance, safety, and cost requirements for Level 3 through Level 5 autonomous vehicles in production, bypassing the traditional limitations of legacy lidar technology, while also enabling Level 0 through Level 2 Advanced Driving Assistance Systems ("ADAS") with our Proactive Safety solution. Integrating this advanced hardware with our custom developed software stack enables a turn-key autonomous solution to accelerate widespread adoption across automakers at series production scale.

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" that 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 our software to interpret the data and inform autonomous and assisted driving decisions.

Business Combinations

Reverse Merger with Gores

On December 2, 2020 (the "Closing Date"), we merged with Gores Metropoulos, Inc. ("Gores"), at which time First Merger Sub, a newly formed subsidiary of Gores, merged with and into Luminar Technologies, Inc. (the "Company" or "Luminar"), with Luminar being the surviving corporation (the "First Merger"). Immediately following the consummation of the First Merger and as part of the same overall transaction as the First Merger, Luminar, merged with and into Dawn Merger Sub II, LLC ("Second Merger Sub"), a newly formed subsidiary of Gores, with Second Merger Sub continuing as the surviving entity (the "Second Merger" and, in combination with the First Merger and the other related transactions, the "Business Combination"). Luminar was deemed the accounting predecessor and the post-combination Company is the successor SEC registrant, which means that Luminar's financial statements for previous periods will be disclosed in our future periodic reports filed with the SEC, as appropriate. The Business Combination was accounted for as a reverse recapitalization. Under this method of accounting, Gores was treated as the acquired company for financial statement reporting purposes.

OptoGration Acquisition

On August 3, 2021, we completed our acquisition of OptoGration. The OptoGration acquisition helps us 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 our vertical integration strategy, which will secure supply of a key component of our sensor technology.

COVID-19 Impact

The coronavirus (COVID-19) pandemic has adversely affected our and some of our customers' business operations. The extent of the continued impact of the coronavirus pandemic on our operational and financial performance will depend on

various future developments, including the duration and spread of the outbreak, including the emergence of variants, and impact on our customers, suppliers, and employees, all of which is uncertain at this time. We expect the coronavirus (COVID-19) pandemic to adversely impact our business, including product development and industrialization initiatives, timing of shipment of products and provision of services to customers, supply chain, and may impact our financial position and results of operations. We are unable to predict at this time the potential adverse impact. For more information on our operations and risks related to health epidemics, including the COVID-19 pandemic, see Item 1A. Risk Factors in this Form 10-K.

Basis of Presentation

We currently conduct our business through two operating segments: (i) Autonomy Solutions and (ii) Components.

Components of Results of Operations

Revenue

Our revenue producing activities are organized in two operating segments: (i) Autonomy Solutions and (ii) Components.

The Autonomy Solutions segment is engaged in design, manufacturing, and sale of lidar sensors as well as related perception and autonomy enabling software solutions catering mainly to the original equipment manufacturers in the automobile, commercial vehicle, robo-taxi and adjacent industries. The Autonomy Solutions segment revenue also includes fees earned from non-recurring engineering services provided to customers in connection with customization of our sensor and software products.

The Components segment primarily provides designing, testing, consulting services and manufacturing for non-standard integrated circuits and components to various customers, including government agencies and defense contractors generally for purposes unrelated to autonomous vehicles.

Revenue is recognized when control of the promised goods or services is transferred to our customers, in an amount that reflects the consideration we expect to be entitled to in exchange for those goods or services. Fixed fee arrangements are satisfied over time and utilize the input method based on costs incurred. Accordingly, revenue for fixed fee arrangements is recognized on a percentage of completion basis. Certain customer contracts are also structured as time and materials and billed at cost of time incurred plus a markup. Such time and material contracts are recognized over time.

Cost of sales and gross profit (loss)

Cost of sales includes the fixed and variable manufacturing cost of our lidar sensors, which primarily consists of personnel-related costs including certain engineering personnel and stock-based compensation and material purchases from third-party contract manufacturers and suppliers which are directly associated with our manufacturing process. Cost of sales includes cost of providing services to customers, depreciation and amortization for manufacturing fixed assets or equipment, cost of components, product testing costs, an allocated portion of overhead, facility and information technology ("IT") costs, write downs for excess and obsolete inventory and shipping costs.

The Components segment provides certain services and components to the Autonomy Solutions segment which are recorded as cost of goods sold or research and development costs depending on the nature and use of such services and components by the Autonomy Solutions segment. These inter-segment transactions are eliminated in the consolidated results.

Gross profit (loss) equals revenue less cost of sales.

Operating Expenses

Research and Development (R&D)

R&D costs are expensed as incurred.

Our R&D efforts are focused on enhancing and developing additional functionality for our existing products and on new product development, including new releases and upgrades to our lidar sensors and integrated software solutions. R&D expenses consist primarily of:

- Personnel-related expenses, including salaries, benefits, and stock-based compensation expense, for personnel in our research and engineering functions;
- Expenses related to materials, software licenses, supplies and third-party services;
- Prototype expenses; and
- An allocated portion of facility and IT costs and depreciation.

The Components segment provides certain services and components to the Autonomy Solutions segment which are recorded as cost of goods sold or research and development costs depending on the nature and use of such services and

components by the Autonomy Solutions segment. These inter-segment transactions are eliminated in our consolidated results. We expect our R&D costs to increase for the foreseeable future as we continue to invest in research and development activities to achieve our product roadmap.

Sales and Marketing Expenses

Sales and marketing expenses consist of personnel and personnel-related expenses, including stock-based compensation of our business development team as well as advertising and marketing expenses. These include the cost of marketing programs, trade shows, promotional materials, demonstration equipment, an allocated portion of facility and IT costs and depreciation.

We expect to increase our sales and marketing activities, mainly in order to continue to build out our geographic presence to be closer to our partners and better serve them. We also expect that our sales and marketing expenses will increase over time as we continue to hire additional personnel to scale our business.

General and Administrative Expenses

General and administrative expenses consist of personnel and personnel-related expenses, including stock-based compensation of our executive, finance, human resources, information systems and legal departments as well as legal and accounting fees for professional and contract services.

We expect our general and administrative expenses to increase for the foreseeable future as we scale headcount with the growth of our business, and as a result of operating as a public company, including compliance with the rules and regulations of the SEC, legal, audit, additional insurance expenses, investor relations activities, and other administrative and professional services.

Change in Fair Value of Warrants

Change in fair value of warrants are non-cash changes and primarily consist of changes in fair value related to said instruments. The warrant liabilities are classified as marked-to-market liabilities and the corresponding increase or decrease in value impacts our net loss.

Interest Income and Other, and Interest Expense and Other

Interest income and other consists primarily of income earned on our cash equivalents and marketable securities. These amounts will vary based on our cash, cash equivalents and marketable securities balances, and also with market rates. It also includes realized gains and losses related to the marketable securities, as well as impact of gains and losses related to foreign exchange transactions. Interest expense and other consisted primarily of interest on convertible senior notes issued in December 2021, finance leases and interest on our senior secured term loan facility, which was repaid upon consummation of the Business Combination.

Results of Operations

Comparison of the Years Ended December 31, 2021 and 2020

The results of operations presented below should be reviewed in conjunction with the consolidated financial statements and notes included elsewhere in this report. The following table sets forth our consolidated results of operations data for the periods presented (in thousands):

	Year Ended December 31,		Change	Change
	2021	2020	\$	%
Revenue	\$ 31,944	\$ 13,951	\$ 17,993	129 %
Cost of sales	46,092	24,952	21,140	85 %
Gross loss	(14,148)	(11,001)	(3,147)	29 %
Operating Expenses:				
Research and development	88,861	38,651	50,210	130 %
Sales and marketing	17,858	7,948	9,910	125 %
General and administrative	93,685	29,275	64,410	220 %
Total operating expenses	200,404	75,874	124,530	164 %
Loss from operations	(214,552)	(86,875)	(127,677)	147 %
Other income (expense), net:				
Change in fair value of warrants	(26,126)	(268,266)	242,140	(90)%
Loss on extinguishment of debt	—	(3,996)	3,996	(100)%
Interest expense and other	(2,028)	(2,885)	857	(30)%
Interest income and other	3,458	(276)	3,734	(1353)%
Total other income (expense), net	(24,696)	(275,423)	250,727	(91)%
Loss before benefit from income taxes	(239,248)	(362,298)	123,050	(34)%
Benefit from income taxes	(1,262)	—	(1,262)	nm
Net loss	\$ (237,986)	\$ (362,298)	\$ 124,312	(34)%

Revenue

The increase in revenue for 2021 compared to 2020 was primarily driven by increased revenue from our Autonomy Solutions segment. The breakdown of our revenue by our segments for the periods presented was as follows (in thousands):

	Year Ended December 31,		Change	Change
	2021	2020	\$	%
Revenue from sales to external customers:				
Autonomy Solutions	\$ 28,497	\$ 11,387	\$ 17,110	150 %
Components	3,447	2,564	883	34 %
Total	\$ 31,944	\$ 13,951	\$ 17,993	129 %

The increase in revenue of our Autonomy Solutions segment in 2021 compared to 2020 was primarily driven by (a) 142% increase in revenue from customization / non-recurring engineering services and (b) 177% increase in sales of sensors.

The increase in revenue of our Components segment in 2021 compared to 2020 was primarily due to revenue from OptoGration acquired in August 2021.

Cost of Sales

The \$21.1 million increase in our cost of sales in 2021 compared to 2020, was primarily due to increase in sales of sensors and increase in customization / NRE services. These increases were partially offset by lower excess inventory reserves and recovery of previously reserved Model Hydra sensors sold during 2021 due to higher customer demand.

Operating Expenses

Research and Development

The \$50.2 million increase in research and development expenses in 2021 compared to 2020 was primarily due:

- \$25.5 million increase in personnel-related costs driven mainly by increased headcount and increased stock-based compensation expense; and
- \$14.7 million increased contractor fees and external spend in relation to continued development and testing of our sensor and software products, as well as development activities related to advanced manufacturing.

Sales and Marketing

The \$9.9 million increase in sales and marketing expenses for 2021 compared to 2020 was primarily due:

- a \$6.2 million increase in personnel related costs including stock-based compensation costs from increase in headcount; and
- a \$2.6 million increase in marketing expenses related to trade shows and presentations in auto industry conventions as well as increased spend with outside consultants related to business development activities.

General and Administrative

The \$64.4 million increase in general and administrative expenses for 2021 compared to 2020 was primarily due to:

- a \$41.2 million increase in personnel costs including stock-based compensation costs, driven mainly by increased headcount;
- a \$7.5 million increase in costs associated with (a) recruiting costs; and (b) being a public company, for example audit fees, tax advisory fees, listing fees, etc.; and
- a \$4.5 million increase in travel related expenses as domestic and international travel increased with the easing of COVID-19 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 warrants.

Pursuant to the Business Combination, the 2017 Warrants, 2018 Warrants and 2020 Warrants were exercised on December 2, 2020. Prior to the exercise, the fair value of the warrants was calculated using the closing stock price on December 2, 2020, and the increase in the fair value was recorded. The non-cash charge related to the 2017 Warrants, 2018 Warrants and 2020 Warrants was \$27.3 million for the year ended December 31, 2020. Further, subsequent to the Business Combination, we had 13,333,309 Public Warrants and 6,666,666 Private Warrants outstanding as of December 31, 2020. The non-cash charge related to the Public and Private Warrants recorded in December 2020 was \$241.0 million.

In March 2021, 16,718,316 Public and Private Warrants were exercised and the remaining 204,638 Public Warrants were redeemed. The non-cash charge related to Public and Private Warrants was \$26.1 million for the year ended December 31, 2021.

Loss on Extinguishment of Debt

The \$4.0 million loss on extinguishment of debt in 2020 related to the termination and prepayment of the senior secured term loan.

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	
	2021	2020	\$	%
Segment operating loss				
Autonomy Solutions	\$ (214,133)	\$ (86,661)	\$ (127,472)	147 %
Components	(324)	(316)	(8)	3 %

Liquidity and Capital Resources

Sources of Liquidity and Capital Requirements

Our capital requirements will depend on many factors, including lidar and software sales volume, the timing and extent of spending to support R&D efforts, investments in information technology systems, the expansion of sales and marketing activities, and market adoption of new and enhanced products and features. Until we can generate sufficient revenue from sale

of products and services to cover our operating expenses, working capital, and capital expenditures, we expect our cash, cash equivalents and marketable securities, and proceeds from debt and/or equity financings to fund our cash needs. If we are required to raise additional funds by issuing equity securities, dilution to stockholders would result. Any equity securities issued may also provide for rights, preferences or privileges senior to those of holders of our common stock. If we raise funds by issuing debt securities, these debt securities may have rights, preferences and privileges senior to those of holders of our common stock. The terms of debt securities or borrowings could impose significant restrictions on our operations. The credit market and financial services industry have in the past, and may in the future, experience periods of uncertainty that could impact the availability and cost of equity and debt financing.

We expect to continue to invest in our product and software development as well as incur efforts to build customer relations and markets. Further, we expect to invest in developing advanced manufacturing capabilities, both, internally as well as with our contract manufacturing partners. For example, in January 2022, we executed an arrangement with Celestica committing approximately \$26.9 million for purchase of capital equipment as well as engineering efforts related to manufacturing process. We expect to fund these product and business development initiatives, and capital expenditures either through our cash, cash equivalents and marketable securities or through our stock-as-cash program.

As of December 31, 2021, we had cash and cash equivalents totaling \$330.0 million and marketable securities of \$462.1 million. To date, our principal sources of liquidity have been proceeds received from issuances of debt and equity. Market and economic conditions, such as increase in interest rates by federal agencies, may materially impact relative cost and mix of these sources of liquidity.

In December 2021, we issued \$625.0 million aggregate principal amount of 1.25% Convertible Senior Notes due 2026 in a private placement (the “Convertible Senior Notes”). The interest on the Convertible Senior Notes is payable semi-annually in arrears on June 15 and December 15 of each year, beginning on June 15, 2022. The Convertible Senior Notes will mature on December 15, 2026, unless earlier repurchased or redeemed by us or converted pursuant to their terms. The total net proceeds from the debt offering, after deducting debt fees paid to the initial purchasers, was approximately \$609.4 million.

We have not generated positive cash flows from operating activities and have incurred significant losses from operations in the past as reflected in our accumulated deficit of \$822.5 million as of December 31, 2021. We expect to continue to incur operating losses for at least the foreseeable future due to continued R&D investments that we intend to make in our business and, as a result, we may require additional capital resources to grow our business. We believe that current cash, cash equivalents, and marketable securities will be sufficient to continue to execute our business strategy in the next 12 months and until we expect to begin series production.

Cash Flow Summary

The following table summarizes Luminar’s cash flows for the periods presented:

	Year ended December 31,	
	2021	2020
Net cash provided by (used in):		
Operating activities	\$ (148,421)	\$ (75,642)
Investing activities	(194,188)	(271,794)
Financing activities	463,592	529,850

Operating Activities

Net cash used in operating activities was \$148.4 million during the year ended December 31, 2021. Net cash used in operating activities was due to our net loss of \$238.0 million, adjusted for non-cash items of \$129.5 million, primarily consisting of \$77.7 million of stock-based compensation, \$26.1 million of change in fair value of warrant liabilities, \$10.8 million of vendor payments in stock in lieu of cash, \$4.2 million of depreciation and amortization and \$2.9 million of inventory impairment offset by use of cash for operating assets and liabilities of \$39.9 million due to the timing of cash payments to vendors and cash receipts from customers.

Investing Activities

Net cash used in investing activities of \$194.2 million in 2021 comprised of \$716.9 million related to purchases of marketable securities and \$6.4 million in capital expenditures, offset by \$366.9 million and \$161.9 million, respectively, of cash proceeds from maturities and sales of marketable securities.

Financing Activities

Net cash provided by financing activities of \$463.6 million in 2021 primarily related to \$609.4 million of cash received from the issuance of Convertible Senior Notes, \$153.9 million of cash received from exercises of Public and Private Warrants,

\$5.9 million of cash received from exercises of stock options, offset by \$231.6 million of cash paid for repurchases of common stock and redemption of Public Warrants and \$73.4 million of cash paid for purchases of capped call options.

Critical Accounting Policies and Estimates

We prepare our consolidated financial statements in accordance with generally accepted accounting principles in the United States ("GAAP"). The preparation of these consolidated financial statements requires us to make estimates, assumptions and judgments that can significantly impact the amounts we report as assets, liabilities, revenue, costs and expenses and the related disclosures. We base our estimates on historical experience and other assumptions that we believe are reasonable under the circumstances. Our actual results could differ significantly from these estimates under different assumptions and conditions. We believe that the accounting policies and estimates discussed below are critical to understanding our historical and future performance as these policies involve a greater degree of judgment and complexity.

Revenue

Revenue from product sales is recognized upon transfer of control of promised products. Revenue for service projects is recognized as services are performed and amounts are earned in accordance with the terms of a contract. Revenue is recognized in an amount that reflects the consideration that we expect to receive in exchange for those products and services.

Revenues related to NRE projects are recognized over time using the cost input method. In using this input method, we generally apply the cost-to-cost method of accounting where sales and profits are recorded based on the ratio of costs incurred to estimated total costs at completion. Recognition of profit on the NRE contracts requires estimates of the total contract value, the total cost at completion, and the measurement of progress towards completion. Significant judgment is required when estimating total contract costs and progress to completion on the arrangements, as well as whether a loss is expected to be incurred on the contract. In estimating total contract costs, we are also required to estimate the effort expected to be incurred to complete a NRE project. These estimates are subject to significant estimation uncertainty as actual time and effort incurred on completing a NRE project or actual rates of either internal or contracted personnel working on such NRE projects may differ from our estimates. If circumstances arise that change the original estimates of revenues, costs, or extent of progress toward completion, revisions to the estimates are made. These revisions may result in increases or decreases in estimated revenues or costs, and such revisions are reflected in income in the period in which the circumstances that gave rise to the revision become known to us. We perform ongoing profitability analysis of our contracts accounted for under this method to determine whether the latest estimates of revenues, costs, and profits require updating. If at any time these estimates indicate that the contract will be unprofitable, the entire estimated loss for the remainder of the contract is recorded immediately.

We enter into contracts that can include various combinations of products and services, which are generally capable of being distinct and accounted for as separate performance obligations; however, determining whether products or services are considered distinct performance obligations that should be accounted for separately versus together may sometimes require significant judgment. Transaction price is allocated to each performance obligation on a relative standalone selling price ("SSP") basis. Judgment is required to determine SSP for each distinct performance obligation. We use a range of sales prices from actual sales to customers to estimate SSP when products and services are sold separately. In instances where SSP is not directly observable, we determine SSP using information that may include other observable inputs available to it.

Changes in judgments with respect to these assumptions and estimates could impact the timing or amount of revenue recognition.

Recent Accounting Pronouncements

See Note 2 in Item 8. of this Form 10-K for information related to recent accounting pronouncements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

We are exposed to various market risks, which may result in potential losses arising from adverse changes in market rates, such as interest rates and foreign exchange rates. We do not enter into derivatives or other financial instruments for trading or speculative purposes and do not believe we are exposed to material market risk with respect to our cash, cash equivalents and marketable securities.

Interest Rate Risk. We had cash and cash equivalents, and marketable securities totaling \$792.1 million as of December 31, 2021. Cash equivalents and marketable securities were invested primarily in U.S. treasury securities, commercial paper, corporate bonds, U.S. agency and government sponsored securities, equity investments and asset-backed securities. Our investment policy is focused on the preservation of capital and supporting our liquidity needs. Under the policy, we invest in highly rated securities, while limiting the amount of credit exposure to any one issuer other than the U.S. government. We do not invest in financial instruments for trading or speculative purposes, nor do we use leveraged financial instruments. We utilize external investment managers who adhere to the guidelines of our investment policy. A hypothetical 100 basis point change in interest rates would not have a material impact on the value of our cash and cash equivalents or marketable investments.

As of December 31, 2021, the principal amount outstanding of our Convertible Senior Notes was \$625.0 million. The fair value of the Convertible Senior Notes is subject to interest rate risk, market risk and other factors due to their conversion features. The fair value of the Convertible Senior Notes will generally increase as our common stock price increases and will generally decrease as our common stock price declines. The interest and market value changes affect the fair value of the Convertible Senior Notes but do not impact our financial position, cash flows or results of operations due to the fixed nature of the debt obligations. We carry the Convertible Senior Notes at face value less unamortized discount on our consolidated balance sheets.

Our Convertible Senior Notes bear fixed interest rate, and therefore, are not subject to interest rate risk. We have not utilized derivative financial instruments, derivative commodity instruments or other market risk sensitive instruments, positions or transactions in any material fashion, except for the privately negotiated capped call transactions entered into in December 2021 related to the issuance of our Convertible Senior Notes.

Foreign Currency Exchange Risk. Our results of operations and cash flows are subject to fluctuations due to changes in foreign currency exchange rates. Currently, all of our revenue is generated in U.S. dollars. Our expenses are generally denominated in the currencies of the jurisdictions in which we conduct our operations, which are primarily in the U.S. and in Europe. Luminar's results of operations and cash flows in the future may be adversely affected due to an expansion of non-U.S. dollar denominated contracts, growth of its international entities, and changes in foreign exchange rates. The effect of a hypothetical 10% change in foreign currency exchange rates applicable to our business would not have a material impact on our historical or current consolidated financial statements. To date, we have not engaged in any hedging strategies. As our international operations grow, we will continue to reassess our approach to manage the risk relating to fluctuations in currency rates.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

LUMINAR TECHNOLOGIES, INC.

INDEX TO THE CONSOLIDATED FINANCIAL STATEMENTS

<u>Report of Independent Registered Public Accounting Firm</u> (Deloitte & Touche LLP, San Jose, CA, PCAOB ID No. 34)	<u>50</u>
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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of Luminar Technologies, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Luminar Technologies, Inc. and subsidiaries (the “Company”) as of December 31, 2021 and 2020, the related consolidated statements of operations and comprehensive loss, convertible preferred stock and stockholders’ equity (deficit), and cash flows, for each of the three years in the period ended December 31, 2021, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2021 and 2020, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2021, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 1, 2022, expressed an adverse opinion on the Company’s internal control over financial reporting because of material weaknesses.

Change in Accounting Principle

As discussed in Note 2 to the financial statements, effective January 1, 2021, the Company has changed its method of accounting for leases and credit losses due to adoption of Accounting Standards Codification Topic 842 (ASU No. 2018-20), *Leases*, and all subsequent amendments (collectively, “ASC 842”) using the modified retrospective approach, and Topic 326 (ASU 2016-13), *Financial Instruments – Credit Losses*, using the modified retrospective approach, respectively.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current-period audit of the financial statements that was communicated or required to be communicated to the audit committee and that (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Revenue — Non-recurring Engineering (“NRE”) services — Refer to Notes 2 and 4 to the financial statements

Critical Audit Matter Description

The Company recognizes revenue from non-recurring engineering services under fixed fee arrangements (“NRE services”) to integrate Luminar lidar hardware for autonomy in vehicle platforms. NRE services are recognized over time using an input method based on contract costs incurred to date compared to total estimated contract costs. The accounting for these contracts involves judgment, particularly as it relates to estimating total contract costs.

Given the judgments necessary to determine total estimated contract costs used to recognize revenue for NRE services, auditing such estimates required extensive audit effort due to the high degree of auditor judgment required when performing audit procedures and evaluating the results of those procedures.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to management's estimates of total contract costs used to recognize revenue for NRE services included the following, among others:

- We tested the effectiveness of controls over long-term engineering services contract revenue, including management's controls over the total estimated contract costs.
- We selected a sample of NRE service contracts and performed the following:
 - Evaluated the estimates of total contract costs by:
 - Inquiring with management to obtain an understanding of its key inputs and assumptions used to determine total cost estimates.
 - Evaluating management's ability to achieve the estimates of total cost by performing corroborating inquiries with the Company's project managers and engineers.
 - Comparing inputs and assumptions to management's work plans, engineering specifications, supplier contracts, and payroll data.
 - Assessing management's ability to estimate total costs accurately by comparing actual costs to management's historical estimates for performance obligations that have been fulfilled.
 - Testing the mathematical accuracy of management's calculation of estimated total contract cost.

/s/ DELOITTE & TOUCHE LLP

San Jose, California
March 1, 2022

We have served as the Company's auditor since 2020.

LUMINAR TECHNOLOGIES, INC. AND SUBSIDIARIES
Consolidated Balance Sheets
(In thousands, except share and per share data)

	December 31,	
	2021	2020
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 329,977	\$ 208,944
Restricted cash	725	775
Marketable securities (including \$12,200 with a related party as of December 31, 2021, see Note 19)	462,141	276,710
Accounts receivable	13,013	5,971
Inventory	10,342	3,613
Prepaid expenses and other current assets	29,195	4,797
Total current assets	845,393	500,810
Property and equipment, net	11,009	7,689
Operating lease right-of-use assets	9,145	—
Intangible assets, net	2,424	—
Goodwill	3,110	701
Other non-current assets	12,455	1,151
Total assets	\$ 883,536	\$ 510,351
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 14,419	\$ 6,039
Accrued and other current liabilities	19,844	10,452
Operating lease liabilities	4,735	—
Debt, current	—	99
Total current liabilities	38,998	16,590
Warrant liabilities	31,230	343,400
Debt, non-current	—	302
Convertible senior notes	608,957	—
Operating lease liabilities, non-current	5,768	—
Other non-current liabilities	598	1,318
Total liabilities	685,551	361,610
Commitments and contingencies (see Note 17)		
Stockholders' equity:		
Preferred stock, \$0.0001 par value; 10,000,000 shares authorized, no shares issued and outstanding as of December 31, 2021 and 2020	—	—
Class A common stock, \$0.0001 par value; 715,000,000 shares authorized, 266,076,525 shares issued, 250,812,764 shares outstanding as of December 31, 2021; 715,000,000 shares authorized, 218,818,037 shares issued and outstanding as of December 31, 2020	27	22
Class B common stock, \$0.0001 par value; 121,000,000 shares authorized, 97,088,670 shares and 105,118,203 shares issued and outstanding as of December 31, 2021 and 2020, respectively	10	11
Additional paid-in capital	1,257,214	733,175
Accumulated other comprehensive income (loss)	(908)	34
Treasury stock, at cost, 15,263,761 and 0 shares as of December 31, 2021 and 2020, respectively	(235,871)	—
Accumulated deficit	(822,487)	(584,501)
Total stockholders' equity	197,985	148,741
Total liabilities and stockholders' equity	\$ 883,536	\$ 510,351

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

LUMINAR TECHNOLOGIES, INC. AND SUBSIDIARIES
Consolidated Statements of Operations and Comprehensive Loss
(In thousands, except share and per share data)

	Year Ended December 31,		
	2021	2020	2019
Revenue:			
Products	\$ 10,118	\$ 4,840	\$ 12,602
Services	21,826	9,111	—
Total revenue	31,944	13,951	12,602
Cost of sales:			
Products	23,484	15,097	16,655
Services	22,608	9,855	—
Total cost of sales	46,092	24,952	16,655
Gross loss	(14,148)	(11,001)	(4,053)
Operating expenses:			
Research and development	88,861	38,651	36,971
Sales and marketing	17,858	7,948	4,730
General and administrative	93,685	29,275	16,861
Total operating expenses	200,404	75,874	58,562
Loss from operations	(214,552)	(86,875)	(62,615)
Other income (expense), net:			
Change in fair value of SAFE notes	—	—	(24,215)
Change in fair value of warrant liabilities	(26,126)	(268,266)	(256)
Loss on extinguishment of debt	—	(3,996)	(6,124)
Interest expense and other	(2,028)	(2,885)	(2,239)
Interest income and other	3,458	(276)	731
Total other income (expense), net	(24,696)	(275,423)	(32,103)
Loss before benefit from income taxes	(239,248)	(362,298)	(94,718)
Benefit from income taxes	(1,262)	—	—
Net loss	\$ (237,986)	\$ (362,298)	\$ (94,718)
Net loss attributable to common stockholders	\$ (237,986)	\$ (369,055)	\$ (100,000)
Net loss per share attributable to common stockholders:			
Basic and diluted	\$ (0.69)	\$ (2.54)	\$ (0.84)
Shares used in computing net loss per share attributable to common stockholders:			
Basic and diluted	346,300,975	145,096,996	118,835,912
Comprehensive Loss:			
Net loss	\$ (237,986)	\$ (362,298)	\$ (94,718)
Net unrealized gains (losses) on available-for-sale debt securities	(942)	35	(1)
Comprehensive loss	\$ (238,928)	\$ (362,263)	\$ (94,719)

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

LUMINAR TECHNOLOGIES, INC. AND SUBSIDIARIES
Consolidated Statements of Convertible Preferred Stock and Stockholders' Equity (Deficit)
(In thousands, except share data)

	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					
Balance as of December 31, 2018	—	\$ —	—	\$ —	26,206,837	\$ 3	134,337,450	\$ 13	—	\$ —	\$ 2,802	\$ —	\$ —	\$ (127,485)	\$ (124,667)
Conversion of SAFE into Series A convertible preferred stock for cash, net of issuance costs of \$3,775	68,877,417	169,951	—	—	—	—	—	—	—	—	—	—	—	—	—
Conversion of debt into Series A convertible preferred stock	4,326,514	7,719	—	—	—	—	—	—	—	—	—	—	—	—	—
Issuance of Series A convertible preferred stock for cash, net of issuance costs of \$1,592	21,614,220	67,073	—	—	—	—	—	—	—	—	—	—	—	—	—
Conversion of SAFE into Series A common stock	—	—	—	—	—	—	3,612,062	1	—	—	4,924	—	—	—	4,925
Issuance of restricted common stock	—	—	—	—	—	—	1,686,378	—	—	—	29	—	—	—	29
Share-based compensation	—	—	—	—	—	—	—	—	—	—	2,702	—	—	—	2,702
Other comprehensive loss	—	—	—	—	—	—	—	—	—	—	—	(1)	—	—	(1)
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	—	(94,718)	(94,718)
Balance as of December 31, 2019	94,818,151	244,743	—	—	26,206,837	3	139,635,890	14	—	—	10,457	(1)	—	(222,203)	(211,730)
Issuance of Series X convertible preferred stock for cash, net of issuance costs of \$5,790	—	—	18,457,230	178,074	—	—	—	—	—	—	—	—	—	—	—
Retirement of Class A shares	—	—	—	—	—	—	(6,629,372)	(1)	—	—	—	—	—	—	(1)
Conversion of certain shares into Class B common stock	—	—	—	—	(22,935,413)	(3)	(82,182,790)	(8)	105,118,203	11	3,000	—	—	—	3,000
Merger recapitalization—Class A	(94,818,151)	(244,743)	(18,457,230)	(178,074)	(3,271,424)	—	116,546,805	12	—	—	422,802	—	—	—	422,814
Public and Private Warrants	—	—	—	—	—	—	—	—	—	—	(102,396)	—	—	—	(102,396)
Issuance of Class A common stock upon exercise of warrants	—	—	—	—	—	—	1,466,155	—	—	—	30,112	—	—	—	30,112
Gores shares recapitalized, net of redemptions and equity issuance costs of \$17,226	—	—	—	—	—	—	49,981,349	5	—	—	363,455	—	—	—	363,460
Share-based compensation	—	—	—	—	—	—	—	—	—	—	5,745	—	—	—	5,745
Other comprehensive income	—	—	—	—	—	—	—	—	—	—	—	35	—	—	35
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	—	(362,298)	(362,298)

Balance as of December 31, 2020	—	\$	—	—	\$	—	—	—	—	—	\$	—	218,818,037	\$	22	105,118,203	\$	11	\$	733,175	\$	34	\$	—	\$	(584,501)	\$	148,741
Purchases of capped call options related to the convertible senior notes	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(73,438)	—	—	—	—	—	—	—	(73,438)
Shares repurchased	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Issuance of Class A common stock upon exercise of Public and Private Warrants	—	—	—	—	—	—	—	—	—	15,574,037	2	—	—	—	—	—	—	—	—	492,219	—	—	—	—	—	—	—	492,221
Issuance of Class A common stock upon exercise of stock options and vesting of restricted stock units	—	—	—	—	—	—	—	—	—	5,232,744	—	—	—	—	—	—	—	—	—	6,176	—	—	—	—	—	—	—	6,176
Retirement of unvested restricted common stock	—	—	—	—	—	—	—	—	—	(71,894)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Vendor stock-in-lieu of cash program	—	—	—	—	—	—	—	—	—	291,940	—	—	—	—	—	—	—	—	—	10,743	—	—	—	—	—	—	—	10,743
Acquisition of OptoGration, Inc.	—	—	—	—	—	—	—	—	—	370,034	—	—	—	—	—	—	—	—	—	6,527	—	—	—	—	—	—	—	6,527
Issuance of earn-out shares	—	—	—	—	—	—	—	—	—	10,242,703	1	6,970,467	1	—	—	—	—	—	—	(2)	—	—	—	—	—	—	—	—
Issuance of shares for investment in Robotic Research Opco, LLC	—	—	—	—	—	—	—	—	—	618,924	—	—	—	—	—	—	—	—	—	10,002	—	—	—	—	—	—	—	10,002
Conversion of Class B common stock into Class A common stock	—	—	—	—	—	—	—	—	—	15,000,000	2	(15,000,000)	(2)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Share-based compensation	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	70,983	—	—	—	—	—	—	—	70,983
Expense related to Volvo Warrants	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	959	—	—	—	—	—	—	—	959
Payments of employee taxes related to vested restricted stock units	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(140)	—	—	—	—	—	—	—	(140)
Cash received from Gores on settlement of recapitalization of escrow	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10	—	—	—	—	—	—	—	10
Other comprehensive loss	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(942)	—	—	—	—	—	—	(942)
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(237,986)	—	(237,986)
Balance as of December 31, 2021	—	\$	—	—	\$	—	—	—	—	266,076,525	\$	27	97,088,670	\$	10	\$	1,257,214	\$	(908)	\$	(235,871)	\$	(822,487)	\$	—	\$	197,985	

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

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

	Year Ended December 31,		
	2021	2020	2019
Cash flows from operating activities:			
Net loss	\$ (237,986)	\$ (362,298)	\$ (94,718)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	4,162	2,517	2,316
Noncash lease expense relating to operating lease right-of-use assets	3,705	—	—
Amortization of premium on marketable securities	1,792	175	—
Change in fair value of warrants and SAFE liabilities	26,126	268,266	24,471
Vendor stock-in-lieu of cash program	10,817	—	—
Impairment of inventories	2,918	4,407	1,378
Loss on sale or disposal of property and equipment	752	525	37
Loss on extinguishment of debt	—	3,996	6,124
Share-based compensation	77,684	8,711	2,702
Expense related to Volvo Warrants	959	—	—
Warranty related to sensors	1,538	—	—
Deferred taxes	(1,262)	—	—
Other	305	—	—
Changes in operating assets and liabilities:			
Accounts receivable	(6,233)	(4,294)	805
Inventories	(10,751)	(4,018)	(2,454)
Prepaid expenses and other current assets	(24,340)	(2,805)	179
Other non-current assets	(6)	165	(2)
Accounts payable	3,838	2,620	(431)
Accrued and other current liabilities	3,578	6,693	(448)
Other non-current liabilities	(6,017)	(302)	(160)
Net cash used in operating activities	(148,421)	(75,642)	(60,201)
Cash flows from investing activities:			
Cash received from acquisition of OptoGration, Inc.	358	—	—
Purchases of marketable securities (including \$ 16,423 with related parties in 2021, see Note 19)	(716,933)	(315,920)	(6,908)
Proceeds from maturities of marketable securities	366,857	16,755	—
Proceeds from sales/redemptions of marketable securities (including \$ 4,396 with related parties in 2021, see Note 19)	161,910	28,974	249
Proceeds from refundable security deposits	—	581	—
Purchases of property and equipment	(6,433)	(2,202)	(1,487)
Disposal of property and equipment	53	18	368
Net cash used in investing activities	(194,188)	(271,794)	(7,778)
Cash flows from financing activities:			
Proceeds from issuance of convertible senior notes, net of debt discounts of \$ 15,625	609,375	—	—
Purchases of capped call options	(73,438)	—	—
Cash received from Gores on recapitalization	—	380,601	—
Transaction costs related to merger with Gores	—	(17,226)	—
Proceeds from issuance of Series X convertible preferred stock	—	183,865	—
Issuance cost paid for Series X convertible preferred stock	—	(5,790)	—
Proceeds from the issuance of debt	—	32,101	—
Repayment of debt	(112)	(41,190)	(9,540)
Debt prepayment charges	—	(1,918)	—
Debt issuance costs	—	(361)	(5,367)
Settlement of SAFE notes	—	—	(5,609)
Principal payments on finance leases (capital leases prior to adoption of ASC 842)	(289)	(222)	(118)
Proceeds from issuance of Series A convertible preferred stock	—	—	68,666
Proceeds from issuance of SAFE notes	—	—	37,377
Proceeds from exercise of warrants	153,927	—	—
Proceeds from exercise of stock options	5,859	—	—
Proceeds from issuance of restricted common stock	—	—	61
Repurchases of common stock and redemption of warrants	(231,600)	(10)	(13)
Other financing activities	(130)	—	—
Net cash provided by financing activities	463,592	529,850	85,457
Net increase in cash, cash equivalents and restricted cash	120,983	182,414	17,478
Beginning cash, cash equivalents and restricted cash	209,719	27,305	9,827
Ending cash, cash equivalents and restricted cash	\$ 330,702	\$ 209,719	\$ 27,305

Supplemental disclosures of cash flow information:			
Cash paid for interest	\$	215	\$ 2,789 \$ 2,018
Supplemental disclosures of noncash investing and financing activities:			
Conversion of Bridge Note into Series A convertible preferred stock	—	—	7,719
Conversion of SAFE notes into common stock	—	—	4,925
Conversion of SAFE notes into Series A convertible preferred stock	—	—	173,726
Issuance of Class A common stock upon exercise of warrants	338,293	30,112	—
Conversion of Series A, Series X and Founders' convertible preferred stock into Class A and Class B common stock	—	422,813	—
Issuance of Class A common stock for investment in Robotic Research OpCo, LLC	10,002	—	—
Issuance of Class A common stock to acquire OptoGration, Inc.	6,527	—	—
Operating lease right-of-use assets obtained in exchange for lease obligations upon adoption of ASC 842	10,849	—	—
Operating lease right-of-use assets obtained in exchange for lease obligations	2,876	—	—
Assets acquired under finance leases (capital leases prior to adoption of ASC 842)	—	318	397
Purchases of property and equipment recorded in accounts payable and accrued liabilities	849	319	150
Amounts payable for shares repurchased	4,273	—	—

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

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

Note 1. Organization and Description of Business

Luminar Technologies, Inc. and its wholly-owned subsidiaries (the “Company” or “Luminar”) was originally incorporated in Delaware on August 28, 2018 under the name Gores Metropoulos, Inc. (“Gores”). The Company was formed for the purpose of effecting a merger, capital stock exchange, asset acquisition, stock purchase, reorganization or similar business combination with one or more businesses. On December 2, 2020 (the “Closing Date”), the Company (at such time named Gores Metropoulos, Inc.) consummated the business combination (the “Business Combination”) pursuant to the Agreement and Plan of Merger (the “Merger Agreement”), dated August 24, 2020 with the pre-Business Combination Luminar Technologies, Inc. (“Legacy Luminar”). Legacy Luminar was incorporated in Delaware on March 31, 2015. In connection with the consummation of the Business Combination, the Company changed its name from Gores Metropoulos, Inc. to Luminar Technologies, Inc. The Company’s common stock is listed on the NASDAQ under the symbol “LAZR.” The Company’s public warrants to purchase shares of Class A common stock were listed on the NASDAQ under the symbol “LAZRW,” until they were delisted on March 5, 2021 upon exercise and redemption.

Unless the context otherwise requires, the “Company” refers to the combined company and its subsidiaries following the Business Combination, “Gores” refers to the Company prior to the Business Combination and “Legacy Luminar” refers to Luminar Technologies, Inc. prior to the Business Combination. Refer to Note 3 for further discussion of the Business Combination.

The Company is a developer of advanced sensor technologies and software for the autonomous vehicle industry, encompassing Laser Imaging, Detection and Ranging (lidar) technology. The Company manufactures and distributes commercial lidar sensors and certain components for autonomous vehicle industry. The Company is headquartered in Orlando, Florida and has facilities in the United States in Palo Alto, California, Boston, Massachusetts, Colorado Springs, Colorado and internationally in Munich, Germany.

Note 2. Basis of Presentation and Summary of Significant Accounting Policies

Basis of Presentation and Consolidation

The accompanying consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States (“GAAP”) and applicable rules and regulations of the Securities and Exchange Commission (“SEC”) regarding annual financial reporting. All intercompany transactions and balances have been eliminated in consolidation.

Use of Estimates

The preparation of consolidated financial statements in conformity with GAAP requires management to make judgments, estimates and assumptions that affect the reported amounts of assets, liabilities, equity, revenues and expenses, and related disclosures. The significant estimates made by management include inventory reserves, valuation allowance for deferred tax assets, valuation of warrants, forecasted costs associated with non-recurring engineering (“NRE”) services, product warranty reserves, stock-based compensation expense and other loss contingencies. Management periodically evaluates such estimates and they are adjusted prospectively based upon such periodic evaluation. Actual results could differ from those estimates.

Segment Information

The Company has determined its operating segments using the same indicators which are used to evaluate its performance internally. The Company has two business activities which are its operating segments:

- (i) “Autonomy Solutions” for automotive applications, which includes manufacturing and distribution of lidar sensors that measure distance using laser light to generate a 3D map, non-recurring engineering services related to the Company’s lidar products, and development of software products that enable autonomy capabilities; and
- (ii) “Components” which includes development of application-specific integrated circuits, pixel-based sensors, as well as designing, testing and providing consulting services for non-standard integrated circuits. In August 2021, the Company acquired OptoGration, Inc. (“OptoGration”), which has been included in the Components segment.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to significant concentrations of credit risk, consist primarily of cash and cash equivalents, marketable investments and accounts receivable. A significant portion of the Company’s cash and cash equivalents is held at high-quality domestic financial institutions. Deposits held with the financial institutions may, at

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

times, exceed the amount of insurance provided on such deposits. The Company held cash by foreign entities as of December 31, 2021 and 2020 was not material.

The Company's revenue is derived from customers located in the United States and international markets. Two customers accounted for 39% and 31%, respectively, of the Company's accounts receivable as of December 31, 2021. One customer accounted for 86% of the Company's accounts receivable as of December 31, 2020.

Cash and Cash Equivalents

The Company's cash and cash equivalents consist of investments with maturities of three months or less at the time of purchase. The Company's cash equivalents include investments in money market funds, U.S. treasury securities and commercial paper.

Restricted Cash

Restricted cash consists of funds that are contractually restricted as to usage or withdrawal due to legal agreements. The Company determines current or non-current classification of restricted cash based on the expected duration of the restriction.

Debt Securities

The Company's debt securities consist of U.S. agency securities and government sponsored securities, U.S. treasury securities, corporate bonds, commercial paper and asset-backed securities. The Company classifies its debt securities as available-for-sale at the time of purchase and reevaluates such designation as of each balance sheet date. The Company considers all debt securities as available for use to support current operations, including those with maturity dates beyond one year and are classified as current assets under marketable securities in the accompanying consolidated balance sheets. Debt securities included in marketable securities on the consolidated balance sheets consist of securities with original maturities greater than three months at the time of purchase. Debt securities are carried at fair value, with the unrealized gains and losses reported as a component of accumulated other comprehensive income (loss) ("OCI"). Any realized gains or losses on the sale of debt securities are determined on a specific identification method, and such gains and losses are reflected as a component of other income (expense), net.

The Company reviews the fair value of debt securities and when the fair value of a debt security is below its amortized cost, the amortized cost should be written down to its fair value if (i) it is more likely than not that management will be required to sell the impaired security before recovery of its amortized basis; or (ii) management has the intention to sell the security. If neither of these conditions are met, the Company must determine whether the impairment is due to credit losses. To determine the amount of credit losses, the Company compares the present value of the expected cash flows of the security, derived by taking into account the issuer's credit ratings and remaining payment terms, with its amortized cost basis. The amount of impairment recognized is limited to the excess of the amortized cost over the fair value of the security. An allowance for credit losses for the excess of amortized cost over the expected cash flows is recorded in other income (expense), net on the consolidated statements of operations. Non-credit related impairment losses are recorded in OCI.

Marketable Equity Investments

The Company holds marketable equity investments over which the Company does not have a controlling interest or significant influence. Marketable equity investments are measured using the quoted prices in active markets with changes recorded in other income (expense), net on the consolidated statement of operations.

Non-Marketable Equity Investments Measured Using the Measurement Alternative

The Company holds a non-marketable equity investment in a privately held company in which the Company does not own a controlling interest or have significant influence. The investment does not have a readily determinable fair value and the Company has elected the measurement alternative, and consequently, measures the investment at cost less any impairment, adjusted to fair value, if there are observable price changes for an identical or similar investment of the same issuer.

Accounts Receivable

Accounts receivables are recorded at the invoiced amount and do not bear interest. The Company reviews the need for an allowance for doubtful accounts quarterly based on historical experience with each customer and the specifics of each customer arrangement. The Company did not have material write-offs in any period presented, and as of December 31, 2021 and 2020 did not record an allowance for doubtful accounts.

LUMINAR TECHNOLOGIES, INC. AND SUBSIDIARIES
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Inventory

The Company values inventory at the lower of cost or net realizable value. The Company determines the cost of inventory using the standard-cost method, which approximates actual costs based on a first-in, first-out method. The Company assesses inventory of slow-moving products for potential impairment, and records write-downs of inventory to cost of sales.

Property and Equipment

Property and equipment are stated at cost less accumulated depreciation and amortization, and are depreciated using the straight-line method over the estimated useful lives of the assets as follows:

Asset Category	Estimated useful lives
Machinery and equipment	5 to 7 years
Tooling	1 to 3 years
Computer hardware and software	3 to 5 years
Demonstration fleet and demonstration units	2 to 5 years
Leasehold improvements	Shorter of useful life or lease term
Vehicles	5 years
Furniture and fixtures	7 years

Maintenance and repairs are charged to expense as incurred, and improvements and betterments are capitalized. When assets are retired or otherwise disposed of, the cost and accumulated depreciation and amortization are removed from the consolidated balance sheet and any resulting gain or loss is reflected in the consolidated statements of operations and comprehensive loss in the period realized.

Intangible Assets

Intangible assets, consisting of acquired developed technology, customer relationships and tradename are carried at cost less accumulated amortization. All intangible assets have been determined to have definite lives and are amortized on a straight-line basis over their estimated remaining economic lives, ranging from one to ten years. Amortization expense related to developed technology is included in cost of sales. Amortization expense related to customer relationships is included in sales and marketing expense. Amortization expense related to tradename is included in general and administrative expense. Intangible assets are reviewed for impairment whenever events or changes in circumstances indicate an asset's carrying value may not be recoverable. There was no impairment of intangible assets experienced during the year ended December 31, 2021 or 2020.

Goodwill

The Company records goodwill when the consideration paid in a business combination exceeds the fair value of the net tangible assets and the identified intangible assets acquired. Goodwill is not amortized, but instead is required to be tested for impairment annually and whenever events or changes in circumstances indicate that the carrying value of goodwill may exceed its fair value.

The Company reviews goodwill for impairment annually in its fourth quarter by initially considering qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount, including goodwill, as a basis for determining whether it is necessary to perform a quantitative analysis. If it is determined that it is more likely than not that the fair value of reporting unit is less than its carrying amount, a quantitative analysis is performed to identify goodwill impairment. There was no impairment of goodwill experienced during the year ended December 31, 2021 or 2020.

Impairment of Long-Lived Assets

The Company reviews long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. When such an event occurs, management determines whether there has been impairment by comparing the anticipated undiscounted future net cash flows to the related asset group's carrying value. If an asset is considered impaired, the asset is written down to fair value, which is determined based either on discounted cash flows or appraised value, depending on the nature of the asset. There was no impairment experienced of long-lived assets during the years ended December 31, 2021 or 2020.

LUMINAR TECHNOLOGIES, INC. AND SUBSIDIARIES
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Convertible Senior Notes

Effective January 1, 2021, the Company early adopted ASU 2020-06 as of January 1, 2021. As a result, the Company's convertible senior notes issued in December 2021 are accounted for as a single liability instrument measured at its amortized cost, as no other embedded features require bifurcation and recognition as derivatives.

Product Warranties

Estimated future warranty costs are accrued and charged to cost of sales in the period that the related revenue is recognized. These estimates are based on historical warranty experience and any known or expected changes in warranty exposure, such as trends of product reliability and costs of repairing and replacing defective products. The Company periodically assesses the adequacy of its recorded warranty liabilities and adjusts the amounts as necessary.

Public and Private Warrants

As part of Gores' initial public offering on February 5, 2019, Gores issued to third party investors 40.0 million units, consisting of one share of Class A common stock of Gores and one-third of one warrant, at a price of \$10.00 per unit. Each whole warrant entitled the holder to purchase one share of Class A common stock at an exercise price of \$11.50 per share (the "Public Warrants"). Simultaneously with the closing of the IPO, Gores completed the private sale of 6.667 million warrants to Gore's sponsor at a purchase price of \$1.50 per warrant (the "Private Warrants"). Each Private Warrant allows the sponsor to purchase one share of Class A common stock at \$1.50 per share. Subsequent to the Business Combination, 13,333,309 Public Warrants and 6,666,666 Private Warrants remained outstanding as of December 31, 2020.

The Private Warrants and the shares of common stock issuable upon the exercise of the Private Warrants were not transferable, assignable or salable until after the completion of a Business Combination, subject to certain limited exceptions. Additionally, the Private Warrants are exercisable for cash or on a cashless basis, at the holder's option, and are non-redeemable so long as they are held by the initial purchasers or their permitted transferees. If the Private Warrants are held by someone other than the initial purchasers or their permitted transferees, said Private Warrants will be redeemable by the Company and exercisable by such holders on the same basis as the Public Warrants.

In the first quarter of 2021, 3,589,645 Private Warrants and 13,128,671 Public Warrants were exercised, and the Company received \$153.9 million in cash proceeds from the exercise of these warrants. Pursuant to the terms of the agreements governing the rights of the holders of the Public Warrants, the Company redeemed the remaining unexercised and outstanding 204,638 Public Warrants for a redemption price of \$0.01 per Public Warrant.

The Company had 3,077,021 Private Warrants and 0 Public Warrants, outstanding as of December 31, 2021 and such Private Warrants are set to expire on December 2, 2025.

The exercise of the Private Warrants may be settled in cash upon the occurrence of a tender offer or exchange that involves 50% or more of the Company's Class A stockholders. Public Warrants contained the same feature. Since not all of the Company's stockholders need to participate in such tender offer or exchange to trigger the potential cash settlement and the Company does not control the occurrence of such an event, the Company concluded that the Public Warrants and Private Warrants do not meet the conditions to be classified in equity. Consequently, the Company concluded that the Public and Private Warrants do not meet the criteria to be classified in stockholders' equity per the guidance in ASC 815-40, *Derivatives and Hedging—Contracts in Entity's Own Equity*. Since the Public and Private Warrants meet the definition of a derivative under ASC 815, the Company recorded these warrants as liabilities on the balance sheet at fair value upon the closing of the Business Combination, with subsequent changes in their respective fair values recognized in the consolidated statement of operations and comprehensive loss at each reporting date.

Revenue Recognition

Under ASC 606, the Company determines revenue recognition through the following steps:

- Identifying the contract, or contracts, with the customer;
- Identifying the performance obligations in the contract;
- Determining the transaction price;
- Allocating the transaction price to performance obligations in the contract; and
- Recognizing revenue when, or as, the Company satisfies performance obligations by transferring the promised goods or services.

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Nature of Products and Services and Revenue Recognition

Autonomy Solutions segment revenue primarily comes from product sales of lidar sensors to customers and distributors and NRE services to integrate Luminar lidar hardware for autonomy in vehicle platforms. Revenue from product sales is recognized at a point in time when control of the goods is transferred to the customer, generally occurring upon shipment or delivery dependent upon the terms of the underlying contract.

Components segment revenue primarily comes from the development and production of specialized wafers, dies, and avalanche photodiodes and NRE services related to design of custom products. Revenue from product sales is recognized at a point in time when control of the goods is transferred. Certain customer arrangements involve NRE services to develop and delivery of prototype products to customers. Revenue from these sales arrangements is categorized as product revenue and recognized over time as the product is being developed. Revenue from time and material based NRE service arrangements is recognized over time.

For NRE services that require engineering and development based on customer requirements, the Company recognizes revenue over time using an input method based on contract cost incurred to date compared to total estimated contract costs (cost-to-cost). Amounts billed to customers for shipping and handling are included in revenue. The Company's arrangements for sale of hardware are typically recognized at the time of transfer of control of the underlying hardware. The obligations associated with any performance obligation to update the Company's software have been immaterial. Taxes collected from customers and remitted to governmental authorities are excluded from revenue on the net basis of accounting.

For NRE service projects, the Company contracts with customers based on hourly rates or on a fixed fee basis. For arrangements based on hourly rates, revenue is recognized as services are performed and amounts are earned in accordance with the terms of a contract at estimated collectible amounts. For arrangements based on a fixed fee, revenue is recognized based on the progress or the percentage of completion of the NRE service project. Expenses associated with performance of work may be reimbursed with a markup depending on contractual terms and are included in revenues. Reimbursements include billings for travel and other out-of-pocket expenses and third-party costs, such as equipment rentals, materials and subcontractor costs, which are included in cost of sales in the accompanying combined statement of operations.

Arrangements with Multiple Performance Obligations

When a contract involves multiple performance obligations, the Company accounts for individual products and services separately if the customer can benefit from the product or service on its own or with other resources that are readily available to the customer and the product or service is separately identifiable from other promises in the arrangement. The consideration is allocated between separate performance obligations in proportion to their estimated standalone selling price. The transactions to which the Company had to estimate standalone selling prices and allocate the arrangement consideration to multiple performance obligations were immaterial.

The Company provides standard product warranties for a term of typically one year to ensure that its products comply with agreed-upon specifications. Standard warranties are considered to be assurance type warranties and are not accounted for as separate performance obligations. See Product Warranties for accounting policy on standard warranties.

Other Policies, Judgments and Practical Expedients

Contract balances. Contract assets and liabilities represent the differences in the timing of revenue recognition from the receipt of cash from the Company's customers and billings. Contract assets reflect revenue recognized and performance obligations satisfied in advance of customer billing. Contract liabilities relates to payments received in advance of the satisfaction of performance under the contract. Receivable represents right to consideration that is unconditional. Such rights are considered unconditional if only the passage of time is required before payment of that consideration is due.

Remaining performance obligations. Revenue allocated to remaining performance obligations represents the transaction price allocated to the performance obligations that are unsatisfied, or partially unsatisfied. It includes unearned revenue and amounts that will be invoiced and recognized as revenue in future periods and does not include contracts where the customer is not committed. The customer is not considered committed where they are able to terminate for convenience without payment of a substantive penalty under the contract. The Company has elected the optional exemption, which allows for the exclusion of the amounts for remaining performance obligations that are part of contracts with an original expected duration of one year or less.

Significant financing component. In certain arrangements, the Company receives payment from a customer either before or after the performance obligation has been satisfied. Typically, the expected timing difference between the payment and satisfaction of performance obligations is one year or less; therefore, the Company applies a practical expedient and does not

LUMINAR TECHNOLOGIES, INC. AND SUBSIDIARIES
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consider the effects of the time value of money. The Company's contracts with customer prepayment terms do not include a significant financing component because the primary purpose is not to receive or provide financing from or to the customers.

Contract modifications. The Company may modify contracts to offer customers additional products or services. Each of the additional products and services are generally considered distinct from those products or services transferred to the customer before the modification. The Company evaluates whether the contract price for the additional products and services reflects the standalone selling price as adjusted for facts and circumstances applicable to that contract. In these cases, the Company accounts for the additional products or services as a separate contract. In other cases where the pricing in the modification does not reflect the standalone selling price as adjusted for facts and circumstances applicable to that contract, the Company accounts on a prospective basis where the remaining goods and services are distinct from the original items and on a cumulative catch-up basis when the remaining goods and services are not distinct from the original items.

Judgments and estimates. Accounting for contracts recognized over time involves the use of various techniques to estimate total contract revenue and costs. Due to uncertainties inherent in the estimation process, it is possible that estimates of costs to complete a performance obligation will be revised in the near-term. The Company reviews and updates its contract-related estimates regularly, and records adjustments as needed. For those performance obligations for which revenue is recognized using a cost-to-cost input method, changes in total estimated costs, and related progress towards complete satisfaction of the performance obligation, are recognized on a cumulative catch-up basis in the period in which the revisions to the estimates are made.

Cost of Sales

The Company includes all manufacturing and sourcing costs incurred prior to the receipt of finished goods at its distribution facility in cost of sales. The cost of sales principally includes personnel-related costs (including certain engineering personnel), including stock-based compensation, directly associated with the Company's manufacturing organization, direct costs, product costs, purchasing costs, allocation of overhead costs associated with manufacturing operations, inbound freight charges, insurance, inventory write-downs, warranty cost and depreciation and amortization expense associated with the manufacturing and sourcing operations. Cost of sales also includes the direct cost and appropriate allocation of overhead costs involved in execution of service contracts.

Research and Development (R&D)

R&D expenses consist primarily of personnel-related expenses, consulting and contractor expenses, tooling and prototype materials and allocated overhead costs. Substantially all of the Company's R&D expenses are related to developing new products and services, improving existing products and services, and developing manufacturing processes. R&D expenses are expensed as incurred.

Stock-based Compensation

Employee awards

For equity classified awards, the Company measures the cost of share-based awards granted to employees, non-employees and directors based on the grant-date fair value of the awards. The grant-date fair value of the stock options is calculated using a Black-Scholes option pricing model. The grant-date fair value of restricted stock is calculated based on the fair value of the underlying common stock less cash proceeds paid by the recipient to acquire the restricted stock, if any. The grant-date fair value of restricted stock unit is calculated based on the fair value of the underlying common stock. The fair value of the stock-based compensation is recognized on a straight-line basis over the requisite service period, which is generally the vesting period of the award. The Company elected to recognize the effect of forfeitures in the period they occur.

The Company grants fixed value share-based awards to certain employees, wherein the awardee is entitled to a fixed dollar value compensation settled by issuing shares on the vesting date, with the number of shares determined based on the Company's stock price on or close to the settlement date. These fixed value equity awards are considered as liability classified awards. The Company measures the cost of fixed value share-based awards granted to employees based on a fixed monetary amount that is known at the inception of the obligation. The Company records the compensation cost for the fixed dollar amount of the award over the vesting period, with a corresponding liability.

Stock-based payments to vendors / non-employees

The Company has entered into arrangements with certain vendors and other third parties wherein the Company at its discretion may elect to compensate the respective vendors for services provided in either cash or by issuing shares of the Company's Class A common stock ("Stock-in-lieu of Cash Program"). Typically, the amounts owed under the Stock-in-lieu of Cash Program are settled by issuing shares, with the number of shares determined based on the Company's stock price on or

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

close to the settlement date. Payments owed under this program are considered as liability obligations. The Company measures the cost based on a fixed monetary amount that is known at the inception of the obligation.

Income Taxes

Income taxes are accounted for under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements. Under this method, deferred tax assets and liabilities are determined on the basis of the differences between the financial statement and tax bases of assets and liabilities by using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the enactment date.

The Company recognizes deferred tax assets to the extent that these assets are more likely than not to be realized. In making such a determination, all available positive and negative evidence are considered, including future reversals of existing taxable temporary differences, projected future taxable income, tax-planning strategies, and results of recent operations. If it is determined that deferred tax assets would be realized in the future, in excess of their net recorded amount, an adjustment would be made to the deferred tax asset valuation allowance, which would reduce the provision for income taxes.

The Company records uncertain tax positions in accordance with ASC 740, *Income Taxes*, on the basis of a two-step process which includes (1) determining whether it is more likely than not that the tax positions will be sustained on the basis of the technical merits of the position, and (2) for those tax positions that meet the more-likely-than-not recognition threshold. Recognized income tax positions are measured at the largest amount of tax benefit that is more than 50% likely to be realized upon ultimate settlement with the related tax authority.

The Company recognizes interest and penalties related to unrecognized tax benefits on the income tax expense line in the accompanying consolidated statement of operations. Accrued interest and penalties are included on the related tax liability line in the consolidated balance sheet.

The Tax Cuts and Jobs Act ("TCJA") subjects a U.S. shareholder to tax on global intangible low-taxed income ("GILTI") earned by certain foreign subsidiaries. Under GAAP, the Company can make an accounting policy election to either treat taxes due on the GILTI inclusion as a current period expense or factor such amounts into the Company's measurement of deferred taxes. The Company elected to treat the GILTI inclusion as a period expense.

Recently Adopted Accounting Pronouncements

In February 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standard Update ("ASU") No. 2016-02, *Leases (Topic 842)* and issued subsequent amendments to the initial guidance in 2017, 2018 and 2019 (collectively "ASC 842"). Under the new guidance, a lessee is required to recognize assets and liabilities for both finance, previously known as capital, and operating leases with lease terms of more than 12 months. The ASU also requires disclosures to help investors and other financial statement users better understand the amount, timing, and uncertainty of cash flows arising from leases. In transition, the Company recognized and measured leases at the beginning of the period of adoption, January 1, 2021, using a modified retrospective approach that included a number of optional practical expedients that the Company elected to apply. See Note 15 for disclosure on the impact of adopting this standard.

In June 2016, the FASB issued ASU No. 2016-13, *Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* ("ASU 2016-13"), which requires measurement and recognition of expected credit losses for financial assets held at amortized cost, including trade receivables. ASU 2016-13 replaces the existing incurred loss impairment model with an expected loss model that requires the forward-looking information to calculate credit loss estimates. It also eliminates the concept of other-than-temporary impairment and requires credit losses related to available-for-sale debt securities to be recorded through an allowance for credit losses rather than as a reduction in the amortized cost basis of the securities. These changes will result in more timely recognition of credit losses. The Company adopted ASU 2016-13 using the modified retrospective method on January 1, 2021. The adoption of ASU 2016-13 did not have a material impact on the Company's consolidated financial position, operating results or cash flows.

In December 2019, the FASB issued ASU No. 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes* ("ASU 2019-12"), which amends its guidance to simplify the accounting for income taxes by, among other things, removing exceptions to certain general principles in Topic 740, *Income Taxes*. The Company adopted ASU 2019-12 on January 1, 2021. The adoption of ASU 2019-12 did not have a material impact on the Company's consolidated financial position, operating results or cash flows.

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In August 2020, the FASB issued ASU 2020-06, *Debt — Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging — Contracts in Entity's Own Equity (Subtopic 815-40)* ("ASU 2020-06") to simplify accounting for certain financial instruments. ASU 2020-06 simplifies the accounting for convertible instruments by removing the separation models for (1) convertible debt with a cash conversion feature and (2) convertible instruments with a beneficial conversion feature. The Company elected to early adopt ASU 2020-06 as of January 1, 2021. The adoption of ASU 2020-06 resulted in the convertible senior notes issued in December 2021 to be recorded as a single liability instrument. ASU 2020-06 amends the diluted earnings per share guidance, including the requirement to use the if-converted method for all convertible instruments.

Recent Accounting Pronouncements Not Yet Effective

In October 2021, the FASB issued ASU No. 2021-08, *Business Combinations (Topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers* ("ASU 2021-08"). The new guidance in this update affects all entities that enter into a business combination within the scope of ASC 805-10. ASU 2021-08 will be effective for the Company beginning January 1, 2023. The Company is currently in the process of evaluating the effects of this pronouncement on the Company's consolidated financial statements and does not expect it to have a material impact on the consolidated financial statements.

Note 3. Business Combinations

OptoGration Acquisition

On August 3, 2021, (the "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 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 compensatory in nature and consequently will be expensed over the vesting period of these awards.

The results of operations related to OptoGration are included in the Company's consolidated statements of operations beginning from the Acquisition Date. The impact of the acquisition on the consolidated financial results of the Company for the year ended December 31, 2021 was not material.

Recording of Assets Acquired and Liabilities Assumed

Preliminary estimates of fair value included in the consolidated financial statements, in conformity with ASC 820, Fair Value Measurement, represent the Company's best preliminary estimates and preliminary valuations. In accordance with ASC 805, Business Combinations, the preliminary allocation of the consideration value is subject to adjustment until the Company has completed its analysis, but not to exceed one year after the Acquisition Date to provide the Company with the time to complete the valuation of its assets and liabilities. As of December 31, 2021, the Company has recorded a preliminary estimate of deferred tax balances and was still in the process of finalizing deferred tax balances. Additionally, as of December 31, 2021, the Company was still in the process of finalizing assessment of certain working capital accounts. The completion of this analysis could result in changes to the Company's allocation of the consideration value to assets acquired and liabilities assumed.

Settlement of a pre-existing agreement with OptoGration

Prior to the acquisition, the Company had contracted with OptoGration as a supplier. In assessing whether said pre-existing supply contract was at market, favorable or unfavorable from the Company's perspective, the Company assessed whether the terms of the supply contract, including pricing, were consistent with what the Company would have required from another company that would have contracted for similar products and production volumes. The Company concluded that the supply agreement was at market, and thus no gain or loss was recognized upon effective settlement of the pre-existing supply agreement.

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The following table summarizes the preliminary purchase price allocation to assets acquired and liabilities assumed, including identification of measurement period adjustments:

	Recorded Value
Cash and cash equivalents	\$ 358
Accounts receivable	810
Other current assets	482
Property and equipment	1,248
Other non-current assets	384
Intangible assets (1)	2,650
Goodwill (2)	2,409
Total assets acquired	8,341
Current Liabilities	(488)
Non-current liabilities	(1,511)
Total liabilities assumed	(1,999)
Net assets acquired	\$ 6,342

(1) Identifiable intangible assets were measured using the income approach.

(2) Goodwill is the excess of the consideration transferred over the net assets recognized and represents the expected future economic benefits as a result of other assets acquired that could not be individually identified and separately recognized. Goodwill is not amortized. The factors that made up the goodwill recognized included assembled workforce and component cost savings. Goodwill is not expected to be deductible for tax purposes.

Identifiable intangible assets recognized:

	Useful Life	Preliminary Recorded Value
Customer relationships	10 years	\$ 780
Tradename	≤ 1 year	120
Developed technology	10 years	1,750
Total intangible assets		\$ 2,650

Reverse Merger with Gores

On December 2, 2020, Gores consummated the Business Combination pursuant to that certain Agreement and Plan of Merger, dated August 24, 2020 (the “Merger Agreement”), by and among Gores, Dawn Merger Sub, Inc. (“First Merger Sub”), a wholly owned subsidiary of Gores, Dawn Merger Sub II, LLC (“Second Merger Sub”), a wholly owned subsidiary of Gores, and Legacy Luminar. In connection with the consummation of the Business Combination (the “Closing”), the registrant changed its name from Gores Metropoulos, Inc. to Luminar Technologies, Inc.

Immediately following the Business Combination, there were 323,936,240 shares of common stock, consisting of 218,818,037 shares of Class A common stock and 105,118,203 shares of Class B common stock with a par value of \$0.0001 issued and outstanding, options to purchase an aggregate of 16,224,474 shares of Class A common stock and warrants to purchase, 4,089,280 shares of Class A common stock.

Pursuant to the Merger Agreement, the Company’s stockholders were entitled to receive an aggregate of up to 25,819,887 earn-out shares in the form of common stock (with respect to the Company’s Class A stockholders’ shares of Class A common stock and with respect to the Company’s Class B stockholders’ shares of Class B common stock). There were six different triggering events that affect the number of earn-out shares that will be issued based upon the per share price of Class A common stock ranging from \$13.00 to \$28.00 per share. On August 11, 2021, the Company issued a total of 17,213,170 earn-out shares towards additional consideration in the form of common stock, consisting of 10,242,703 shares of Class A common stock and 6,970,467 shares of Class B common stock, upon meeting four of six triggering events. The shares issued were based upon the Class A common stock trading price exceeding \$13.00, \$16.00, \$19.00 and \$22.00 per share for a certain period of time. There are 5,121,484 shares of Class A common stock and 3,485,233 shares of Class B common stock remaining under the

LUMINAR TECHNOLOGIES, INC. AND SUBSIDIARIES
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Merger Agreement, which will be issued in equal parts if the Class A common stock share price exceeds \$5.00 and \$28.00 per share for a certain period of time.

The Company accounts for the potential earn-out shares as a component of stockholders' equity in accordance with the guidance in ASC 480 *Distinguishing Liabilities from Equity*, and ASC 815, *Derivatives and Hedging*. On December 2, 2020, the Company estimated the fair value of the potential earn-out shares to be \$87.7 million, which was estimated using a Monte Carlo Model and Level 3 fair value inputs including volatility of 58.5% and a contractual term of 5.5 years. This was recorded as an increase in additional paid-in capital with an offsetting amount recorded in the same account, due to the absence of retained earnings.

The Business Combination was accounted for as a reverse recapitalization in accordance with GAAP as Legacy Luminar has been determined to be the accounting acquirer, primarily due to the fact that Legacy Luminar stockholders continue to control the post-combination Company. Under this method of accounting, while Gores was the legal acquirer, it has been treated as the "acquired" company for financial reporting purposes. Accordingly, the Business Combination was treated as the equivalent of Legacy Luminar issuing stock for the net assets of Gores, accompanied by a recapitalization. The net assets of Gores were stated at historical cost, with no goodwill or other intangible assets recorded. Operations prior to the Business Combination are those of Legacy Luminar. Reported shares and earnings per share available to holders of the Company's common stock, prior to the Business Combination, have been retroactively restated as shares reflecting the exchange ratio established in the Business Combination (approximately 1 Gores shares to 13.63094 Luminar shares).

The Company incurred \$17.2 million in transaction costs relating to the merger with Gores, which has been offset against additional paid-in capital in the Consolidated Statements of Convertible Preferred Stock and Stockholders' Equity (Deficit). On the date of the Business Combination, the Company recorded a liability related to the Public and Private Warrants of \$102.4 million, with an offsetting entry to additional paid-in capital.

Upon closing of the Business Combination, the shareholders' of Gores were issued 49,981,349 shares of Class A common stock. In connection with the Closing, holders of 18,651 shares of common stock of Gores were redeemed at a price per share of \$0.16.

Note 4. Revenue

The Company's revenue is comprised of sales of lidar sensors hardware, components and NRE services.

Disaggregation of Revenues

The Company disaggregates its revenue from contracts with customers by (1) geographic region based on customer's billed to location, and (2) type of good or service and timing of transfer of goods or services to customers (point-in-time or over time), as it believes it best depicts how the nature, amount, timing and uncertainty of its revenue and cash flows are affected by economic factors. Total revenue based on the disaggregation criteria described above, as well as revenue by segment, are as follows (in thousands):

	Year Ended December 31,					
	2021		2020		2019	
	Revenue	% of Revenue	Revenue	% of Revenue	Revenue	% of Revenue
Revenue by primary geographical market:						
North America	\$ 23,043	72 %	\$ 4,010	29 %	\$ 10,453	83 %
Asia Pacific	2,502	8 %	906	6 %	469	4 %
Europe and Middle East	6,399	20 %	9,035	65 %	1,680	13 %
Total	31,944	100 %	13,951	100 %	12,602	100 %
Revenue by timing of recognition:						
Recognized at a point in time	8,892	28 %	2,639	19 %	9,666	77 %
Recognized over time	23,052	72 %	11,312	81 %	2,936	23 %
Total	31,944	100 %	13,951	100 %	12,602	100 %
Revenue by segment:						
Autonomy Solutions	28,497	89 %	11,387	82 %	9,666	77 %
Components	3,447	11 %	2,564	18 %	2,936	23 %
Total	31,944	100 %	13,951	100 %	12,602	100 %

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Volvo Stock Purchase Warrant

In March 2020, the Company issued a stock purchase warrant (“Volvo Warrants”) to Volvo Car Technology Fund AB (“VCTF”) in connection with an engineering services contract. The Volvo Warrants entitle VCTF to purchase up to 4,089,280 shares of Class A common stock, at a price of \$3.1769 per share from the Company and were determined to be an equity classified award to VCTF. The Volvo Warrants vest and become exercisable in two tranches based on satisfaction of certain commercial milestones, upon reaching commercial production and delivering of production units. The grant date fair value of warrants, aggregating \$2.9 million, represents consideration payable to VCTF and will be recognized as reduction in revenue consistent with the revenue recognition pattern when these warrants become probable of vesting. The Company’s management determined that the vesting of the first of the tranches of Volvo Warrants was probable as of December 31, 2021. As such, the Company has recognized a reduction in revenue in the amount of \$1.0 million related to the said first tranche of the Volvo Warrants in the year ended December 31, 2021.

Contract assets and liabilities

Contract assets primarily represent revenues recognized for performance obligations that have been satisfied but for which amounts have not been billed. The Company’s contract assets as of December 31, 2021 and 2020 were \$9.9 million and \$0.0 million. Contract liabilities consist of deferred revenue and customer advanced payments. Deferred revenue includes billings in excess of revenue recognized related to product sales and other services revenue and is recognized as revenue when the Company performs under the contract. Customer advanced payments represent required customer payments in advance of product shipments according to customer’s payment term. Customer advance payments are recognized as revenue when control of the performance obligation is transferred to the customer. The Company’s contract liabilities were \$0.9 million and \$2.3 million as of December 31, 2021 and 2020, respectively, and were included in accrued and other current liabilities in the consolidated balance sheets.

The significant changes in contract assets balances consisted of the following (in thousands):

	December 31,	
	2021	2020
Beginning balance	\$ —	\$ —
Revenue recognized for performance obligations that have been satisfied but for which amounts have not been billed	9,907	—
Ending balance	<u>\$ 9,907</u>	<u>\$ —</u>

The significant changes in contract liabilities balances consisted of the following (in thousands):

	December 31,	
	2021	2020
Beginning balance	\$ 2,284	\$ 225
Revenue recognized that was included in the contract liabilities beginning balance	(1,792)	(225)
Increase due to cash received and not recognized as revenue and billings in excess of revenue recognized during the period	406	2,284
Ending balance	<u>\$ 898</u>	<u>\$ 2,284</u>

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Note 5. Investments

Debt Securities

The Company's investments in debt securities consisted of the following as of December 31, 2021 and 2020 (in thousands):

December 31, 2021				
	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
U.S. treasury securities	\$ 161,938	\$ 1	\$ (474)	\$ 161,465
U.S. agency and government sponsored securities	4,995	—	(25)	4,970
Commercial paper	40,788	—	(4)	40,784
Corporate bonds	165,522	13	(345)	165,190
Asset-backed securities	46,540	—	(74)	46,466
Total debt securities	\$ 419,783	\$ 14	\$ (922)	\$ 418,875
Included in cash and cash equivalents	\$ 950	\$ —	\$ —	\$ 950
Included in marketable securities	\$ 418,833	\$ 14	\$ (922)	\$ 417,925

December 31, 2020				
	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
U.S. treasury securities	\$ 155,339	\$ 14	\$ (6)	\$ 155,347
U.S. agency and government sponsored securities	19,996	—	—	19,996
Commercial paper	182,218	6	(4)	182,220
Corporate bonds	45,431	21	(2)	45,450
Asset-backed securities	7,012	6	—	7,018
Total debt securities	\$ 409,996	\$ 47	\$ (12)	\$ 410,031
Included in cash and cash equivalents	\$ 133,319	\$ 4	\$ (2)	\$ 133,321
Included in marketable securities	\$ 276,677	\$ 43	\$ (10)	\$ 276,710

The following table presents the gross unrealized losses and the fair value for those debt securities that were in an unrealized loss position for less than 12 months as of December 31, 2021 and 2020 (in thousands):

December 31, 2021		December 31, 2020	
	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
U.S. treasury securities	\$ (474)	\$ 146,454	\$ (6)
U.S. agency and government sponsored securities	(25)	4,970	—
Commercial paper	(4)	30,285	(4)
Corporate bonds	(345)	145,522	(2)
Asset-backed securities	(74)	45,251	—
Total	\$ (922)	\$ 372,482	\$ (12)

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Equity Investments

The Company's equity investments consisted of the following as of December 31, 2021 and 2020 (in thousands):

	Consolidated Balance Sheets Location	December 31,	
		2021	2020
Money market funds ⁽¹⁾	Cash and cash equivalents	\$ 25,654	\$ 64,971
Marketable equity investments ⁽¹⁾	Marketable securities	44,216	—
Non-marketable equity investment measured using the measurement alternative ⁽²⁾	Other non-current assets	10,002	—
		<u>\$ 79,872</u>	<u>\$ 64,971</u>

(1) Investments with readily determinable fair values.

(2) Investment in privately held company without readily determinable fair value.

In December 2021, the Company made an investment in 1,495 Class A Preferred Units of Robotic Research OpCo, LLC ("Robotic Research") for consideration of \$10.0 million, which was settled by issuing 618,924 shares of Class A common stock of the Company. The Company's investment in Robotic Research represents less than 5% of Robotic Research's capitalization. The Company neither has a significant influence over Robotic Research nor does its investment amount to a controlling financial interest in Robotic Research. As such, the Company measured the investment in Robotic Research at cost as provided under the guidance for measurement of equity investment using the measurement alternative.

Total realized and unrealized gains and losses associated with the Company's equity investments consisted of the following (in thousands):

	Year Ended December 31,		
	2021	2020	2019
Net realized gains (losses) recognized on equity investments sold	\$ 513	\$ —	\$ —
Net unrealized gains (losses) recognized on equity investments held	(156)	—	—
Total net gains (losses) recognized in other income (expense), net	<u>\$ 357</u>	<u>\$ —</u>	<u>\$ —</u>

Note 6. Financial Statement Components

Cash and Cash Equivalents

Cash and cash equivalents consisted of the following (in thousands):

	December 31,	
	2021	2020
Cash	\$ 303,373	\$ 10,652
Money market funds	25,654	64,971
U.S. treasury securities	—	24,999
Commercial paper	950	108,322
Total cash and cash equivalents	<u>\$ 329,977</u>	<u>\$ 208,944</u>

Inventory

Inventory consisted of the following (in thousands):

	December 31,	
	2021	2020
Raw materials	\$ 5,866	\$ 625
Work-in-process	1,171	52
Finished goods	3,305	2,936
Total inventory	<u>\$ 10,342</u>	<u>\$ 3,613</u>

The Company's inventory write-down (primarily due to obsolescence, lower of cost or market assessment, and other adjustments) was \$2.9 million, \$4.4 million and \$1.4 million during the years ended December 31, 2021, 2020 and 2019, respectively.

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Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets consisted of the following (in thousands):

	December 31,	
	2021	2020
Prepaid expenses	\$ 14,651	\$ 1,073
Contract assets	9,907	—
Advance payments to vendors	1,810	961
Prepaid rent and other	—	503
Other receivables	2,827	2,260
Total prepaid expenses and other current assets	<u>\$ 29,195</u>	<u>\$ 4,797</u>

Property and Equipment

Property and equipment consisted of the following (in thousands):

	December 31,	
	2021	2020
Machinery and equipment	\$ 7,694	\$ 5,940
Computer hardware and software	2,854	2,450
Demonstration fleet and demonstration units	811	1,821
Leasehold improvements	869	791
Vehicles	1,610	835
Furniture and fixtures	272	293
Construction in progress	3,677	1,410
Total property and equipment	17,787	13,540
Accumulated depreciation and amortization	(6,778)	(5,851)
Total property and equipment, net	<u>\$ 11,009</u>	<u>\$ 7,689</u>

Depreciation and amortization associated with property and equipment was \$3.9 million, \$2.5 million and \$2.3 million for the years ended December 31, 2021, 2020 and 2019, respectively.

Property and equipment capitalized under finance lease (capital lease prior to adoption of ASC 842) were not material.

Intangible Assets

Intangible assets were acquired in connection with the Company's acquisition of OptoGration in August 2021. See Note 3 for further details of the OptoGration acquisition. The components of intangible assets were as follows (in thousands):

	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Weighted Average Remaining Period (Years)
Customer relationships	\$ 780	\$ (33)	\$ 747	9.6
Tradename	120	(120)	—	—
Developed technology	1,750	(73)	1,677	9.6
Total intangible assets	<u>\$ 2,650</u>	<u>\$ (226)</u>	<u>\$ 2,424</u>	9.6

Amortization expense related to intangible assets was \$0.2 million for the year ended December 31, 2021.

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As of December 31, 2021, the expected future amortization expense for intangible assets was as follows (in thousands):

Period	Expected Future Amortization Expense
2022	\$ 253
2023	253
2024	253
2025	253
2026	253
Thereafter	1,159
Total	<u>\$ 2,424</u>

Goodwill

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

	Autonomy Solutions	Components	Total
As of December 31, 2021	<u>\$ 687</u>	<u>\$ 2,423</u>	<u>\$ 3,110</u>
As of December 31, 2020	<u>\$ 687</u>	<u>\$ 14</u>	<u>\$ 701</u>

Other Non-Current Assets

Other non-current assets consisted of the following (in thousands):

	December 31,
	2021 2020
Security deposits	\$ 1,187 \$ 1,106
Non-marketable equity investment	10,002 —
Other non-current assets	1,266 45
Total other non-current assets	<u>\$ 12,455</u> <u>\$ 1,151</u>

Accrued and Other Current Liabilities

Accrued and other current liabilities consisted of the following (in thousands):

	December 31,
	2021 2020
Accrued compensation and benefits	\$ 9,899 \$ 3,071
Accrued expenses	6,727 3,998
Warranty reserves	1,798 259
Contract liabilities	898 2,284
Accrued interest payable	316 —
Contract losses	115 558
Finance lease liabilities (capital lease liabilities prior to adoption of ASC 842), current	91 282
Total accrued and other current liabilities	<u>\$ 19,844</u> <u>\$ 10,452</u>

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Other Non-Current Liabilities

Other non-current liabilities consisted of the following (in thousands):

	December 31,	
	2021	2020
Deferred rent	\$ —	\$ 826
Finance lease liabilities (capital lease liabilities prior to adoption of ASC 842), non-current	—	492
Other non-current liabilities	598	—
Total other non-current liabilities	<u>\$ 598</u>	<u>\$ 1,318</u>

Note 7. Simple Agreements for Future Equity (SAFE)

Between April 2016 and May 2019, the Company issued SAFE notes that allowed the investors to participate in future equity financings through a share-settled redemption of the amount invested.

On June 24, 2019, in connection with the sale of the Series A preferred stock, the SAFE notes were settled by issuance of 8,877,417 shares of Series A preferred stock and 3,612,062 shares of common stock. The SAFE notes were marked to fair value as of the settlement date, resulting in a charge for the increase in fair value of \$4.2 million during the year ended December 31, 2019. One SAFE note was settled in cash for \$5.6 million in 2019, resulting in an immaterial loss on settlement. No SAFE notes have been outstanding since December 31, 2019.

Note 8. Debt

Convertible Senior Notes and Capped Call Transactions

In December 2021, the Company issued \$625.0 million aggregate principal amount of 1.25% Convertible Senior Notes due 2026 in a private placement, which included \$75.0 million aggregate principal amount of such notes pursuant to the exercise in full of the option granted to the initial purchasers to purchase additional notes (collectively, the “Convertible Senior Notes”). The interest on the Convertible Senior Notes is payable semi-annually in arrears on June 15 and December 15 of each year, beginning on June 15, 2022. The Convertible Notes will mature on December 15, 2026, unless earlier repurchased or redeemed by the Company or converted pursuant to their terms.

The total net proceeds from the debt offering, after deducting fees paid to the initial purchasers paid by the Company was approximately \$09.4 million.

Each \$1,000 principal amount of the Convertible Senior Notes are initially convertible into 50.0475 shares of the Company’s Class A common stock, par value \$0.0001, which is equivalent to an initial conversion price of approximately \$19.98 per share. The conversion rate is subject to adjustment upon the occurrence of certain specified events prior to the maturity date but will not be adjusted for any accrued and unpaid interest. In addition, following certain corporate events that occur prior to the maturity date or if the Company delivers a notice of redemption in respect of some or all of the Convertible Senior Notes, the Company will, under certain circumstances, increase the conversion rate of the Convertible Senior Notes for a holder who elects to convert its Convertible Senior Notes in connection with such a corporate event or convert its Convertible Senior Notes called for redemption during the related redemption period, as the case may be. The Convertible Senior Notes are redeemable, in whole or in part (subject to certain limitations), at the Company’s option at any time, and from time to time, on or after December 20, 2024, and on or before the 40th scheduled trading day immediately before the maturity date, at a cash redemption price equal to the principal amount of the Convertible Senior Notes to be redeemed, plus accrued and unpaid interest, if any, to, but excluding, the redemption date, but only if certain liquidity conditions are satisfied and the last reported sale price per share of the Class A common stock exceeds 130% of the conversion price on (1) each of at least 20 trading days, whether or not consecutive, during the 30 consecutive trading days ending on, and including, the trading day immediately before the date the Company sends the related redemption notice, and (2) the trading day immediately before the date the Company sends such notice. If the Company undergoes a fundamental change (as defined in the indenture governing the Convertible Senior Notes) prior to the maturity date, holders may require the Company to repurchase for cash all or any portion of their Convertible Senior Notes in principal amounts of \$1,000 or a multiple thereof at a fundamental change repurchase price equal to 100% of the principal amount of the Convertible Senior Notes to be repurchased, plus accrued and unpaid interest to, but excluding, the fundamental change repurchase date.

Holders of the Convertible Senior Notes may convert their Convertible Senior Notes at their option at any time prior to the close of business on the business day immediately preceding December 15, 2026, in multiples of \$1,000 principal amount, only under the following circumstances: (1) during any calendar quarter (and only during such calendar quarter) commencing

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after the calendar quarter ending on March 31, 2022, if the last reported sale price per share of the Class A common stock exceeded 30% of the conversion price for each of at least 20 trading days, whether or not consecutive, during the 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter; (2) during the five consecutive business days immediately after any 10 consecutive trading day period (such 10 consecutive trading day period, the “measurement period”) in which the trading price per \$1,000 principal amount of Convertible Senior Notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price per share of the Class A common stock on such trading day and the conversion rate on such trading day; (3) upon the occurrence of specified corporate events or distributions on the Class A common stock; and (4) if the Notes are called for redemption. On or after June 15, 2026, holders may convert all or any portion of their Convertible Senior Notes at any time prior to the close of business on the second scheduled trading day immediately preceding the maturity date, regardless of the foregoing circumstances. Upon conversion, the Company will pay or deliver, as the case may be, cash, shares of its Class A common stock or a combination of cash and shares of its Class A common stock, at the Company’s election. As of December 31, 2021, the conditions allowing holders of the Convertible Senior Notes to convert were not met.

It is the Company’s current intent to settle the principal amount of its outstanding Convertible Senior Notes in cash and any excess in shares of the Company’s Class A common stock.

The Convertible Senior Notes are senior unsecured obligations and will rank equal in right of payment with the Company’s future senior unsecured indebtedness; senior in right of payment to the Company’s future indebtedness that is expressly subordinated to the Convertible Senior Notes; effectively subordinated to the Company’s existing and future secured indebtedness, to the extent of the value of the collateral securing that indebtedness; and structurally subordinated to all existing and future indebtedness and other liabilities, including trade payables, and (to the extent the Company is not a holder thereof) preferred equity, if any, of the Company’s subsidiaries.

The Company has classified the Convertible Senior Notes as a non-current liability under the guidance in ASC 470-20, as amended by ASU 2020-06. Debt discount and issuance costs, comprising of fees paid to the initial purchasers, advisors, and lawyers in connection with issuance of the Convertible Senior Notes aggregating approximately \$16.2 million were initially recorded as a reduction to the principal amount of the debt and will be amortized to interest expense on a straight line over the contractual terms of the Convertible Senior Notes. The Company estimates that the difference between amortizing the debt discounts and the issuance costs using the straight line method as compared to using effective interest rate method is immaterial.

The net carrying amount of the Convertible Senior Notes was as follows (in thousands):

	As of December 31, 2021
Principal	\$ 625,000
Unamortized debt discount and issuance costs	(16,043)
Net carrying amount	\$ 608,957

The following table sets forth the interest expense recognized related to the Convertible Senior Notes (in thousands):

	As of December 31, 2021
Contractual interest expense	\$ 316
Amortization of debt discount and issuance costs	135
Total interest expense	\$ 451

The remaining term over which the debt discount and issuance costs will be amortized is five years. Interest expense of \$0.5 million is reflected as a component of interest (expense) income, net in the accompanying consolidated statement of operations for the year ended December 31, 2021.

In connection with the offering of the Convertible Senior Notes, the Company entered into privately negotiated capped call option transactions with certain counterparties (the “Capped Calls”). The Capped Calls each have an initial strike price of approximately \$19.98 per share, subject to certain adjustments, which corresponds to the initial conversion price of the Convertible Senior Notes. The Capped Calls have initial cap prices of \$30.16 per share, subject to certain adjustment events. The Capped Calls are generally intended to reduce the potential dilution to the Class A common stock upon any conversion of the Convertible Senior Notes and/or offset any cash payments the Company is required to make in excess of the principal amount of converted Convertible Senior Notes, as the case may be, with such reduction and/or offset subject to a cap based on the cap price. The Capped Calls expire on April 6, 2027, subject to earlier exercise. The Capped Calls are subject to either

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adjustment or termination upon the occurrence of specified extraordinary events affecting the Company, including a merger event, a tender offer, and a nationalization, insolvency or delisting involving the Company. In addition, the Capped Calls are subject to certain specified additional disruption events that may give rise to a termination of the Capped Calls, including changes in law, failure to deliver, and hedging disruptions. The Capped Calls are recorded in stockholders' equity and are not accounted for as derivatives. The net cost of \$73.4 million incurred to purchase the Capped Calls was recorded as a reduction to additional paid-in capital in the accompanying consolidated balance sheet.

Senior Secured Loan

Legacy Luminar had in August 2017 issued certain Senior Secured Promissory Notes ("Senior Secured Notes"). These Senior Secured Notes were subsequently amended, refinanced and partially repaid at various times through 2020. In connection with the issuance of Senior Secured Notes, Legacy Luminar had issued 2017, 2018 and 2020 Warrants (see Note 9 for details). The Senior Secured Notes were repaid in full in December 2020 as required per the terms of the Merger Agreement. The Company had recorded loss on extinguishment of debt in connection with the Senior Secured Notes in the amount of approximately \$4.0 million and \$0.0 million and interest expense in the amount of \$2.5 million and \$1.5 million in 2020 and 2019, respectively.

Equipment Loan

Legacy Luminar had in July 2017 entered into an Equipment and Loan Agreement ("Equipment Loan") which had been paid off in full in 2020 upon maturity.

Paycheck Protection Program Loan

On April 22, 2020 (the "Origination Date"), Legacy Luminar received \$7.8 million in aggregate loan proceeds (the "PPP Loan") from Silicon Valley Bank (the "Lender") pursuant to the Paycheck Protection Program established under the CARES (the Coronavirus Aid, Relief, and Economic Security) Act of 2020. Legacy Luminar repaid the PPP loan in full in August 2020.

Bridge Note

Legacy Luminar had in August 2015 entered into a Convertible Promissory Note (the "Bridge Note") with an investor. The terms of the Bridge Note were amended in February 2019, and the said Bridge Note was settled in full in June 2019 by conversion of the Bridge Notes in preferred stock of Legacy Luminar. Legacy Luminar had recorded loss on extinguishment of debt in connection with the Bridge Notes in the amount of approximately \$6.0 million in the year ended December 31, 2019.

Note 9. 2017, 2018 and 2020 Warrants

In connection with the issuance of Senior Secured Notes and its subsequent amendment, refinance and partial repayments at various times through 2020, Legacy Luminar had issued warrants, the "2017 Warrants," the "2018 Warrants" and the "2020 Warrants" (collectively "Legacy Warrants"). Legacy Luminar classified these Legacy Warrants as liabilities because the holder of the warrants were entitled to settle the warrants for SAFE instruments if the Company did not consummate a qualified financing within two years of the issuance date of the warrants, and following the issuance of Series A convertible preferred stock, the underlying shares were redeemable outside the Company's control through deemed liquidation provisions. The Legacy Warrants were recorded at fair value with subsequent changes in fair value reflected in earnings. The change in fair value resulted in a loss of \$27.3 million and \$0.3 million during the years ended December 31, 2020 and 2019, respectively. Upon closing of the Business Combination, the Legacy Warrants were exercised for 1,466,155 shares of Class A common stock. No Legacy Warrants have been outstanding since December 31, 2020.

Note 10. Fair Value Measurements

As of December 31, 2021, the Company carried cash equivalents, marketable securities and Private Warrants. The Company had previously carried Public Warrants which were exercised and redeemed in March 2021.

Fair value is based on the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value is estimated by applying the following hierarchy, which prioritizes the inputs used to measure fair value into three levels and bases the categorization within the hierarchy upon the lowest level of input that is available and significant to the fair value measurement:

Level 1 — Observable inputs, which include unadjusted quoted prices in active markets for identical assets or liabilities.

Level 2 — Observable inputs other than Level 1 inputs, such as quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

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Level 3 — Unobservable inputs that are supported by little or no market activity and that are based on management's assumptions, including fair value measurements determined by using pricing models, discounted cash flow methodologies or similar techniques.

The Company determined the fair value of its Level 1 financial instruments, which are traded in active markets, using quoted market prices for identical instruments.

Marketable investments classified within Level 2 of the fair value hierarchy are valued based on other observable inputs, including broker or dealer quotations, alternative pricing sources or U.S. Government Treasury yield of appropriate term. When quoted prices in active markets for identical assets or liabilities are not available, the Company relies on non-binding quotes from its investment managers, which are based on proprietary valuation models of independent pricing services. These models generally use inputs such as observable market data, quoted market prices for similar instruments, historical pricing trends of a security as relative to its peers. To validate the fair value determination provided by its investment managers, the Company reviews the pricing movement in the context of overall market trends and trading information from its investment managers. The Company performs routine procedures such as comparing prices obtained from independent source to ensure that appropriate fair values are recorded.

Given that the transfer of Private Warrants to anyone outside of a small group of individuals constituting the sponsors of Gores Metropoulos, Inc. would result in the Private Warrants having substantially the same terms as the Public Warrants, management determined that the fair value of each Private Warrant is the same as that of a Public Warrant, with an insignificant adjustment for short-term marketability restrictions, as of December 31, 2020. As of December 31, 2021, management determined the fair value of the Private Warrants using observable inputs in the Black-Scholes valuation model, which used the remaining term of warrants of 3.92 years, volatility of 67.2% and a risk-free rate of 1.10%. Accordingly, the Private Warrants are classified as Level 3 financial instruments.

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The Company's financial assets and liabilities subject to fair value measurements on a recurring basis and the level of inputs used for such measurements were as follows (in thousands):

	Fair Value (in thousands) Measured as of December 31, 2021 Using:			
	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents:				
Money market funds	\$ 25,654	\$ —	\$ —	\$ 25,654
Commercial paper	—	950	—	950
Total cash equivalents	<u>\$ 25,654</u>	<u>\$ 950</u>	<u>\$ —</u>	<u>\$ 26,604</u>
Marketable investments:				
U.S. Treasury	\$ 161,465	\$ —	\$ —	\$ 161,465
U.S. agency and government sponsored securities	—	4,970	—	4,970
Commercial paper	—	39,834	—	39,834
Corporate bonds	—	165,190	—	165,190
Asset-backed securities	—	46,466	—	46,466
Marketable equity investments	44,216	—	—	44,216
Total marketable investments	<u>\$ 205,681</u>	<u>\$ 256,460</u>	<u>\$ —</u>	<u>\$ 462,141</u>
Liabilities:				
Private Warrants	—	—	31,230	31,230
Total warrant liabilities	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 31,230</u>	<u>\$ 31,230</u>
	Fair Value (in thousands) Measured as of December 31, 2020 Using:			
	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents:				
Money market funds	\$ 64,971	\$ —	\$ —	\$ 64,971
U.S. Treasury	24,999	—	—	24,999
Commercial paper	—	108,322	—	108,322
Total cash equivalents	<u>\$ 89,970</u>	<u>\$ 108,322</u>	<u>\$ —</u>	<u>\$ 198,292</u>
Marketable investments:				
U.S. Treasury	\$ 130,348	\$ —	\$ —	\$ 130,348
U.S. agency and government sponsored securities	—	19,996	—	19,996
Commercial paper	—	73,898	—	73,898
Corporate bonds	—	45,450	—	45,450
Asset-backed securities	—	7,018	—	7,018
Total marketable investments	<u>\$ 130,348</u>	<u>\$ 146,362</u>	<u>\$ —</u>	<u>\$ 276,710</u>
Liabilities:				
Public Warrants	\$ 228,933	\$ —	\$ —	\$ 228,933
Private Warrants	—	114,467	—	114,467
Total warrant liabilities	<u>\$ 228,933</u>	<u>\$ 114,467</u>	<u>\$ —</u>	<u>\$ 343,400</u>

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The following table presents changes in Public and Private Warrant liabilities, which as of December 31, 2020, were classified in the fair value hierarchy as Level 1 and Level 2, respectively, (in thousands):

	Public Warrants	Private Warrants
Balance as of December 31, 2020	\$ 228,933	\$ 114,467
Change in fair value prior to exercise in March 2021	35,943	15,296
Change in fair value prior to redemption in March 2021	(3,511)	—
Exercise or redemption in March 2021	(261,365)	(76,931)
Private Warrants transferred to Level 3 in March 2021	—	(52,832)
Balance as of December 31, 2021	<u>\$ —</u>	<u>\$ —</u>

Level 3 Disclosures

The following table presents changes in Level 3 liabilities relating to Private Warrants measured at fair value as of December 31, 2021 (in thousands):

	Private Warrants
Balance as of December 31, 2020	\$ —
Private warrants transferred from Level 2	52,832
Measurement adjustments	(21,602)
Balance as of December 31, 2021	<u>\$ 31,230</u>

The decrease in fair value of private warrants for the year ended December 31, 2021 was \$21.6 million, which was included in the change in fair value of warrant liabilities in the consolidated statement of operations and comprehensive loss. The decrease in Private Warrant liability as of December 31, 2021 is predominantly attributable to the decrease in per share price of the Company's Class A common stock.

The Legacy Warrants outstanding on December 2, 2020, were valued using the closing stock price of \$8.00 per share, immediately prior to the consummation of the Business Combination in accordance with the terms of the warrant agreements.

13,647 Legacy Warrants were exercised on a cashless basis with all previously held warrant shares converted to closing warrant shares and 130,376 Legacy Warrants were exercised to the extent such net issue exercise resulted in the issuance of shares based on the strike price and fair value. No Legacy Warrants have been outstanding since December 31, 2020.

The fair value of Legacy Warrants was classified as Level 3 in the fair value hierarchy due to the significant management judgment required for the assumptions underlying the calculation of value.

The following table presents changes in Level 3 liabilities measured at fair value for the year ended December 31, 2020 (in thousands):

	2017 Warrants	2018 Warrants	2020 Warrants	Total Legacy Warrants
Balance as of December 31, 2019	\$ 1,035	\$ 87	\$ —	\$ 1,122
Additions	—	—	1,728	1,728
Exercise or conversion	(13,714)	(1,700)	(14,698)	(30,112)
Measurement adjustments	12,679	1,613	12,970	27,262
Balance as of December 31, 2020	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>

As of December 31, 2021, the estimated fair value of the Company's outstanding Convertible Senior Notes was \$69.4 million. The fair value was determined based on the quoted price of the Convertible Senior Notes in an inactive market on the last trading day of the reporting period and have been classified as Level 2 in the fair value hierarchy. See Note 8 for further information on the Company's Convertible Senior Notes.

The Company's other financial instruments' fair value, including accounts receivable, accounts payable and other current liabilities, approximate its carrying value due to the relatively short maturity of those instruments. The carrying amounts of the Company's finance leases approximate their fair value, which is the present value of expected future cash payments based on assumptions about current interest rates and the creditworthiness of the Company.

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Note 11. Convertible Preferred Stock

Series A Convertible Preferred Stock

On June 24, 2019, Legacy Luminar had amended and restated its Certificate of Incorporation ("Certificate"), which authorized the issuance of up to 102,740,023 shares of Series A Convertible Preferred Stock with a par value of \$0.00001. On June 24, 2019, Legacy Luminar entered into a Series A Convertible Preferred Stock Purchase Agreement to issue preferred stock to investors for cash and in settlement of outstanding SAFEs and Bridge Note.

Series X Convertible Preferred Stock

On August 24, 2020, Legacy Luminar had entered into the Series X Convertible Preferred Stock Purchase Agreement to offer shares of Legacy Luminar's Series X Convertible Preferred Stock. In August 2020 and September of 2020, Legacy Luminar issued an aggregate of 17,065,536 convertible preferred stock for cash at a purchase price of \$9.96 per share of preferred stock, which generated gross proceeds of \$170.0 million. In October 2020, Legacy Luminar had issued an additional 1,391,694 shares of preferred stock for gross proceeds of \$13.86 million. Accordingly, Legacy Luminar had amended and restated its certificate of incorporation, which authorized the issuance of up to 20,077,073 shares of Series X Convertible Preferred Stock with a par value of \$0.00001.

Upon closing of the Business Combination on December 2, 2020, the outstanding shares of Series A and Series X Convertible Preferred Stock were automatically converted into 113,275,381 shares of the Company Class A common stock.

Beneficial Conversion Features ("BCFs")

The Company had assessed whether BCFs existed for the optional conversion rights that did not require bifurcation as derivatives. If the conversion option was in-the-money as of the commitment date, the preferred stock contained a BCF. The BCF was recognized as a deemed dividend against the carrying amount of the preferred stock. The Company had monitored for the issuance of additional shares below the conversion price, which could have resulted in a contingent BCF. The Company had recorded a total BCF of \$12.0 million from the issuance of preferred stock prior to the close of the Business Combination. Because the preferred stock was convertible at any time pursuant to the optional conversion feature, the Company recognized a dividend equal to the BCF at the applicable commitment date. As the Company had an accumulated deficit as of the end of all periods presented, the BCF resulted in an increase and decrease in additional paid-in capital by the same amount.

Furthermore, the preferred stock contained a down-round protection provision that reduced the conversion price if the Company issues shares at less than the conversion price or for no consideration. This provision was not triggered upon consummation of the Business Combination and no contingent BCF was recorded during the year ended December 31, 2020.

Note 12. Earnings (Loss) Per Share

Basic earnings (loss) per share is computed by dividing net income (loss) by the weighted average number of shares of common stock outstanding during the period. Diluted earnings per share is computed by dividing net income by the weighted average number of shares of common stock during the period plus, common stock equivalents, as calculated under the treasury stock method, outstanding during the period. If the Company reports a net loss, the computation of diluted loss per share excludes the effect of dilutive common stock equivalents, as their effect would be antidilutive. The Company computes earnings (loss) per share using the two-class method for its Class A and Class B common stock. Earnings (loss) per share is same for both Class A and Class B common stock since they are entitled to the same liquidation and dividend rights. Earnings (loss) per share calculations for all periods prior to the Business Combination have been retrospectively restated to the equivalent number of shares reflecting the exchange ratio established in the reverse capitalization.

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The following table sets forth the computation of basic and diluted loss for the years ended December 31, 2021, 2020, and 2019 as follows: (in thousands, except for share and per share amounts):

	December 31,		
	2021	2020	2019
Numerator:			
Net loss	\$ (237,986)	\$ (362,298)	\$ (94,718)
Deemed dividend attributable to BCF accretion	—	(6,757)	(5,282)
Net loss attributable to common shareholders	<u>\$ (237,986)</u>	<u>\$ (369,055)</u>	<u>\$ (100,000)</u>
Denominator:			
Weighted average Common shares outstanding- Basic	346,300,975	145,096,996	118,835,912
Weighted average Common shares outstanding- Diluted	346,300,975	145,096,996	118,835,912
Net loss per shares attributable to Common shareholders- Basic and Diluted	<u>\$ (0.69)</u>	<u>\$ (2.54)</u>	<u>\$ (0.84)</u>

The following table presents the potential shares of Common Stock outstanding that were excluded from the computation of diluted net loss per share of common stock as of the periods presented because including them would have been antidilutive:

	December 31,		
	2021	2020	2019
Warrants	7,166,301	24,089,255	971,626
Stock options	11,507,643	16,188,071	4,988,077
Restricted stock awards and restricted stock units	12,649,330	1,815,891	6,273,719
Liability classified RSUs	2,401,648	—	—
Vendor stock-in-lieu of cash program	1,659,510	—	—
Series A Convertible Preferred Stock	—	—	94,818,151
Founders Preferred Stock	—	—	26,206,837
Convertible Senior Notes	31,279,716	—	—
Earn-out shares	8,606,717	25,818,744	—
Total	<u>75,270,865</u>	<u>67,911,961</u>	<u>133,258,410</u>

The Company uses the if converted method for calculating the dilutive effect of the Convertible Senior Notes. These notes will have a dilutive impact when the average market price of the Company's common stock for a given period exceeds the initial conversion price of \$19.981 per share. These Convertible Senior Notes were not convertible as of December 31, 2021 because the closing price of Class A common stock as of December 31, 2021 was less than the initial conversion price.

Note 13. Stockholders' Equity

Class A and Class B Common Stock

The Company's Board of Directors has authorized two classes of common stock, Class A and Class B. As of December 31, 2021, the Company had authorized 715,000,000 and 121,000,000 shares of Class A and Class B common stock with a par value of \$0.0001 per share for each class. As of December 31, 2021, the Company had 266,076,525 and 250,812,764 issued and outstanding shares of Class A common stock, respectively. As of December 31, 2021, the Company had 97,088,670 shares of Class B common stock issued and outstanding. Holders of the Class A and Class B common stock have identical rights, except that holders of the Class A common stock are entitled to one vote per share and holders of the Class B common stock are entitled to ten votes per share. Shares of Class B common stock can be converted to shares of Class A common stock at any time at the option of the stockholder and automatically convert upon sale or transfer, except for certain transfers specified in the Company's amended and restated certificate of incorporation. On July 1, 2021 and December 21, 2021, 10,500,000 and 4,500,000 shares of Class B common stock, respectively, were converted into Class A common stock on a one-for-one basis.

In connection with the merger with Gores on December 2, 2020, the Company's Chief Executive Officer exchanged 22,935,412 shares of Founders Preferred Stock and 82,182,791 shares of Class A common stock, which were entitled to one vote per share, into the same number of shares of Class B common stock, which are entitled to ten votes per share. The Company recorded the incremental value of \$3.0 million associated with this transaction as stock-based compensation in general and administrative expenses.

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Treasury Stock

In December 2021, the Company's Board of Directors authorized share repurchases up to \$12.5 million of the Company's Class A common stock. The Company's share repurchase program does not obligate the Company to acquire any specific number of shares. Under the program, shares may be repurchased in privately negotiated and/or open market transactions, including under plans complying with Rule 10b5-1 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). In the fourth quarter of 2021, the Company repurchased 15,263,761 shares Class A common stock for \$35.9 million through negotiated and market purchase transactions. The repurchased shares have been recorded as Treasury Stock on the Balance Sheet as of December 31, 2021. The Company records its treasury stock repurchases on a trade date basis. Other current liabilities as of December 31, 2021 included approximately \$4.3 million towards amounts owed for the treasury shares repurchased during the fourth quarter of 2021.

Founders Preferred Stock

26,206,837 shares of Founders Preferred Stock were issued in 2015. The compensation expense associated with the Founders Preferred Stock was immaterial to the financial statements. The Founders Preferred Stock was substantively the same as common stock, as they share identical rights and features. The Founders Preferred Stock was convertible into common stock on a one-to-one basis at any time. The Founders Preferred Stock is presented as a component of the Company's permanent equity. Upon closing of the Business Combination, Founders Preferred Stock was converted into shares of Class A and Class B common stock. No Founders Preferred Stock have been outstanding since the closing of the Business Combination.

Public and Private Warrants

As of December 31, 2020, the Company had 13,333,309 Public Warrants and 6,666,666 Private Warrants outstanding.

As of March 16, 2021, 3,589,645 Private Warrants and 13,128,671 Public Warrants were exercised, and the Company received \$153.9 million in cash proceeds from the exercise of these warrants. Pursuant to the terms of the agreements governing the rights of the holders of the Public Warrants, the Company redeemed the remaining unexercised and outstanding 204,638 Public Warrants after March 16, 2021 for a redemption price of \$0.01 per Public Warrant.

The Company had 3,077,021 Private Warrants and no Public Warrants, outstanding as of December 31, 2021 and such Private Warrants are set to expire on December 2, 2025. Each Private Warrant allows the Gores sponsor to purchase one share of Class A common stock at \$11.50 per share. During year ended December 31, 2021, the fair value loss of Warrants was \$26.1 million, respectively.

Stock-in-lieu of Cash Program

The Company has entered into arrangements with certain vendors and other third parties wherein the Company at its discretion may elect to compensate the respective vendors / third parties for services provided in either cash or by issuing shares of the Company's Class A common stock ("Stock-in-lieu of Cash Program"). During the year ended December 31, 2021, the Company issued 291,940 shares of Class A common stock, as part of the Stock-in-lieu of Cash Program. The Company considers the shares issuable under the Stock-in-lieu of Cash Program as liability classified awards when the arrangement with the vendors requires the Company to issue a variable number of registered shares to settle amounts owed. As of December 31, 2021, the Company had \$1.0 million in outstanding liabilities related to its Stock-in-lieu of Cash Program.

During 2021, the Company entered into an agreement with Daimler North America Corporation ("Daimler") wherein Daimler will be providing certain data and other services. To compensate Daimler for these services, the Company agreed to issue 1.5 million shares of Class A common stock to Daimler. These shares are subject to certain vesting conditions and vest over a period of two years. The Company recorded an expense as research and development cost of \$0.7 million during 2021 related to these shares. As of December 31, 2021, the Company had \$5.2 million in prepaid expenses and other current assets related to its Stock-in-lieu of Cash Program.

The Company's vendor Stock-in-lieu of Cash Program activity for the year ended December 31, 2021 was as follows:

	Shares	Weighted Average Grant Date Fair Value per Share
Outstanding as of December 31, 2020	—	\$ —
Granted	1,791,940	15.88
Vested	(291,940)	16.72
Outstanding as of December 31, 2021	1,500,000	15.72

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Note 14. Stock-based Compensation

Prior to the Business Combination, Legacy Luminar maintained the 2015 Stock Plan (the “2015 Plan”) under which incentive stock options, non-qualified stock options and restricted stock were granted to employees, directors and non-employee consultants. In connection with the Business Combination, the Company assumed the 2015 Plan upon the closing. The Company terminated the 2015 Plan, provided that the outstanding awards previously granted under the 2015 Plan continue to remain outstanding under the 2015 Plan. In December 2020, the Company’s Board adopted and the Company’s stockholders approved the 2020 Equity Incentive Plan (the “2020 EIP”). The 2020 EIP became effective upon the closing of the Business Combination. Under the 2020 EIP, as of December 31, 2021, the Company was authorized to issue a maximum number of 36,588,278 shares of Class A common stock. The Company granted 14,130,298 restricted stock units in the year ended December 31, 2021. No grants were made in 2020 under the 2020 EIP.

Stock Options

Under the terms of the 2015 Plan, incentive stock options had an exercise price at or above the fair market value of the stock on the date of the grant, while non-qualified stock options were permitted to be granted below fair market value of the stock on the date of grant. Stock options granted have service-based vesting conditions only. The service-based vesting conditions vary, though typically, stock options vest over four years with 25% of stock options vesting on the first anniversary of the grant and the remaining 75% vesting monthly over the remaining 36 months. Option holders have a 10-year period to exercise the options before they expire. Forfeitures are recognized in the period of occurrence.

No stock options were granted by the Company in 2021. The fair value of stock option awards in 2020 and 2019 was determined on the grant date using the Black-Scholes valuation model based on the following assumptions:

	2020	2019
Expected term (years) ⁽¹⁾	5.96 – 6.02	5.27 – 6.02
Current stock value	\$1.67 – \$5.64	\$1.28 – \$1.67
Expected volatility ⁽²⁾	49.3% – 51.9%	44.6% – 49.3%
Risk-free interest rate ⁽³⁾	0.4% – 1.8%	1.6% – 1.9%
Dividend yield ⁽⁴⁾	0 %	0 %

(1) *The expected term is the length of time the grant is expected to be outstanding before it is exercised or terminated. This number is calculated as the midpoint between the vesting term and the original contractual term (contractual period to exercise). If the option contains graded vesting, then the vesting term would be based on the vesting pattern.*

(2) *Volatility, or the standard deviation of annualized returns, was calculated based on comparable companies’ reported volatilities.*

(3) *Risk free rate was obtained from US treasury notes for the expected terms noted as of the valuation date.*

(4) *The Company has assumed a dividend yield of zero as it has no plans to declare dividends in the foreseeable future.*

Prior to December 2, 2020, given the absence of a public trading market, the Board considered numerous objective and subjective factors to determine the fair value of the Company’s Common Stock at each meeting at which awards were approved. These factors included, but were not limited to, (i) contemporaneous third-party valuations of Common Stock; (ii) the rights and preferences of Series A and Series X Preferred Stock relative to Common Stock; (iii) the lack of marketability of Common Stock; (iv) developments in the business; and (v) the likelihood of achieving a liquidity event, such as an IPO or sale of the Company, given prevailing market conditions.

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The Company's stock option activity for the year ended December 31, 2021 was as follows:

	Number of Stock Options	Weighted- Average Exercise Price	Weighted- Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value (In Thousands)
Outstanding as of December 31, 2020	16,188,071	\$ 1.67		
Exercised	(3,522,299)	1.68		
Cancelled/Forfeited	(1,158,129)	1.67		
Outstanding as of December 31, 2021	11,507,643	1.72	7.86	\$ 176,893
Vested and exercisable as of December 31, 2021	4,720,601	1.71	7.50	\$ 71,742
Vested and expected to vest as of December 31, 2021	11,507,643	1.72	7.86	\$ 176,893

The weighted-average grant date fair value per share of options granted during the year ended December 31, 2020 and 2019 was \$0.98 and \$0.68, respectively. The total fair value of options that vested during the year ended December 31, 2021, 2020 and 2019 was \$7.1 million, \$1.4 million and \$0.2 million, respectively.

The aggregate intrinsic value of stock options exercised during the year ended December 31, 2021 was \$7.1 million. The intrinsic value is calculated as the difference between the exercise price and the fair value of the common stock on the exercise date.

As of December 31, 2021, the Company had \$6.3 million of unrecognized stock-based compensation expense related to stock options. This cost is expected to be recognized over a weighted-average period of 1.07 years.

Restricted Stock Awards

Prior to June 30, 2019, the Company granted restricted stock awards ("RSAs") to employees. Recipients purchased the restricted stock on the grant date and the Company has the right to repurchase the restricted shares at the same price recipients paid to obtain those shares. The restrictions lapse solely based on continued service, and generally lapse over 4 years —25% on the first anniversary of the date of issuance, and the remaining 75% monthly over the remaining 36 months. At the grant date of the award, recipients of restricted stock are granted voting rights and receive dividends on unvested shares. No restricted stock awards have been granted after June 30, 2019.

The Company's RSAs activity for the year ended December 31, 2021 was as follows:

	Shares	Weighted Average Grant Date Fair Value per Share
Outstanding as of December 31, 2020	1,815,891	1.15
Forfeited	(101,716)	1.12
Vested	(1,047,877)	0.97
Outstanding as of December 31, 2021	666,298	1.21

The total fair value of restricted stock awards vested during the year ended December 31, 2021, 2020 and 2019 was \$0.0 million, \$2.2 million and \$2.5 million, respectively.

As of December 31, 2021, the Company had \$0.7 million of unrecognized stock-based compensation expense related to restricted stock awards. This cost is expected to be recognized over a weighted-average period of 0.53 years.

Restricted Stock Units

To date, the Company has granted restricted stock units ("RSUs") under the 2020 EIP. Each RSU granted under the 2020 EIP represents a right to receive one share of the Company's Class A common stock when the RSU vests. RSUs generally vest over a period up to six years. The fair value of RSU is equal to the fair value of the Company's common stock on the date of grant.

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The Company's RSUs activity for the year ended December 31, 2021 was as follows:

	Shares	Weighted Average Grant Date Fair Value per Share
Outstanding as of December 31, 2020	—	—
Granted	14,130,298	19.52
Forfeited	(430,168)	20.35
Vested	(1,717,098)	19.08
Outstanding as of December 31, 2021	11,983,032	19.56

The total fair value of RSUs vested during the year ended December 31, 2021 was \$2.8 million.

As of December 31, 2021, the Company had \$203.5 million of unrecognized stock-based compensation expense related to RSUs. This cost is expected to be recognized over a weighted-average period of 1.83 years.

Fixed Value Equity Awards

The Company issues fixed value equity awards to certain employees as a part of their compensation package. These awards are issued as RSUs out of the 2020 EIP and are accounted for as liability classified awards under ASC 718 — Stock Compensation. Fixed value equity awards granted have service-based conditions only and vest quarterly over a period of four years. These awards represent a fixed dollar amount settled in a variable number of shares determined at each vesting period. For the year ended December 31, 2021, the Company recorded \$3.8 million in stock-based compensation expense related to these awards.

OptoGration Awards

As discussed in Note 3, as part of the OptoGration acquisition, the Company owes up to \$22.0 million of post combination compensation related to certain service and performance conditions. As of December 31, 2021, it is probable that the conditions will be met, and as a result, the Company recorded \$6.1 million in stock-based compensation expense.

Compensation expense

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

	Year Ended December 31,		
	2021	2020	2019
Equity Classified Awards:			
Stock options	\$ 5,137	\$ 3,179	\$ 240
RSAs	1,682	5,532	2,462
RSUs	60,191	—	—
Liability Classified Awards:			
Fixed value equity awards	3,826	—	—
OptoGration awards	6,114	—	—
Patent awards	734	—	—
Total	\$ 77,684	\$ 8,711	\$ 2,702

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

	Year Ended December 31,		
	2021	2020	2019
Cost of sales	\$ 6,422	\$ 309	\$ 92
Research and development	20,216	2,098	914
Sales and marketing	4,546	414	163
General and administrative	46,500	5,890	1,533
Total	\$ 77,684	\$ 8,711	\$ 2,702

Note 15. Leases

The Company leases manufacturing equipment under non-cancelable finance leases expiring at various dates through December 2025. The Company also leases office and manufacturing facilities under non-cancelable operating leases expiring at

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various dates through June 2026. In October 2021, the Company entered into a lease agreement commencing on April 1, 2022 for a term of 65 months through August 31, 2027. In September 2021, the Company gave a notice to the landlord to terminate the lease of certain office space in Orlando, Florida. The amounts of operating lease right-of-use assets and liabilities associated with the termination were not material. Some of the Company's leases include one or more options to renew, with renewal terms that if exercised by the Company, extend the lease term from one to six years. The exercise of these renewal options is at the Company's discretion. The Company's lease agreements do not contain any material terms and conditions of residual value guarantees or material restrictive covenants. The Company's short-term leases and sublease income were not material.

The Company adopted ASC 842 using the modified retrospective method on January 1, 2021 and elected the available package of practical expedients upon adoption. The most significant impact of the adoption of ASC 842 was the recognition of right-of-use, or ROU, assets and lease liabilities for operating leases of \$10.8 million and \$12.0 million, respectively, and a reversal of deferred rent of \$1.2 million on January 1, 2021. The Company's accounting for finance leases remained substantially unchanged. The adoption of ASC 842 did not have any impact on the Company's operating results or cash flows.

The Company determines if an arrangement is or contains a lease at inception. Operating leases are included in operating lease ROU assets and operating lease liabilities in the Company's consolidated balance sheets. Finance leases are included in property and equipment, and finance lease liabilities in the Company's consolidated balance sheets. The Company's finance leases were not material for any of the periods presented.

ROU assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent the Company's obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are recognized at the commencement date based on an amount equal to the present value of lease payments over the lease term. As most of the Company's leases do not provide an implicit rate, the Company generally uses the incremental borrowing rate based on the estimated rate of interest for collateralized borrowing over a similar term of the lease payments at commencement date. The Company uses the implicit rate when it is readily determinable. The Company elected the package of practical expedients permitted under the transition guidance within the new standard, which among other things, allowed it to carry forward existing lease classification and to exclude leases with original terms of one year or less. Further, the Company elected to combine lease and non-lease components for all asset classes. Any variable lease components are expensed as incurred. The operating lease ROU asset also includes adjustments related to prepaid or deferred lease payments and lease incentives. The Company's lease terms may include options to extend or terminate the lease when it is reasonably certain that the Company will exercise that option. Operating lease expense for lease payments is recognized on a straight-line basis over the lease term.

The components of operating lease expenses for the year ended December 31, 2021 were as follows (in thousands):

	Year Ended December 31, 2021
Operating lease cost	\$ 4,654
Variable lease cost	1,703
Total operating lease cost	\$ 6,357

Supplemental cash flow information for the year ended December 31, 2021 related to operating leases was as follows (in thousands):

	Amount
Cash paid for amounts included in the measurement of lease liabilities:	
Cash paid for operating leases included in operating activities	\$ (4,609)
Right of use assets obtained in exchange for lease obligations:	
Operating leases	2,876

Supplemental balance sheet information related to operating leases was as follows (in thousands):

	December 31, 2021
Operating leases:	
Operating lease right-of-use assets	\$ 9,145
Operating lease liabilities:	
Operating lease liabilities, current	\$ 4,735
Operating lease liabilities, non-current	5,768
Total operating lease liabilities	\$ 10,503

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Weighted average remaining terms were as follows (in years):

	December 31, 2021
Weighted average remaining lease term	
Operating leases	2.95

Weighted average discount rates were as follows:

	December 31, 2021	
Weighted average discount rate		
Operating leases	2.80	%

Maturities of lease liabilities were as follows (in thousands):

	Operating Leases
Year Ending December 31,	
2022	\$ 5,049
2023	3,535
2024	1,253
2025	1,195
2026	602
Total lease payments	11,634
Less: imputed interest	(1,131)
Total leases liabilities	\$ 10,503

Disclosures under ASC 840, Leases

Rent expense was \$7.6 million and \$6.0 million for the year ended December 31, 2020 and 2019, respectively.

As of December 31, 2020, future minimum lease payments under noncancelable operating leases with an initial lease term in excess of one year were as follows (in thousands):

	Operating Leases
2021	\$ 5,834
2022	6,172
2023	4,544
2024	746
Total minimum lease payments	\$ 17,296

Future minimum lease payments under noncancelable capital leases were not material as of December 31, 2020.

Note 16. Income Taxes

The following table presents components of loss before income taxes for the periods presented (in thousands):

	Year Ended December 31,		
	2021	2020	2019
United States	\$ (239,855)	\$ (362,338)	\$ (94,718)
International	607	40	—
Loss before income taxes	\$ (239,248)	\$ (362,298)	\$ (94,718)

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Benefit from income taxes for the periods presented consisted of (in thousands):

	Year Ended December 31,		
	2021	2020	2019
Deferred:			
U.S. federal	(1,262)	—	—
U.S. state	—	—	—
Foreign	—	—	—
Total deferred:	(1,262)	—	—
Total benefit from income taxes	\$ (1,262)	\$ —	\$ —

The reconciliation between the U.S. federal statutory income tax rate of 21% to the Company's effective tax for the periods presented is as follows:

	Year Ended December 31,		
	2021	2020	2019
U.S. federal provision at statutory rate	21.0 %	21.0 %	21.0 %
State income taxes	4.4	0.7	2.9
Tax credits	1.5	0.6	1.9
Fair value of financial instruments	(2.3)	(15.6)	(6.8)
Stock-based compensation expense	2.0	(0.4)	(0.6)
Executive compensation	(1.1)	0.0	0.0
Other permanent items	(0.3)	0.0	0.0
Uncertain tax benefits	(0.8)	(0.3)	(0.9)
Change in valuation allowance	(24.0)	(6.0)	(17.5)
Effective tax rate	0.4 %	0.0 %	0.0 %

The Company's effective tax rates differ from the federal statutory rate primarily due to the change in valuation allowance, non-deductible stock-based compensation expense and the fair value on instruments treated as debt for GAAP and equity for tax purposes, which is not deductible for income tax purposes, for 2021, 2020 and 2019.

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The Company's deferred income tax assets and liabilities as of December 31, 2021 and 2020 were as follows (in thousands):

	Year Ended December 31,	
	2021	2020
Deferred tax assets:		
Net operating loss carry forward	\$ 120,544	\$ 62,346
Tax credits	6,296	3,975
Accruals and reserves	—	3,323
Stock-based compensation expense	6,944	267
Lease liability (ASC 842)	2,622	—
Accrued expenses	—	—
Inventory reserves	617	—
Other	15	2
Total deferred tax assets	137,038	69,913
Valuation allowance	(130,569)	(69,222)
Total deferred tax asset	6,469	691
Deferred tax liabilities:		
Depreciation and amortization	1,185	691
Prepaid expenses	2,983	—
ROU asset (ASC 842)	2,301	—
Total deferred tax liabilities	6,469	691
Net deferred tax assets (liabilities)	\$ —	\$ —

The Company assesses the realizability of deferred tax assets based on the available evidence, including a history of taxable income and estimates of future taxable income. In assessing the realizability of deferred tax assets, the Company considers whether it is more likely than not that all or some portion of deferred tax assets will not be realized. Due to the history of losses incurred by the Company, management believes it is not more likely than not that all of the deferred tax assets can be realized. Accordingly, the Company established and recorded a full valuation allowance on its net deferred tax assets of \$130.6 million and \$69.2 million as of December 31, 2021 and 2020, respectively.

No deferred tax liabilities for foreign withholding taxes have been recorded relating to the earnings of the Company's foreign subsidiaries since all such earnings are intended to be indefinitely reinvested. The amount of the unrecognized deferred tax liability associated with these earnings is immaterial.

Utilization of the net operating loss and tax credit carryforwards is subject to a substantial annual limitation due to the "ownership change" limitations provided by Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, and other similar state provisions. Any annual limitation may result in the expiration of net operating loss and tax credit carryforwards before utilization. As of December 31, 2021, the Company had \$469.6 million of U.S. federal net operating loss carryforwards available to reduce future taxable income, of which \$426.9 million will be carried forward indefinitely for U.S. federal tax purposes and \$42.7 million will expire beginning in 2035 to 2037. The Company also has \$420.6 million of U.S. state net operating loss carryforwards that will expire beginning in 2035 to 2037.

The Company also has federal and state research and development tax credit carryforwards of \$10.5 million and \$8.0 million as of December 31, 2021 and 2020, respectively. The federal and state research credit carryforwards will begin expiring in 2037.

On January 1, 2022, a provision of the Tax Cuts and Jobs Act of 2017 went into effect which eliminates the option to deduct domestic research and development costs in the year incurred and instead requires taxpayers to amortize such costs over five years. The House Ways and Means Committee has proposed tax legislation to delay the effective date of this change to 2026, but it is uncertain whether the proposed delay will ultimately be enacted into law. If no new legislation is passed, the provision would go into effect for the Company's fiscal year 2023 and is expected to decrease cash flows from operations and increase net deferred tax assets by a similar amount. The Company is currently evaluating the potential impact on cash flows from operations.

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Unrecognized Tax Benefits

The Company reports income tax related interest and penalties within its provision for income tax in its consolidated statements of operations. Similarly, the Company reports the reversal of income tax-related interest and penalties within its provision for income tax line item to the extent the Company resolves its liabilities for uncertain tax positions in a manner favorable to its accruals therefor. The Company had no interest and penalties accrued as of December 31, 2021 and 2020. The Company does not expect that the total amounts of unrecognized tax benefits will significantly increase or decrease within 12 months of the reporting date.

The following is a tabular reconciliation of the total amounts of unrecognized tax benefits (in thousands):

	Year Ended December 31,		
	2021	2020	2019
Unrecognized tax benefits as of the beginning of the year	\$ 3,975	\$ 2,397	\$ 1,473
Increases related to prior year tax positions	535	327	—
Increase related to current year tax positions	1,786	1,251	924
Unrecognized tax benefits as of the end of the year	\$ 6,296	\$ 3,975	\$ 2,397

None of the Company's unrecognized tax benefits, if recognized, would affect the effective tax rate since the tax benefits would increase a deferred tax asset that is currently fully offset by a full valuation allowance. The Company and its subsidiaries file federal, state and foreign income tax returns. In the normal course of business, the Company is subject to examination by taxing authorities, for which the Company's major tax jurisdictions are the United States and various states. The Company's federal and state income tax returns from inception to December 31, 2021 remain subject to examination.

Note 17. Commitments and Contingencies

Purchase Obligations

The Company purchases goods and services from a variety of suppliers in the ordinary course of business. Purchase obligations are defined as agreements that are enforceable and legally binding and that specify all significant terms, including fixed or minimum quantities to be purchased, fixed, minimum, or variable price provisions, and the approximate timing of the transaction. The Company had purchase obligations primarily for purchases of inventory, R&D, and general and administrative activities totaling \$24.6 million as of December 31, 2021, which is expected to be received within a year. In October 2021, the Company entered into an office space lease commencing April 1, 2022. This will commit the Company to total rent payments of \$5.0 million and variable costs of \$1.4 million through the end of the lease ending August 31, 2027.

In June 2021, the Company entered into an agreement with P3 USA, Inc. ("P3") to provide engineering, and general and administrative services. Under the said agreement, the Company issued 291,940 shares of Class A common stock to P3 in the third quarter of 2021. In September 2021, the Company entered into an amendment to modify the existing agreement with P3 and, among other things, extended the term of the agreement until December 2025. The Company expects that the expenses to be incurred with P3 will be at least \$30.0 million over the extended term under the amended agreement.

Legal Matters

From time to time, the Company is involved in actions, claims, suits and other proceedings in the ordinary course of business, including assertions by third parties relating to intellectual property infringement, breaches of contract or warranties or employment-related matters. When it is both probable that a liability has been incurred and the amount of the loss can be reasonably estimated, the Company records a liability for such loss contingencies. The Company's estimates regarding potential losses and materiality are based on the Company's judgment and assessment of the claims utilizing currently available information. Although the Company will continue to reassess its reserves and estimates based on future developments, the Company's objective assessment of the legal merits of such claims may not always be predictive of the outcome and actual results may vary from the Company's current estimates.

Dispute Settlement

On June 29, 2018, a lawsuit was filed against a Company employee and the Company, alleging trade secret misappropriation, breach of fiduciary duty and breach of certain agreements relating to the employee's departure from plaintiff and joining the Company, and sought unspecified monetary damages. On July 13, 2020, the parties agreed to settle all outstanding litigation by entering into a settlement agreement. The terms of the agreement require the Company to pay \$1.5 million in tranches to the plaintiff, through October 2021. The Company accrued this amount as settlement liability and

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recorded the related expense in general and administrative expenses in 2018. The remaining balance of the settlement liability was \$.0 million as of December 31, 2020, which was paid off in 2021.

Supplier Contract

On May 2, 2018, in order to manage manufacturer lead times and meet product forecasts, the Company committed to purchase certain components aggregating to \$2.6 million. On August 14, 2020, to avoid possible losses due to technological obsolescence, the Company negotiated with the supplier a release from its obligation to purchase its components by agreeing to pay \$1.1 million. The Company recognized this amount in cost of sales in the consolidated statement of operations for the year ended December 31, 2020.

Note 18. Segment and Customer Concentration Information

Reportable segments are (i) Autonomy Solutions and (ii) Components. These segments reflect the way the CODM evaluates the Company's business performance and manages its operations. Each segment has distinct product offerings, customers, and market penetration. The Chief Executive Officer is the CODM of the Company.

Autonomy Solutions

This segment manufactures and distributes commercial lidar sensors that measure distance using laser light to generate a 3D map for automotive mobility applications. This segment is impacted by trends in and the strength of the autonomous vehicles and associated infrastructure/technology sector.

Components

This segment is in the business of development of ultra-sensitive pixel-based sensors. This segment also designs, tests and provides consulting services for non-standard integrated circuits that are essential for systems to meet the requirement of customers. This segment is impacted by trends in and the strength of automobile and aeronautics sector as well as government spending in military and defense activities.

The accounting policies of the operating segments are the same as those described in Note 2. Segment operating results and reconciliations to the Company's consolidated balances are as follows (in thousands):

	Year ended December 31, 2021				
	Autonomy Solutions	Component Sales	Total reportable segments	Eliminations (1)	Total Consolidated
Revenue:					
Revenues from external customers	\$ 28,497	\$ 3,447	\$ 31,944	\$ —	\$ 31,944
Revenues from internal customer	8,098	5,929	14,027	(14,027)	—
Total Revenue	\$ 36,595	\$ 9,376	\$ 45,971	\$ (14,027)	\$ 31,944
Depreciation and amortization	\$ 3,723	\$ 439	\$ 4,162	\$ —	\$ 4,162
Operating gain (loss)	(214,133)	(324)	(214,457)	(95)	(214,552)
Other significant items:					
Segment assets	882,704	9,771	892,475	(8,939)	883,536
Inventories, net	10,179	163	10,342	—	10,342

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Year ended December 31, 2020					
	Autonomy Solutions	Component Sales	Total reportable segments	Eliminations (1)	Total Consolidated
Revenue:					
Revenues from external customers	\$ 11,387	\$ 2,564	\$ 13,951	\$ —	\$ 13,951
Revenues from internal customer	1,516	3,248	4,764	(4,764)	—
Total Revenue	\$ 12,903	\$ 5,812	\$ 18,715	\$ (4,764)	\$ 13,951
Depreciation and amortization	\$ 2,395	\$ 128	\$ 2,523	\$ (6)	\$ 2,517
Operating gain (loss)	(86,661)	(316)	(86,977)	102	(86,875)
Other significant items:					
Segment assets	511,676	2,975	514,651	(4,300)	510,351
Inventories, net	3,604	9	3,613	—	3,613
Year ended December 31, 2019					
	Autonomy Solutions	Component Sales	Total reportable segments	Eliminations (1)	Total Consolidated
Revenue:					
Revenues from external customers	\$ 9,666	\$ 2,936	\$ 12,602	\$ —	\$ 12,602
Revenues from internal customer	—	2,949	2,949	(2,949)	—
Total Revenue	\$ 9,666	\$ 5,885	\$ 15,551	\$ (2,949)	\$ 12,602
Depreciation and amortization	\$ 2,135	\$ 181	\$ 2,316	\$ —	\$ 2,316
Operating gain (loss)	(62,874)	259	(62,615)	—	(62,615)
Other significant items:					
Segment assets	52,171	2,218	54,389	(2,525)	51,864
Inventories, net	4,002	—	4,002	—	4,002

(1) Represent the eliminations of all intercompany balances and transactions during the period presented.

Two customers accounted for 42% and 17% of the Company's revenue for the year ended December 31, 2021. One customer accounted for 64% of the Company's revenue for the year ended December 31, 2020. One customer accounted for 43% of the Company's revenue for the year ended December 31, 2019.

Note 19. Related Party Transactions

Equity Investments

In February 2021, the Company invested \$15.0 million in a special purpose acquisition company, of which Mr. Jun Hong Heng, is the Chairman and Chief Executive Officer, and a principal shareholder. Mr. Heng became a director of the Company in June 2021. The terms of such investment were no less favorable to the Company than to other third party investors. During 2021, the Company sold \$2.9 million of this investment and had a remaining balance of \$12.1 million. The fair value of this investment as of December 31, 2021 was \$12.2 million.

In August 2021, the Company invested \$1.4 million in a special purpose acquisition company, of which Mr. Matthew Simoncini is a director. Mr. Simoncini has been a director of the Company since December 2020. The terms of such investment were no less favorable to the Company than to other third party investors. During 2021, the Company sold this investment in its entirety.

Note 20. Subsequent Events

In preparing the audited consolidated financial statements as of December 31, 2021, the Company has evaluated subsequent events through March 1, 2022.

Share Repurchases

In January 2022, the Company repurchased 1,008,779 shares of Class A common stock at an aggregate price of \$7.8 million through market purchase transactions under the share repurchase program approved by the Company's Board of Directors in December 2021.

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Agreement with Celestica

In January 2022, the Company entered into an Equipment and Tooling Agreement (the “Agreement”) with Celestica. Under the Agreement, the Company desires to have Celestica develop and build certain Company specific production equipment (including automation equipment) and tooling that will be used to manufacture or test the products or pre-production units of products for the Company and to perform certain services associated with the manufacturing processes of the products. Under the Agreement, the Company may elect to pay Celestica \$26.9 million either in cash or Class A common stock. Payment will be owed to Celestica upon meeting of certain milestones as specified in the Agreement.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.

None.

ITEM 9A. CONTROLS AND PROCEDURES.

Evaluation of Disclosure Controls and Procedures

We have established disclosure controls and procedures that are designed to ensure that the information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms and that such information is accumulated and communicated to management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we have evaluated the effectiveness of our disclosure controls and procedures as required under Rules 13a-15(e) and 15d-15(e) under the Exchange Act as of December 31, 2021. Based on this evaluation, our principal executive officer and principal financial officer have concluded that our disclosure controls and procedures were not effective as of December 31, 2021 due to the material weaknesses in our internal control over financial reporting described below.

Management’s Report on Internal Control Over Financial Reporting

Management, including our CEO and CFO, is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act and based upon the criteria established in Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (“the COSO framework”). Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of our financial statements for external purposes in accordance with U.S. GAAP.

An effective internal control system, no matter how well designed, has inherent limitations, including the possibility of human error or overriding of controls, and therefore can provide only reasonable assurance with respect to reliable financial reporting. Because of its inherent limitations, our internal control over financial reporting may not prevent or detect all misstatements, including the possibility of human error, the circumvention or overriding of controls, or fraud. Effective internal controls can provide only reasonable assurance with respect to the preparation and fair presentation of financial statements.

Under the supervision and with the participation of our management, including our CEO and CFO, we have conducted an evaluation of the effectiveness of our internal control over financial reporting based on the COSO framework. Based on evaluation under these criteria, management determined, based upon the existence of the material weaknesses described below, that we did not maintain effective internal control over financial reporting as of December 31, 2021.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that a reasonable possibility exists that a material misstatement of our annual or interim financial statements would not be prevented or detected on a timely basis.

We identified deficiencies in the control environment, control activities, information & communication, and monitoring components of the COSO Framework that constitute material weaknesses, either individually or in the aggregate. The material weaknesses in these components of the COSO framework resulted from a lack of sufficient number of qualified personnel within our accounting and internal audit functions who possessed an appropriate level of expertise to effectively perform the following:

- Control Environment – As of December 31, 2021, management was still in the process of putting in place these control objectives and establishing an oversight mechanism. The material weaknesses in the control environment resulted from a lack of the following: i) establishing oversight, structures, defined responsibilities to achieve control objectives; (ii)

holding individuals accountable for their internal control responsibilities, and (iii) identifying, selecting and applying GAAP sufficiently to provide reasonable assurance that transactions were being appropriately recorded.

- **Control Activities** – As of December 31, 2021, management was still in the process of designing certain controls and remediating the designs with respect to certain deficient controls. The material weaknesses in the control activities component resulted from a lack of the following: (i) design appropriate control activities necessary to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements; and (iii) deploying control activities through policies that establish what is expected and procedures that put policies into action.
- **Information and Communication** – As of December 31, 2021, management was still in process of remediating user access control deficiencies related to the general ledger, implement and evidence the operation of automated business controls, evidence the evaluation and review of service organization controls, and design key controls with direct and precise reviews over the information used in the control. The material weaknesses in the information and communication resulted from a lack of controls to ensure the Company generates and uses relevant quality information to support a functioning control environment.
- **Monitoring** – As of December 31, 2021, management was still in the process of designing the appropriate monitoring framework with regard to the Company's control environment. The material weaknesses in the monitoring activities resulted from a lack of ongoing evaluations to ascertain whether the components of the internal control are present and functioning.

The material weaknesses noted above contributed to the following additional material weaknesses:

- **Information Technology** – We identified deficiencies related to IT general controls that represented a material weakness, either individually or in the aggregate. The following were contributing factors to the material weakness in information technology controls: (i) the general ledger relevant to financial reporting lacks system tracking capabilities to monitor user access changes and institute appropriate segregation of duties in the area of Information Technology related general controls and the related application controls, and (ii) the automated business controls that depend on the affected information systems, including data or financial reports generated from the affected information systems, could be adversely affected due to the access control issues.
- **Journal Entry Review** – We identified a deficiency related to the review and approval of journal entries that resulted in a material weakness. The journal entry review is not appropriately designed to obtain adequate supporting documentation in connection with the review and approval in order to ensure the validity, accuracy, and completeness of recorded amounts. Further, the journal entry control depends on the affected information systems for which user access controls do not exist. Therefore, the journal entry review could be affected due to the access control issues.

The above material weaknesses have the potential to cause material accounting errors in substantially all financial statement account balances and disclosures if not remediated.

Deloitte & Touche LLP, our independent registered public accounting firm, has audited the effectiveness of our internal control over financial reporting as of December 31, 2021 and has issued an attestation report on our internal controls over financial reporting, which is included herein.

Changes in Internal Control Over Financial Reporting

We are taking actions to remediate the material weaknesses relating to our internal control over financial reporting. Other than the changes to our internal control over financial reporting described in "Remediation Plan and Status" below, there were no changes in our internal control over financial reporting during the quarter ended December 31, 2021 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Remediation Plan and Status

Management is committed to remediating its material weaknesses as promptly as possible. Management is in the process of implementing its remediation plan. We will test the ongoing operating effectiveness of the new and existing controls in future periods. The material weaknesses cannot be considered completely remediated until the applicable controls have operated for a sufficient period of time and management has concluded, through testing, that these controls are operating effectively. We cannot assure you that the measures we have taken to date, and are continuing to implement, will be sufficient to remediate the material weakness we have identified or avoid potential future material weaknesses.

During 2021 we initiated and will continue to implement measures designed to improve our internal control over financial reporting to remediate this material weakness, including the following:

- During 2021, we initiated formalizing our internal controls environment and had performed a risk assessment and scoping of key systems and business processes, including a risk assessment at the financial statement assertion level to ensure that the level of precision of relevant controls is adequate to address the identified risks. We will continue to revise our risk assessment and scoping to rectify the deficiencies noted, enhance design and implement new controls, expand education and training, update documentation and strengthen supervisory reviews by our management. We will continue to remediate the design effectiveness of certain specific controls and test the operating effectiveness of the remediated controls in 2022.
- We have added and we continue to be in the process of adding sufficient number of qualified personnel within our accounting function. In the fourth quarter of 2021, we have hired our new Chief Accounting Officer, and in the first quarter of 2022, we have hired our new Corporate Controller and Assistant Corporate Controller. We will further invest in building an in-house internal audit function and hire further personnel with accounting, financial reporting, and compliance experience as necessary.
- We are in the process of strengthening access and segregation of duties related Information Technology General Controls related to financial accounting and reporting systems. We will increase standardization and automation within accounting processes to improve the reliability of information used by existing accounting personnel. We will revise our information technology general controls in the context of the systems and applications used in the key processes to address access changes segregation of duties related deficiencies.
- We will provide training, implement technology tools, and enhance oversight over the execution and review of manual journal entry controls.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of Luminar Technologies, Inc.

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Luminar Technologies, Inc. and subsidiaries (the “Company”) as of December 31, 2021, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, because of the effect of the material weaknesses identified below on the achievement of the objectives of the control criteria, the Company has not maintained effective internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2021, of the Company and our report dated March 1, 2022, expressed an unqualified opinion on those financial statements and included an explanatory paragraph regarding the Company’s change in method of accounting for leases and credit losses in fiscal year 2021 due to the adoption of Accounting Standards Codification 842, *Leases* and ASC 326, *Financial Instruments – Credit Losses*, respectively.

Basis for Opinion

The Company’s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management’s Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company’s internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company’s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally

accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Material Weaknesses

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company's annual or interim financial statements will not be prevented or detected on a timely basis. The following material weaknesses have been identified and included in management's assessment:

The Company identified deficiencies in the control environment, control activities, information & communication, and monitoring components of the COSO Framework that constitute material weaknesses, either individually or in the aggregate. The material weaknesses in these components of the COSO framework resulted from a lack of sufficient number of qualified personnel within our accounting and internal audit functions who possessed an appropriate level of expertise to effectively perform the following:

- **Control Environment** – As of December 31, 2021, management was still in the process of putting in place these control objectives and establishing an oversight mechanism. The material weaknesses in the control environment resulted from a lack of the following: i) establishing oversight, structures, defined responsibilities to achieve control objectives; (ii) holding individuals accountable for their internal control responsibilities, and (iii) identifying, selecting and applying GAAP sufficiently to provide reasonable assurance that transactions were being appropriately recorded.
- **Control Activities** – As of December 31, 2021, management was still in the process of designing certain controls and remediating the designs with respect to certain deficient controls. The material weaknesses in the control activities component resulted from a lack of the following: (i) designing appropriate control activities necessary to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements; and (iii) deploying control activities through policies that establish what is expected and procedures that put policies into action.
- **Information and Communication** – As of December 31, 2021, management was still in the process of remediating user access control deficiencies related to the general ledger, implementing and evidencing the operation of automated business controls, evidencing the evaluation and review of service organization controls, and designing key controls with direct and precise reviews over the information used in the control. The material weaknesses in the information and communication component resulted from a lack of controls to ensure the Company generates and uses relevant quality information to support a functioning control environment.
- **Monitoring** – As of December 31, 2021, management was still in the process of designing the appropriate monitoring framework with regard to the Company's control environment. The material weaknesses in the monitoring activities resulted from a lack of ongoing evaluations to ascertain whether the components of the internal control are present and functioning.

The material weaknesses noted above contributed to the following additional material weaknesses:

- **Information Technology** – The Company identified deficiencies related to IT general controls that represented a material weakness, either individually or in the aggregate. The following were contributing factors to the material weakness in information technology controls: (i) the general ledger relevant to financial reporting lacks system tracking capabilities to monitor user access changes and institute appropriate segregation of duties in the area of Information Technology related general controls and the related application controls, and (ii) the automated business controls that depend on the affected information systems, including data or financial reports generated from the affected information systems, could be adversely affected due to the access control issues.

- *Journal Entry Review* – The Company identified a deficiency related to the review and approval of journal entries that resulted in a material weakness. The journal entry review is not appropriately designed to obtain adequate supporting documentation in connection with review and approval in order to ensure the validity, accuracy, and completeness of recorded amounts. Further, the journal entry control depends on the affected information systems for which user access controls do not exist. Therefore, the journal entry review could be affected due to the access control issues.

These material weaknesses were considered in determining the nature, timing, and extent of audit tests applied in our audit of the consolidated financial statements as of and for the year ended December 31, 2021, of the Company, and this report does not affect our report on such financial statements.

/s/ DELOITTE & TOUCHE LLP

San Jose, California

March 1, 2022

ITEM 9B. OTHER INFORMATION.

None.

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS.

Not applicable.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE.

Board of Directors

Alec E. Gores, 68 has served as a member of our board of directors since December 2020. Mr. Gores is the Founder, Chairman and Chief Executive Officer of The Gores Group, a global investment firm focused on acquiring businesses that can benefit from the firm's operating expertise. Mr. Gores implemented an operational approach to private equity investing when he founded The Gores Group in 1987 by operating businesses alongside management, or in some cases in lieu of management, to build value in those entities. Since then, the firm has acquired more than 120 businesses including a current portfolio of more 8 active companies worldwide. Mr. Gores began his career as a self-made entrepreneur and operating executive. In 1978, he self-funded and founded Executive Business Systems (EBS), a developer and distributor of vertical business software systems. Within seven years, EBS had become a leading value-added reseller in Michigan and employed over 200 people. In 1986, CONTEL purchased EBS, and Mr. Gores subsequently began acquiring and operating non-core businesses from major corporations and building value in those entities, a decision that ultimately led to the founding of what has evolved into The Gores Group today. Under his leadership, The Gores Group has continued to acquire businesses in need of operational and financial resources, while creating value and working with management teams to establish an entrepreneurial environment as a foundation for sustainable growth. This philosophy has served the firm well. Mr. Gores served as the Chairman of the Board of Directors of Gores Holdings I from its inception in June 2015 until completion of the Hostess acquisition in November 2016, as the Chairman of the Board of Directors of Gores Holdings II since its inception in August 2016 until completion of the Verra acquisition in October 2018 and as the Chairman of the Board of Directors of Gores Holdings III since its inception in October 2017 until the completion of the PAE acquisition in February 2020, as the Chairman of the Board of Directors of Gores Holdings IV from June 2019 until the completion of the UWM acquisition in January 2021, as the Chairman of the Board of Directors of Gores Holdings V from June 2020 until the completion of the AMP acquisition in August 2021, as the Chairman of the Board of Directors of Gores Holdings from June 2020 until the completion of the Matterport acquisition in July 2021. Mr. Gores has served as the Chairman of the board of directors of Gores Holdings VII since September 2020, Gores Holdings VIII since September 2020, Gores Technology since December 2020, Gores Technology II since December 2020, Gores Guggenheim since December 2020 and Gores Holdings IX since January 2021 and Gores Holdings X since January 2021. Mr. Gores has also served as the Chief Executive Officer and a director of Gores Metropoulos II since July 2020. In addition, Mr. Gores has served Mr. Gores holds a degree in Computer Science from Western Michigan University. Mr. Gores' significant investment and financial expertise make him well qualified to serve as a member of our board of directors. We believe Mr. Gores is qualified to serve on our board of directors based on his significant investment and financial expertise.

Jun Hong Heng, 40, has served as a member of our board of directors since June 2021 and is the Founder and the Chief Investment Officer of Crescent Cove Advisors, LP ("Crescent Cove") since August 2018. Since Feb 2021, Mr. Heng is also the Chairman and Chief Executive Officer of COVA Acquisition Corp. Mr. Heng is also the Founder of Crescent Cove Capital Management LLC and has served as its Chief Investment Officer since February 2016. Prior to Crescent Cove Capital Management LLC, Mr. Heng served as Principal of Myriad Asset Management, an investment firm, from August 2011 to January 2015, where he focused on Asian credit and equity, including special situations. From June 2008 to June 2011, he served as Vice President of Argyle Street Management, a spin-off from Goldman Sachs Asian Special Situations Group. Previously, Mr. Heng served as an analyst at Morgan Stanley, where he focused on Asia, and as an analyst at Bear, Stearns & Co., where he served in a multi-disciplinary role across technology, media and telecommunications, mergers and acquisitions, and equity and debt capital markets. Mr. Heng holds a B.B.A. in Finance and Accounting from the Stephen M. Ross School of Business at the University of Michigan. We believe Mr. Heng is qualified to serve as a director based on his extensive investment and financial expertise.

Mary Lou Jepsen, Ph.D., 56 has served as a member of our board of directors since February 2021. Dr. Jepsen is the CEO, Founder and Chairperson of the board of directors of Openwater, a San Francisco-based medical laser imaging device technology company. Previously, Dr. Jepsen served as the Executive Director of Engineering at Facebook, Inc. and Head of Display Technologies at Oculus, and before that served a similar role at Google, Inc. and X (formerly Google X). She also co-founded and served as the Chief Technology Officer of One Laptop per Child, a nonprofit organization, of which she was the lead architect designing \$100 laptops that were shipped to millions of children in the developing world. Dr. Jepsen has served on the board of directors of Lear Corporation ("Lear"), a leading, global tier-1 automotive components supplier, since March 2016. Dr. Jepsen holds a Ph.D. degree from Brown University in Optical Sciences, an M.S. from Massachusetts Institute of Technology in Visual Studies and a Sc.B. from Brown University in Electrical Engineering and Studio Art. We believe Dr. Jepsen is qualified to serve on our board of directors based on her exceptional track record of leadership and innovation including her senior management experience in the technology industry and as a board member of a publicly traded company.

Shaun Maguire, Ph.D., 36 has served as a member of our board of directors since June 2021 and is currently a General Partner at Sequoia Capital. Prior to joining Sequoia Capital in 2019, Dr. Maguire served as Co-Founder and Chairman of Expanse (formerly known as Qadium) from May 2012 to December 2020, when Expanse was acquired by Palo Alto Networks. Dr. Maguire also served as Partner of GV from 2016 to 2019, Co-Founder of Escape Dynamics, Inc. from 2010 to 2015, Consultant at the Defense Advanced Research Projects Agency from 2011 to 2012 and a member of the Algorithmic Trading Group at the DRW Trading Group in 2008. Dr. Maguire serves on the boards of Vise, AMP Robotics, Gather.town and Knowde. Dr. Maguire received his Ph.D. in Physics from the California Institute of Technology, M.S. in Control and Dynamical Systems from the California Institute of Technology, M.S. in Statistics from Stanford University and B.A. in Mathematics from the University of Southern California. We believe that Dr. Maguire is qualified to serve as a director because of his significant investment, cybersecurity and technology expertise, which enables him to bring to the board of directors unique perspectives as well as valuable insights and experience.

Katharine A. Martin, 59 has served as a member of our board of directors since February 2021. Ms. Martin is the Chairperson of the board of directors of Wilson Sonsini Goodrich & Rosati and a partner of such firm. Prior thereto, Ms. Martin was a partner of Pillsbury Madison & Sutro LLP. Ms. Martin also serves on the board of directors of WildAid, a nonprofit organization, and YMCA of Silicon Valley, a nonprofit organization. She previously served on the board of directors of Nuance Communications, a technology pioneer and market leader in conversational artificial intelligence and ambient clinical intelligence, from 1999 to 2018. Ms. Martin has over thirty years' experience practicing corporate and securities law, and has extensive experience representing public companies. Ms. Martin holds a J.D. from McGeorge School of Law and an undergraduate degree in Anthropology from the University of California, Berkeley. We believe Ms. Martin is qualified to serve on our board of directors based on her legal and business background including her senior management experience.

Matthew J. Simoncini, 61 has served as a member of our board of directors since December 2020 and previously served on Legacy Luminar's board of directors since June 2020. Mr. Simoncini has served on the board of directors of Kensington Capital Acquisition Corp., a special purpose acquisition company focused on companies in the automotive sector, since June 2020. He previously served on the board of directors of Cooper-Standard Holdings Inc., a leading global supplier of systems and components for the automotive industry, from August 2018 to May 2020. From September 2011 until his retirement in February 2018, Mr. Simoncini served as President and Chief Executive Officer and as a member of the board of directors of Lear Corporation ("Lear"), a global automotive technology company, and he served as Chief Financial Officer of Lear from September 2007 to September 2011. Mr. Simoncini joined Lear in May 1999 after Lear acquired UT Automotive, a supplier of electronic and interior products for the auto industry, where he served as Director of Global Financial Planning & Analysis from April 1996 to May 1999. Mr. Simoncini holds a B.A. in business administration and an Honorary Doctorate of Law from Wayne State University. We believe Mr. Simoncini is qualified to serve on our board of directors based on his extensive executive leadership and management experience and his significant strategic and financial expertise in the automotive and automotive-related industries.

Executive Officers

Information regarding our executive officers is contained in Part I, Item 1. Business of this Form 10-K is incorporated hereby by reference.

Code of Conduct

We have adopted a Code of Business Conduct and Ethics that applies to all of the members of our board of directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. Our Code of Business Conduct and Ethics is posted on the Investor Relations section of our website, which is located at <https://investors.luminartech.com> by clicking on "Governance Documents" in the "Governance" section of our website. We intend to satisfy the disclosure requirement under Item 5.05 of Form 8-K regarding amendment to, or waiver from, a provision of our Code of Business Conduct and Ethics by posting such information on our website at the location specified above.

Audit Committee and Audit Committee Financial Expert

We have a separately-designated audit committee established in accordance with Section 3(a)(58)(A) of the Exchange Act. The Nasdaq's listing rules require that our audit committee be composed of at least three independent Directors who currently are: Matthew J. Simoncini, Jun Hong Heng and Shaun Maguire. All members of the audit committee are able to read and understand financial statements. Mr. Simoncini is an "audit committee financial expert" within the meaning of Item 407(d) of Regulation S-K promulgated by the SEC. This designation does not impose any duties, obligations, or liabilities that are greater than are generally imposed on members of the audit committee and the board of directors.

ITEM 11. EXECUTIVE COMPENSATION.

Compensation Discussion and Analysis

This Compensation Discussion and Analysis (“CD&A”) provides an overview of our overall executive compensation program, including the philosophy and goals, main components of pay and the decision making process with respect to each of our named executive officers for 2021. We believe our compensation programs reflect our commitment to adhere to best practices and only reward positive performance.

For 2021 our named executive officers were:

- Austin Russell, President and Chief Executive Officer
- Thomas J. Fennimore, Chief Financial Officer
- Alan Prescott, Chief Legal Officer
- M. Scott Faris, Former Chief Business Officer
- Jason Eichenholz, Former Chief Technology Officer

Overall Compensation Philosophy

We believe our compensation programs serve three primary purposes:

- To attract, retain, and motivate our employees, which is critical to successfully executing our organizational strategy.
- To align the interests of management with our stockholders through the use of incentive compensation the value of which is tied to company performance.
- To hold our executive officers accountable for company performance over the long-term by relying to a large extent on equity based awards that vest over 4-6 years, weighted toward the end of that vesting period.

What We Do

- **Pay-for-Performance Philosophy:** A significant portion of our named executive officers’ target compensation is issued in RSUs that are by their nature tied to stock performance.
- **Emphasize Long-Term Performance:** Our compensation program focuses on achieving long-term strategic objectives, with RSU vesting typically occurring over a 4-6 year period.
- **Provide Limited Perquisites:** Our named executive officers receive perquisites consistent with or below industry practices and participate in the same plans generally at the same level and offering made available to other employees.
- **Mitigate Risk:** The Compensation Committee reviews our compensation programs annually and makes revisions to mitigate undue risk and align with market best practices.
- **Clawback Policy:** All awards granted under our 2020 Equity Incentive Plan are subject to recoupment in accordance with any clawback policy that the company is required to adopt pursuant to the listing standards of any national securities exchange or association on which the Company’s securities are listed or as is otherwise required by the U.S. Dodd-Frank Wall Street Reform and Consumer Protection Act or other applicable laws. In addition, the Board may impose such other clawback, recovery or recoupment provisions in an award agreement as the Board determines necessary or appropriate, including but not limited to a reacquisition right in respect of previously acquired shares or other cash or property upon the occurrence of an event constituting cause.

What We Don’t Do

- **No Tax Gross-Ups:** We do not provide any tax gross-ups on perquisites or benefits.
- **Reprice or buyout of underwater stock options** We do not allow the repricing of stock options without stockholder approval.

We believe these practices, along with our pay-for-performance philosophy, combine to create a compensation program aligned with the interests of our stockholders.

Elements of Executive Compensation

The following table provides information regarding the elements of our executive compensation program.

ELEMENT	FORM	DESCRIPTION	OBJECTIVE AND BASIS
Base Salary	Cash	Base salary for each named executive officer is set at a level that is commensurate with the executive's duties and authorities, contributions, prior experience and sustained performance.	Attract and retain highly qualified executives. Determined based on skills, experience, contribution, external benchmarking and performance when reviewed on an annual basis (except that historically, and at Legacy Luminar, Mr. Russell has voluntarily chosen to receive a base salary below industry practice).
Discretionary Cash Bonuses	Cash	The actual annual cash bonuses awarded to each named executive officer for 2021 performance are set forth in the Summary Compensation Table in the column titled "Bonus." Except with respect to the offer letters as described below, we do not have any formal arrangements with our named executive officers providing for annual cash bonus awards.	Linked to the company's annual financial and strategic performance, as well as contributions made by the recipient.
Long-Term Incentive (2020 Equity Incentive Plan)	RSUs	In 2021, each of our named executive officers (other than Mr. Russell) received time-based RSUs under the 2020 Equity Incentive Plan, in each case as described below under "—2021 Grants of Plan-Based Awards."	Align the interests of our named executive officers with those of our stockholders; motivate our named executive officers to create value in the company over a longer term (generally over a 4-6 year vesting period).
Long-Term Incentive (Management Longer Term Equity Incentive Plan)	Stock Awards	Permits the grant of stock awards related to the achievement of certain underlying triggering events.	Attract and retain highly qualified executives. Align the interests of our named executive officers with those of our stockholders.
Benefits and Perquisites	Varies	We provide benefits to our named executive officers on the same basis as provided to all of our employees, including health, dental and vision insurance; life insurance; accidental death and dismemberment insurance; critical illness; short- and long-term disability insurance; a health reimbursement account; a health savings account; a flexible spending account; and a tax-qualified Section 401(k) plan for which no employer match is provided.	We do not maintain any executive-specific benefit or perquisite programs.

Our Executive Compensation Process

Compensation Committee	The Compensation Committee oversees and approves key aspects of executive compensation, including salary, annual bonuses (if any), long-term incentives, and benefits, with input from our Board of Directors and its independent compensation consultant, Compensia.
Management	The President and Chief Executive Officer works closely with the Compensation Committee in managing the executive compensation program, providing input and attending meetings of the Compensation Committee as appropriate. The President and Chief Executive Officer makes recommendations to the Compensation Committee regarding compensation for each executive officer (other than his own).
Independent Compensation Consultant	The Compensation Committee's independent compensation consultant, Compensia, provides research, survey information and analysis, incentive design expertise and other analyses related to compensation levels and design. Compensia also updates the Compensation Committee on trends and developments related to executive compensation design and provides its views to the Compensation Committee on best practices, including competitiveness when evaluating executive pay programs and policies. Compensia has been retained by and reports directly to the Compensation Committee and does not have any other consulting engagements with management or the company.

Distribution of Compensation

We weight a significant proportion of total compensation toward long-term compensation, which can reinforce management's commitment to enhancing profitability and stockholder value over the long-term more meaningfully than cash compensation. In 2021, 98% of the compensation paid to our named executive officers was issued in the form of stock awards, ensuring that management is highly committed to enhancing profitability and stockholder value over the long-term.

Description of Employment Agreements

Thomas J. Fennimore Offer Letter

On April 3, 2020, Legacy Luminar and Mr. Fennimore entered into an offer letter. Pursuant to this agreement, Mr. Fennimore is entitled to a base salary of \$300,000 per year and is eligible to participate in our employee benefits plans. The agreement also provides for a cash bonus of \$200,000, payable in four equal installments on the first pay period following the end of Q2 2020, Q3 2020, Q4 2020 and Q1 2021, subject to his employment through the payment date of each such bonus. Beginning in Q2 2021, Mr. Fennimore became eligible to receive an annual discretionary performance-based cash bonus of up to \$200,000, payable on a quarterly basis and subject to his full-time employment through the payment date of each such bonus. In addition, Mr. Fennimore is also entitled to (i) \$50,000 to assist with miscellaneous relocation expenses, and (ii) up to \$50,000 to cover any net loss resulting from the sale of his primary residence, provided that the sales price of his residence is less than the original purchase price. In the event that Mr. Fennimore is terminated by the Company due to no fault of his own, he will be entitled to receive, as severance benefits, an amount equal to six months of his annual base salary, subject to his execution (without revocation) of a general release of claims in favor of Luminar.

On May 11, 2020, Legacy Luminar and Mr. Fennimore entered into an offer letter to provide for (i) payment of an hourly wage at the rate of \$150 per hour and (ii) the grant of the option referenced in the April 3, 2020 offer letter, in each case, during Mr. Fennimore's part-time employment with Legacy Luminar prior to his commencement of full-time employment. Upon Mr. Fennimore's transition to full-time employment with Legacy Luminar, which commenced on July 10, 2020, he became eligible for the benefits, including base salary, set forth in his April 3, 2020 offer letter.

Alan Prescott Employment Agreement

On March 25, 2021, we and Mr. Prescott entered into an employment agreement, which was amended on November 11, 2021. Pursuant to this agreement, as amended, Mr. Prescott is entitled to a base salary of \$300,000 per year and is eligible for a \$50,000 annual bonus based on satisfactory achievement of performance goals and to participate in our employee benefit plans. Mr. Prescott's employment is "at-will" and is terminable by either party at any time. Among other equity-based incentives in his employment agreement, Mr. Prescott was awarded 353,000 RSUs, scheduled to vest over four years from his start date, subject to his continued service on each vesting date, provided that in the event that Mr. Prescott is terminated, resigns for good cause, or we experience a change of control, he will be entitled to the immediate vesting of the remaining unvested shares of such RSU grant. Mr. Prescott's employment agreement-related RSUs are discussed in greater detail under "—Outstanding Equity Awards at December 31, 2021 Fiscal Year-End" below.

M. Scott Faris Offer Letter

On February 22, 2017, Legacy Luminar and Mr. Faris entered into an offer letter. Pursuant to this agreement, Mr. Faris was entitled to a base salary of \$300,000 per year and was eligible to participate in our employee benefits plans. Mr. Faris's employment was "at-will" and was terminable by either party at any time, without the payment of severance in excess of then-accrued compensation. Mr. Faris left the Company on November 9, 2021.

Jason Eichenholz Offer Letter

On May 4, 2020, Legacy Luminar and Dr. Eichenholz entered into an offer letter. Pursuant to this agreement, Dr. Eichenholz is entitled to a base salary of \$300,000 per year, continued eligibility for annual bonuses in a minimum amount of \$20,000 per year and, subject to the approval of the Board of Directors, a stock option to purchase 100,000 shares of Class A common stock. Dr. Eichenholz's employment is "at-will" and may be terminated by either party at any time, without the payment of severance in excess of then-accrued compensation. Dr. Eichenholz ceased serving as an executive officer of the Company on June 9, 2021.

Description of Management Longer Term Equity Incentive Plan

In December 2020, our Board adopted and our stockholders approved the Management Longer Term Equity Incentive Plan. The Management Longer Term Equity Incentive Plan became effective on the six-month anniversary of the Closing.

Purpose

The Management Longer Term Equity Incentive Plan is intended to (i) attract and retain the best available personnel to ensure our success and accomplish our goals; (ii) incentivize employees, directors and independent contractors with long-term equity-based compensation to align their interests with our stockholders; and (iii) promote the success of our business.

Types of Stock Awards

The Management Longer Term Equity Incentive Plan permits the grant of stock awards related to the achievement of certain underlying triggering events ("Incentive Shares" or "shares").

Share Reserve

Number of Incentive Shares

Subject to adjustments as set forth in the Management Longer Term Equity Incentive Plan, the maximum aggregate number of shares of Class A Stock that may be issued under the Management Longer Term Equity Incentive Plan is 25,818,749 shares. The shares may be authorized, but unissued, or reacquired Class A Stock. One-sixth (1/6) of the share pool becomes available for issuance based on (including prior to but contingent upon) the occurrence of each of six distinct triggering events, which occur if the Common Share Price (as defined in the Management Longer Term Equity Incentive Plan) is greater than \$31, \$34, \$37, \$40, \$43 and \$46, respectively.

Lapsed Awards

If a participant receives Incentive Shares (as defined in the Management Longer Term Equity Incentive Plan) prior to the triggering event to which such shares relate, and forfeits his or her Incentive Shares prior to such triggering event, then such forfeited Incentive Shares shall again become available for issuance under the Management Longer Term Equity Incentive Plan.

Eligibility

Employees, directors and independent contractors of us or our affiliates are all eligible to participate in the Management Longer Term Equity Incentive Plan.

Administration

The Management Longer Term Equity Incentive Plan is administered by the Board or a committee thereof, which committee will be constituted to satisfy applicable laws (the "Administrator"). To the extent desirable to qualify transactions under the Management Longer Term Equity Incentive Plan as exempt under Rule 16b-3 of the Exchange Act, the transactions contemplated under the Management Longer Term Equity Incentive Plan will be structured to satisfy the requirements for exemption under Rule 16b-3.

Subject to the terms of the Management Longer Term Equity Incentive Plan, the Administrator has the authority, in its discretion, to (i) determine the fair market value in accordance with the Management Longer Term Equity Incentive Plan; (ii) select the service providers to whom Incentive Shares may be granted under the Management Longer Term Equity Incentive Plan; (iii) determine the number of Incentive Shares to be covered by each stock award granted under the Management Longer Term Equity Incentive Plan; (iv) approve forms of stock award agreements for use under the Management Longer Term Equity Incentive Plan; (v) construe and interpret the terms of the Management Longer Term Equity Incentive Plan and stock awards

granted pursuant to the Management Longer Term Equity Incentive Plan; (vi) prescribe, amend and rescind rules and regulations relating to the Management Longer Term Equity Incentive Plan; (vii) modify or amend each stock award (subject to the terms of the Management Longer Term Equity Incentive Plan); (viii) allow participants to satisfy tax withholding obligations in such manner as prescribed in the Management Longer Term Equity Incentive Plan; (ix) authorize any person to execute on our behalf any instrument required to effect the grant of a stock award previously granted by the Administrator; and (x) make all other determinations deemed necessary or advisable for administering the Management Longer Term Equity Incentive Plan.

To the extent permitted by applicable law, the Administrator, in its sole discretion and on such terms and conditions as it may provide, may delegate all or any part of its authority and powers under the Management Longer Term Equity Incentive Plan to one or more of our directors or officers.

Nontransferability of Stock Awards

Unless determined otherwise by the Administrator, a stock award may not be sold, pledged, assigned, hypothecated, transferred, or disposed of in any manner other than by will or by the laws of descent or distribution and may be exercised, during the lifetime of the participant, only by the participant. If the Administrator makes a stock award transferable, such stock award will contain such additional terms and conditions as the Administrator deems appropriate.

Recoupment Policy

All stock awards granted under the Management Longer Term Equity Incentive Plan will be subject to recoupment in accordance with any clawback policy that we are required to adopt pursuant to the listing standards of any national securities exchange or association on which our securities are listed or as is otherwise required by the U.S. Dodd-Frank Wall Street Reform and Consumer Protection Act or other applicable law. In addition, the Board may impose such other clawback, recovery or recoupment provisions in a stock award agreement as the Board determines necessary or appropriate. No recovery of compensation under such a clawback policy will be an event giving rise to a right to resign for “good reason” or “constructive termination” (or similar term) under any agreement with us.

Effect of a Change in Control

Upon any of the following events (each a Change in Control under the Management Longer Term Equity Incentive Plan):

- a transfer of all or substantially all of the Company’s assets;
- a merger, consolidation or other capital reorganization or business combination transaction of the Company with or into another corporation, entity or person;
- the consummation of a transaction in which any person becomes the beneficial owner, directly or indirectly, of at least 50% of our then outstanding capital stock; or
- a change in the effective control of the Company;

and such Change in Control that will result in the holders of Class A Stock receiving a per share price equal to or in excess of the applicable Common Share Price required in connection with any triggering event under the Management Longer Term Equity Incentive Plan, then immediately prior to the consummation of such Change in Control (i) any such triggering event that has not previously occurred shall be deemed to have occurred and (ii) the Company may issue the applicable Incentive Shares to participants (in accordance with the terms of the Management Longer Term Equity Incentive Plan), and the participants shall be eligible to participate in such Change in Control.

Amendment, Termination and Duration of the Management Longer Term Equity Incentive Plan

The Management Longer Term Equity Incentive Plan will continue in effect for a term of 5 years measured from the six-month anniversary of the Closing, unless terminated earlier under the terms of the Management Longer Term Equity Incentive Plan. The Administrator may at any time amend (subject to the terms of the Management Longer Term Equity Incentive Plan), suspend or terminate the Management Longer Term Equity Incentive Plan pursuant to the listing standards of any national securities exchange or association on which our securities are listed or as otherwise required by applicable law.

Description of 2020 Equity Incentive Plan

In December 2020, our Board adopted and our stockholders approved the 2020 Equity Incentive Plan (the “Equity Incentive Plan”). The Equity Incentive Plan became effective upon the Closing.

Purpose

The Equity Incentive Plan is intended to (i) attract and retain the best available personnel to ensure our success and accomplish our goals; (ii) incentivize employees, directors and independent contractors with long-term equity-based

compensation to align their interests with our stockholders; and (iii) promote the success of our business. The Equity Incentive Plan is a successor to the Legacy Luminar Stock Plan.

Types of Stock Awards

The Equity Incentive Plan permits the grant of incentive stock options, nonstatutory stock options, restricted stock, restricted stock units, SARs, performance units and performance shares (all such types of awards, collectively, “stock awards”).

Share Reserve

Number of Shares

Subject to adjustments as set forth in the Equity Incentive Plan, the maximum aggregate number of shares of Class A Stock that may be issued under the Equity Incentive Plan is 36,588,278 shares. The shares may be authorized, but unissued, or reacquired Class A Stock. Furthermore, subject to adjustments as set forth in the Equity Incentive Plan, in no event shall the maximum aggregate number of shares that may be issued under the Equity Incentive Plan pursuant to incentive stock options exceed the number set forth above plus, to the extent allowable under Section 422 of the U.S. Tax Code and the regulations promulgated thereunder, any shares that again become available for issuance pursuant to the Equity Incentive Plan.

Lapsed Awards

To the extent a stock award expires or is forfeited or becomes unexercisable for any reason without having been exercised in full, the unissued shares that were subject thereto shall continue to be available under the Equity Incentive Plan for issuance pursuant to future stock awards. Shares issued under the Equity Incentive Plan and later forfeited to us due to the failure to vest or repurchased by us at the original purchase price paid to us for the shares (including without limitation upon forfeiture to or repurchase by us in connection with a participant ceasing to be a service provider) shall again be available for future grant under the Equity Incentive Plan. The following shares shall not be added to the shares authorized for grant under the Equity Incentive Plan and shall not be available for future grants of awards: (i) shares tendered or withheld in payment of the exercise price of an option or to satisfy any tax withholding obligation; (ii) shares subject to a stock appreciation right that are not issued in connection with the stock settlement of the stock appreciation right; and (iii) shares purchased on the open market with the cash proceeds from the exercise of options.

Eligibility

Employees, directors and independent contractors of us or our affiliates are all eligible to participate in the Equity Incentive Plan. Incentive stock options may only be granted to employees.

Administration

The Equity Incentive Plan is administered by the Board or a committee thereof, which committee will be constituted to satisfy applicable laws (the “Administrator”). To the extent desirable to qualify transactions under the Equity Incentive Plan as exempt under Rule 16b-3 of the Exchange Act, the transactions contemplated under the Equity Incentive Plan will be structured to satisfy the requirements for exemption under Rule 16b-3.

Subject to the terms of the Equity Incentive Plan, the Administrator has the authority, in its discretion, to (i) determine the fair market value in accordance with the Equity Incentive Plan; (ii) select the service providers to whom stock awards may be granted under the Equity Incentive Plan; (iii) determine the number of shares to be covered by each stock award granted under the Equity Incentive Plan; (iv) approve forms of stock award agreements for use under the Equity Incentive Plan; (v) determine the terms and conditions, not inconsistent with the terms of the Equity Incentive Plan, of any stock award granted thereunder; (vi) institute and determine the terms and conditions of an exchange program under the terms of the Equity Incentive Plan (subject to stockholder approval); (vii) construe and interpret the terms of the Equity Incentive Plan and stock awards granted pursuant to the Equity Incentive Plan; (viii) prescribe, amend and rescind rules and regulations relating to the Equity Incentive Plan; (ix) modify or amend each stock award (subject to the terms of the Equity Incentive Plan); (x) allow participants to satisfy tax withholding obligations in such manner as prescribed in the Equity Incentive Plan; (xi) authorize any person to execute on our behalf any instrument required to effect the grant of a stock award previously granted by the Administrator; (xii) allow a participant to defer the receipt of the payment of cash or the delivery of shares that would otherwise be due to such participant under a stock award; and (xiii) make all other determinations deemed necessary or advisable for administering the Equity Incentive Plan.

To the extent permitted by applicable law, the Administrator, in its sole discretion and on such terms and conditions as it may provide, may delegate all or any part of its authority and powers under the Equity Incentive Plan to one or more of our directors or officers.

Stock Options

Each stock option will be designated in the stock award agreement as either an incentive stock option (which is entitled to favorable tax treatment) or a nonstatutory stock option. However, notwithstanding such designation, to the extent that the aggregate fair market value of the shares with respect to which incentive stock options are exercisable for the first time by the participant during any calendar year exceeds \$100,000, such stock options will be treated as nonstatutory stock options. Incentive stock options may only be granted to our or our subsidiaries' employees.

The term of each stock option will be stated in the stock award agreement. In the case of an incentive stock option, the term will be 10 years from the date of grant or such shorter term as may be provided in the stock award agreement. Moreover, in the case of an incentive stock option granted to a participant who owns stock representing more than 10% of the total combined voting power of all classes of our stock or the stock of any subsidiary, the term of the incentive stock option will be five years from the date of grant or such shorter term as may be provided in the stock award agreement.

The per share exercise price for the shares to be issued pursuant to exercise of a stock option will be determined by the Administrator, subject to the following: in the case of an incentive stock option (i) granted to an employee who, at the time the incentive stock option is granted, owns stock representing more than 10% of the voting power of all classes of our stock or the stock of any subsidiary, the per share exercise price will be no less than 110% of the fair market value per share on the date of grant; and (ii) granted to any other employee, the per share exercise price will be no less than 100% of the fair market value per share on the date of grant. In the case of a nonstatutory stock option, the per share exercise price will be no less than 100% of the fair market value per share on the date of grant. Notwithstanding the foregoing, stock options may be granted with a per share exercise price of less than 100% of the fair market value per share on the date of grant pursuant to a corporate reorganization, liquidation, etc., described in the U.S. Tax Code Section 424(a).

At the time a stock option is granted, the Administrator will fix the period within which the stock option may be exercised and will determine any conditions that must be satisfied before the stock option may be exercised. The Administrator will also determine the acceptable form of consideration for exercising a stock option, including the method of payment.

If a participant ceases to be a service provider other than for "Cause," as defined in the Equity Incentive Plan, the participant may exercise his or her stock option within such period of time as is specified in the stock award agreement to the extent that the stock option is vested on the date of termination (but in no event later than the expiration of the term of such stock option). In the absence of a specified time in the stock award agreement, to the extent vested as of a participant's termination, the stock option will remain exercisable for 12 months following a termination for death or disability, and 3 months following a termination for any other reason other than Cause. Any outstanding stock option (including any vested portion thereof) held by a participant shall immediately terminate in its entirety upon the participant being first notified of his or her termination for Cause.

Stock Appreciation Rights (SARs)

The Administrator will determine the terms and conditions of each SAR, except that the exercise price for each SAR cannot be less than 100% of the fair market value of the underlying shares of Class A Stock on the date of grant. Upon exercise of a SAR, a participant will receive payment from us in an amount determined by multiplying the difference between the fair market value of a share on the date of exercise over the exercise price by the number of shares with respect to which the SAR is exercised. SARs may be paid in cash or shares of our Class A Stock, as determined by the Administrator. SARs are exercisable at the times and on the terms established by the Administrator.

Restricted Stock and RSUs

Restricted stock awards are grants of shares of Class A Stock that are subject to various restrictions, including restrictions on transferability and forfeiture provisions. Shares of restricted stock will vest and the restrictions on such shares will lapse in accordance with terms and conditions established by the Administrator. Each RSU is a bookkeeping entry representing an amount equal to the fair market value of one share of our Class A Stock.

In determining whether restricted stock or RSUs should be granted, and/or the vesting schedule for such a stock award, the Administrator may impose whatever conditions on vesting as it determines to be appropriate. For example, the Administrator may determine to grant restricted stock or RSUs only if performance goals established by the Administrator are satisfied. Any performance goals may be applied on a Company-wide or an individual business unit basis, as determined by the Administrator. Please refer to the discussion below under "—Performance Goals" for more information.

During the period of restriction, participants holding restricted stock may exercise full voting rights and will be entitled to receive all dividends and other distributions paid. Any dividends or distributions paid with respect to such shares will be subject to the same restrictions, including without limitation restrictions on transferability and forfeitability, as the restricted stock with respect to which they were paid.

During the vesting period, participants holding RSUs will hold no voting rights by virtue of such RSUs. The Administrator may, in its sole discretion, award dividend equivalents in connection with the grant of RSUs that may be settled in cash, in shares of equivalent value, or in some combination thereof. Any dividend equivalents awarded with respect to such RSUs will be subject to the same restrictions, including without limitation restrictions on transferability and forfeitability, as the RSUs with respect to which they were awarded.

Performance Units and Performance Shares

Performance units and performance shares are stock awards that will result in a payment to a participant only if the performance goals that the Administrator establishes are satisfied. The Administrator will determine the applicable performance goals. Please refer to the discussion below under “—Performance Goals” for more information. After the applicable performance period has ended, the participant will be entitled to receive a payout of the number of performance units or shares earned during the performance period, depending upon the extent to which the applicable performance objectives have been achieved.

Performance Goals

The Administrator in its discretion may make performance goals applicable to a participant with respect to a stock award. In the Administrator’s discretion, one or more of the following performance goals may apply: (1) sales or non-sales revenue; (2) return on revenues; (3) operating income; (4) income or earnings including operating income; (5) income or earnings before or after taxes, interest, depreciation and/or amortization; (6) income or earnings from continuing operations; (7) net income; (8) pre-tax income or after-tax income; (9) net income excluding amortization of intangible assets, depreciation and impairment of goodwill and intangible assets and/or excluding charges attributable to the adoption of new accounting pronouncements; (10) raising of financing or fundraising; (11) project financing; (12) revenue backlog; (13) gross margin; (14) operating margin or profit margin; (15) capital expenditures, cost targets, reductions and savings and expense management; (16) return on assets, return on investment, return on capital, or return on stockholder equity; (17) cash flow, free cash flow, cash flow return on investment, net cash provided by operations, or cash flow in excess of cost of capital; (18) performance warranty and/or guarantee claims; (19) stock price or total stockholder return; (20) earnings or book value per share; (21) economic value created; (22) pre-tax profit or after-tax profit; (23) strategic business criteria; (24) objective goals relating to divestitures, joint ventures, mergers, acquisitions and similar transactions; (25) objective goals relating to staff management, results from staff attitude and/or opinion surveys, staff satisfaction scores, staff safety, staff accident and/or injury rates, compliance, headcount, performance management, completion of critical staff training initiatives; (26) objective goals relating to projects; and (27) enterprise resource planning. Stock awards issued to participants may take into account other criteria (including subjective criteria).

Outside Director Limitations

No non-employee director (“Outside Director”) may receive awards under the Equity Incentive Plan with a total grant date fair value that, when combined with cash compensation received for service as an Outside Director, exceeds \$750,000 in a calendar year, increased to \$1,000,000 in the calendar year of his or her initial services as an Outside Director. Stock awards granted to an individual while he or she was serving in the capacity as an employee or while he or she was an independent contractor but not an Outside Director will not count for purposes of these limitations.

Leaves of Absence / Transfer Between Locations

The Administrator has the discretion to determine at any time whether and to what extent the vesting of stock awards shall be suspended during any leave of absence. A participant will not cease to be an employee in the case of (i) any leave of absence approved by the participant’s employer or (ii) transfers between our locations or between us and any subsidiary. If an employee holds an incentive stock option and such leave exceeds 3 months then, for purposes of incentive stock option status only, such employee’s service as an employee shall be deemed terminated on the first day following such 3 month period and the incentive stock option shall thereafter automatically treated for tax purposes as a nonstatutory stock option in accordance with applicable laws, unless reemployment upon the expiration of such leave is guaranteed by contract or statute, or unless provided otherwise pursuant to a written policy of the Company.

Nontransferability of Stock Awards

Unless determined otherwise by the Administrator, a stock award may not be sold, pledged, assigned, hypothecated, transferred, or disposed of in any manner other than by will or by the laws of descent or distribution and may be exercised, during the lifetime of the participant, only by the participant. If the Administrator makes a stock award transferable, such stock award will contain such additional terms and conditions as the Administrator deems appropriate.

Recoupment Policy

All stock awards granted under the Equity Incentive Plan will be subject to recoupment in accordance with any clawback policy that we are required to adopt pursuant to the listing standards of any national securities exchange or association on which our securities are listed or as is otherwise required by the U.S. Dodd-Frank Wall Street Reform and Consumer Protection Act or other applicable law. In addition, the Board may impose such other clawback, recovery or recoupment provisions in a stock award agreement as the Board determines necessary or appropriate. No recovery of compensation under such a clawback policy will be an event giving rise to a right to resign for “good reason” or “constructive termination” (or similar term) under any agreement with us.

Effect of a Change in Control

Upon any of the following events (each a Change in Control under the Equity Incentive Plan):

- a transfer of all or substantially all of the Company’s assets;
- a merger, consolidation or other capital reorganization or business combination transaction of the Company with or into another corporation, entity or person;
- the consummation of a transaction in which any person becomes the beneficial owner, directly or indirectly, of at least 50% of our then outstanding capital stock; or
- a change in the effective control of the Company;

except as set forth in a stock award agreement, each outstanding stock award (vested or unvested) will be treated as the Administrator determines, which may include (a) our continuation of such outstanding stock awards (if we are the surviving corporation); (b) the assumption of such outstanding stock awards by the surviving corporation or its parent; (c) the substitution by the surviving corporation or its parent of new stock options or other equity awards for such stock awards; (d) the cancellation of such stock awards in exchange for a payment to the participants equal to the excess of (i) the fair market value of the shares subject to such stock awards as of the closing date of such Change in Control over (ii) the exercise price or purchase price paid or to be paid (if any) for the shares subject to the stock awards (which payment may be subject to the same conditions that apply to the consideration that will be paid to holders of shares in connection with the transaction, subject to applicable law); or (e) the opportunity for participants to exercise the stock options prior to the occurrence of the Change in Control and the termination (for no consideration) upon the consummation of such Change in Control of any stock options not exercised prior thereto.

Amendment, Termination and Duration of the Equity Incentive Plan

The Equity Incentive Plan will continue in effect for a term of 10 years measured from Board approval date, unless terminated earlier under the terms of the Equity Incentive Plan. The Administrator may at any time amend, alter, suspend or terminate the Equity Incentive Plan pursuant to the listing standards of any national securities exchange or association on which our securities are listed or as otherwise required by applicable law.

Description of Legacy Luminar’s Amended and Restated 2015 Stock Plan

General

Legacy Luminar’s board of directors originally adopted, and the Legacy Luminar stockholders approved, the Legacy Luminar Stock Plan, each on June 26, 2015. The Legacy Luminar Stock Plan was last amended on January 24, 2020. The Legacy Luminar Stock Plan provides for the grant of Legacy Luminar Stock Options to Legacy Luminar employees (and employees of any parent or subsidiary of Legacy Luminar), and for the grant of non-statutory Legacy Luminar Stock Options and Legacy Luminar restricted stock to Legacy Luminar employees, directors and consultants (and employees and consultants of any parent, subsidiary or affiliate of Legacy Luminar). We assumed the Legacy Luminar Stock Plan upon the Closing. The Legacy Luminar Stock Plan has been terminated except that the outstanding awards previously granted under the Legacy Luminar Stock Plan continue to remain outstanding under the Legacy Luminar Stock Plan (except that such awards converted into awards of Class A Stock or options for Class A Stock upon the Closing) until terminated pursuant to the terms thereof.

Plan Administration

The Board administers the Legacy Luminar Stock Plan.

Types of Awards

The Legacy Luminar Stock Plan provides for the grant of stock options and restricted stock.

Stock Options.

Legacy Luminar's board of directors granted Legacy Luminar Stock Options under the Legacy Luminar Stock Plan, which we assumed in the Closing. The exercise price per share applicable to such options was equal to at least the fair market value per share of Legacy Luminar stock on the date of grant. The term of options granted under the Legacy Luminar Stock Plan did not exceed 10 years; provided, however, that any Legacy Luminar Stock Options granted to a participant who owned more than 10% of the total combined voting power of all classes of Legacy Luminar stock, or of certain of Legacy Luminar's subsidiary corporations, did not have a term in excess of 5 years and had an exercise price per share of at least 110% of the fair market value per share of Legacy Luminar stock on the grant date. Subject to the provisions of the Legacy Luminar Stock Plan, Legacy Luminar's board of directors determined the remaining terms of the Legacy Luminar Stock Options (e.g., vesting). After the termination of service of an employee, director or consultant, the participant may exercise his or her option, to the extent vested, for the period of time stated in his or her option agreement. If termination is due to death, then 100% of the then unvested shares shall immediately vest and become exercisable as of date of such termination. If termination is due to death or disability, the option will remain exercisable for 12 months. For certain options and so long as the applicable employees that have completed at least two years of continuous service, the option will remain exercisable until the earliest of (a) 10 years from the date of the option grant; or (b) the later of (i) one year after termination (in the event such termination occurs after going public) and (ii) one year after going public. In all other cases except for a termination for cause, the Legacy Luminar Stock Options will generally remain exercisable for three months following the termination of service. In the event of a termination for cause, the Legacy Luminar Stock Options will immediately terminate. However, in no event may an option be exercised later than the expiration of its term.

Non-transferability of Awards

Unless the Board provides otherwise, the Legacy Luminar Stock Plan generally does not allow for the transfer of awards or shares acquired pursuant to an award and only the recipient of an option may exercise such an award during his or her lifetime.

Certain Adjustments

In the event of certain corporate events or changes in our capitalization, to prevent diminution or enlargement of the benefits or potential benefits available under the Legacy Luminar Stock Plan, the Board will make adjustments to one or more of the number, kind and class of securities that may be delivered under the Legacy Luminar Stock Plan and/or the number, kind, class and price of securities covered by each outstanding award.

Dissolution or liquidation

In the event of our dissolution or liquidation, each Legacy Luminar stock option and stock purchase right will terminate immediately prior to the consummation of such action, unless otherwise determined by the Board.

Corporate Transactions

The Legacy Luminar Stock Plan, as assumed by us, provides that in the event of certain significant corporate transactions, including: (i) a transfer of all or substantially all of our assets, (ii) a merger, consolidation or other capital, reorganization or business combination transaction of the Company with or into another corporation, entity or person, or (iii) the consummation of a transaction, or series of related transactions, in which any person becomes the beneficial owner, directly or indirectly, of more than 50% of our then outstanding capital stock, each outstanding award will be treated as the Board determines.

Amendment or Termination

Our Board has terminated the Legacy Luminar Stock Plan, provided that the outstanding awards previously granted under the Legacy Luminar Stock Plan continue to remain outstanding under the Legacy Luminar Stock Plan (except that such awards converted into awards of Class A Stock or options for Class A Stock upon the Closing).

Description of Employee Stock Purchase Plan

In December 2020, our Board adopted and our stockholders approved the Employee Stock Purchase Plan (the "ESPP"). The ESPP became effective upon the Closing.

Purpose

The ESPP provides a means by which eligible employees and/or eligible service providers of either the Company or an affiliate may be given an opportunity to purchase shares of Class A Stock. The ESPP permits us to grant a series of purchase rights to eligible employees and/or eligible service providers. By means of the ESPP, we seek to retain and assist our affiliates in retaining the services of such eligible employees and eligible service providers, to secure and retain the services of new

eligible employees and eligible service providers and to provide incentives for such persons to exert maximum efforts for our success and that of our affiliates.

The ESPP includes two components: a “423 Component” and a “Non-423 Component.” We intend the 423 Component to qualify as an employee stock purchase plan pursuant to Section 423 of the U.S. Tax Code. The provisions of the 423 Component will be construed in a manner that is consistent with the requirements of Section 423 of the U.S. Tax Code, including without limitation to extend and limit ESPP participation in a uniform and non-discriminating basis. In addition, the ESPP authorizes grants of purchase rights under the Non-423 Component that do not meet the requirements of an employee stock purchase plan under Section 423 of the Code. Except as otherwise provided in the ESPP or determined by the Board, the Non-423 Component will operate and be administered in the same manner as the 423 Component. Eligible employees will be able to participate in the 423 Component or Non-423 Component of the ESPP. Eligible service providers (who may or may not be eligible employees) will only be able to participate in the Non-423 Component of the ESPP.

Administration

The Board administers the ESPP and will have the final power to construe and interpret both the ESPP and the rights granted under it. Further, the Board has the power, subject to the provisions of the ESPP, to determine when and how rights to purchase Class A Stock will be granted, the provisions of each offering of such rights (which need not be identical), and whether any employee or other service provider will be eligible to participate in the ESPP.

The Board has the power to delegate administration of the ESPP to a committee composed of one or more members of the Board. As used herein with respect to the ESPP, the term “Board” refers to any committee the Board appoints, and to the Board. Whether or not the Board has delegated administration of the ESPP to a committee, the Board will have the final power to determine all questions of policy and expediency that may arise in the administration of the ESPP.

Stock Subject to the ESPP

Subject to adjustments as provided in the ESPP, the maximum number of shares of Class A Stock that may be issued under the ESPP will not exceed 7,317,655 shares of Class A Stock. If any purchase right granted under the ESPP terminates without having been exercised in full, the shares of Class A Stock not purchased under such purchase right will again become available for issuance under the ESPP.

Offerings

The ESPP is implemented by offerings of rights to all eligible employees and eligible service providers from time to time. Offerings may comprise one or more purchase periods. The maximum length for an offering under the ESPP is 27 months. The provisions of separate offerings need not be identical. When a participant elects to join an offering, he or she is granted a purchase right to acquire shares of Class A Stock on each purchase date within the offering, each corresponding to the end of a purchase period within such offering. On each purchase date, all payroll deductions collected from the participant during such purchase period are automatically applied to the purchase of Class A Stock, subject to certain limitations.

Eligibility

Purchase rights may be granted only to our employees, employees of qualifying related corporations or, solely with respect to the Non-423 Component, employees of an affiliate (other than a qualifying related corporation) or eligible service providers. The Board may provide that employees will not be eligible to be granted purchase rights under the ESPP if, on the offering date, the employee (i) has not completed at least 2 years of service since the employee’s last hire date (or such lesser period as the Board may determine), (ii) customarily works not more than 20 hours per week (or such lesser period as the Board may determine), (iii) customarily works not more than 5 months per calendar year (or such lesser period as the Board may determine), (iv) is an officer within the meaning of Section 16 of the Exchange Act, (v) is a highly compensated employee within the meaning of the U.S. Tax Code, or (vi) has not satisfied such other criteria as the Board may determine consistent with Section 423 of the U.S. Tax Code. Unless otherwise determined by the Board for any offering, an employee will not be eligible to be granted purchase rights unless, on the offering date, the employee customarily works more than 20 hours per week and more than 5 months per calendar year, and has been employed by us or a related corporation or affiliate for at least 3 continuous months preceding such offering date.

No employee will be eligible for the grant of any purchase rights if, immediately thereafter, such employee owns stock possessing 5% or more of the total combined voting power or value of all classes of our stock or the stock of any related corporation. An eligible employee may be granted purchase rights only if such purchase rights, together with any other rights granted under all our and any related corporations’ employee stock purchase plan, do not permit such eligible employee’s rights to purchase stock in excess of \$25,000 worth of stock in any calendar year.

Participation in the ESPP

On each offering date, each eligible employee or eligible service provider, pursuant to an offering made under the ESPP, will be granted a purchase right to purchase up to that number of shares of Class A Stock purchasable either with a percentage or with a maximum dollar amount, as designated by the Board; provided however, that in the case of eligible employees, such percentage or maximum dollar amount will in either case not exceed 15% of such employee's earnings during the period that begins on the offering date (or such later date as the Board determines for a particular offering) and ends on the date stated in the offering, which date will be no later than the end of the offering, unless otherwise provided for in an offering.

Purchase Price

The purchase price of shares of Class A Stock acquired pursuant to purchase rights will be not less than the lesser of (i) 85% of the fair market value of the shares of Class A Stock on the offering date; or (ii) 85% of the fair market value of the shares of Class A Stock on the applicable purchase date (i.e., the last day of the applicable purchase period).

Payment of Purchase Price; Payroll Deductions

The purchase price of the shares is accumulated by payroll deductions over the offering. To the extent permitted in the offering document, a participant may increase, reduce or terminate his or her payroll deductions. All payroll deductions made on behalf of a participant are credited to his or her account under the ESPP and deposited with our general funds. No interest will accrue on such payroll deductions. To the extent permitted in the offering document, a participant may make additional payments into such account. If required under applicable laws or regulations or if specifically provided in the offering, in addition to or instead of making contributions by payroll deductions, a participant may make contributions through a payment by cash, check, or wire transfer prior to a purchase date, in a manner we direct.

Purchase of Stock

The Board will establish one or more purchase dates during an offering on which purchase rights granted for that offering will be exercised and shares of Class A Stock will be purchased in accordance with such offering. In connection with each offering, the Board may specify a maximum number of shares of Class A Stock that may be purchased by any participant or all participants. If the aggregate purchase of shares of Class A Stock issuable on exercise of purchase rights granted under the offering would exceed any such maximum aggregate number, then, in the absence of any Board action otherwise, a pro rata (based on each participant's accumulated contributions) allocation of the shares of Class A Stock available will be made in as nearly a uniform manner as will be practicable and equitable.

Withdrawal

During an offering, a participant may cease making contributions and withdraw from the offering by delivering a withdrawal form. We may impose a deadline before a purchase date for withdrawing. On such withdrawal, such participant's purchase right in that offering will immediately terminate and we will distribute as soon as practicable to such participant all of his or her accumulated but unused contributions without interest and such participant's purchase right in that offering will then terminate. A participant's withdrawal from that offering will have no effect on his or her eligibility to participate in any other offerings under the ESPP, but such participant will be required to deliver a new enrollment form to participate in subsequent offerings.

Termination of Employment

Purchase rights granted pursuant to any offering under the ESPP will terminate immediately if the participant either (i) is no longer an eligible employee or eligible service provider for any reason or for no reason, or (ii) is otherwise no longer eligible to participate. We shall have the exclusive discretion to determine when a participant is no longer actively providing services and the date of the termination of employment or service for purposes of the ESPP. As soon as practicable, we will distribute to such individual all of his or her accumulated but unused contributions without interest.

Restrictions on Transfer

During a participant's lifetime, purchase rights will be exercisable only by such participant. Purchase rights are not transferable by a participant, except by will, by the laws of descent and distribution, or, if we so permit, by a beneficiary designation.

Exercise of Purchase Rights

On each purchase date, each participant's accumulated contributions will be applied to the purchase of shares of Class A Stock, up to the maximum number of shares of Class A Stock permitted by the ESPP and the applicable offering, at the purchase price specified in the offering. Unless otherwise specified in the ESPP, no fractional shares will be issued and, if any amount of accumulated contributions remains in a participant's account after the purchase of shares of Class A Stock on the final purchase date in an offering, such remaining amount will roll over to the next offering.

No purchase rights may be exercised to any extent unless and until the shares of Class A Stock to be issued on such exercise under the ESPP are covered by an effective registration statement pursuant to the Securities Act, and the ESPP is in material compliance with all applicable U.S. federal and state, foreign and other securities, exchange control, and other laws applicable to the ESPP. If, on the purchase date, as delayed to the maximum extent permissible, the shares of Class A Stock are not registered and the ESPP is not in material compliance with all applicable laws or regulations, no purchase rights will be exercised and all accumulated but unused contributions will be distributed as soon as practicable to the participants without interest.

Capitalization Adjustments

In the event of a capitalization adjustment, the Board will appropriately and proportionately adjust: (i) the classes and maximum number of securities subject to the ESPP, (ii) the classes and maximum number of securities by which the share reserve is to increase automatically each year pursuant to the ESPP, (iii) the classes and number of securities subject to, and the purchase price applicable to outstanding offerings and purchase rights, and (iv) the classes and number of securities that are the subject of the purchase limits under each ongoing offering.

Dissolution or Liquidation

In the event of the Company's dissolution or liquidation, the Board will shorten any offering then in progress by setting a new purchase date prior to the consummation of such proposed dissolution or liquidation. The Board will notify each participant in writing, prior to the new purchase date that the purchase date for the participant's purchase rights has been changed to the new purchase date and that such purchase rights will be automatically exercised on the new purchase date, unless prior to such date the participant has withdrawn from the offering.

Effect of a Change in Control:

Upon any of the following events (each a Change in Control under the ESPP):

- a transfer of all or substantially all of the Company's assets;
- a merger, consolidation or other capital reorganization or business combination transaction of the Company with or into another corporation, entity or person;
- the consummation of a transaction in which any person becomes the beneficial owner, directly or indirectly, of at least 50% of our then outstanding capital stock; or
- a change in the effective control of the Company;

any surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company) may assume or continue outstanding purchase rights or may substitute similar rights for outstanding purchase rights, or, if any surviving or acquiring corporation (or its parent company) does not assume or continue such purchase rights or does not substitute similar rights for such purchase rights, then the participants' accumulated contributions will be used to purchase shares of Class A Stock prior to the Change in Control under the outstanding purchase rights, and the purchase rights will terminate immediately after such purchase. The Board will notify each participant in writing prior to the new purchase date that the purchase date for the participant's purchase rights has been changed to the new purchase date and that such purchase rights will be automatically exercised on the new purchase date unless prior to such date the participant has withdrawn from the offering.

Amendment, Termination or Suspension of the ESPP

The Board may amend the ESPP at any time in any respect the Board deems necessary or advisable. However, except with respect to capitalization adjustments described above, stockholder approval will be required for any amendment of the ESPP for which stockholder approval is required by applicable laws, regulations or listing requirements, including any amendment that either (i) increases the number of shares of Class A Stock available for issuance under the ESPP, (ii) expands the class of individuals eligible to become participants and receive purchase rights, (iii) materially increases the benefits accruing to participants under the ESPP or reduces the price at which shares of Class A Stock may be purchased under the ESPP, (iv) extends the term of the ESPP, or (v) expands the types of awards available for issuance under the ESPP, but in each case only to the extent stockholder approval is required by applicable laws, regulations, or listing requirements.

The Board may suspend or terminate the ESPP at any time. No purchase rights may be granted under the ESPP while the ESPP is suspended or after it is terminated.

Any benefits, privileges, entitlements, and obligations under any outstanding purchase rights granted before an amendment, suspension, or termination of the ESPP will not be materially impaired by any such amendment, suspension, or termination except (i) with the consent of the person to whom such purchase rights were granted, (ii) as necessary to comply

with any laws, listing requirements, or governmental regulations, or (iii) as necessary to obtain or maintain any special tax, listing, or regulatory treatment.

Tax Considerations

Prior to its amendment by the Tax Cuts and Jobs Act (“Tax Legislation”), which was enacted December 22, 2017, Section 162(m) of the Internal Revenue Code disallowed a tax deduction to public companies for compensation paid in excess of \$1 million to “covered employees” (generally, such company’s chief executive officer and its three other highest paid executive officers other than its chief financial officer). Prior to the Tax Legislation, there was an exception to this \$1 million limitation for performance-based compensation if certain requirements were met. The Tax Legislation generally amended Section 162(m) to eliminate the exception for performance-based compensation and to expand the \$1 million compensation limit to apply to a public company’s chief financial officer and to certain individuals who were covered employees in years other than the then-current taxable year, subject to certain “grandfathering” rules. The company will continue to take into account the tax and accounting implications (including with respect to the expected lack of deductibility under the revised Section 162(m)) when making compensation decisions, but reserves its right to continue to make compensation decisions based on other factors if it determines that it is in the best interests of the company and its stockholders to do so.

COMPENSATION COMMITTEE REPORT

The Compensation Committee has reviewed and discussed our Compensation Discussion and Analysis section with management and, based on the review and discussions, recommended to the Board that the Compensation Discussion and Analysis section be included in this Annual Report on Form 10-K.

Compensation Committee

Katharine A. Martin (Chair)

Alec Gores

Matthew Simoncini

The foregoing report of the Compensation Committee is not soliciting material, is not deemed filed with the SEC and is not incorporated by reference in any filing of the Company under the Securities Act or the Exchange Act, whether made before or after the date of this proxy statement and irrespective of any general incorporation language in such filing.

EXECUTIVE COMPENSATION TABLES

2021 Summary Compensation Table

The following table sets forth information concerning the compensation of our officers who served as named executive officers during the year ended December 31, 2021.

Name and Principal Position	Fiscal Year	Salary (\$)(1)	Bonus (\$)(2)	Stock Awards (\$)(3)	Option Awards (\$)(3)	All Other Compensation (\$)(4)	Total (\$)
Austin Russell	2021	\$ 1	\$ —	\$ —	\$ —	\$ —	\$ 1
<i>President and Chief Executive Officer</i>	2020	300,000	—	—	—	30,841	330,841
	2019	175,000	—	—	—	—	175,000
Thomas J. Fennimore	2021	300,000	200,000	7,987,242	—	—	8,487,242
<i>Chief Financial Officer</i>	2020	142,046	150,000	—	2,093,115	100,473	2,485,634
Alan Prescott (5)	2021	205,682	—	29,507,831	—	—	29,713,513
<i>Chief Legal Officer</i>							
M. Scott Faris (6)	2021	262,500	125,000	3,594,262	—	6,030	3,987,792
<i>Former Chief Business Officer</i>	2020	300,000	—	—	661,581	167	961,748
	2019	300,000	—	—	—	—	300,000
Jason Eichenholz (7)	2021	262,500	125,000	3,594,262	—	6,030	3,987,792
<i>Chief Technology Officer</i>							

(1) Amounts reflect salary earned during the applicable calendar year.

(2) Amounts reflect discretionary cash bonuses earned by the applicable named executive officers in the applicable years.

(3) Stock awards and option awards are reported at aggregate grant date fair value in the year granted, as determined in accordance with the provisions of FASB ASC Topic 718. For the assumptions used in valuing these awards for

purposes of computing this expense, please see Note 14 of the Company's consolidated financial statements for the year ended December 31, 2021.

- (4) Represents, with respect to Mr. Faris, taxable reimbursements related to cellular charges.
- (5) Mr. Prescott joined the Company on April 26, 2021.
- (6) Mr. Faris left the Company on November 9, 2021.
- (7) Dr. Eichenholz ceased serving as an executive officer of the Company on June 9, 2021.

Narrative Disclosure to Summary Compensation Table

For 2021, 2020 and 2019, the compensation program for named executive officers consisted of base salary and certain standard employee benefits.

Base Salary

Base salary for each named executive officer is set at a level that is commensurate with the executive's duties and authorities, contributions, prior experience and sustained performance; except that historically, and at Legacy Luminar, Mr. Russell has voluntarily chosen to receive a base salary below industry practice.

Cash Bonus

The actual annual cash bonuses awarded to each named executive officer for 2021 performance are set forth above in the Summary Compensation Table in the column titled "Bonus." Except with respect to the offer letters as described below, we do not have any formal arrangements with our named executive officers providing for annual cash bonus awards.

2021 Equity Awards

In 2021, each of our named executive officers (other than Mr. Russell) received time-based restricted stock units ("RSUs") under the 2020 Equity Incentive Plan, in each case as described below under "—2021 Grants of Plan-Based Awards."

Benefits and Perquisites

We provide benefits to our named executive officers on the same basis as provided to all of our employees, including health, dental and vision insurance; life insurance; accidental death and dismemberment insurance; critical illness; short- and long-term disability insurance; a health reimbursement account; a health savings account; a flexible spending account; and a tax-qualified Section 401(k) plan for which no employer match is provided. We do not maintain any executive-specific benefit or perquisite programs.

2021 Grants of Plan-Based Awards

The following table sets forth information regarding the incentive awards granted to the named executive officers for 2021, none of which were non-equity incentive plan awards.

Name	Grant Date	Type of Award	All Other Stock Awards: Number of shares of stock or Units (#)	Grant Date Fair Value of Stock awards (\$)(1)
Austin Russell	—	—	—	—
Thomas J. Fennimore	7/23/2021	Time-Base RSU	455,373	7,987,242
Alan Prescott	5/27/2021	Time-Base RSU	712,487	15,040,601
	11/11/2021	Time-Base RSU	353,000	7,063,530
	11/11/2021	Time-Base RSU	370,000	7,403,700
M. Scott Faris (2)	7/23/2021	Time-Base RSU	204,918	3,594,262
Jason Eichenholz	7/23/2021	Time-Base RSU	1,264,891	22,186,188
	7/23/2021	Time-Base RSU	455,373	7,987,243

- (1) Stock awards are reported at aggregate grant date fair value in the year granted, as determined in accordance with the provisions of FASB ASC Topic 718. For the assumptions used in valuing these awards for purposes of computing this expense, please see Note 14 of the Company's consolidated financial statements for the year ended December 31, 2021.
- (2) All of Mr. Faris's RSUs were cancelled upon his departure from the Company.

Outstanding Equity Awards at December 31, 2021 Fiscal Year-End

The following table sets forth information regarding each Luminar stock option and unvested Luminar RSU held by each of our named executive officers as of December 31, 2021.

Name	Grant Date		Option Awards (1)				Stock Awards (2)	
			Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price (\$)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested (\$)
Austin Russell	—	—	—	—	\$ —	—	—	\$ —
Thomas J. Fennimore	5/14/2020	(3)	728,403	1,111,773	1.67	5/13/2030	—	—
	7/23/2021	(4)	—	—	—	—	455,373	7,700,357
					—			
Alan Prescott	5/27/2021	(5)	—	—	—	—	712,487	12,048,155
	11/11/2021	(6)	—	—	—	—	353,000	5,969,230
	11/11/2021	(7)	—	—	—	—	370,000	6,256,700
M. Scott Faris	1/24/2020	(8)	374,850	—	1.67	1/23/2030	—	—
					—			
Jason Eichenholz	7/23/2021	(9)	—	—	—	—	474,334	8,020,988
	7/23/2021	(4)	—	—	—	—	455,373	7,700,357

- (1) Certain stock options originally covered shares of Legacy Luminar Class A common stock, as granted pursuant to Legacy Luminar Stock Plan, and were assumed by Luminar in the Business Combination. All stock options are set forth above on an as-converted basis (as to both number of underlying shares and option exercise price).
- (2) Values are based on the closing price of our common stock on the Nasdaq on December 31, 2021 (\$16.91).
- (3) The option grant is subject to a 4-year vesting schedule, with 25% of the shares having vested on May 11, 2021 and 1/48th of the shares vesting monthly thereafter, subject to the option holder's continuous service through each vesting date; provided that if the optionee dies, then 100% of the shares subject to the option grant will immediately vest.
- (4) Represents an RSU. Subject to the continuous service of the RSU holder on each vesting date, the RSU will vest as follows: 10% of the RSU will vest on January 1 of each of 2022 and 2023, respectively; an additional 15% of the RSU will vest on January 1 of each of 2024 and 2025, respectively; an additional 20% of the RSU will vest on January 1, 2026; and the remaining 30% of the RSU will vest on January 1, 2027.
- (5) Represents an RSU. Subject to the continuous service of the RSU holder on each vesting date, the RSU will vest as follows: 25% of the RSU will vest on April 26, 2022, and 1/16 will vest on each quarterly anniversary thereafter for 2 years.
- (6) Represents an RSU. Subject to the continuous service of the RSU holder on each vesting date, the RSU will vest as follows: 3/16th of the RSU will vest on January 26, 2022, and thereafter, 1/16th of the RSU will vest on each quarterly anniversary thereof until the RSU is fully vested; provided that in the event Mr. Prescott is terminated, resigns for good cause, or we experience a change of control (including a sale of substantially all of our assets or change of at least 50% of the Board of Directors), 100% of unvested shares subject to the RSU shall immediately vest.
- (7) Represents an RSU. Subject to the continuous service of the RSU holder on each vesting date, the RSU will vest as follows: 10% of the RSU will vest on November 11 of each of 2022 and 2023, respectively; an additional 15% of the RSU will vest on November 11 of each of 2024 and 2025, respectively; an additional 20% of the RSU will vest on November 11, 2026; and the remaining 30% of the RSU will vest on November 11, 2027.
- (8) The option grant is subject to a 4-year vesting schedule, with 25% of the shares having vested on January 1, 2021 and 1/48th of the shares vesting (or scheduled to vest) monthly thereafter, subject to the option holder's continuous service through each vesting date; provided that if the optionee dies, then 100% of the shares subject to the option grant will immediately vest. Mr. Faris departed the Company on November 9, 2021. As of such date, all unvested shares underlying the option were cancelled.
- (9) Represents an RSU. Subject to the continuous service of the RSU holder on each vesting date, the RSU vested as to 50% on June 18, 2021, and the RSU will vest as to 1/16 each quarter thereafter over 2 years.

Option Exercises and Stock Vested

The following table presents information concerning option exercises and vested RSU awards that vested for our named executive officers during the year ended December 31, 2021.

Name	Option Awards		Stock Awards	
	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise (\$)	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting (\$)
Austin Russell	—	\$ —	—	\$ —
Thomas J. Fennimore	—	—	—	—
Alan Prescott	—	—	—	—
M. Scott Faris	—	—	—	—
Jason Eichenholz	—	—	790,557 (1)	13,083,701 (2)

- (1) Represents partial vesting with respect to an award of 1,264,891 RSUs granted July 23, 2021, of which 632,445 RSUs vested on September 8, 2021, 79,055 RSUs vested on September 18, 2021, and 79,056 RSUs vested on December 18, 2021.
- (2) Calculated with respect to the closing price of our common stock on the Nasdaq on (or on the last trading date prior to): September 8, 2021 (\$16.53), September 18, 2021 (\$17.09), and December 18, 2021 (\$16.17).

Estimated Potential Payments Upon Termination or Change-in-Control

The following table sets forth an estimate with respect to each named executive officer's potential incremental payments upon a termination of employment or a change in control of Luminar, in each case assuming such event occurred December 31, 2021.

Name	Potential Severance Payments Upon an Involuntary Termination (\$)(1)	Potential Stock Option Vesting Acceleration Upon Death (#) (2)	Estimated Value of RSUs Vesting Upon a Termination, Resignation for Good Reason, or Change-in-Control (\$)(3)
Austin Russell	\$ —	—	\$ —
Thomas J. Fennimore	150,000	1,111,773	—
Alan Prescott	—	—	5,969,230
M. Scott Faris (4)	—	—	—
Jason Eichenholz (5)	—	—	—

- (1) Pursuant to the terms of Mr. Fennimore's offer letter, in the event that Mr. Fennimore is terminated by the company due to no fault of his own, he will be entitled to receive, as severance benefits, an amount equal to six months of his annual base salary, subject to his execution (without revocation) of a general release of claims in favor of Luminar. This potential severance payment is "single-trigger."
- (2) Represents unvested stock options with a \$1.67 exercise price. In the event Mr. Fennimore dies while employed, then 100% of the shares subject to the option grant will immediately vest. This potential acceleration is "single-trigger."
- (3) Represents 353,000 RSUs subject to vesting. In the event Mr. Prescott is terminated, resigns for good cause, or we experience a change of control (including a sale of substantially all of our assets or change of at least 50% of the Board of Directors), 100% of unvested shares subject to the RSU award shall immediately vest. Value is based on the closing price of our common stock on the Nasdaq on December 31, 2021 (\$16.91). This potential acceleration is "single-trigger."
- (4) Mr. Faris left the Company on November 9, 2021 and received no separation pay in connection with his departure.
- (5) Dr. Eichenholz ceased serving as an executive officer of the Company on June 9, 2021.

Director Compensation

In March 2021, the Compensation Committee, comprised solely of independent directors, recommended to the Board for approval a compensation policy for non-employee directors (the “Director Compensation Policy”) after consideration of market data and based on the recommendation of its independent compensation consultant. Our Board approved the Director Compensation Policy. The Director Compensation Policy consists of the following:

Cash Compensation. Each of our directors, with the exception of Mr. Russell, will receive \$12,500 per quarter to serve as a member of our Board, and any future lead independent director of our Board will receive an additional \$7,500 per quarter to serve in such capacity. Our non-employee directors do not receive per meeting fees.

In addition, each chair of our Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee, will receive \$6,250, \$5,000 and \$2,500 per quarter, respectively, for serving as chair of these committees. The members of our Audit Committee, Compensation Committee and Nominating and Governance Committee who are not the chair of the respective committee, will receive \$3,125, \$2,500 and \$1,250 per quarter, respectively, to serve on these committees.

Non-employee directors are reimbursed for all reasonable travel and related expenses incurred in connection with attending Board and committee meetings.

Equity Awards. Additionally, directors who are not our employees each receive equity compensation.

The following table sets forth information concerning the compensation of our non-employee directors during the year ended December 31, 2021.

Name	Fees Earned or Paid in Cash (\$)(1)	Stock Awards (\$)(2)	Total (\$)
Alec Gores	\$ 54,056	\$ 222,460 (6)	\$ 276,516
Matthew Simoncini	65,639	222,460 (6)	288,099
Dr. Mary Lou Jepsen (3)	42,472	578,042 (7)	620,514
Katharine A. Martin (3)	57,917	578,042 (7)	635,959
Jun Hong Heng (4)	35,027	430,687 (8)	465,714
Dr. Shaun Maguire (4)	35,027	430,687 (8)	465,714
Scott A. McGregor (5)	13,236	—	13,236
Benjamin J. Kortlang (5)	13,236	—	13,236

- (1) The following directors elected to receive payment in stock in lieu of cash pursuant to the Director Compensation Policy: Mr. Gores (3,586 shares), Mr. Simoncini (4,355 shares), Ms. Martin (3,843 shares), Dr. Jepsen (2,818 shares), and Dr. Maguire (2,324 shares). With respect to each such director, the underlying shares were issued based on the closing price of our common stock on the Nasdaq on December 15, 2021 (\$15.07).
- (2) Stock awards and option awards are reported at aggregate grant date fair value in the year granted, as determined in accordance with the provisions of FASB ASC Topic 718. For the assumptions used in valuing these awards for purposes of computing this expense, please see Note 14 of the Company’s consolidated financial statements for the year ended December 31, 2021.
- (3) Commenced service as a Director on February 8, 2021.
- (4) Commenced service as a Director on June 9, 2021.
- (5) Ceased service as a Director on June 9, 2021.
- (6) Represents 9,106 RSUs granted on June 9, 2021, and scheduled to vest on the earlier of June 9, 2022 or the date of our 2022 Annual Meeting of Stockholders, subject to the continuous service of the RSU holder on the vesting date. As of December 31, 2021, each of Messrs. Gores and Simoncini held 9,106 RSUs with an aggregate value of \$153,982, based on the closing price of our common stock on the Nasdaq on December 31, 2021 (\$16.91), and Mr. Simoncini held an aggregate 340,773 stock options in the Company, of which 134,889 were vested as of December 31, 2021.
- (7) Represents (i) 14,627 RSUs granted on March 31, 2021, and scheduled to vest in three equal annual installments on the first, second and third anniversaries of February 8, 2021, subject to the RSU holder’s continued service as a member of the Board of Directors through each vesting date; and (ii) 9,106 RSUs granted on June 9, 2021, and scheduled to vest on the earlier of June 9, 2022 or the date of our 2022 Annual Meeting of Stockholders, subject to the continuous service of Dr. Jepsen and Ms. Martin on the vesting date. As of December 31, 2021, each of Dr. Jepsen

- and Ms. Martin held 23,733 RSUs with an aggregate value of \$401,325, based on the closing price of our common stock on the Nasdaq on December 31, 2021 (\$16.91).
- (8) Represents 18,234 RSUs granted on June 10, 2021, and scheduled to vest in three equal annual installments on the first, second and third anniversaries of June 10, 2021, subject to the RSU holder's continued service as a member of the Board of Directors through each vesting date. As of December 31, 2021, each of Mr. Heng and Dr. Maguire held 18,234 RSUs with an aggregate value of \$308,337, based on the closing price of our common stock on the Nasdaq on December 31, 2021 (\$16.91).

Compensation Committee Interlocks and Insider Participation

None of the members of the Compensation Committee is or has been at any time one of our officers or employees. None of our executive officers currently serves, or in the past fiscal year has served, as a member of the board or compensation committee (or other board of directors committee performing equivalent functions or, in the absence of any such committee, the entire board of directors) of any entity that has one or more executive officers serving as a member of the board or compensation committee.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS.

The following table presents information as to the beneficial ownership of our common stock as of December 31, 2021 by:

- each stockholder known by us to be the beneficial owner of more than 5% of our Class A common stock or Class B common stock;
- each of our directors;
- each of our named executive officers; and
- all of our directors and executive officers as a group.

Beneficial ownership is determined according to the rules of the SEC, which generally provide that a person has beneficial ownership of a security if he, she or it possesses sole or shared voting or investment power over that security, including options and warrants that are currently exercisable or exercisable within 60 days. In computing the number of shares of common stock beneficially owned by a person and the percentage ownership, we deemed outstanding shares of our common stock subject to options and warrants held by that person that are currently exercisable or exercisable within 60 days of December 31, 2021. We did not deem these shares outstanding, however, for the purpose of computing the percentage ownership of any other person.

The beneficial ownership percentages set forth in the table below are based on 347,901,434 shares of common stock outstanding, comprised of 250,812,764 shares of Class A common stock and 97,088,670 shares of Class B common stock outstanding as of December 31, 2021.

Unless otherwise indicated and subject to applicable community property laws, we believe that all persons named in the table have sole voting and investment power with respect to all shares of common stock beneficially owned by them.

Unless otherwise indicated below, the address of each beneficial owner listed in the table below is c/o Luminar Technologies, Inc., 2603 Discovery Drive, Suite 100, Orlando, FL 32826.

	Class A		Class B		
Name and Address of Beneficial Owners	Number of Shares	%	Number of Shares	%	% of Total Voting Power**
Five Percent Holders					
GVA Auto, LLC (1)	19,226,359	7.7 %	—	—	1.6 %
Current Directors and Named Executive Officers					
Austin Russell	—	—	97,088,670	100 %	79.5 %
Thomas J. Fennimore (2)	866,614	*	—	—	*
Alan Prescott (3)	66,187	*	—	—	*
Jason Eichenholz, Ph.D. (4)	3,107,485	1.2 %	—	—	*
M. Scott Faris (5)	374,850	*	—	—	*
Alec E. Gores (6)	6,124,545	2.4 %	—	—	*
Matthew J. Simoncini (7)	186,170	*	—	—	*
Jun Hong Heng (8)	4,139,665	1.7 %	—	—	*
Shaun Maguire, Ph.D.	2,324	*	—	—	*
Katharine A. Martin (9)	8,718	*	—	—	*
Mary Lou Jepsen, Ph.D. (10)	7,693	*	—	—	*
All Directors and Executive Officers as a Group (9 Individuals)	11,401,916	4.5 %	97,088,670	100 %	80.2 %

* Less than one percent.

** Percentage of total voting power represents voting power with respect to all shares of Class A common stock and Class B common stock, as a single class. Each share of Class B common stock is entitled to ten votes per share and each share of Class A common stock is entitled to one vote per share.

- (1) GVA Capital is the Manager of GVA Auto, LLC, and therefore, may be deemed to hold voting and dispositive power over the shares held by GVA Auto, LLC. The address of GVA Auto, LLC is 908 Broadway, San Francisco, CA 94133.
- (2) Includes 850,614 shares of Class A common stock subject to Mr. Fennimore's outstanding stock option and restricted stock units, which is the portion of such awards that are exercisable or which vest within 60 days of December 31, 2021.
- (3) Consists of shares of Class A common stock subject to Mr. Prescott's outstanding restricted stock units which vest within 60 days of December 31, 2021.
- (4) Includes 45,537 shares of Class A common stock subject to Dr. Eichenholz's outstanding restricted stock units which vest within 60 days of December 31, 2021. Dr. Eichenholz ceased serving as an executive officer of the Company on June 9, 2021.
- (5) Includes 374,850 shares of Class A common stock subject to Mr. Faris' outstanding stock options which are exercisable within 60 days of December 31, 2021. Mr. Faris is the Company's former Chief Business Officer and left the Company on November 9, 2021.
- (6) Consists of (i) 2,931,381 shares of Class A common stock held by GM Sponsor LLC, (ii) 1,252,574 shares of Class A common stock and 1,386,325 warrants to purchase shares of Class A Common stock held by AEG Holdings, LLC, (iii) 152,534 shares held by NBI Irrevocable Trust No. 4, a trust of which the beneficiary is one of the children of Mr. Gores who is a member of his household, (iv) 248,145 shares held by NBI Irrevocable Trust No. 5, a trust of which the beneficiary is one of the children of Mr. Gores who is a member of his household, (v) 150,000 shares held by NBI Irrevocable Trust No. 6, a trust of which the beneficiary is one of the children of Mr. Gores who is a member of his household and (vi) 3,586 shares directly held. AEG Holdings, LLC, is the managing member of GM Sponsor LLC and Alec E. Gores is the managing member of AEG Holdings, LLC. Voting and disposition decisions with respect to such securities are made by Mr. Gores. The address for AEG Holdings, LLC is 6260 Lookout Road, Boulder, CO 80301.
- (7) Consists of (i) 37,082 shares of Class A common stock held by Mr. Simoncini and (ii) 149,088 shares of Class A common stock subject to Mr. Simoncini's outstanding stock option, which is the portion of such option that is exercisable within 60 days of December 31, 2021.
- (8) Represents shares of Class A common stock held by (i) CC Holdings IV, LLC, (ii) Crescent Cove Capital II, LP, (iii) Crescent Cove Opportunity Fund LP, (iv) Crescent Cove Luminar SPV LLC, (v) Crescent Cove Capital LP, (vi) CC Holdings I LLC, (vii) CC Holdings IX Co-Invest Fund, LP, (viii) Crescent Cove LTI-SPV, LP, (ix) Crescent Cove Opportunity Foreign Intermediary, LLC (collectively, the "Crescent Cove entities") (x) shares held by Mr. Jun in his Roth IRA account, (xi) shares held by the Heng Zhao JT Revocable Trust and (xii) shares held by Press Room LLC. Crescent Cove Capital GP, LLC, Crescent Cove Capital II GP, LLC, and Crescent Cove Opportunity GP, LP (collectively "General Partner") are the general partner of the Crescent Cove entities. Crescent Cove Capital Management, LLC and Crescent Cove Advisors, LP (collectively, "Investment Manager") are the investment manager of the Crescent Cove entities. Mr. Heng is the managing member of the General Partner and the Investment Manager of Crescent Cove entities, and therefore, may be deemed to hold voting and dispositive power over the shares held by Crescent Cove entities. Mr. Heng is co-trustee of the Heng Zhao JT Revocable Trust. Press Room LLC is an entity managed by Mr. Heng and Mr. Heng may be deemed to hold voting and dispositive power over the shares held by Press Room LLC. The address for these entities is c/o Crescent Cove Capital Management, LLC, 530 Bush Street, Suite 703, San Francisco, CA 94108.
- (9) Includes 4,875 shares of Class A common stock subject to Ms. Martin's outstanding restricted stock units, which is the portion which will vest within 60 days of December 31, 2021.

(10) Includes 4,875 shares of Class A common stock subject to Dr. Jepsen's outstanding restricted stock units, which is the portion which will vest within 60 days of December 31, 2021.

Equity Compensation Plan Information

We currently maintain the following equity compensation plans that provide for the issuance of shares of our Class A common stock to our officers and other employees, directors and consultants, each of which has been approved by our stockholders: our Management Longer Term Equity Incentive Plan, our 2020 Equity Incentive Plan, or the Equity Incentive Plan and our 2020 Employee Stock Purchase Plan, or the ESPP.

The following table presents information as of December 31, 2021 with respect to compensation plans under which shares of our common stock may be issued. The table does not include information with respect to shares subject to outstanding awards granted under Legacy Luminar's Amended and Restated 2015 Stock Plan, or the 2015 Plan, assumed by us in connection with the Business Combination.

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and vesting of RSAs and RSUs	Weighted-average exercise price of outstanding options and warrants	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
	(a)	(b)	(c)
Equity compensation plans approved by security holders	11,983,032	\$ — (3)	57,741,650
Equity compensation plans not approved by security holders	(2)	—	—
Total	11,983,032		57,741,650

(1) Includes 25,818,749 shares available for issuance under the Management Longer Term Equity Incentive Plan, 24,605,246 shares available for issuance under the Equity Incentive Plan and 7,317,655 shares available for issuance under the ESPP.

(2) Excludes outstanding options to acquire 11,507,643 shares of Class A common stock with weighted average exercise price of \$1.72 and 666,298 restricted stock awards that were assumed by us in connection with the Business Combination. For more information regarding the 2015 Plan, please see, "Note 14. Stock-based Compensation" in the Notes to Consolidated Financial Statements.

(3) Outstanding awards of restricted stock units have no exercise price.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE.

Independence of Directors; Controlled Company Exemption

Our board of directors has determined that none of the members of our board of directors other than Austin Russell has a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each of the members of our board of directors other than Austin Russell is "independent" as that term is defined under the rules of the Nasdaq Stock Market, or Nasdaq. Our board of directors has also determined that all members of our audit committee, compensation committee and nominating and corporate governance committee are independent and satisfy the relevant SEC and Nasdaq independence requirements for such committees. In making this determination, our board of directors considered that the law firm of Wilson Sonsini Goodrich & Rosati PC ("WSGR"), of which Ms. Martin is the Chairperson, had provided minimal legal services to us and Austin Russell. All services by WSGR terminated prior to Ms. Martin joining the board of directors and will not continue.

Austin Russell controls a majority of the voting power of our outstanding capital stock. As a result, we are a "controlled company" under Nasdaq rules. As a controlled company, we are exempt from certain Nasdaq corporate governance requirements, including those that would otherwise require the board of directors to have a majority of independent directors and require that we establish a compensation committee comprised entirely of independent directors, or otherwise ensure that the compensation of our executive officers and nominees for directors are determined or recommended to the board of directors by the independent members of the board of directors. While we do not currently intend to rely on any of these exemptions, we will be entitled to do so for as long as we are considered a "controlled company," and to the extent we rely on one or more of these exemptions, holders of our capital stock will not have the same protections afforded to stockholders of companies that are subject to all of the Nasdaq corporate governance requirements.

In addition, audit committee members must also satisfy the independence criteria set forth in Rule 10A-3 under the Exchange Act. In order to be considered independent for purposes of Rule 10A-3, a member of an audit committee of a listed company may not, other than in such member's capacity as a member of the audit committee, the board of directors or any other board committee (i) accept, directly or indirectly, any consulting, advisory or other compensatory fee from the listed company or any of its subsidiaries or (ii) be an affiliated person of the listed company or any of its subsidiaries.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

In addition to the executive officer and director compensation arrangements discussed above, the following is a description of each transaction since January 1, 2021 and each currently proposed transaction in which:

- we, have been or are to be a participant;
- the amounts involved exceeded or exceeds \$120,000; and
- any of our directors, executive officers or holders of more than 5% of our outstanding capital stock, or any immediate family member of, or person sharing the household with, any of these individuals or entities, had or will have a direct or indirect material interest.

In February 2021, we invested \$15.0 million into COVA Acquisition Corp., of which Mr. Heng, is the Chairman and Chief Executive Officer, and a principal shareholder. Mr. Heng became our director in June 2021. The terms of such investment were no less favorable to us than to other third party investors. During 2021, we sold \$2.9 million of this investment and had a remaining balance of \$12.1 million as of December 31, 2021.

Related Party Transactions Policy

Our Board of Directors has adopted a written related party transactions policy. The policy provides that officers, directors, holders of more than 5% of any class of the Company's voting securities, and any member of the immediate family of and any entity affiliated with any of the foregoing persons, will not be permitted to enter into a related-party transaction with the Company without the prior consent of the audit committee, or other independent members of the Board in the event it is inappropriate for the audit committee to review such transaction due to a conflict of interest. Any request for the Company to enter into a transaction with an executive officer, director, principal stockholder, or any of their immediate family members or affiliates, in which the amount involved exceeds \$120,000, must first be presented to the audit committee for review, consideration, and approval. In approving or rejecting the proposed transactions, the audit committee will take into account all of the relevant facts and circumstances available.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES.

Independent Registered Public Accounting Firm Fees and Services

Deloitte & Touche LLP was appointed as our independent registered accounting firm in December 2020, upon the dismissal of KPMG. Deloitte & Touche LLP has audited the financial statements of Legacy Luminar since 2018.

The following tables present the aggregate fees billed by Deloitte & Touche LLP and KPMG to us (including Legacy Luminar, in the case of Deloitte & Touche LLP) for the years ended December 31, 2021 and 2020 (in thousands):

	Year Ended December 31,		
	2021	2020⁽²⁾	2020⁽³⁾
Audit Fees ⁽¹⁾	\$ 1,930	\$ 1,625	\$ 95
Audit-Related Fees	200	—	—
Tax Fees	—	—	—
All Other Fees	2	—	\$ 552
Total	\$ 2,132	\$ 1,625	\$ 647

- (1) Audit fees include fees for services performed to comply with the standards established by the Public Company Accounting Oversight Board, including the audit of our consolidated financial statements. This category also includes fees for audits provided in connection with statutory filings or services that generally only the principal independent auditor reasonably can provide, such as consent and assistance with and review of our SEC filings.
- (2) Includes \$1.1 million for audit fees billed for the annual audit of the Company's 2019 consolidated financial statements included in the Registration Statement on Form S-4 and our Annual Report on Form 10-K for the year ended December 31, 2020, consents and review of other documents filed with the SEC.
- (3) Represent fees billed for services for the period from January 1, 2020 through December 2, 2020 prior to the Business Combination. Audit Fees includes \$82,000 for reviewing the Company's three Quarterly Reports on Form 10-Q and proxy statement filed with the SEC.

Policy on Audit Committee Pre-Approval of Audit and Permissible Non-Audit Services of Independent Registered Public Accounting Firm

Our audit committee's policy is to pre-approve all audit and permissible non-audit services provided by our independent registered public accounting firm, the scope of services provided by our independent registered public accounting firm and the fees for the services to be performed. These services may include audit services, audit-related services, tax services and other services. Pre-approval is detailed as to the particular service or category of services and is generally subject to a specific budget. Our independent registered public accounting firm and management are required to periodically report to the audit committee regarding the extent of services provided by our independent registered public accounting firm in accordance with this pre-approval, and the fees for the services performed to date.

Prior to the Business Combination, all of the services listed in the table above provided by KPMG, LLP were approved by Gores in accordance with its policies then in effect. Following the Business Combination, all of the services listed in the table above provided by Deloitte were approved by our board of directors.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES.

The following documents are filed as part of this report:

1. *Financial Statements.* The financial statements included in “Index to the Consolidated Financial Statements” in Part II, Item 8 are filed as part of this Annual Report on Form 10-K.
2. *Financial Statement Schedules.* None.
3. *Exhibits.* Exhibits listed in the accompanying index to exhibits are filed or incorporated by reference as part of this Annual Report on Form 10-K.

EXHIBIT INDEX

Exhibit Number	Description	Incorporation by Reference				Filed Herewith
		Form	File Number	Exhibit/Appendix Reference	Filing Date	
2.1*	Agreement and Plan of Merger, dated as of August 24, 2020, by and among Gores Metropoulos, Inc., Dawn Merger Sub, Inc., Dawn Merger Sub II, LLC, and the Company.	8-K/A	001-38791	2.1	12/8/20	
3.1	Second Amended and Restated Certificate of Incorporation of the Company.	8-K/A	001-38791	3.1	12/8/20	
3.2	Amended and Restated By-Laws of the Company.	8-K/A	001-38791	3.2	12/8/20	
4.1	Specimen Class A Common Stock Certificate.	8-K/A	001-38791	4.1	12/8/20	
4.2	Warrant Agreement, dated January 31, 2019, between Continental Stock Transfer & Trust Company and Gores Metropoulos, Inc.	8-K/A	001-38791	4.2	12/8/20	
4.3	Specimen Warrant Certificate.	8-K/A	001-38791	4.3	12/8/20	
4.4	Description of Securities.					X
4.5	Registration Rights Agreement, dated July 9, 2021, by and among the Company and each of the Persons listed on Exhibit A thereto.	S-1	001-38791	4.4	07/16/20	
4.6	Indenture, dated as of December 17, 2021, by and between the Company and U.S. Bank National Association, as trustee (1.25% Convertible Senior Notes due 2026).	8-K	001-38791	4.1	12/17/21	
4.7	Amended Warrant Agreement, dated January 11, 2022, by and among the Company, Continental Stock Transfer & Trust Company, and American Stock Transfer & Trust Company.					X
10.1	Amended and Restated Registration Rights Agreement, dated as of December 2, 2020, by and among the Company, Gores Metropoulos Sponsor LLC and certain other parties.	8-K/A	001-38791	10.1	12/8/20	
10.2	Form of Secondary Lock-Up Agreement.	8-K/A	001-38791	10.4	12/8/20	
10.3	Form of Indemnification Agreement.	8-K/A	001-38791	10.5	12/8/20	
10.4†	Luminar Technologies, Inc. Management Longer Term Equity Incentive Plan.	8-K/A	001-38791	10.6	12/8/20	
10.5†	Luminar Technologies, Inc. 2020 Equity Incentive Plan and related forms of award agreements.	8-K/A	001-38791	10.7	12/8/20	
10.6†	Luminar Technologies, Inc. 2020 Employee Stock Purchase Plan.	8-K/A	001-38791	10.8	12/8/20	

10.7†	Luminar Technologies, Inc. Amended and Restated 2015 Stock Plan.	8-K/A	001-38791	10.9	12/8/20 12/8/20	
10.8	Voting Agreement, dated August 24, 2020, by and between Luminar Technologies, Inc. (f/k/a Gores Metropoulos, Inc.) and Austin Russell (incorporated by reference to Annex G to the Company's Registration Statement on Form S-4/A (Registration No. 333-248794), filed with the Securities and Exchange Commission on October 23, 2020).	8-K/A	001-38791	10.10	12/8/20	
10.9	Offer Letter by and between Luminar Technologies, Inc. and Thomas J. Fennimore dated April 3, 2020 (incorporated by reference to Exhibit 10.13 to the Company's Registration Statement on Form S-1/A, (Registration No. 333-251657) filed with the SEC on January 13, 2021).	S-1/A	333-251657	10.10	01/29/21	
10.10	Luminar Technologies, Inc. Director Compensation Policy.	10-K	001-38791	10.14	04/14/21	
10.11	Form of certificate representing the 1.25% Convertible Senior Notes due 2026.	8-K	001-38791	4.1	12/8/20 12/17/21	
10.12	Framework Purchase Agreement, dated March 23, 2020 by and between Volvo Car Corporation and the Company.	S-4/A	333-248794	10.8	10/23/20	
10.13	Amendment No. 1 to Framework Purchase Agreement, dated June 24, 2021, by and between Volvo Car Corporation and the Company.	10-Q	001-38791	10.1	08/13/21	
10.14†	Amended and Restated Offer Letter by and between the Company and Alan Prescott dated November 11, 2021.	10-Q	001-38791	10.1	11/15/21	
10.15	Lease Agreement, dated February 15, 2018, by and between 2603 Discovery Lakes LLC and the Company.	S-4/A	333-248794	10.9	10/23/20	
21.1	List of Subsidiaries.					X
23.1	Consent of Deloitte & Touche LLP.					X
24.1	Power of Attorney (included on signature page).					X
31.1	Certification of Principal Executive Officer pursuant to Rules 13a-14(a) and 15(d)-14(a) under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
31.2	Certification of Principal Financial Officer pursuant to Rules 13a-14(a) and 15(d)-14(a) under the Securities Exchange Act of 1934, as adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
32.1	Certification of Principal Executive Officer and Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					Furnished herewith
101.INS	XBRL Instance Document.					X
101.SCH	XBRL Taxonomy Extension Schema Document.					X
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.					X

101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.	X
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.	X
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.	X
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).	X

* The schedules to this Exhibit have been omitted in accordance with Regulation S-K Item 601(b)(2). The Company agrees to furnish supplementally a copy of any omitted schedule to the Securities and Exchange Commission upon its request.

† Indicates a management contract or compensatory plan, contract or arrangement.

ITEM 16. FORM 10-K SUMMARY.

None provided.

SIGNATURES.

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: March 1, 2022

Luminar Technologies, Inc.

By: /s/ Thomas J. Fennimore
Thomas J. Fennimore
Chief Financial Officer
(Principal Financial Officer)

POWER OF ATTORNEY.

KNOW ALL PERSONS BY THESE PRESENTS that each individual whose signature appears below constitutes and appoints Austin Russell and Thomas J. Fennimore, and each of them, severally, as his or her true and lawful attorneys-in-fact and agents with the power to act, with or without the other, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in his or her capacity as a director or officer or both, as the case may be, of the Company, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that each of said attorneys-in-fact and agents, or his substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Signature	Title	Date
<u>/s/ Austin Russell</u> Austin Russell	President, Chief Executive Officer and Chairman of the Board of Directors (Principal Executive Officer)	March 1, 2022
<u>/s/ Thomas J. Fennimore</u> Thomas J. Fennimore	Chief Financial Officer (Principal Financial and Accounting Officer)	March 1, 2022
<u>/s/ Alec E. Gores</u> Alec E. Gores	Director	March 1, 2022
<u>/s/ Jun Hong Heng</u> Jun Hong Heng	Director	March 1, 2022
<u>/s/ Mary Lou Jepsen, PhD</u> Mary Lou Jepsen, PhD	Director	March 1, 2022
<u>/s/ Shaun Maguire, PhD</u> Shaun Maguire, PhD	Director	March 1, 2022
<u>/s/ Katharine A. Martin</u> Katharine A. Martin	Director	March 1, 2022
<u>/s/ Matthew J. Simoncini</u> Matthew J. Simoncini	Director	March 1, 2022

**DESCRIPTION OF REGISTRANT'S SECURITIES
REGISTERED PURSUANT TO SECTION 12 OF
THE SECURITIES EXCHANGE ACT OF 1934**

The following summary of the material terms of our securities is not intended to be a complete summary of the rights and preferences of such securities, and is qualified by reference to Luminar Technologies, Inc.'s Second Amended and Restated Certificate of Incorporation, the Amended and Restated Bylaws and the warrant-related documents described herein, which are exhibits to Luminar Technologies, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2021. We encourage you to read each of the Second Amended and Restated Certificate of Incorporation, the Amended and Restated Bylaws, the warrant-related documents described herein and the applicable provisions of the Delaware General Corporation Law ("DGCL") in their entirety for a complete description of the rights and preferences of our securities.

Unless the context indicates otherwise, references herein to the "Company," "Luminar," "we," "us," "our" and similar terms refer to Luminar Technologies, Inc. (f/k/a Gores Metropoulos, Inc.) and its consolidated subsidiaries. Terms not otherwise defined in herein are defined in the Company's registration statement on Form S-1 filed with the Securities and Exchange Commission (the "SEC") on January 29, 2021 (File Number 333-251657).

Authorized and Outstanding Stock

Pursuant to the terms of the Second Amended and Restated Certificate of Incorporation, the Company's authorized capital stock consists of:

- 715,000,000 shares of Class A common stock, \$0.0001 par value per share ("Class A Stock");
- 121,000,000 shares of Class B common stock, \$0.0001 par value per share ("Class B Stock");
- 0 shares of Class F common stock, \$0.0001 par value per share ("Class F Stock"); and
- 10,000,000 shares of undesignated Preferred Stock, \$0.0001 par value per share ("Preferred Stock").

As of December 31, 2021, there were (i) 250,812,764 shares of Class A Stock outstanding, held of record by 373 stockholders and (ii) 105,118,203 shares of Class B Stock outstanding, held of record by one stockholder. As of December 31, 2021, there were no outstanding shares of Preferred Stock.

Common Stock

Voting Power

Holders of Class A Stock are entitled to one vote per share and holders of Class B Stock are entitled to ten votes per share, on all matters submitted to a vote of stockholders. The holders of Class A Stock and Class B Stock will generally vote together as a single class on all matters submitted to a vote of stockholders, unless otherwise required by Delaware law or the Second Amended and Restated Certificate of Incorporation. Delaware law could require either holders of Class A Stock or Class B Stock to vote separately as a single class in the following circumstances:

- if the Company was to seek to amend the Second Amended and Restated Certificate of Incorporation to increase or decrease the par value of a class of the capital stock, then that class would be required to vote separately to approve the proposed amendment; and
- if the Company was to seek to amend the Second Amended and Restated Certificate of Incorporation in a manner that alters or changes the powers, preferences, or special rights of a class of capital stock in a manner that affected its holders adversely, then that class would be required to vote separately to approve the proposed amendment.

The Second Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws established a classified board of directors that is divided into three classes with staggered three-year terms. Only the directors in one class will be subject to election by a plurality of the votes cast at each annual meeting of stockholders, with the directors in the other classes continuing for the remainder of their respective three-year terms.

The Second Amended and Restated Certificate of Incorporation does not provide for cumulative voting for the election of directors.

Conversion

Each outstanding share of Class B Stock is convertible at any time at the option of the holder into one share of Class A Stock. In addition, each share of Class B Stock will convert automatically into one share of Class A Stock upon any transfer, whether or not for value, except for certain permitted transfers described in the paragraph that immediately follows this paragraph and further described in the Second Amended and Restated Certificate of Incorporation. Once converted into Class A Stock, the Class B Stock will not be reissued.

A transfer of Class B Stock will not trigger an automatic conversion of such stock to Class A Stock if it is a permitted transfer. A permitted transfer is a transfer by certain holders of Class B Stock to any of the persons or entities listed in clauses “(i)” through “(v)” below, each referred to herein as a Permitted Transferee, and from any such Permitted Transferee back to such holder of Class B Stock and/or any other Permitted Transferee established by or for such holder of Class B Stock: (i) to a trust for the benefit of the holder of Class B Stock and over which such holder of Class B Stock retains sole dispositive power and voting control, provided the holder of Class B Stock does not receive consideration in exchange for the transfer (other than as a settlor or beneficiary of such trust); (ii) to a trust for the benefit of persons other than the holder of Class B Stock so long as the holder of Class B Stock retains sole dispositive power and voting control, provided the holder of Class B Stock does not receive consideration in exchange for the transfer (other than as a settlor or beneficiary of such trust); (iii) to a trust under the terms of which such holder of Class B Stock has retained a “qualified interest” within the meaning of Section 2702(b)(1) of the U.S. Tax Code, and/or a reversionary interest so long as the holder of Class B Stock retains sole dispositive power and exclusive voting control with respect to the shares of Class B Stock held by such trust; (iv) to an Individual Retirement Account, as defined in Section 408(a) of the U.S. Tax Code, or a pension, profit sharing, stock bonus, or other type of plan or trust of which such holder of Class B Stock is a participant or beneficiary and which satisfies the requirements for qualification under Section 401 of the U.S. Tax Code, so long as such holder of Class B Stock retains sole dispositive power and exclusive voting control with respect to the shares of Class B Stock held in such account, plan, or trust; or (v) to a corporation, partnership, or limited liability company in which such holder of Class B Stock directly, or indirectly, retains sole dispositive power and exclusive voting control with respect to the shares of Class B Stock held by such corporation, partnership, or limited liability company.

Each share of Class B Stock will convert automatically, without further action by the Company or the holder thereof, into one fully paid and nonassessable share of Class A Stock, upon: (a) the receipt by the Company of a written request for such conversion from the holders of a majority of the Class B Stock then outstanding, or, if later, the effective date for conversion specified in such request or (b) the occurrence of a transfer, other than a permitted transfer, of such share of Class B Stock.

Each outstanding share of Class B Stock held by a natural person or their Permitted Transferee will convert automatically into one share of Class A Stock upon the death or permanent disability of such holder.

Dividend Rights

Subject to preferences that may apply to any shares of Preferred Stock outstanding at the time, the holders of Class A Stock and Class B Stock are entitled to receive dividends out of funds legally available if the Board of Directors of the Company (the “Board”), in its discretion, determines to issue dividends and then only at the times and in the amounts that the Board may determine.

No Preemptive or Similar Rights

Class A Stock and Class B Stock will not be entitled to preemptive rights, and are not subject to conversion (except as noted above), redemption or sinking fund provisions.

Right to Receive Liquidation Distributions

If the Company becomes subject to a liquidation, dissolution or winding-up, the assets legally available for distribution to the stockholders would be distributable ratably among the holders of Class A Stock and Class B Stock and any participating Preferred Stock outstanding at that time, subject to prior satisfaction of all outstanding debt and liabilities and the preferential rights of and the payment of liquidation preferences, if any, on any outstanding shares of Preferred Stock.

Fully Paid and Non-Assessable

All of the outstanding shares of Class A Stock and Class B Stock will be fully paid and non-assessable.

Preferred Stock

The Board is authorized, subject to limitations prescribed by Delaware law, to issue Preferred Stock in one or more series, to establish from time to time the number of shares to be included in each series, and to fix the designation, vesting, powers, preferences, and rights of the shares of each series and any of its qualifications, limitations, or restrictions, in each case without further vote or action by the stockholders. The Board can also increase or decrease the number of shares of any series of Preferred Stock, but not below the number of shares of that series then outstanding, without any further vote or action by the stockholders.

The Board may authorize the issuance of Preferred Stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of Class A Stock and Class B Stock. The issuance of Preferred Stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring, or preventing a change in control of the Company and may adversely affect the market price of Class A Stock and the voting and other rights of the holders of Class A Stock and Class B Stock. There are no current plans to issue any shares of Preferred Stock.

Warrants

As of March 16, 2021, all outstanding Public Warrants have been exercised and/or redeemed. The Company had 3,077,021 Private Warrants and 0 Public Warrants, outstanding as of December 31, 2021 and such Private Warrants are set to expire on December 2, 2025. Each Private Warrant allows the Gores Metropoulos, Inc. sponsor to purchase one share of Class A common stock at \$11.50 per share.

Public Warrants

Redemption of Warrants for Cash. The Company gave notice that it would redeem, at 5:00 p.m. New York City time on March 16, 2021 (the “Redemption Date”), all of the Company’s Public Warrants to purchase shares of the Company’s Class A Stock, for a redemption price of \$0.01 per Public Warrant (the “Redemption Price”), that were issued under the Warrant Agreement, dated as of January 31, 2019 (the “Warrant Agreement”), by and between the Company (f/k/a Gores Metropoulos, Inc.) and Continental Stock Transfer & Trust Company, as warrant agent (the “Warrant Agent”), as part of the units sold in the Company’s initial public offering (the “IPO”). Each Public Warrant entitled the holder thereof to purchase one share of Class A Stock for a purchase price of \$11.50 per share, subject to adjustment. Any Public Warrants that remained unexercised at 5:00 p.m. New York City time on the Redemption Date are void and no longer exercisable and their holders have no rights with respect to those Public Warrants, except to receive the Redemption Price or as otherwise described in the notice for holders who hold their Public Warrants in “street name.”

Private Warrants

The Private Warrants (including the Class A Stock issuable upon exercise of the Private Warrants) will not be transferable, assignable or salable until 30 days after the Closing (except, among other limited exceptions, to the officers and directors of the Company and other persons or entities affiliated with the Sponsor) and they will not be redeemable by the Company so long as they are held by the Sponsor or its permitted transferees. Otherwise, the Private Warrants have terms and provisions that are identical to those of the Public Warrants sold as part of the public units in the IPO, including as to exercise price, exercisability and exercise period. If the Private Warrants are held by holders other than the Sponsor or its permitted transferees, the Private Warrants will be redeemable by the Company and exercisable by the holders on the same basis as the Public Warrants included in the public units sold in the IPO.

If holders of the Private Warrants elect to exercise them on a cashless basis, they would pay the exercise price by surrendering their Private Warrants for that number of shares of Class A Stock equal to the quotient obtained by dividing (x) the product of the number of shares of Class A Stock underlying the Private Warrants, multiplied by the difference between the exercise price of the Private Warrants and the “fair market value” (defined below) by (y) the fair market value. The “fair market value” shall mean the average reported last sale price of the Class A Stock for the 10 trading days ending on the third trading day prior to the date on which the notice of warrant exercise is sent to the warrant agent.

Anti-Takeover Provisions

Some provisions of Delaware law, the Second Amended and Restated Certificate of Incorporation, and Amended and Restated Bylaws contain provisions that could make the following transactions more difficult: an acquisition of the Company by means of a tender offer; an acquisition of the Company by means of a proxy contest or otherwise; or the removal of incumbent officers and directors. It is possible that these provisions could make it more difficult to accomplish or could deter transactions that stockholders may otherwise consider to be in their best interest or in the Company's best interests, including transactions that provide for payment of a premium over the market price for the Company's shares.

These provisions, summarized below, are intended to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of the Company to first negotiate with Board. The Company believes that the benefits of the increased protection of the Company's potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure the Company outweigh the disadvantages of discouraging these proposals because negotiation of these proposals could result in an improvement of their terms.

Delaware Law

The Company is subject to the provisions of Section 203 of the DGCL regulating corporate takeovers. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a business combination with an interested stockholder for a period of three years following the date on which the person became an interested stockholder unless:

- prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, *excluding* for purposes of determining the voting stock outstanding, but not the outstanding voting stock owned by the interested stockholder, (i) shares owned by persons who are directors and also officers and (ii) shares owned by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- at or subsequent to the date of the transaction, the business combination is approved by the board of directors of the corporation and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of *at least* two-thirds of the outstanding voting stock that is not owned by the interested stockholder.

Generally, a business combination includes a merger, asset or stock sale, or other transaction or series of transactions together resulting in a financial benefit to the interested stockholder. An interested stockholder is a person who, together with affiliates and associates, owns or, within three years prior to the determination of interested stockholder status, did own 15% or more of a corporation's outstanding voting stock. We expect the existence of this provision to have an anti-takeover effect with respect to transactions the Board does not approve in advance. We also anticipate that Section 203 may also discourage attempts that might result in a premium over the market price for the shares of common stock held by stockholders.

Second Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws provisions

The Second Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws include a number of provisions that could deter hostile takeovers or delay or prevent changes in control of the Company's management team, including the following:

- *Dual Class Common Stock.* The Second Amended and Restated Certificate of Incorporation provides for a dual class common stock structure pursuant to which holders of Class B Stock will have the ability to control the outcome of matters requiring stockholder approval (even if they own significantly less than a majority of the shares of outstanding Class A Stock), including the election of directors and significant corporate transactions, such as a merger or other sale of the Company or its assets. Directors, executive officers, and employees, and their respective affiliates, may have the ability to exercise significant influence over those matters.
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- Board of Directors Vacancies.* The Second Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws authorize only the Board to fill vacant directorships, including newly created seats. In addition, the number of directors constituting the Board is permitted to be set only by a resolution adopted by a majority vote of the Whole Board (as defined in the Second Amended and Restated Certificate of Incorporation). These provisions prevent a stockholder from increasing the size of the Board and then gaining control of the Board by filling the resulting vacancies with its own nominees. This makes it more difficult to change the composition of the Board but promotes continuity of management.
 - Classified Board.* The Second Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws provide that the Board is divided into three classes of directors. The existence of a classified board of directors could discourage a third-party from making a tender offer or otherwise attempting to obtain control of the Company as it is more difficult and time consuming for stockholders to replace a majority of the directors on a classified board of directors.
 - Directors Removed Only for Cause.* The Second Amended and Restated Certificate of Incorporation provides that stockholders may remove directors only for cause.
 - Supermajority Requirements for Amendments of The Second Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws* The Second Amended and Restated Certificate of Incorporation further provides that the affirmative vote of holders of at least two-thirds of the voting power of all of the then-outstanding shares of voting stock will be required to amend certain provisions of the Second Amended and Restated Certificate of Incorporation, including provisions relating to the classified Board, the size of the Board, removal of directors, special meetings, actions by written consent, and designation of Preferred Stock. In addition, the affirmative vote of holders of 75% of the voting power of each of the then-outstanding Class A Stock and Class B Stock, voting separately by class, is required to amend the provisions of the Second Amended and Restated Certificate of Incorporation relating to the terms of the Class B Stock. The affirmative vote of holders of at least two-thirds of the voting power of all of the then-outstanding shares of voting stock is required to amend or repeal the Amended and Restated Bylaws, although the Amended and Restated Bylaws may be amended by a simple majority vote of the Board.
 - Stockholder Action; Special Meeting of Stockholders.* The Second Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws provide that special meetings of stockholders may be called only by a majority of the Whole Board, the chairman of the Board, or the chief executive officer, thus prohibiting a stockholder from calling a special meeting. The Second Amended and Restated Certificate of Incorporation provides that the stockholders may not take action by written consent, but may only take action at annual or special meetings of stockholders. As a result, holders of capital stock are not able to amend the Amended and Restated Bylaws or remove directors without holding a meeting of stockholders called in accordance with the Amended and Restated Bylaws. These provisions might delay the ability of stockholders to force consideration of a proposal or for stockholders to take any action, including the removal of directors.
 - Notice Requirements for Stockholder Proposals and Director Nominations.* The Amended and Restated Bylaws provide advance notice procedures for stockholders seeking to bring business before the annual meeting of stockholders or to nominate candidates for election as directors at the annual meeting of stockholders. The Amended and Restated Bylaws also specify certain requirements regarding the form and content of a stockholder's notice. These provisions might preclude stockholders from bringing matters before the annual meeting of stockholders or from making nominations for directors at the annual meeting of stockholders if the proper procedures are not followed. We expect that these provisions might also discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of the Company.
 - No Cumulative Voting.* The DGCL provides that stockholders are not entitled to the right to cumulate votes in the election of directors unless a corporation's certificate of incorporation provides otherwise. The Second Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws do not provide for cumulative voting.
 - Issuance of Undesignated Preferred Stock* The Board will have the authority, without further action by the stockholders, to issue up to 10,000,000 shares of undesignated preferred stock with rights and preferences, including voting rights, designated from time to time by the Board. The existence of authorized but unissued shares of Preferred Stock will enable the Board to render more difficult or to
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discourage an attempt to obtain control of the Company by means of a merger, tender offer, proxy contest, or other means.

•*Choice of Forum.* The Second Amended and Restated Certificate of Incorporation provides that the Chancery Court (or, if and only if the Chancery Court lacks subject matter jurisdiction, any state court located within the State of Delaware or, if and only if all such state courts lack subject matter jurisdiction, the federal district court for the District of Delaware) will be the exclusive forum for the following types of actions or proceedings under Delaware statutory or common law: (1) any derivative action or proceeding brought on behalf of the Company; (2) any action or proceeding asserting a claim of breach of a fiduciary duty owed by any current or former director, officer, or other employee of the Company or any stockholder to the Company or the Company's stockholders; (3) any action or proceeding asserting a claim against the Company or any current or former director, officer or other employee of the Company or any stockholder in such stockholder's capacity as such arising out of or pursuant to any provision of the DGCL, the Second Amended and Restated Certificate of Incorporation or the Amended and Restated Bylaws; (4) any action or proceeding to interpret, apply, enforce or determine the validity of the Second Amended and Restated Certificate of Incorporation or the Amended and Restated Bylaws (including any right, obligation or remedy thereunder); (5) any action or proceeding as to which the DGCL confers jurisdiction to the Chancery Court; and (6) any action asserting a claim against the Company or any director, officer or other employee of the Company or any stockholder, governed by the internal affairs doctrine, in all cases to the fullest extent permitted by law and subject to the court's having personal jurisdiction over the indispensable parties named as defendants. The provisions would not apply to suits brought to enforce a duty or liability created by the Securities Act, the Exchange Act, or any other claim for which the U.S. federal courts have exclusive jurisdiction. Furthermore, Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all such Securities Act actions. Accordingly, both state and federal courts have jurisdiction to entertain such claims. To prevent having to litigate claims in multiple jurisdictions and the threat of inconsistent or contrary rulings by different courts, among other considerations, the Second Amended and Restated Certificate of Incorporation provides that the federal district courts of the United States of America will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act.

While the Delaware courts have determined that such choice of forum provisions are facially valid, a stockholder may nevertheless seek to bring a claim in a venue other than those designated in the exclusive forum provisions. In such instance, we would expect to vigorously assert the validity and enforceability of the exclusive forum provisions of the Second Amended and Restated Certificate of Incorporation. This may require significant additional costs associated with resolving such action in other jurisdictions and there can be no assurance that the provisions will be enforced by a court in those other jurisdictions.

Lock-Up Agreements

Certain of the Company's stockholders are subject to certain restrictions on transfer until the termination of applicable lock-up periods.

Amended and Restated Registration Rights

Pursuant to the terms of the Amended and Restated Registration Rights Agreement, (a) any (i) outstanding share of Class A Stock or any Private Warrants, (ii) shares of Class A Stock issued or issuable upon the exercise of any other equity security of the Company (including shares of Class A Stock issued or issuable upon the conversion of the Class F Stock or the Class B Stock and upon exercise of the Private Warrants), and (iii) shares of Class A Stock issued as Earn-Out Shares or issuable upon the conversion of any Earn-Out Shares, in each case, held by Luminar Holders, and (b) any other equity security of the Company issued or issuable with respect to any such share of Class A Stock by way of a stock dividend or stock split or in connection with a combination of shares, recapitalization, merger, consolidation or other reorganization or otherwise, will be entitled to registration rights.

Voting Agreement

In August 2020, in connection with entering into the Merger Agreement, Mr. Austin Russell and Gores Metropoulos, Inc. entered into the Voting Agreement.

Limitation of Liability and Indemnification

The Amended and Restated Bylaws provide that the Company will indemnify its directors and officers, and may indemnify its employees and other agents, to the fullest extent permitted by Delaware law.

Delaware law prohibits the Second Amended and Restated Certificate of Incorporation from limiting the liability of the Company's directors for the following:

- any breach of the director's duty of loyalty to the Company or to its stockholders;
- acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- unlawful payment of dividends or unlawful stock repurchases or redemptions; and
- any transaction from which the director derived an improper personal benefit.

If Delaware law is amended to authorize corporate action further eliminating or limiting the personal liability of a director, then the liability of the Company's directors will be eliminated or limited to the fullest extent permitted by Delaware law, as so amended. The Second Amended and Restated Certificate of Incorporation does not eliminate a director's duty of care and, in appropriate circumstances, equitable remedies, such as injunctive or other forms of non-monetary relief, remain available under Delaware law. This provision also does not affect a director's responsibilities under any other laws, such as the federal securities laws or other state or federal laws. Under the Amended and Restated Bylaws, the Company can purchase insurance on behalf of any person whom it is required or permitted to indemnify.

In addition to the indemnification required in the Second Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws, the Company has entered into an indemnification agreement with each member of the Board and each of its officers. These agreements provide for the indemnification of the Company's directors and officers for certain expenses and liabilities incurred in connection with any action, suit, proceeding or alternative dispute resolution mechanism, or hearing, inquiry or investigation that may lead to the foregoing, to which they are a party or other participant, or are threatened to be made a party or other participant, by reason of the fact that they are or were a director, officer, employee, agent or fiduciary of the Company, by reason of any action or inaction by them while serving as an officer, director, agent or fiduciary, or by reason of the fact that they were serving at the Company's request as a director, officer, employee, agent or fiduciary of another entity. In the case of an action or proceeding by or in the right of the Company, no indemnification will be provided for any claim where a court determines that the indemnified party is prohibited from receiving indemnification. We believe that these charter and bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers.

The limitation of liability and indemnification provisions in the Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against directors and officers, even though an action, if successful, might benefit the Company and its stockholders.

Moreover, a stockholder's investment may be harmed to the extent the Company pays the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

Listing of Securities

Class A Stock is listed on the Nasdaq Global Select Market under the symbol "LAZR."

Rule 144

Rule 144 is not available for the resale of securities initially issued by shell companies (other than business combination related shell companies) or issuers that have been at any time previously a shell company, such as the Company. However, Rule 144 also includes an important exception to this prohibition if the following conditions are met:

- the issuer of the securities that was formerly a shell company has ceased to be a shell company;
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- the issuer of the securities is subject to the reporting requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”);
- the issuer of the securities has filed all Exchange Act reports and material required to be filed, as applicable, during the preceding 12 months (or such shorter period that the issuer was required to file such reports and materials), other than Form 8-K reports; and
- at least one year has elapsed from the time that the issuer filed current Form 10 type information with the SEC reflecting its status as an entity that is not a shell company.

Upon the Closing, the Company ceased to be a shell company.

When and if Rule 144 becomes available for the resale of the Company’s securities, a person who has beneficially owned restricted shares of Common Stock or Warrants for at least six months would be entitled to sell their securities, provided that (i) such person is not deemed to have been one of the Company’s affiliates at the time of, or at any time during the three months preceding, a sale and (ii) we are subject to the Exchange Act periodic reporting requirements for at least three months before the sale and have filed all required reports under Section 13 or 15(d) of the Exchange Act during the 12 months (or such shorter period as we were required to file reports) preceding the sale.

Persons who have beneficially owned restricted shares of the Company’s Common Stock or Warrants for at least six months but who are affiliates at the time of, or at any time during the three months preceding, a sale, would be subject to additional restrictions, by which such person would be entitled to sell within any three-month period only a number of securities that does not exceed the greater of:

- one percent (1%) of the total number of shares of Common Stock then outstanding; or
- the average weekly reported trading volume of the Common Stock during the four calendar weeks preceding the filing of a notice on Form 144 with respect to the sale.

Sales by affiliates under Rule 144 will also be limited by manner of sale provisions and notice requirements and to the availability of current public information about the Company.

Transfer Agent and Registrar

The transfer agent for Class A Stock and warrant agent for the Company’s warrants is American Stock Transfer & Trust Company, LLC. The transfer agent and warrant agent’s telephone number and address is (718) 921-8521 and 6201 15th Avenue, Brooklyn, NY 11219.

AMENDMENT OF WARRANT AGREEMENT

THIS AMENDMENT OF WARRANT AGREEMENT (this “**Agreement**”), made effective as of January 11, 2022, is made by and among Luminar Technologies, Inc., a Delaware corporation (“**Luminar**”), Continental Stock Transfer & Trust Company, a New York corporation, as warrant agent (“**Continental**”), and American Stock Transfer & Trust Company, LLC, a New York limited liability trust company (“**AST**”).

WHEREAS, Luminar (f/k/a Gores Metropoulous, Inc.) and Continental are parties to that certain Warrant Agreement, dated as of January 31, 2019 (the “**Existing Warrant Agreement**”);

WHEREAS, capitalized terms used herein, but not otherwise defined, shall have the meanings given to such terms in the Existing Warrant Agreement;

WHEREAS, Continental has agreed to resign its duties as the Warrant Agent as of the date hereof, and AST has agreed to serve as successor Warrant Agent from and after the date hereof; and

WHEREAS, pursuant to Section 9.8 of the Existing Warrant Agreement, the parties may amend the Existing Warrant Agreement without the consent of the Registered Holders with respect to matters as the parties may deem necessary or desirable and that the parties deem shall not adversely affect the interest of the Registered Holders.

NOW, THEREFORE, in consideration of the mutual agreements contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and intending to be legally bound hereby, the parties hereto agree as follows:

1 Amendment of Existing Warrant Agreement. The parties hereby amend, effective as of the date of this Agreement, the Existing Warrant Agreement as provided in this Section 1.

1.1 *Change in Warrant Agent.* References to “Continental Stock Transfer & Trust Company” in the Existing Warrant Agreement shall be replaced with “American Stock Transfer & Trust Company, LLC.”

1.2 *Change of Address of Warrant Agent.* Section 9.2 of the Existing Warrant Agreement is hereby amended to direct that any notice, statement or demand authorized by the Existing Warrant Agreement to be given or made by the Warrant Agent or by the holder of any Warrant to or on the Company pursuant to Section 9.2 shall be delivered to:

American Stock Transfer & Trust Company, LLC
6201 15th Avenue
Brooklyn, NY 11219
Email: Reorgwarrants@astfinancial.com

1.3 *Change of Address of Company.* Section 9.2 of the Existing Warrant Agreement is hereby amended to direct that any notice, statement or demand authorized by this Agreement to be given or made by the Warrant Agent or by the holder of any Warrant to or on the Company pursuant to Section 9.2 shall be delivered to

Luminar Technologies, Inc.
2603 Discovery Drive, Suite 100
Orlando, FL 32826
Attention: Chief Legal Officer

2 Warrant Agent Succession and Resignation of Current Warrant Agent and Appointment of Successor. Continental hereby resigns as Warrant Agent, and Luminar hereby appoints AST to act as the Warrant Agent for Luminar for the Warrants, and AST hereby accepts such appointment and agrees to perform the same in accordance with the terms and conditions set forth in the Existing Warrant Agreement as modified by this Agreement.

3 Miscellaneous Provisions.

3.1 *Successors.* All the covenants and provisions of this Agreement by or for the benefit of the parties shall bind and inure to the benefit of their respective successors and assigns.

3.2 *Applicable Law.* The validity, interpretation, and performance of this Agreement and of the Warrants shall be governed in all respects by the laws of the State of New York, without giving effect to conflicts of law principles that would result in the application of the substantive laws of another jurisdiction. Luminar hereby agrees that any action, proceeding or claim against it arising out of or relating in any way to this Agreement shall be brought and enforced in the courts of the State of New York or the United States District Court for the Southern District of New York, and irrevocably submits to such jurisdiction, which jurisdiction shall be exclusive. Luminar hereby waives any objection to such exclusive jurisdiction and that such courts represent an inconvenient forum.

3.3 *Counterparts.* This Agreement may be executed in any number of original or facsimile counterparts and each of such counterparts shall for all purposes be deemed to be an original, and all such counterparts shall together constitute but one and the same instrument.

3.4 *Effect of Headings.* The section headings herein are for convenience only and are not part of this Agreement and shall not affect the interpretation thereof.

3.5 *Severability.* This Agreement shall be deemed severable, and the invalidity or unenforceability of any term or provision hereof shall not affect the validity or enforceability of this Agreement or of any other term or provision hereof. Furthermore, in lieu of any such invalid or unenforceable term or provision, the parties hereto intend that there shall be added as a part of this Agreement a provision as similar in terms to such invalid or unenforceable provision as may be possible and be valid and enforceable.

3.6 *Entire Agreement.* The Existing Warrant Agreement, as modified by this Agreement, constitutes the entire understanding of the parties and supersedes all prior agreements, understandings, arrangements, promises and commitments, whether written or oral, express or implied, relating to the subject matter hereof, and all such prior agreements, understandings, arrangements, promises and commitments are hereby canceled and terminated.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed as of the date first above written.

LUMINAR TECHNOLOGIES, INC.

By: /s/ Alan Prescott
Name: Alan Prescott
Title: Chief Legal Officer

**CONTINENTAL STOCK TRANSFER & TRUST
COMPANY**

By: /s/ Erika Young
Name: Erika Young
Title: Vice President

**AMERICAN STOCK TRANSFER & TRUST COMPANY,
LLC**

By: /s/ Michael Legregin
Name: Michael Legregin
Title: Senior Vice President,
Attorney Advisory Group

[Signature Page to Amendment of Warrant Agreement]

Subsidiaries of Luminar Technologies, Inc.

<u>Name of Subsidiary</u>	<u>Jurisdiction of Organization</u>
Luminar, LLC	Delaware
BFE Acquisition Sub II, LLC (dba Black Forest Engineering)	Delaware
OptoGration, Inc.	Delaware
Luminar GmbH	Germany

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement No. 333-262250 on Form S-3 and Registration Statement No. 333-253658 on Form S-8 of our reports dated March 1, 2022, relating to the financial statements of Luminar Technologies, Inc. and the effectiveness of Luminar Technologies, Inc.'s internal control over financial reporting appearing in this Annual Report on Form 10-K for the year ended December 31, 2021.

/s/ Deloitte & Touche LLP

San Jose, California
March 1, 2022

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER**PURSUANT TO RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Austin Russell, certify that:

1. I have reviewed this annual report on Form 10-K of Luminar Technologies, Inc. for the year ended December 31, 2021;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 1, 2022

By: /s/ Austin Russell

Austin Russell
Chief Executive Officer
(Principal Executive Officer)

CERTIFICATION OF CHIEF FINANCIAL OFFICER

PURSUANT TO RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Thomas J. Fennimore, certify that:

1. I have reviewed this annual report on Form 10-K of Luminar Technologies, Inc. for the year ended December 31, 2021;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 1, 2022

By: /s/ Thomas J. Fennimore

Thomas J. Fennimore
Chief Financial Officer
(Principal Financial and Accounting Officer)

CERTIFICATION OF CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER**PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

I, Austin Russell, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report of Luminar Technologies, Inc. (the "Company") on Form 10-K for the fiscal year ended December 31, 2021 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and that information contained in such Annual Report on Form 10-K fairly presents in all material respects the financial condition and results of operations of the Company.

Date: March 1, 2022

By: /s/ Austin Russell

Austin Russell
Chief Executive Officer
(Principal Executive Officer)

I, Thomas J. Fennimore, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report of Luminar Technologies, Inc. (the "Company") on Form 10-K for the fiscal year ended December 31, 2021 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and that information contained in such Annual Report on Form 10-K fairly presents in all material respects the financial condition and results of operations of the Company.

Date: March 1, 2022

By: /s/ Thomas J. Fennimore

Thomas J. Fennimore
Chief Financial Officer
(Principal Financial and Accounting Officer)

This certification accompanies the Form 10-K to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of Luminar Technologies, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Form 10-K), irrespective of any general incorporation language contained in such filing.