

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

FORM 10-K

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

For the Fiscal Year Ended December 31, 2019

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: **001-38202**

Virgin Galactic Holdings, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

166 North Roadrunner Parkway, Suite 1C
Las Cruces, New Mexico
(Address of principal executive offices)

98-1366046
(I.R.S. Employer
Identification Number)

88011
(Zip Code)

(575) 424-2100

(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
Units consisting of one share of common stock, \$0.0001 par value per share, and one-third of one warrant to purchase one share of common stock	SPCE.U	New York Stock Exchange
Common stock, \$0.0001 par value per share	SPCE	New York Stock Exchange
Warrants to purchase common stock	SPCE.WS	New York Stock Exchange

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 is a shell company (as defined in Rule 12b-2 of the Act). Yes No

As of June 28, 2019, the last business day of the registrant's most recently completed second fiscal quarter, the aggregate market value of the voting and non-voting common stock held by non-affiliates, computed by reference to the closing sales price of \$10.44 reported on the New York Stock Exchange, was approximately \$720.4 million.

As of February 26, 2020 there were 195,769,015 shares of the registrant's common stock, \$0.0001 par value per share, issued and outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement relating to its annual meeting of stockholders to be held in 2020 (the "2020 Annual Meeting"), to be filed with the Securities and Exchange Commission (the "SEC") within 120 days after the end of the fiscal year to which this Annual Report on Form 10-K relates, are incorporated herein by reference where indicated. Except with respect to information specifically incorporated by reference in this Annual Report on Form 10-K, such proxy statement is not deemed to be filed as part hereof.

[Table of Contents](#)

VIRGIN GALACTIC HOLDINGS, INC.

TABLE OF CONTENTS

Item No.		Page No.
	<u>Part I</u>	
<u>Item 1. Business</u>		<u>5</u>
<u>Item 1A. Risk Factors</u>		<u>24</u>
<u>Item 2. Properties</u>		<u>46</u>
<u>Item 3. Legal Proceedings</u>		<u>46</u>
<u>Item 4. Mine Safety Disclosures</u>		<u>46</u>
	<u>Part II</u>	
<u>Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities</u>		<u>46</u>
<u>Item 6. Selected Financial Data</u>		<u>47</u>
<u>Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations</u>		<u>50</u>
<u>Item 7A. Quantitative and Qualitative Disclosures about Market Risk</u>		<u>61</u>
<u>Item 8. Financial Statements and Supplementary Data</u>		<u>61</u>
<u>Item 9A. Controls and Procedures</u>		<u>62</u>
<u>Item 9B. Other Information</u>		<u>64</u>
	<u>Part III</u>	
<u>Item 10. Directors, Executive Officers and Corporate Governance</u>		<u>65</u>
<u>Item 11. Executive Compensation</u>		<u>65</u>
<u>Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder</u>		<u>65</u>
<u>Item 13. Certain Relationships and Related Transactions, and Director Independence</u>		<u>65</u>
<u>Item 14. Principal Accounting Fees and Services</u>		<u>65</u>
	<u>Part IV</u>	
<u>Item 15. Exhibits, Financial Statement Schedules</u>		<u>66</u>
<u>Item 16. Form 10-K Summary</u>		<u>68</u>
<u>Signatures</u>		<u>69</u>
<u>Index to Consolidated Financial Statements and Supplementary Data</u>		<u>F-1</u>

[Table of Contents](#)



[Table of Contents](#)



[Table of Contents](#)

Part I

Each of the terms the “Company,” “Virgin Galactic,” “we,” “our,” “us” and similar terms used herein refer collectively to Virgin Galactic Holdings, Inc., a Delaware corporation, and its consolidated subsidiaries, unless otherwise stated.

Cautionary Note Regarding Forward-Looking Statements

This Annual Report on Form 10-K contains forward-looking statements (including within the meaning of the Private Securities Litigation Reform Act of 1995) concerning us and other matters. These statements may discuss goals, intentions and expectations as to future plans, trends, events, results of operations or financial condition, or otherwise, based on current beliefs of management, as well as assumptions made by, and information currently available to, management. Forward-looking statements may be accompanied by words such as “achieve,” “aim,” “anticipate,” “believe,” “can,” “continue,” “could,” “drive,” “estimate,” “expect,” “forecast,” “future,” “grow,” “improve,” “increase,” “intend,” “may,” “outlook,” “plan,” “possible,” “potential,” “predict,” “project,” “should,” “target,” “will,” “would” or similar words, phrases or expressions. These forward-looking statements are subject to various risks and uncertainties, many of which are outside our control. Therefore, you should not place undue reliance on such statements. Factors that could cause actual results to differ materially from those in the forward-looking statements include, but are not limited to, the following:

- our ability to achieve or maintain profitability;
- our ability to effectively market and sell human spaceflights;
- the development of the markets for commercial human spaceflight and commercial research and development payloads;
- any delay in completing the flight test program and final development of our spaceflight system, which is comprised of our SpaceShipTwo Spaceship, VSS Unity, and our WhiteKnightTwo carrier aircraft, VMS Eve;
- our ability to operate our spaceflight system after commercial launch;
- the safety of our spaceflight systems;
- our ability to convert our backlog or inbound inquiries into revenue;
- our ability to conduct test flights our anticipated full passenger capacity;
- delay in developing or the manufacture of spaceflight systems;
- our expected capital requirements and the availability of additional financing;
- our ability to attract or retain highly qualified personnel, including in accounting and finance roles;
- extensive and evolving government regulation that impact the way we operate;
- risks associated with international expansion; and
- our ability to continue to use, maintain, enforce, protect and defend our owned and licensed intellectual property, including the Virgin brand.

Additional factors that may cause actual results to differ materially from current expectations include, among other things, those set forth in Part I, Item 1A. “Risk Factors” and Part II, Item 7. “Management’s Discussion and Analysis of Financial Condition and Results of Operations below” and for the reasons described elsewhere in this Annual Report on Form 10-K. Although we believe that the expectations reflected in the forward-looking statements are reasonable, our information may be incomplete or limited, and we cannot guarantee future results. Except as required by law, we assume no obligation to update or revise these forward-looking statements for any reason, even if new information becomes available in the future.

Table of Contents

Item 1. Business

Corporate History and Background

We were initially formed on May 5, 2017 as a Cayman Islands exempted company and formed for the purpose of effecting a merger, share exchange, asset acquisition, share purchase, reorganization or similar business combination with one or more businesses. From the time of our formation to the time of the consummation of the Virgin Galactic Business Combination (defined below), our name was “Social Capital Hedosophia Holdings Corp.”

On July 9, 2019, we entered into an Agreement and Plan of Merger (as amended on October 2, 2019, the “Merger Agreement”) with Vieco USA, Inc., a Delaware corporation (“Vieco US”), Vieco 10 Limited, a company limited by shares under the laws of the British Virgin Islands (“V10”), Foundation Sub 1, Inc., a Delaware corporation and our direct wholly owned subsidiary (“Merger Sub A”), Foundation Sub 2, Inc., a Delaware corporation and our direct wholly owned subsidiary (“Merger Sub B”), Foundation Sub LLC, a Delaware limited liability company and our direct wholly owned subsidiary (“Merger Sub LLC” and, collectively with Merger Sub A and Merger Sub B, the “Merger Subs”), TSC Vehicle Holdings, Inc., a Delaware corporation and an indirect wholly owned subsidiary of Vieco US (“Company A”), Virgin Galactic Vehicle Holdings, Inc., a Delaware corporation and an indirect wholly owned subsidiary of Vieco US (“Company B”), and VGH, LLC, a Delaware limited liability company and a direct wholly owned subsidiary of Vieco US (“Company LLC” and, collectively with Company A and Company B, the “VG Companies”).

On October 25, 2019, as contemplated by the Merger Agreement and following approval by our shareholders at an extraordinary general meeting held October 23, 2019:

- we filed a notice of deregistration with the Cayman Islands Registrar of Companies, together with the necessary accompanying documents, and filed a certificate of incorporation and a certificate of corporate domestication with the Secretary of State of the State of Delaware, under which we were domesticated and continue as a Delaware corporation, changing our name from “Social Capital Hedosophia Holdings Corp.” to “Virgin Galactic Holdings, Inc.” (the “Domestication”); and
- all outstanding shares of common stock or limited liability company interests, as applicable, of the VG Companies were cancelled in exchange for the right to receive an aggregate of 130,000,000 shares of our common stock (at a deemed value of \$10.00 per share) for an aggregate merger consideration of \$1.3 billion (the “Aggregate Merger Consideration”) and (x) Merger Sub A merged with and into Company A, the separate corporate existence of Merger Sub A ceasing and Company A being the surviving corporation and our wholly owned subsidiary, (y) Merger Sub B, merged with and into Company B, the separate corporate existence of Merger Sub B ceasing and Company B being the surviving corporation and our wholly owned subsidiary and (z) Merger Sub LLC merged with and into Company LLC, the separate company existence of Merger Sub LLC ceasing and Company LLC being the surviving company and our wholly owned subsidiary (collectively referred to as the “Mergers” and together with the Domestication, the “Virgin Galactic Business Combination”).

In connection with the Virgin Galactic Business Combination:

- each of our then-outstanding Class A ordinary shares, par value \$0.0001 per share, was converted, on a one-for-one basis, into a share of common stock, par value \$0.0001 per share;
- each of our then-outstanding Class B ordinary shares, par value \$0.0001 per share, was converted, on a one-for-one basis, into a share of common stock; provided, however, that with respect to our Class B ordinary shares held by SCH Sponsor Corp. (the “Sponsor”), the Sponsor instead received upon the conversion of the Class B ordinary shares held by it 15,750,000 shares of common stock;
- each then-outstanding warrant to purchase one Class A ordinary share converted into a warrant to purchase one share of common stock; and
- each then-outstanding unit, which consisted of one Class A ordinary share and one-third of one warrant to purchase Class A ordinary shares, converted into a unit consisting of one share of our common stock and one-third of one warrant to purchase one share of common stock.

Table of Contents

The Virgin Galactic Business Combination was accounted for as a reverse recapitalization in accordance with accounting principles generally accepted in the United States. Under this method of accounting, Social Capital Hedosophia Holdings Corp. was treated as the “acquired” company for financial reporting purposes. This determination was primarily based on the pre-Virgin Galactic Business Combination shareholders of the VG Companies having a relative majority of the voting power of the combined entity, the operations of the VG Companies prior to the Virgin Galactic Business Combination comprising the only ongoing operations of the combined entity, and senior management of the VG Companies comprising the majority of the senior management of the combined entity. Accordingly, for accounting purposes, the financial statements of the combined entity, including those included in this Annual Report on Form 10-K represent a continuation of the financial statements of the VG Companies with the acquisition being treated as the equivalent of the VG Companies issuing stock for the net assets of Social Capital Hedosophia Holdings Corp., accompanied by a recapitalization. The net assets of Social Capital Hedosophia Holdings Corp. are stated at historical cost, with no goodwill or other intangible assets recorded.

Overview

We are a vertically-integrated aerospace company pioneering human spaceflight for private individuals and researchers, as well as a manufacturer of advanced air and space vehicles. Using our proprietary and reusable technologies, and supported by a distinctive, Virgin-branded customer experience, we are developing a spaceflight system designed to offer customers a unique, multi-day, transformative experience. This culminates in a spaceflight that includes views of Earth from space and several minutes of weightlessness that will launch from Spaceport America, New Mexico. We believe that one of the most exciting and significant opportunities of our time lies in the commercial exploration of space and the development of technology that will change the way we travel across the globe in the future. Together we are opening access to space to change the world for good.

Over the past decade, several trends have converged to invigorate the commercial space industry. Rapidly advancing technologies, decreasing costs, open innovation models with improved access to technology and greater availability of capital have driven significant growth in the commercial space market. According to a December 2019 article from the U.S. Chamber of Commerce, the commercial space market is expected to grow 6% per year, from \$385 billion in 2017 to at least \$1.5 trillion by 2040, reaching 5% of U.S. gross domestic product. As a result of these trends, we believe the exploration of space and the cultivation and monetization of space-related capabilities offer immense potential for the creation of economic value and future growth. Further, we believe we are at the center of these industry trends and well-positioned to capitalize on them by bringing human spaceflight to a broad global population that dreams of traveling to space.

The market for commercial human spaceflight for private individuals is new and untapped. As of December 31, 2019, only 575 humans have ever traveled above the Earth’s atmosphere into space to become officially recognized as astronauts, cosmonauts or taikonauts. Overwhelmingly, these men and women have been government employees handpicked by government space agencies such as NASA and trained over many years at significant expense. Private commercial space travel has been limited to a select group of individuals who were able to reach space, generally only at great personal expense, risk and discomfort. We are planning to change that. We believe a significant market opportunity exists to provide high net worth individuals with a dynamic spaceflight experience at a fraction of the expense incurred by other private individuals to date. We believe this market opportunity is supported by the more than 600 reservations and over \$80.0 million of deposits we had booked as of December 31, 2019, and from SpaceShipTwo’s first spaceflight in December 13, 2018 to February 23, 2020, we have received 7,957 flight reservation inquiries.

Over the last 14 years, we have developed an extensive portfolio of proprietary technologies that are embodied in the highly specialized assets that we have developed or leased to enable commercial spaceflight and address these industry trends. These assets include:

- **Our carrier aircraft, *WhiteKnightTwo*.** WhiteKnightTwo is a twin-fuselage, custom-built aircraft designed to carry our spaceship, SpaceShipTwo, up to an altitude of approximately 45,000 feet, where the spaceship is released for its flight into space. Our carrier aircraft is designed to launch thousands of SpaceShipTwo flights over its lifetime. This reusable launch platform design provides a flight experience and economics similar to commercial airplanes, and may offer a considerable economic advantage over other potential launch alternatives. Additionally, our carrier aircraft has a rapid turnaround time, enabling it to provide frequent spaceflight launch services for multiple spaceships.

[Table of Contents](#)

- ***Our spaceship, SpaceShipTwo.*** SpaceShipTwo is a reusable spaceship with the capacity to carry two pilots and up to six Future Astronauts into space before returning them safely to the Earth's surface. SpaceShipTwo is a rocket-powered winged vehicle designed to achieve a maximum speed of over Mach 3 and has a flight duration, measured from the takeoff of our carrier aircraft to the landing of SpaceShipTwo, of up to approximately 90 minutes. SpaceShipTwo's cabin has been designed to optimize the Future Astronaut's safety, experience and comfort. For example, the sides and ceiling of the spaceship's cabin are lined by more than a dozen windows, offering Future Astronauts the ability to view the blackness of space as well as stunning views of the Earth below. With the exception of the rocket motor's fuel and oxidizer, which must be replenished after each flight, SpaceShipTwo is designed as a wholly reusable spaceship.
- ***Our hybrid rocket motor, RocketMotorTwo.*** SpaceShipTwo is powered by a hybrid rocket propulsion system, RocketMotorTwo, that propels it on a trajectory into space. The term "hybrid" rocket refers to the fact that the rocket uses a solid fuel grain cartridge and a liquid oxidizer. The fuel cartridge is consumed over the course of a flight and replaced in between flights. RocketMotorTwo has been designed to provide performance capabilities necessary for spaceflight with a focus on safety, reliability and economy. Its design incorporates comprehensive critical safety features, including the ability to be safely shut down at any time, and its limited number of moving parts increases reliability and robustness for human spaceflight. Furthermore, the motor is made from a benign substance that needs no special or hazardous storage.
- ***Spaceport America.*** The Future Astronaut flight preparation and experience will take place at our operational headquarters at Spaceport America. Spaceport America is the first purpose-built commercial spaceport in the world and serves as the home of our terminal hangar building, officially designated the "Virgin Galactic Gateway to Space." Spaceport America is located in New Mexico on 27 square miles of desert landscape, with access to 6,000 square miles of restricted airspace running from the ground to space. The restricted airspace will facilitate frequent and consistent flight scheduling by preventing general commercial air traffic from entering the area. Additionally, the desert climate and its relatively predictable weather provide favorable launch conditions year-round. Our license from the U.S. Federal Aviation Administration (the "FAA") includes Spaceport America as a location from which we can launch and land our spaceflight system on a routine basis.

We have designed our spaceflight system with a fundamental focus on safety. Important elements of our safety design include horizontal takeoff and landing, highly reliable and rigorously tested jet engines on our carrier aircraft, two pilots in our carrier aircraft and the spaceship to provide important redundancy, a proprietary feathering system that allows the spaceship to properly align for re-entry with limited pilot input, extensive screening and training of our pilots, and the ability to safely abort at any time during the mission. In 2016, the FAA granted us our commercial space launch license with a limited number of verification and validation steps that must be completed before the FAA will clear us to include future astronauts on our spaceflights. Specifically, we are required by the FAA to submit final integrated vehicle performance results conducted in an operational flight environment, including final configuration of critical systems and aspects of the environmental control system and human factors performance. We expect to be able to submit these results to the FAA during the first half of 2020.

Our goal is to offer our Future Astronauts an unmatched, safe and affordable journey to space without the need for any special prior experience or significant prior training and preparation. We have worked diligently for over a decade to plan every aspect of the Future Astronaut's journey to become an astronaut, drawing on a world-class team with extensive experience with human spaceflight, high-end customer experiences and reliable transportation system operations and safety. Each Future Astronaut will spend four days at Spaceport America, with the first three days spent on pre-flight training and the spaceflight itself occurring on the fourth day. In space, they will be able to exit their seats and experience weightlessness, floating about the cabin and positioning themselves at one of the many windows around the cabin sides and top. After enjoying several minutes of weightlessness, our astronauts will maneuver back to their own seats to prepare for re-entry and the journey back into the Earth's atmosphere. Upon landing, astronauts will disembark and join family and friends to celebrate their achievements and receive their astronaut wings.

[Table of Contents](#)

We have historically sold spaceflight tickets at a price point of up to \$250,000 per ticket. Given demand for human spaceflight experiences and the limited available capacity, however, we expect the price of our tickets to increase for a period of time. We also anticipate offering premium pricing options for future astronauts with an interest in further customizing or enhancing their astronaut journey. As of December 31, 2019, we had reservations for over 600 spaceflight tickets and more than \$80.0 million in deposits. We believe these sales are largely attributable to the strength and prominence of the Virgin Galactic brand, which has driven many of our future astronauts directly to us with inbound requests. As we transition to full commercialization, we intend to take a more active role in marketing and selling our spaceflight experience. Given that sales of spaceflights are consultative and generally require a one-on-one sales approach, we intend to go to market using our direct sales organization and may expand the reach of that organization using a global network of high-end travel professionals that we refer to as "Accredited Space Agents".

Our senior management team has extensive experience in the aerospace industry and includes the former Chief of Staff for NASA as well as NASA's space shuttle launch integration manager. Our team of pilots is similarly experienced, with over 216 years of collective flight experience, and includes former test pilots for NASA, the Royal Air Force, the U.S. Air Force, the Italian Air Force and the U.S. Marine Corps. Our commercial team is managed and supported by individuals with significant experience and success in building and growing a commercial spaceflight brand, selling spaceflight reservations and managing the pre-flight Future Astronaut community.

Commercial Space Industry

The commercial exploration of space represents one of the most exciting and important technological initiatives of our time. For the last six decades, crewed spaceflight missions commanded by the national space agencies of the United States, Russia and China have captured and sustained the attention of the world, inspiring countless entrepreneurs, scientists, inventors, ordinary citizens and new industries. Despite the importance of these missions and their cultural, scientific, economic and geopolitical influence, as of December 31, 2019, only 575 humans have ever traveled above the Earth's atmosphere into space to become officially recognized astronauts, cosmonauts or taikonauts. Overwhelmingly, these men and women have been government employees handpicked by government space agencies such as NASA and trained over many years at significant expense. While these highly capable government astronauts have inspired millions, individuals in the private sector have had extremely limited opportunity to fly into space, regardless of their personal wealth or ambitions. We are planning to change that.

Over the past decade, several trends have converged to invigorate the commercial space industry. Rapidly advancing technologies, decreasing costs, open innovation models with improved access to technology and greater availability of capital have driven explosive growth in the commercial space market. According to a December 2019 article from the U.S. Chamber of Commerce, the commercial space market will grow 6% per year, from \$385.0 billion in 2017 to at least \$1.5 trillion by 2040, reaching 5% of U.S. gross domestic product. The growth in private investment in the commercial space industry has led to a wave of new companies reinventing parts of the traditional space industry, including human spaceflight, satellites, payload delivery and methods of launch, in addition to unlocking entirely new potential market segments. Government agencies have taken note of the massive potential and growing import of space and are increasingly relying on the commercial space industry to spur innovation and advance national space objectives. In the United States, this has been evidenced by notable policy initiatives and by commercial contractors' growing share of space activity.

As a result of these trends, we believe the exploration of space and the cultivation and monetization of space-related capabilities offers immense potential for creation of economic value and future growth. Further, we believe we are at the center of these industry trends and well-positioned to capitalize on them by bringing human spaceflight to a broader global population that dreams of traveling to space. We are initially focused on human spaceflight for recreation and research, but we believe our differentiated technology and unique capabilities can be leveraged to address numerous additional commercial and government opportunities in the commercial space industry.

Table of Contents

We have developed extensive vertically integrated aerospace development capabilities for developing, manufacturing and testing aircraft and related propulsion systems. These capabilities encompass preliminary systems and vehicle design and analysis, detail design, manufacturing, ground testing, flight testing and post-delivery support and maintenance. We believe our unique approach and rapid prototyping capabilities enable innovative ideas to be designed quickly and built and tested with process and rigor. In addition, we have expertise in configuration management and developing documentation needed to transition our technologies and systems to commercial applications. Further, we have developed a significant amount of know-how, expertise and capability that we believe we can leverage to capture growing demand for innovative, agile and low-cost development projects for third parties, including contractors, government agencies and commercial service providers. We are actively exploring strategic relationships to identify new applications for our technologies and to develop advanced aerospace technologies for commercial and transportation applications that we believe will accelerate progress within relevant industries and enhance our growth.

Human Spaceflight

The market for commercial human spaceflight for private individuals is new and virtually untapped. To date, private commercial space travel has been limited to a select group of individuals who were able to reach space only at great personal expense, risk and discomfort. In effect, these individuals became temporary members of the Russian Space Agency, were required to learn the Russian language and trained for months prior to spaceflight. In 2001, Dennis Tito was the first private individual to purchase a ticket for space travel, paying an estimated \$20.0 million for a ride to the ISS on a Russian Soyuz rocket. Since then, six individuals have purchased tickets and flown successful orbital missions that have included time on the ISS, and current prices for spaceflights to the ISS approximately range between \$50.0 million and \$75.0 million per trip. One individual, Charles Simonyi, flew twice.

Other than these limited and extremely expensive alternatives, we are unaware of any currently available alternatives for private space travel. Historically, the privatization of human spaceflight has been limited primarily by cost and availability to private individuals. In the past, the technologies necessary to journey to space have been owned and controlled strictly by government space agencies. With the exception of a few seats on the Russian Soyuz rocket, government agencies have not demonstrated interest in providing vehicles or seats to the private sector for human spaceflight. Instead, government efforts in human spaceflight have focused on research missions and have historically required billions of dollars of investment. Because of the government's research orientation and because of the high cost of development, historically there has been limited innovation to foster the commercial viability of human spaceflight. For example, most spacecraft were developed as single-use vehicles; and while the Space Shuttle was built as a reusable vehicle, it required significant recovery and refurbishment between flights.

The interconnected dynamics of national security concerns, government funding, a lack of competing technologies and economies of scale, as well as the infrequency of flights, have all contributed to sustained high costs of human spaceflight. In addition to the cost, privatization has also been limited by concerns surrounding the ability to safely transport untrained general members of the public into space.

While these obstacles have significantly limited the adoption of human space travel, we believe the few private individuals who have already flown at significant personal cost provide important insight into the potential demand for private space travel, particularly if these obstacles can be addressed. To evaluate the potential market opportunity, we have performed a high-level analysis based on publicly available information to estimate the net worth of our existing reservation holders. Based on that analysis, we estimate that over 90% of our existing reservation holders have a net worth of over \$1.0 million, and approximately 70% have a net worth of less than \$20.0 million. As a result, we expect our commercial human spaceflight offering will receive interest broadly across the spectrum of high net worth individuals. However, in the near term we expect the majority of our future astronauts will consist of individuals with a net worth of \$10.0 million or more.

[Table of Contents](#)

An October 2019 report by the Credit Suisse Research Institute estimated that in 2019 there were approximately 2.0 million high net worth individuals globally with a net worth greater than \$10.0 million and that this group of individuals was expected to grow at a compound annual growth rate of approximately 5.9% through 2023. In light of this, we believe a significant market opportunity exists for a company that can provide high net worth individuals with the opportunity to enjoy a spaceflight experience in comfort and safety. We believe this is supported by more than 600 reservations, backed by more than \$80.0 million of deposits, that we had received as of December 31, 2019. This customer backlog represents approximately \$120.0 million in expected future revenue upon payment of the full ticket price for SpaceShipTwo flights. Though we have not been actively selling our astronaut experience since 2014, having established proof of market and in order to focus resources on community management and achieving technological feasibility of our spaceflight system, we have received more than 3,000 flight reservation inquiries since SpaceShipTwo's first spaceflight in December 2018.

Our Strategy

Using our proprietary and reusable flight system, and supported by a distinctive, Virgin-branded customer experience, we are seeking to provide affordable, safe, reliable and regular transportation to space. To accomplish this we intend to:

- **Launch our commercial program for human spaceflight.** In December 2018, we flew our first spaceflight using our current SpaceShipTwo, VSS Unity. This marked the first ever flight of a vehicle designed for commercial service to take humans into space and was the first crewed space launch from U.S. soil since 2011. In February 2019, we flew VSS Unity to space for a second time and, in addition to the two pilots, carried a crew member in the cabin. The crew member was able to unbuckle her seatbelt and float around the cabin in weightlessness – another first for a commercial space vehicle. All five crew members flown across these two flights were thereafter awarded official U.S. government commercial astronaut wings in recognition of having traveled more than 50 miles above sea level. We are now in the final phases of readying our commercial spaceflight program. As part of this preparatory work, we are transitioning our operational headquarters to our purpose-built facility at Spaceport America in New Mexico and completing the final work on VSS Unity for commercial service, including the installation of the cabin interior. The interior furnishings and fixtures are also being installed at Spaceport America, along with finalizing everything needed to prepare our first future astronauts for flight. We expect to conclude the final portion of the flight test program from Spaceport America and expect successful completion of those tests.
- **Expand the fleet to increase our flight rate.** We will commence commercial operations with our SpaceShipTwo spaceship, VSS Unity, and our WhiteKnightTwo carrier aircraft, VMS Eve, which together comprise our spaceflight system. We believe these craft will be sufficient to meet our initial operating plan. We have two additional SpaceShipTwo vehicles under construction, as well an additional WhiteKnightTwo carrier undergoing design engineering. We plan to expand the fleet to a total of five SpaceShipTwo vehicles in service by the end of 2023, which should allow us to increase our annual flight rate. Beyond that, we plan to identify opportunities to expand to additional spaceports.
- **Lower operating costs.** We are focused on developing and implementing manufacturing efficiencies in an effort to decrease the manufacturing cost per spaceship. Additionally, we expect that, as we commence commercial operations, our staff will become more efficient in various aspects of operations and maintenance such that we can reduce operating costs.
- **Leverage our proprietary technology and deep manufacturing experience to augment our product and service offerings and expand into adjacent and international markets.** We have developed an extensive set of vertically integrated aerospace development capabilities and technologies. While our primary focus for the foreseeable future will be on commercializing human space flight, we expect to explore the application of our proprietary technologies and our capabilities in areas such as design, engineering, composites manufacturing, high-speed propulsion and production for other commercial and government uses. Among other opportunities, we believe our technology could be used to develop supersonic and hypersonic vehicles that drastically reduce travel time for point-to-point international travel. By leveraging our technology and operations, we believe we will also have an opportunity in the future to pursue growth opportunities abroad, including by potentially opening additional spaceports or entering into other arrangements with different international government agencies.

Our Competitive Strengths

[Table of Contents](#)

We are a pioneer in commercial human spaceflight with a mission to enhance our world by opening space to a broad audience and facilitating the further exploration of our Universe. We believe that our collective expertise, coupled with the following strengths, will allow us to build our business and expand our market opportunity and addressable markets:

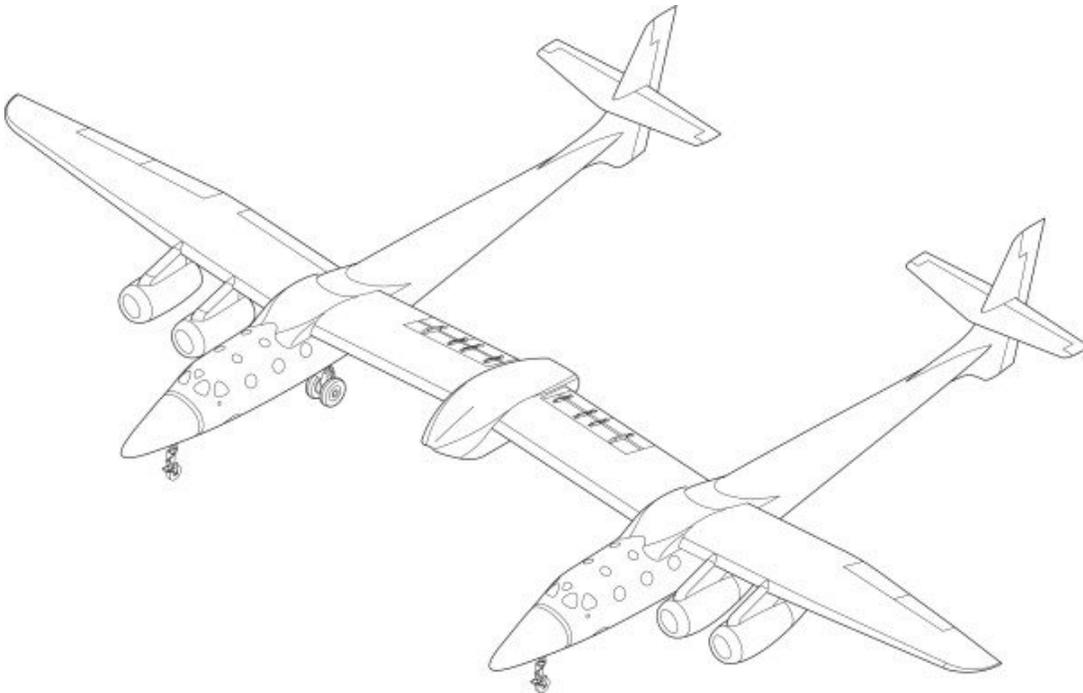
- ***Differentiated technology and capabilities.*** Over the last 14 years, we have developed reusable vehicles and capabilities that will allow us to move towards airline-like operations for spaceflight, and which were the basis for the FAA granting us our commercial space launch license in 2016. Our spaceflight system and our hybrid rocket motor together enable the following key differentiators:
 - horizontal take-off and landing using winged vehicles and traditional airplane runway infrastructure that enable a familiar airplane-like experience;
 - use of our carrier aircraft for first stage of flight and then to air launch our spaceship, which is intended to maximize the safety and efficiency of our spaceflight system;
 - pilot-designed and pilot-flown missions to avoid complexity, aiding safety and customer confidence;
 - carbon composite construction that is light, strong and fatigue-resistant;
 - robust, controllable spaceship hybrid rocket motor propulsion system that can be safely shut down at any time during the flight;
 - large cabin with multiple windows, allowing for an experience of weightlessness and easy access to views of Earth for all of our future astronauts; and
 - unique “wing-feathering” system, designed to enable a safe, aerodynamically controlled re-entry into the Earth’s atmosphere on a repeated basis.
- ***Significant backlog and pent up customer demand.*** While not yet in commercial service, we have already received significant interest from Future Astronauts and research organizations. As of December 31, 2019, we had reservations for SpaceShipTwo flights from more than 600 future astronauts, backed by more than \$80.0 million of deposits. We have not been actively selling new reservations for spaceflights since the end of 2014, having established a proof of market and in order to focus resources on community management and achieving commercialization. Since then, we have experienced strong additional demand, and as of February 23, 2020, 7,957 people have registered interest in flying to space since our first spaceflight in December 2018. Additionally, as of December 31, 2019, we have flown eight payloads for space research missions and intend to pursue similar arrangements for additional research missions.
- ***Iconic brand associated with unique customer experiences.*** The Virgin brand carries an exceptional reputation worldwide for innovation, customer experience, adventure and luxury. We have been planning our customer journey for many years and have refined our plans with the help of our potential Future Astronauts, many of whom are highly regarded enthusiasts who are committed to optimizing their experience and our success. The customer journey starts with marketing materials, the sales process and the purchase of a reservation. It concludes with a four-day spaceflight experience at Spaceport America, which includes a personalized training and preparation program designed to optimize the flight for each individual and incorporates an activity program for friends and family. The experience culminates in an epic flight to space and a full video and photographic record of the journey. A clear customer service ethos and language runs through the entire journey and is managed by our uniquely experienced team.
- ***Limited competition with natural barriers to entry.*** Entry into the commercial human spaceflight market requires a significant financial investment as well as many years of high-risk development. We were formed in 2004 after the basic architecture of our spaceflight system had been proven in prototype form, which in itself had taken several years. In total, development of our platform and capabilities has required more than \$1 billion in total investment to date. We are aware of only one competitor with a similar investment of time and money in suborbital commercial human spaceflight, which is taking a different approach to its launch architecture.
- ***Highly specialized and vertically integrated design and manufacturing capabilities.*** We possess highly specialized and vertically integrated capabilities that enable us to manage and control almost all elements of design and manufacturing of our spaceship and our carrier aircraft. These capabilities include a unique approach to rapid prototyping that enables us to design, build and test innovative ideas quickly; a deep composite manufacturing experience with broad applications in the aerospace industry; a dedicated team and facilities that support the full development of our high performance vehicles; and a 200,000 square foot campus in Mojave, California that houses fabrication, assembly, hangar and office space and where we perform ground and test operations.

[Table of Contents](#)

- **First purpose-built commercial spaceport.** Spaceport America was designed to be both functional and beautiful and sets the stage for our Future Astronaut experiences. Spaceport America is located in New Mexico on 27 square miles of desert landscape, with access to 6,000 square miles of restricted airspace running from the ground to space. The restricted airspace will facilitate frequent and consistent flight scheduling and the desert climate and its relatively predictable weather provide favorable launch conditions year-round. The facilities were built with our operational requirements and our future astronauts in mind, with comprehensive consideration of its practical function, while also providing the basis for the Virgin Galactic experience.
- **Experienced management team and an industry-leading flight team.** Our management team has extensive experience in the aerospace industry and includes the former Chief of Staff for NASA as well as NASA’s Space Shuttle Launch Integration Manager. Our team of pilots is similarly experienced, with over 216 years of flight experience, and includes former test pilots for NASA, the Royal Air Force, the U.S. Air Force, the Italian Air Force and the U.S. Marine Corps. Our commercial team is managed and supported by individuals with significant experience and success in building and growing a commercial spaceflight brand, selling spaceflight reservations and managing the pre-flight Future Astronaut community.

Our Assets

Over the course of the last 14 years, we have developed an extensive portfolio of proprietary technologies that are embodied in the highly specialized vehicles that we have created to enable commercial spaceflight. These technologies underpin our carrier aircraft, WhiteKnightTwo; our spaceship, SpaceShipTwo; our hybrid rocket motor; and our safety systems. Our Future Astronauts will interact with these technologies at our operational headquarters at Spaceport America, the first purpose-built commercial spaceport, and our terminal hangar building, officially designated the “Virgin Galactic Gateway to Space.”



Our Carrier Aircraft—WhiteKnightTwo

WhiteKnightTwo is a twin-fuselage, custom-built aircraft designed to carry SpaceShipTwo up to an altitude of approximately 45,000 feet, where the spaceship is released for its flight into space. Using WhiteKnightTwo rather than a standard ground-launch rocket reduces the energy requirements for suborbital launch because SpaceShipTwo is not required to propel its way through the higher density atmosphere nearer to the Earth’s surface. Air-launch systems have a well-established flight heritage, having first been used in 1947 for the Bell X-1, which was the first aircraft to break the speed of sound, and later

Table of Contents

on the X-15 suborbital spaceplane, in Northrop Grumman's Pegasus rocket system and in earlier versions of our spaceflight system.

WhiteKnightTwo's differentiating design features include its twin boom configuration, its single-piece composite main wing spars, its reusability as the first stage in our space launch system, and its versatility as a flight trainer for SpaceShipTwo. The twin boom configuration allows for a spacious central area between the two fuselages to accommodate a launch pylon to which SpaceShipTwo can be attached. Both cabins of WhiteKnightTwo are constructed on the same tooling and are identical in shape and size to the SpaceShipTwo cabin. The commonality of cabin construction provides cost savings in production, as well as operational, maintenance and crew training advantages. WhiteKnightTwo's all-composite material construction substantially reduces weight as compared to an all-metal design. WhiteKnightTwo is powered by four Pratt and Whitney Canada commercial turbo-fan engines. Spare parts and maintenance support are readily available for these engines, which have reliably been in service on WhiteKnightTwo since December 2008.

WhiteKnightTwo's pilots are all located in the right boom during all phases of ground operations and flight. At present, the left boom is empty and unpressurized; however, in the future, the left boom could be used to accommodate additional crew, research experiments or astronauts training for their flight on SpaceShipTwo, if permitted by relevant government agencies.

WhiteKnightTwo's 140 foot main wing houses large air brakes that allow WhiteKnightTwo to mimic SpaceShipTwo's aerodynamic characteristics in the gliding portions of SpaceShipTwo's flight. This provides our pilots with a safe, cost-effective and repeatable way to train for SpaceShipTwo's final approach and landing.

Our carrier aircraft is designed to launch thousands of SpaceShipTwo flights over its lifetime. As such, our spaceflight launch platform system provides a flight experience and economics akin to commercial airplanes and offers a considerable economic advantage over other potential launch architectures. Additionally, our carrier aircraft has a rapid turnaround time, enabling it to provide frequent spaceflight launch services for multiple spaceships.

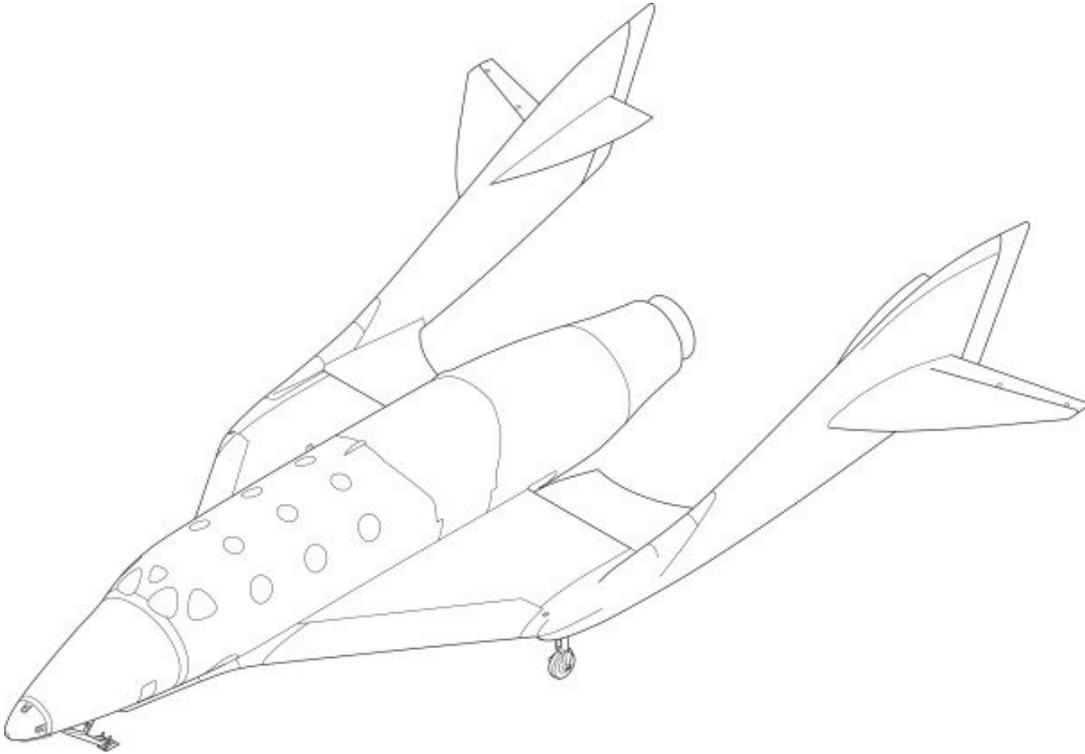
WhiteKnightTwo was designed with a view towards supporting our international expansion and has a range of up to 2,800 nautical miles. As a result, WhiteKnightTwo can transport SpaceShipTwo virtually anywhere in the world to establish launch capabilities.

WhiteKnightTwo has completed an extensive, multi-year test program that included a combination of ground and flight tests. As of December 31, 2019, WhiteKnightTwo had completed a total of 271 test flights, with more than 50 of those being dual tests with SpaceShipTwo.

Although specifically designed to carry and launch SpaceShipTwo, WhiteKnightTwo has various features that we believe could enable it to be used by third parties as a strategic asset for other commercial and government applications. These features include:

- **Expansive payload and high altitude capacity.** When not carrying SpaceShipTwo, WhiteKnightTwo has been designed to carry a payload pod that can carry up to 30,000 pounds at takeoff and 17,000 pounds at landing. Additionally, WhiteKnightTwo is designed to slow cruise and reach a maximum altitude above 55,000 feet, making it potentially compatible with, and differentiated for, a variety of government-related mission profiles.
- **Symmetrical airflow and benign separation characteristics.** The symmetrical airflow design helps provide payload stability and facilitates a clean separation from the payload.
- **Interchangeable payload pods.** Pods can be used by various customers for a variety of missions. Payload pods can be swapped easily on the WhiteKnightTwo, requiring limited redesign of a pod to change payloads. This provides customers with significant optionality in terms of what payloads can be carried on the WhiteKnightTwo. Payload pods can be pressurized and human rated, allowing commercial off-the-shelf parts to be used to accelerate the development of the customer's specific payload or technology. We have an existing contract to design a payload pod for a major U.S. aerospace prime contractor for a U.S. government contract that they have been awarded and expect to pursue similar work for commercial and government customers in the future.

[Table of Contents](#)



Our Spaceship—SpaceShipTwo

SpaceShipTwo is a reusable spaceship with the capacity to carry two pilots and up to six spaceflight participants into space before returning them safely to the Earth's surface. SpaceShipTwo is a rocket-powered winged vehicle designed to achieve a maximum speed of over Mach 3 and has a flight duration, measured from WhiteKnightTwo's takeoff to landing, of up to approximately 90 minutes.

SpaceShipTwo begins each mission by being carried to an altitude of approximately 45,000 feet by WhiteKnightTwo before being released. Upon release, the pilot fires the hybrid rocket motor, which propels SpaceShipTwo on a near vertical trajectory into space. Once in space, after providing the Future Astronauts with amazing views and a weightlessness experience, a pilot uses the spaceship's unique "wing-feathering" feature in order to prepare the vehicle for re-entry. The feathering system works like a shuttlecock in badminton, naturally orienting SpaceShipTwo into the desired re-entry position with minimal pilot and computer input. This re-entry position uses the entire bottom of the spaceship to create substantial drag, thereby slowing the vehicle to a safe re-entry speed and preventing unacceptable heat loads. Once SpaceShipTwo has descended back to an altitude of approximately 55,000 feet above sea level, the wings un-feather back to their normal position, and SpaceShipTwo glides back to the base for a runway landing, similar to NASA's Space Shuttle or any other glider. SpaceShipTwo's feathering system was originally developed and tested on SpaceShipTwo's smaller predecessor, SpaceShipOne.

SpaceShipTwo's cabin has been designed to maximize customer safety and comfort. A dozen windows in the cabin line the sides and ceiling of the spaceship, offering future astronauts the ability to view the black of space as well as stunning views of the Earth below. Exposure to G-forces during ascent and descent is mitigated by the use of an articulated seat that is upright during rocket boost and reclined during re-entry, enabling future astronauts to experience G-forces that peak at approximately 3 to 4 times the force of gravity during re-entry in a relatively comfortable and safe orientation.

With the exception of the rocket motor's fuel and oxidizer, which must be replenished after each flight, SpaceShipTwo is designed to be a reusable spaceship. Like WhiteKnightTwo, SpaceShipTwo was constructed with all-composite material construction, providing beneficial weight and fatigue characteristics.

[Table of Contents](#)

SpaceShipTwo, the VSS Unity, is completing an extensive flight test program that began in March 2010 with the original SpaceShipTwo, VSS Enterprise, which was built by a third-party contractor. This flight program was designed to include a rigorous series of ground and flight tests. As of December 31, 2019, the SpaceShipTwo configuration had completed more than 50 test flights of which eight were rocket-powered test flights, including successful flights to space in December 2018 and February 2019. Prior to commercial launch, SpaceShipTwo will complete its flight test program at Spaceport America in New Mexico.

Hybrid Rocket Motor

SpaceShipTwo is powered by a hybrid rocket propulsion system, RocketMotorTwo, that propels it on a trajectory into space. The term “hybrid” rocket refers to the fact that the rocket uses a solid fuel grain and a liquid oxidizer. The fuel cartridge is consumed over the course of a flight, meaning that each SpaceShipTwo flight will require the installation of a new, replaceable fuel cartridge that contains the fuel used in the hybrid rocket motor. Assembly of this fuel cartridge is designed to be efficient and to support high rates of commercial spaceflight. In 2018, RocketMotorTwo set a Guinness world record as the most powerful hybrid rocket to be used in manned flight, and in February 2019 it was accepted into the permanent collection of the National Air and Space Museum.

RocketMotorTwo has been designed to provide required mission performance capability with a focus on safety, reliability and economy. Its design benefits from critical safety features including its ability to be shut down safely at any time and its limited number of moving parts, which increases reliability and robustness for human spaceflight. Furthermore, the motor is made from a benign substance that needs no special or hazardous storage.

Our in-house propulsion team is in the process of upgrading our fuel cartridge production plant to increase the production rate and to reduce unit production cost in order to accommodate planned growth in the SpaceShipTwo fleet and drive increasingly attractive per-flight economics.

Safety Systems

We have designed our spaceflight system with a fundamental focus on safety. Important elements of our safety design include:

- ***Horizontal takeoff and landing.*** We believe that launching SpaceShipTwo from WhiteKnightTwo offers several critical safety advantages. Among other advantages, horizontal launch generally requires less fuel, oxidizer and pressurant on board than would otherwise be required. Moreover, the horizontal launch method allows increased time for pilots and crew to respond to any potential problems that may arise with the spaceship or its propulsion system. As such, if the pilots observe a problem while SpaceShipTwo is still mated to WhiteKnightTwo, they can quickly and safely return to the ground without releasing SpaceShipTwo. Furthermore, if potential concerns emerge after release from WhiteKnightTwo, SpaceShipTwo can simply glide back to the runway.
- ***WhiteKnightTwo engine reliability.*** Highly reliable and rigorously tested jet engines made by Pratt and Whitney Canada power the first 45,000 feet of the journey to space.
- ***Two pilots per vehicle.*** Two pilots will fly in each WhiteKnightTwo and SpaceShipTwo. Having a second pilot in the vehicles spreads the workload and provides critical redundancies.
- ***Design of RocketMotorTwo.*** RocketMotorTwo is a simple and robust, human-rated spaceflight rocket motor with no turbo-pumps or complicated machinery. This rocket offers simple shut-off control at any point in the trajectory, unlike a traditional solid rocket motor.
- ***Feathering system.*** Our unique wing feathering technology provides self-correcting capability that requires limited pilot input for SpaceShipTwo to align properly for re-entry.
- ***Astronaut preparation.*** Each of our Future Astronauts will go through a customized medical screening and flight preparation process, including training for use of communication systems, flight protocols, emergency procedures and G-force training. In addition, initial customer questionnaires and health tracking have been completed and are maintained in a comprehensive and secure medical database.

[Table of Contents](#)

- **Full mission abort capability.** Due to our air-launch configuration, there are various safety mechanisms at different points in the flight in the case of an aborted mission. For example, if pre-launch release criteria are not met, the SpaceShipTwo is designed to remain attached to the carrier aircraft and make a smooth, mated landing. In the event of an abort in a short-burn duration, the spaceship pilot may choose to fly a parabolic, gliding recovery. For longer duration burns, pilots will continue to climb to configure a feathered re-entry and establish a gliding recovery at nominal altitudes.

Spaceport America

The Future Astronauts' flight preparation and experience will take place at Spaceport America, the first purpose-built commercial spaceport in the world. Spaceport America is located in New Mexico on 27 square miles of desert landscape and includes a space terminal, hangar facilities and a 12,000 foot runway. The facility has access to 6,000 square miles of restricted airspace running from the ground to space. The restricted airspace will facilitate frequent and consistent flight scheduling, and the desert climate and its relatively predictable weather provide favorable launch conditions year-round. The development costs of Spaceport America were largely funded by the State of New Mexico. Our license from the FAA includes Spaceport America as a location from which we can launch and land our spaceflight system.

The terminal hangar building, officially designated the "Virgin Galactic Gateway to Space," was designed to be both functional and beautiful, matching future astronauts' high expectations of a Virgin-branded facility and delivering an aesthetic consistent with the Virgin Galactic experience. The form of the building in the landscape and its interior spaces capture the drama and mystery of spaceflight, reflecting the thrill of space travel for our future astronauts. The LEED-Gold certified building has ample capacity to accommodate our staff, our customer training and preparation facilities and our fleet of vehicles.

The Astronaut Journey

Our goal is to offer our Future Astronauts an unmatched but affordable opportunity to experience spaceflight safely and without the need for any special prior experience or significant prior training and preparation. We have worked diligently for over a decade to plan every aspect of the customer's journey to become an astronaut, drawing on a world-class team with extensive experience with human spaceflight, high-end customer experiences and reliable transportation system operations and safety. We have had the considerable advantage of building and managing our initial community of Future Astronauts, comprised of individuals from over 60 countries who have made reservations to fly on SpaceShipTwo. This community is actively engaged, allowing us to understand the style of customer service and experience expected before, during and after each flight. We have used customer input to ensure that each customer's journey with us, from end to end, will represent a pinnacle life experience and achievement.

The journey begins with a personalized and consultative sales process. Once the reservation transaction is completed, the customer receives an "onboarding" call from our direct sales organization, known as our "Astronaut Office", in London and is provided with a personalized welcome pack. This pack contains a desktop model of the spaceship, a Future Astronaut community membership card and other branded assets, along with a video message and personal letter from Sir Richard Branson welcoming the Future Astronaut into the Virgin Galactic family. Future Astronauts are kept apprised of community activity and company news through an app-accessed customer portal. Once we commence commercial operations, this portal will be the principal tool by which we will provide and receive necessary information from our future astronauts in preparation for their spaceflights.

Prior to traveling to Spaceport America to begin his or her journey, each future astronaut will be required to complete a medical history questionnaire. In addition to completing this questionnaire, each future astronaut will also undergo a physical exam with an aerospace medicine specialist, typically within six months of flight. Some future astronauts may be asked for additional testing as indicated by their health status. Based on our observations in tests involving a large group of our future astronauts, we believe that the vast majority of people who want to travel to space in our program will not be prevented from doing so by health or fitness considerations.

Pre-Flight Training

Future Astronauts will participate in three days of pre-flight training at Spaceport America. The spaceflight is expected to occur on the fourth day of the astronaut experience.

[Table of Contents](#)

Pre-flight training will include classroom education, mock-up training and time spent with the mission's fellow Future Astronauts and crew. The purpose of this training is to prepare the customers to safely experience the spaceflight, particularly the key attributes of the unique sensation of weightlessness and the feeling of dramatic acceleration upon launch.

We have worked with training experts, behavioral health experts, experienced flight technicians, and experienced government astronauts in order to customize training for our suborbital missions. This program is expected to include training for emergency egress, flight communication systems, flight protocols, seat ingress and egress and will meet all training requirements prescribed by applicable regulation.

The training program has been built on the philosophy that familiarization with the systems, procedures, equipment and personnel that will be involved in the actual flight will make the Future Astronaut more comfortable and allow the customer to focus his or her attention on having the best possible experience. As a result, most training is expected to involve hands-on activities with real flight hardware or with high fidelity mock-ups.

Although broadly similar for each flight, the training program and the flight schedule may vary slightly depending on the backgrounds, personalities, physical health of the astronauts and weather and other conditions. Additionally, we expect to review, assess and modify the program regularly as we gain commercial experience.

The Spaceflight Experience

On the morning of their flight to space, the Future Astronauts will head out to the spaceport for their final flight briefings and preparation. Future Astronauts will change into personal, custom-designed flight suits developed and fabricated by Under Armour via brand partnership. The Future Astronauts will then meet up with their fellow Future Astronauts and board SpaceShipTwo, which will already be mated to the WhiteKnightTwo.

The spaceship cabin has been designed, like the spaceport interior, to deliver an aesthetic consistent with our brand values and to optimize the flight experience. User experience features are expected to include strategically positioned high definition video cameras, flight data displays and cabin lighting. Virgin Group companies are renowned for their interior design, particularly in the aviation industry. That experience and reputation has been brought to bear on both spaceship and spaceport interiors in an effort to optimize the customer journey.

Once all future astronauts are safely onboard and the pilots have coordinated with the appropriate regulatory and operational groups, WhiteKnightTwo will take-off and climb to an altitude of approximately 45,000 feet. Once at altitude, the pilots will perform all necessary vehicle and safety checks and then will release SpaceShipTwo from WhiteKnightTwo. Within seconds, the rocket motor will be fired, instantly producing acceleration forces of up to 4Gs as the spaceship undertakes a near vertical climb and achieves speeds of more than Mach 3.

The rocket motor will fire for approximately 60 seconds, burning all of its propellant, and the spaceship will coast up to apogee. Our astronauts will be able to exit their seats and experience weightlessness, floating about the cabin and positioning themselves at one of the dozen windows around the cabin sides and top. The vehicle's two pilots will maneuver the spaceship in order to give the astronauts spectacular views of the Earth and an opportunity to look out into the blackness of space. While the astronauts are enjoying their time in space, SpaceShipTwo's pilots will have reconfigured the spaceship into its feathered re-entry configuration.

After enjoying several minutes of weightlessness, our astronauts will maneuver back to their own seats to prepare for re-entry. We have conducted seat egress and ingress testing in weightlessness to verify that our astronauts will be able to return to their seats quickly and safely. Our personalized seats, custom-designed to support each astronaut safely during each phase of flight, will cushion the astronauts as the spaceship rapidly decelerates upon re-entry. Our astronauts will enjoy the journey back into the Earth's atmosphere at which time the vehicle's wings will be returned to their normal configuration, and the spaceship will glide back to the original runway from which the combined WhiteKnightTwo and SpaceShipTwo pair had taken off less than two hours prior. Upon landing, astronauts will disembark and join family and friends to celebrate their achievements and receive their astronaut wings.

[Table of Contents](#)

Sales and Marketing

As of December 31, 2019, we had reservations for over 600 spaceflight tickets and more than \$80.0 million in deposits, representing potential revenue of approximately \$120 million. Through strong capabilities in community management we have high retention rates, despite deposits being refundable. We believe these sales are largely attributable to the strength and prominence of the Virgin Galactic brand, which has driven many of our future astronauts directly to us with inbound requests. For example, as of February 23, 2020, over 7,957 individuals registered interest in a spaceflight reservation on our website since the December 2018 spaceflight. We have also benefited from Richard Branson's personal network to generate new inquiries and reservation sales, as well as referrals from existing reservation holders. As we transition to full commercialization, we intend to take a more active role in marketing and selling our spaceflight experience.

Given that sales of spaceflights are consultative and generally require a one-on-one sales approach, we intend to go to market using our direct sales organization. Our direct sales organization, known as the "Astronaut Office", is headquartered in London, England. The Astronaut Office also actively manages our Future Astronaut community and sits within our commercial team, which has additional responsibilities including the management of related social channels, public relations, brand management and brand partnerships, including those with Under Armour and Land Rover.

We intend to expand the reach of our direct sales organization using a global network of high-end travel professionals that we refer to as "Accredited Space Agents". Our Accredited Space Agents consist of high-end travel professionals worldwide that we hand-picked and individually trained to sell our spaceflights. Accredited Space Agents have contracted with us to sell spaceflight reservations and, while they actively sell other travel experiences, are precluded from selling spaceflight experiences from any other provider.

We are continuing to evaluate and develop our marketing strategy in anticipation of commercial operations and believe our existing direct sales organization, together with our available network of Accredited Space Agents, possess the people, processes, systems and experience we will need to support profitable and fast-growing commercial operations.

We have historically sold spaceflight tickets at a price point of up to \$250,000 per ticket. However, given the expected demand for human spaceflight experiences and the limited available capacity, we expect the price of our tickets to increase for a period of time upon resuming sales activities. We also anticipate offering premium pricing options for future astronauts with an interest in further customizing or enhancing their astronaut journey.

Research and Education Applications

In addition to the potential market for human space travel, we believe our existing technology has potential application in other ancillary markets, such as research and education. Historically, the ability to perform research and education activities in space has been limited by the same challenges facing human spaceflight, including the significant cost associated with traveling to space and the limited physical capacity available for passengers or other payloads. Additionally, the long launch lead times and the low launch rate for these journeys make it difficult to run an experiment quickly or to fly repeated experiments, and there has traditionally been a significant delay in a researcher's ability to obtain the data from the experiment once the journey was complete. Moreover, traditional spaceflight is hard on research payloads due to the high G-loads at launch. As a result, researchers have attempted to use parabolic aircraft and drop towers to create moments of microgravity and conduct significant research activities. While these solutions help address cost concerns, they offer only seconds of microgravity per flight and do not offer access to the upper atmosphere or space, rapid re-flight or, in the case of drop towers and sounding rockets, the opportunity for the principal investigator to fly with the scientific payload. We believe our existing spaceflight system addresses many of these issues by providing:

- researchers the ability to accompany and monitor their experiments in space;
- the ability to fly payloads repeatedly, which can enable lower cost and iterative experiments;
- prompt access to experiments following landing;
- access to a large payload capacity; and
- in the case of sounding rockets, dramatically gentler G-loading.

[Table of Contents](#)

We believe the demand for access to suborbital research is likely to come from educational and commercial research institutions across a broad range of technical disciplines. Multiple government agencies and research institutions have expressed interest in contracting with us to deliver research payloads to space and to conduct suborbital experiments. We have flown eight payloads for research-related missions and we expect research missions to form an important part of our launch manifest in the future.

Design, Development and Manufacturing

Our development and manufacturing team consists of over 500 talented and dedicated engineers, technicians and professionals with thousands of years of combined design, engineering, manufacturing and flight test experience from a wide variety of the world's leading research, commercial and military aerospace organizations.

We have developed extensive vertically integrated aerospace development capabilities for developing, manufacturing and testing aircraft and related propulsion systems. These capabilities encompass preliminary systems and vehicle design and analysis, detail design, manufacturing, ground testing, flight testing and post-delivery support and maintenance. We believe our unique approach and rapid prototyping capabilities enable innovative ideas to be designed quickly and built and tested with process rigor. In addition, we have expertise in configuration management and developing documentation needed to transition our technologies and systems to commercial applications. We believe our breadth of capabilities, experienced and cohesive team, and culture would be difficult to re-create and can be easily leveraged on the future design, build and test of transformational aerospace vehicles.

The first vehicle we manufactured was VSS Unity, the second SpaceShipTwo. Leveraging the extensive design engineering invested in VSS Unity, we are currently manufacturing additional spaceships based on that design, at a substantially lower cost. In addition, we are manufacturing rocket motors to support growth of our commercial operations over time.

Additionally, we have developed a significant amount of know-how, expertise and capabilities that we believe we can leverage to capture growing demand for innovative, agile and low-cost development projects for third parties, including contractors, government agencies and commercial service providers. We are actively exploring strategic relationships to develop new applications for our technologies and to develop new aerospace technologies for commercial and transportation applications that we believe will accelerate progress within relevant industries and enhance our growth.

All of our manufacturing operations, which include among others fabrication, assembly, warehouse and both ground and test operations, are located in Mojave, California at the Air and Space Port, where our campus spans over 200,000 square feet. This location provides us with year-round access to airspace for various flight test programs. We believe having all manufacturing operations located at this campus facilitates rapid experimentation of new concepts, which is key to delivering innovation.

Additional Potential Applications of our Technology

We believe we can leverage our robust platform of advanced technologies, significant design, engineering and manufacturing experience, and thousands of hours of flight training to develop additional aerospace applications, including, among others, supersonic and hypersonic point-to-point travel. Supersonic and hypersonic aircraft are aircraft capable of traveling at speeds faster than the speed of sound and five times the speed of sound, respectively. We believe a significant market opportunity exists for vehicles with this capability, as they could be used to drastically reduce international travel times. Other potential applications of our technology include urban air mobility, or the ability to enable rapid, reliable transportation within cities and urban areas; captive carry and launch services; and high altitude long endurance vehicles. While our primary focus for the foreseeable future will be on commencing and managing our commercial human spaceflight operations, we expect to continue to explore and evaluate the application of our technologies into these and other ancillary applications.

[Table of Contents](#)

Competition

The commercial spaceflight industry is still developing and evolving but we expect it to be highly competitive. Currently, our primary competitor in establishing a suborbital commercial human spaceflight market is Blue Origin, a privately-funded company that is seeking to develop a vertically-launched, suborbital spaceship. In addition, we are aware of several large, well-funded, public and private entities actively engaged in developing competitive products within the aerospace industry, including SpaceX and Boeing. While these companies are currently focused on providing orbital spaceflight transportation to government agencies, a fundamentally different product from ours, we cannot ensure that one or more of these companies will not shift their focus to include suborbital spaceflight and directly compete with us in the future.

Many of our current and potential competitors are larger and have substantially greater resources than we do. They may also be able to devote greater resources to the development of their current and future technologies or the promotion and sale of their offerings, or to offer lower prices. Our current and potential competitors may also establish cooperative or strategic relationships amongst themselves or with third parties that may further enhance their resources and offerings. Further, it is possible that domestic or foreign companies or governments, some with greater experience in the aerospace industry or greater financial resources than we possess, will seek to provide products or services that compete directly or indirectly with our products and services in the future. Any such foreign competitor could potentially, for example, benefit from subsidies from or other protective measures by its home country.

We believe our ability to compete successfully as a commercial provider of human spaceflight does and will depend on a number of factors including the price of our offerings, consumer confidence in the safety of our offerings, consumer satisfaction for the experiences we offer, and the frequency and availability of our offerings. We believe that we compete favorably on the basis of these factors.

Intellectual Property

Our success depends in part upon our ability to protect our core technology and intellectual property. We attempt to protect our intellectual property rights, both in the United States and abroad, through a combination of patent, trademark, copyright and trade secret laws, as well as nondisclosure and invention assignment agreements with our consultants and employees, and we seek to control access to and distribution of, our proprietary information through non-disclosure agreements with our vendors and business partners. Unpatented research, development and engineering skills make an important contribution to our business, but we pursue patent protection when we believe it is possible and consistent with our overall strategy for safeguarding intellectual property.

Virgin Trademark License Agreement

We possess certain exclusive and non-exclusive rights to use the name and brand “Virgin Galactic” and the Virgin signature logo pursuant to an amended and restated trademark license agreement (the “Amended TMLA”). Our rights under the Amended TMLA are subject to certain reserved rights and pre-existing licenses granted by Virgin to third parties. In addition, for the term of the Amended TMLA, to the extent the Virgin Group does not otherwise have a right to place a director on our board of directors, we have agreed to provide Virgin with the right to appoint one director to our board of directors, provided the designee is qualified to serve on the board under all applicable corporate governance policies and applicable regulatory and listing requirements.

Unless terminated earlier, the Amended TMLA will have an initial term of 25 years expiring October 2044, subject to up to two additional 10-year renewals by mutual agreement of the parties. The Amended TMLA may be terminated by Virgin upon the occurrence of a number of specified events, including if:

- we commit a material breach of our obligations under the Amended TMLA (subject to a cure period, if applicable);
- we materially damage the Virgin brand;
- we use the brand name “Virgin Galactic” outside of the scope of the activities licensed under the Amended TMLA (subject to a cure period);
- we become insolvent;
- we undergo a change of control to an unsuitable buyer, including to a competitor of Virgin;

Table of Contents

- we fail to make use of the “Virgin Galactic” brand to conduct our business;
- we challenge the validity or entitlement of Virgin to own the “Virgin” brand; or
- the commercial launch of our services does not occur by a fixed date or thereafter if we are unable to undertake any commercial flights for paying passengers for a specified period (other than in connection with addressing a significant safety issue).

Upon any termination or expiration of the Amended TMLA, unless otherwise agreed with Virgin, we will have 90 days to exhaust, return or destroy any products or other materials bearing the licensed trademarks, and to change our corporate name to a name that does not include any of the licensed trademarks, including the Virgin name.

Pursuant to the terms of the Amended TMLA, we are obligated to pay Virgin quarterly royalties equal to the greater of (a) a low single-digit percentage of our gross sales and (b) (i) prior to the first spaceflight for paying future astronauts, a mid-five figure amount in dollars and (ii) from our first spaceflight for paying future astronauts, a low-six figure amount in dollars, which increases to a low-seven figure amount in dollars over a four-year ramp up and thereafter increases in correlation with the consumer price index. In relation to certain sponsorship opportunities, a higher, mid-double-digit percentage royalty on related gross sales applies.

The Amended TMLA also contains, among other things, customary mutual indemnification provisions, representations and warranties, information rights of Virgin and restrictions on our and our affiliates’ ability to apply for or obtain registration for any confusingly similar intellectual property to that licensed to us pursuant to the Amended TMLA. Furthermore, Virgin is generally responsible for the protection, maintenance, enforcement and protection of the licensed intellectual property, including the Virgin brand, subject to our step-in rights in certain circumstances.

All Virgin and Virgin-related trademarks are owned by Virgin and our use of such trademarks is subject to the terms of the Amended TMLA, including our adherence to Virgin’s quality control guidelines and granting Virgin customary audit rights over our use of the licensed intellectual property.

Spacecraft Technology License Agreement

We are party to a Spacecraft Technology License Agreement, as amended, with Mojave Aerospace Ventures, LLC (“MAV”) pursuant to which we possess a non-exclusive, worldwide license under certain patents and patent applications, including improvements that have been reduced to practice within a specified period. Unless terminated earlier, the term of this license agreement will expire on the later of a fixed date and the expiration date of the last to expire of the patent rights granted under the agreement. The license agreement and the associated licenses granted thereunder may be terminated if we commit a material breach of our obligations under the agreement that is uncured for more than 30 days, or if we become insolvent.

Under the terms of the license agreement, we are obligated to pay MAV license fees and royalties through the later of a fixed date and the expiration date of the last to expire of the patent rights granted under the agreement of (a) a low-single-digit percentage of our commercial spaceflight operating revenue, subject to an annual cap that is adjusted annually for changes in the consumer price index, (b) a low-single-digit percentage of our gross operating revenue on the operation of spacecraft, and (c) a mid-single-digit percentage of our gross sales revenue of spacecraft sold to third parties.

Regulatory

Federal Aviation Administration

The regulations, policies and guidance issued by the FAA apply to the use and operation of our spaceflight system. When we operate our spaceflight system as “launch vehicles,” meaning a vehicle built to operate in, or place a payload or human beings in, space, and a suborbital rocket, the FAA’s commercial space transportation requirements apply. Operators of launch vehicles are required to have proper licenses, permits and authorizations from the FAA and comply with the FAA’s insurance requirements for third-party liability and government property. Congress enacted a law prohibiting the FAA from issuing regulations until 2023 for the safety of persons on launch vehicles such as SpaceShipTwo and WhiteKnightTwo, unless a death or serious injury, or event that could have led to a death or serious injury, were to occur earlier. Once this law expires, we may face increased and more expensive regulation from the FAA relating to our spaceflight activities. The FAA has an open notice of proposed rulemaking process relating to commercial launch that could impact our operations. While we are monitoring these developments, we cannot predict the timing, scope or terms of any proposed rulemaking relating to commercial launch.

[Table of Contents](#)

When not operating as launch vehicles, our spaceflight system vehicles are regulated as experimental aircraft by the FAA. The FAA is responsible for the regulation and oversight of matters relating to experimental aircraft, the control of navigable air space, the qualification of flight personnel, flight training practices, compliance with FAA aircraft certification and maintenance, and other matters affecting air safety and operations.

We have a current FAA Reusable Launch Vehicle Operator License that allows test and payload revenue flights from both Mojave, California and Spaceport America, New Mexico. Prior to being able to carry spaceflight participants, we are required by the FAA to submit final integrated vehicle performance results conducted in an operational flight environment, including final configuration of critical systems and aspects of the environmental control system and human factors performance. We expect to be able to submit these results to the FAA during the first half of 2020.

Failure to comply with the FAA's aviation or space transportation regulations may result in civil penalties or private lawsuits, or the suspension or revocation of licenses or permits, which would prevent us from operating our spaceflight system.

Informed Consent and Waiver

Our commercial human spaceflight operations and any third-party claims that arise from our operation of spaceflights are subject to federal and state laws governing informed consents and waivers of claims, including under the Commercial Space Launch Amendments Act of 2004 ("CSLA") and the New Mexico Space Flight Informed Consent Act ("SFICA").

Under U.S. federal law and the CSLA, operators of spaceflights are required to obtain informed consent from both participants and members of crew for any commercial human spaceflight. In addition, the CSLA requires that an operator must obtain any spaceflight participant's informed consent before receiving compensation or making an agreement to fly. While compensation is not defined in regulation or statute, the FAA does not consider refundable deposits for future spaceflight to be compensation. Moreover, the CSLA established a three-tiered indemnification system, subject to appropriations, for a portion of claims by third parties for injury, damage or loss that result from a commercial spaceflight incident. All operators with an FAA-license for commercial launches and reentries are covered by this federal indemnification and are required to carry insurance in amounts up to the maximum probable loss level likely to occur in an accident subject to a cap. In the instance of a catastrophic loss, U.S. law provides that the federal government will pay up to \$3.0 billion to indemnify the operator above the levels covered by insurance.

Additionally, the SFICA offers spaceport-related companies protection in New Mexico, where we will conduct our commercial operations, from lawsuits from passengers on space vehicles where spaceflight participants provide informed consent and a waiver of claims. This law generally provides coverage to operators, manufacturers and suppliers, and requires operators to maintain at least \$1.0 million in insurance for all spaceflight activities. The SFICA will automatically be repealed in July 2021 unless New Mexico chooses to extend it.

At this time, no such claim regarding these informed consent provisions has been brought in New Mexico or in federal courts, and we are unable to determine whether the immunity provided by the CSLA, the SFICA or other applicable laws or regulations would be upheld by U.S. or foreign courts. The various federal and state regulations regarding informed consent for suborbital commercial spaceflight are evolving, and we continue to monitor these developments. However, we cannot predict the timing, scope or terms of any other state, federal or foreign regulations relating to informed consent and waivers of claims relating to commercial human spaceflight.

International Traffic in Arms Regulations and Export Controls

Our spaceflight business is subject to, and we must comply with, stringent U.S. import and export control laws, including the International Traffic in Arms Regulations ("ITAR") and the U.S. Export Administration Regulations (the "EAR"). The ITAR generally restrict the export of hardware, software, technical data, and services that have defense or strategic applications. The EAR similarly regulate the export of hardware, software, and technology that has commercial or "dual-use" applications (i.e., for both military and commercial applications) or that have less sensitive military or space-related applications that are not subject to the ITAR. The regulations exist to advance the national security and foreign policy interests of the United States.

Table of Contents

The U.S. government agencies responsible for administering the ITAR and the EAR have significant discretion in the interpretation and enforcement of these regulations. The agencies also have significant discretion in approving, denying, or conditioning authorizations to engage in controlled activities. Such decisions are influenced by the U.S. government's commitments to multilateral export control regimes, particularly the Missile Technology Control Regime with respect to the spaceflight business.

Many different types of internal controls and efforts are required to ensure compliance with such export control rules. In particular, we are required to maintain a registration under the ITAR; determine the proper licensing jurisdiction and classification of products, software and technology; and obtain licenses or other forms of U.S. government authorizations to engage in activities, including the performance of services for foreign persons, related to and that support our spaceflight business. The authorization requirements include the need to get permission to release controlled technology to foreign person employees and other foreign persons. The inability to secure and maintain necessary licenses and other authorizations could negatively affect our ability to compete successfully or to operate our spaceflight business as planned. Any changes in the export control regulations or U.S. government licensing policy, such as that necessary to implement U.S. government commitments to multilateral control regimes, may restrict our operations.

Failures by us to comply with export control laws and regulations could result in civil or criminal penalties, fines, investigations, more onerous compliance requirements, loss of export privileges, debarment from government contracts, or limitations on our ability to enter into contracts with the U.S. government.

Employees

Our employees are critical to our success. As of December 31, 2019, we had 721 employees and 185 contractors. Prior to joining our company, many of our employees had prior experience working for a wide variety of reputed research, commercial and military aerospace and non-aerospace organizations. To date, we have not experienced any work stoppages, and we consider our relationship with our employees to be good.

Facilities

We operate primarily at two locations in California and New Mexico. All of our facilities are located on land that is leased from third parties. We believe that such facilities meet our current and future anticipated needs.

We maintain more than 200,000 square feet of manufacturing and operations facilities at the Mojave Air and Space Port in Mojave, California. This campus includes six main operational buildings and several storage buildings under separate lease agreements that collectively house fabrication, assembly, warehouse, office and test operations. These facilities are leased pursuant to several agreements, which generally have two- or three-year initial terms coupled with renewal options. Several leases are either operating in renewal periods or on a month-to-month basis.

We will conduct our commercial operations at Spaceport America in Sierra County, New Mexico. Located on more than 25 square miles of desert landscape and with access to more than 6,000 square miles of protected airspace, Spaceport America is the world's first purpose-built commercial spaceport and is home to the Virgin Galactic Gateway to Space terminal. State and local governments in New Mexico have invested more than \$200.0 million in Spaceport America, with Virgin Galactic serving as the facility's anchor tenant under a 20-year lease scheduled to expire in 2028, subject to our right to extend the term for an additional five years.

Available Information

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the internet at the SEC's website at www.sec.gov. Our SEC filings are also available free of charge on the Investor Information page of our website at virgingalactic.com as soon as reasonably practicable after they are filed with or furnished to the SEC. Our website and the information contained on or through that site are not incorporated into this Annual Report on Form 10-K.

[Table of Contents](#)

Item 1A. Risk Factors

Our operations and financial results are subject to various risks and uncertainties including those described below. You should consider carefully the risks and uncertainties described below, in addition to other information contained in this Annual Report on Form 10-K, including our consolidated financial statements and related notes. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties that we are unaware of, or that we currently believe are not material, may also become important factors that adversely affect our business. If any of the following risks or others not specified below materialize, our business, financial condition and results of operations could be materially and adversely affected. In that case, the trading price of our common stock could decline.

Risks Related to Our Business

We have incurred significant losses since inception, we expect to incur losses in the future and we may not be able to achieve or maintain profitability.

We have incurred significant losses since inception. We incurred net losses of \$210.9 million, \$138.1 million and \$138.2 million for the years ended December 31, 2019, 2018 and 2017, respectively. While we have generated limited revenue from flying payloads into space, we have not yet started commercial human spaceflight operations, and it is difficult for us to predict our future operating results. As a result, our losses may be larger than anticipated, and we may not achieve profitability when expected, or at all, and even if we do, we may not be able to maintain or increase profitability.

We expect our operating expenses to increase over the next several years as we move towards commercial launch of our human spaceflight operations, continue to attempt to streamline our manufacturing process, increase our flight cadence, hire more employees and continue research and development efforts relating to new products and technologies. These efforts may be more costly than we expect and may not result in increased revenue or growth in our business. Any failure to increase our revenue sufficiently to keep pace with our investments and other expenses could prevent us from achieving or maintaining profitability or positive cash flow. Furthermore, if our future growth and operating performance fail to meet investor or analyst expectations, or if we have future negative cash flow or losses resulting from our investment in acquiring future astronauts or expanding our operations, this could have a material adverse effect on our business, financial condition and results of operations.

The success of our business will be highly dependent on our ability to effectively market and sell human spaceflights.

We have generated only limited revenue from spaceflight, and we expect that our success will be highly dependent, especially in the foreseeable future, on our ability to effectively market and sell human spaceflight experiences. We have limited experience in marketing and selling human spaceflights, which we refer to as our astronaut experience, and if we are unable to utilize our current sales organization effectively, or to expand our sales organization as needed, in order to adequately target and engage our potential future astronauts, our business may be adversely affected. To date, we have primarily sold the reservations for our astronaut experience to future astronauts through direct sales and have sold a limited number of seats each year. Since 2014, we have not been actively selling our astronaut experience. Our success depends, in part, on our ability to attract new future astronauts in a cost-effective manner. While we had a backlog of over 600 future astronauts as of December 31, 2019, and as of February 23, 2020 have received 7,957 inbound inquiries since December 2018, we expect that we will need to make significant investments in order to attract new future astronauts. Our sales growth is dependent upon our ability to implement strategic initiatives and these initiatives may not be effective in generating sales growth. In addition, marketing campaigns, which we have not historically utilized, can be expensive and may not result in the acquisition of future astronauts in a cost-effective manner, if at all. Further, as our brand becomes more widely known, future marketing campaigns or brand content may not attract new future astronauts at the same rate as past campaigns or brand content. If we are unable to attract new future astronauts, our business, financial condition and results of operations will be harmed.

[Table of Contents](#)

The market for commercial human spaceflight has not been established with precision, is still emerging and may not achieve the growth potential we expect or may grow more slowly than expected.

The market for commercial human spaceflight has not been established with precision and is still emerging. Our estimates for the total addressable market for commercial human spaceflight are based on a number of internal and third-party estimates, including our current backlog, the number of consumers who have expressed interest in our astronaut experience, assumed prices at which we can offer our astronaut experience, assumed flight cadence, our ability to leverage our current manufacturing and operational processes and general market conditions. While we believe our assumptions and the data underlying our estimates are reasonable, these assumptions and estimates may not be correct and the conditions supporting our assumptions or estimates may change at any time, thereby reducing the predictive accuracy of these underlying factors. As a result, our estimates of the annual total addressable market for our astronaut experience, as well as the expected growth rate for the total addressable market for that experience, may prove to be incorrect.

We anticipate commencing commercial spaceflight operations with a single spaceflight system, which has yet to complete flight testing. Any delay in completing the flight test program and the final development of our existing spaceflight system would adversely impact our business, financial condition and results of operations.

We expect to commence commercial operations with a single spaceflight system. While we have already been issued our commercial launch license, we must clear a final set of provisos related to the analysis of test flight data before we fly commercial passengers using our spaceflight system. Following each flight test we undertake, we analyze the resulting data and determine whether additional changes to the spaceflight system are required. Historically, changes have been required and implementing those changes has resulted in additional delay and expense. For example, an unanticipated in-flight incident involving an earlier model of SpaceShipTwo manufactured and operated by a third-party contractor, led to the loss of that spaceship and significant delays in the planned launch of our spaceflight system as we addressed design and safety concerns, including with applicable regulators. If issues like this arise or recur, if our remediation measures and process changes do not continue to be successful or if we experience issues with manufacturing improvements or design and safety, the anticipated launch of our commercial human spaceflight operations could be delayed.

Any inability to operate our spaceflight system after commercial launch at our anticipated flight rate could adversely impact our business, financial condition and results operations.

Even if we complete development and commence commercial human spaceflight operations, we will be dependent on a single spaceflight system. To be successful, we will need to maintain a sufficient flight rate, which will be negatively impacted if we are not able to operate that system for any reason. We may be unable to operate our current spaceflight system at our anticipated flight rate for a number of reasons, including, but not limited to, unexpected weather patterns, maintenance issues, pilot error, design and engineering flaws, natural disasters, changes in governmental regulations or in the status of our regulatory approvals or applications or other events that force us to cancel or reschedule flights. In the event we need to replace any components or hardware of our spaceflight system, there are limited numbers of replacement parts available, some of which have significant lead time associated with procurement or manufacture, so any unplanned failures could result in reduced numbers of flights and significant delays to our planned growth.

Our ability to grow our business depends on the successful development of our spaceflight systems and related technology, which is subject to many uncertainties, some of which are beyond our control.

Our current primary research and development objectives focus on the development of our existing and any additional spaceflight systems and related technology. If we do not complete this development in our anticipated timeframes or at all, our ability to grow our business will be adversely affected. The successful development of our spaceflight systems and related technology involves many uncertainties, some of which are beyond our control, including:

- timing in finalizing spaceflight systems design and specifications;
- successful completion of flight test programs, including flight safety tests;
- our ability to obtain additional applicable approvals, licenses or certifications from regulatory agencies, if required, and maintaining current approvals, licenses or certifications;
- performance of our manufacturing facilities despite risks that disrupt productions, such as natural disasters and hazardous materials;
- performance of a limited number of suppliers for certain raw materials and supplied components;

Table of Contents

- performance of our third-party contractors that support our research and development activities;
- our ability to maintain rights from third parties for intellectual properties critical to our research and development activities; and
- our ability to continue funding and maintain our current research and development activities.

Unsatisfactory safety performance of our spaceflight systems could have a material adverse effect on our business, financial condition and results of operation.

We manufacture and operate highly sophisticated spaceflight systems and offer a specialized astronaut experience that depends on complex technology. While we have built operational processes to ensure that the design, manufacture, performance and servicing of our spaceflight systems meet rigorous quality standards, there can be no assurance that we will not experience operational or process failures and other problems, including through manufacturing or design defects, pilot error, cyber-attacks or other intentional acts, that could result in potential safety risks. Any actual or perceived safety issues may result in significant reputational harm to our businesses, in addition to tort liability, maintenance, increased safety infrastructure and other costs that may arise. Such issues with our spaceflight systems or customer safety could result in delaying or cancelling planned flights, increased regulation or other systemic consequences. Our inability to meet our safety standards or adverse publicity affecting our reputation as a result of accidents, mechanical failures, damages to customer property or medical complications could have a material adverse effect on our business, financial condition and results of operation.

We may not be able to convert our orders in backlog or inbound inquiries about flight reservations into revenue.

As of December 31, 2019, our backlog represents orders from more than 600 future astronauts for which we have not yet recognized revenue. While many of these orders were accompanied by a significant deposit, the deposits are largely refundable and the reservations may be cancelled under certain circumstances without penalty. As a result, we may not receive revenue from these orders, and any order backlog we report may not be indicative of our future revenue. Additionally, as of February 23, 2020 we have received 7,957 inbound inquiries about flight reservations since SpaceShipTwo's first spaceflight in December 2018, but those inquiries have not been accompanied by any deposits, and we may not be able to convert those inquiries into reservations and revenue.

Many events may cause a delay in our ability to fulfill reservations or cause planned spaceflights to not be completed at all, some of which may be out of our control, including unexpected weather patterns, maintenance issues, natural disasters, changes in governmental regulations or in the status of our regulatory approvals or applications or other events that force us to cancel or reschedule flights. If we delay spaceflights or if future astronauts reconsider their astronaut experience, those future astronauts may seek to cancel their planned spaceflight, and may obtain a full or partial refund.

We have not yet tested flights at our anticipated full passenger capacity of our spaceship.

To date, only one of our test flights included a crew member that was not a pilot. The success of our human spaceflight operations will depend on our achieving and maintaining a sufficient level of passenger capacity on our spaceflights. We have not yet tested flights with a full cabin and it is possible that the number of passengers per flight may not meet our expectations for a number of factors, including maximization of the passenger experience and satisfaction. Any decrease from our assumptions in the number of passengers per flight could adversely impact our ability to generate revenue at the rate we anticipate.

Any delays in the development and manufacture of additional spaceflight systems and related technology may adversely impact our business, financial condition and results of operations.

We have previously experienced, and may experience in the future, delays or other complications in the design, manufacture, launch, production, delivery and servicing ramp of new spaceflight systems and related technology. If delays like this arise or recur, if our remediation measures and process changes do not continue to be successful or if we experience issues with planned manufacturing improvements or design and safety, we could experience issues in sustaining the ramp of our spaceflight system or delays in increasing production further.

If we encounter difficulties in scaling our delivery or servicing capabilities, if we fail to develop and successfully commercialize spaceflight technologies, if we fail to develop such technologies before our competitors, or if such technologies fail to perform as expected, are inferior to those of our competitors or are perceived as less safe than those of our competitors, our business, financial condition and results of operations could be materially and adversely impacted.

[Table of Contents](#)

If we are unable to adapt to and satisfy customer demands in a timely and cost-effective manner, our ability to grow our business may suffer.

The success of our business depends in part on effectively managing and maintaining our existing spaceflight system, manufacturing more spaceflight systems, operating a sufficient number of spaceflights to meet customer demand and providing future astronauts with an astronaut experience that meets or exceeds their expectations. If for any reason we are unable to manufacture new spaceflight systems or are unable to schedule spaceflights as planned, this could have a material adverse effect on our business, financial condition and results of operations. If our current or future spaceflight systems do not meet expected performance or quality standards, including with respect to customer safety and satisfaction, this could cause operational delays. In addition, any delay in manufacturing new spacecraft as planned could cause us to operate our existing spaceflight system more frequently than planned and in such a manner that may increase maintenance costs. Further, flight operations within restricted airspace require advance scheduling and coordination with government range owners and other users, and any high priority national defense assets will have priority in the use of these resources, which may impact our cadence of spaceflight operations or could result in cancellations or rescheduling. Any operational or manufacturing delays or other unplanned changes to our ability to operate spaceflights could have a material adverse effect on our business, financial condition and results of operations.

We may be unable to manage our future growth effectively, which could make it difficult to execute our business strategy.

If our operations continue to grow as planned, of which there can be no assurance, we will need to expand our sales and marketing, research and development, customer and commercial strategy, products and services, supply, and manufacturing and distribution functions. We will also need to continue to leverage our manufacturing and operational systems and processes, and there is no guarantee that we will be able to scale the business and the manufacture of spacecraft as currently planned or within the planned timeframe. The continued expansion of our business may also require additional manufacturing and operational facilities, as well as space for administrative support, and there is no guarantee that we will be able to find suitable locations or partners for the manufacture and operation of our spaceflight systems.

Our continued growth could increase the strain on our resources, and we could experience operating difficulties, including difficulties in hiring, training and managing an increasing number of pilots and employees, finding manufacturing capacity to produce our spaceflight systems and related equipment, and delays in production and spaceflights. These difficulties may result in the erosion of our brand image, divert the attention of management and key employees and impact financial and operational results. In addition, in order to continue to expand our fleet of spacecraft and increase our presence around the globe, we expect to incur substantial expenses as we continue to attempt to streamline our manufacturing process, increase our flight cadence, hire more employees, and continue research and development efforts relating to new products and technologies and expand internationally. If we are unable to drive commensurate growth, these costs, which include lease commitments, headcount and capital assets, could result in decreased margins, which could have a material adverse effect on our business, financial condition and results of operations.

Our prospects and operations may be adversely affected by changes in consumer preferences and economic conditions that affect demand for our spaceflights.

Because our business is currently concentrated on a single, discretionary product category, commercial human spaceflight, we are vulnerable to changes in consumer preferences or other market changes. The global economy has in the past, and will in the future, experience recessionary periods and periods of economic instability. During such periods, our potential future astronauts may choose not to make discretionary purchases or may reduce overall spending on discretionary purchases, which may include not scheduling spaceflight experiences or cancelling existing reservations for spaceflight experiences. There could be a number of other effects from adverse general business and economic conditions on our business, including insolvency of any of our third-party suppliers or contractors, decreased consumer confidence, decreased discretionary spending and reduced consumer demand for spaceflight experiences. Moreover, future shifts in consumer spending away from our spaceflight experience for any reason, including decreased consumer confidence, adverse economic conditions or heightened competition, could have a material adverse effect on our business, financial condition and results of operations. If such business and economic conditions are experienced in future periods, this could reduce our sales and adversely affect our profitability, as demand for discretionary purchases may diminish during economic downturns, which could have a material adverse effect on our business, financial condition and results of operations.

[Table of Contents](#)

Adverse publicity stemming from any incident involving us or our competitors, or an incident involving a commercial airline or other air travel provider, could have a material adverse effect on our business, financial condition and results of operations.

We are at risk of adverse publicity stemming from any public incident involving our company, our people or our brand. If our personnel or one of our spaceflight systems, or the personnel or spacecraft of one of our competitors or the personnel or aircraft of a commercial airline or governmental agency, were to be involved in a public incident, accident or catastrophe this could create an adverse public perception of spaceflight and result in decreased customer demand for spaceflight experiences, which could cause a material adverse effect on our business, financial conditions and results of operations. Further, if our personnel or our spaceflight systems were to be involved in a public incident, accident or catastrophe, we could be exposed to significant reputational harm or potential legal liability. Any reputational harm to our business could cause future astronauts with existing reservations to cancel their spaceflights and could significantly impact our ability to make future sales. The insurance we carry may be inapplicable or inadequate to cover any such incident, accident or catastrophe. In the event that our insurance is inapplicable or not adequate, we may be forced to bear substantial losses from an incident or accident.

Due to the inherent risks associated with commercial spaceflight, there is the possibility that any accident or catastrophe could lead to the loss of human life or a medical emergency.

Human spaceflight is an inherently risky activity that can lead to accidents or catastrophes impacting human life. For example, on October 31, 2014, VSS Enterprise, an earlier model of SpaceShipTwo manufactured and operated by a third-party contractor, had an accident during a rocket-powered test flight. The pilot was seriously injured, the co-pilot was fatally injured and the vehicle was destroyed. As part of its 2015 accident investigation report, the National Transportation Safety Board (the “NTSB”) determined that the probable cause of the accident related to the failure by a third-party contractor to consider and protect against the possibility that a single human error could result in a catastrophic hazard to the vehicle. After the accident, we assumed responsibility for the completion of the flight test program and submitted a report to the NTSB that listed the actions we were taking for reducing the likelihood and effect of human error. This included modification of the feather lock control mechanism to add automatic inhibits that would prevent inadvertent operation during safety critical periods of flight. We have implemented and repeatedly demonstrated the efficacy of these actions, including implementing more rigorous protocols and procedures for safety-critical aircrew actions, requiring additional training for pilots that focuses on response protocols for safety critical actions, and eliminating certain single-point human performance actions that could potentially lead to similar accidents. We believe the steps we have taken are sufficient to address the issues noted in the NTSB’s report; however, it is impossible to completely eliminate the potential for human error, and there is a possibility that other accidents may occur in the future as a result of human error or for a variety of other reasons, some of which may be out of our control. Any such accident could result in substantial losses to us, including reputational harm and legal liability, and, as a result, could have a material adverse effect on our business, financial condition and results of operations.

We may require substantial additional funding to finance our operations, but adequate additional financing may not be available when we need it, on acceptable terms or at all.

Prior to the Virgin Galactic Business Combination, we financed our operations and capital expenditures primarily through cash flows financed by V10. In the future, we could be required to raise capital through public or private financing or other arrangements. Such financing may not be available on acceptable terms, or at all, and our failure to raise capital when needed could harm our business. We may sell equity securities or debt securities in one or more transactions at prices and in a manner as we may determine from time to time. If we sell any such securities in subsequent transactions, our current investors may be materially diluted. Any debt financing, if available, may involve restrictive covenants and could reduce our operational flexibility or profitability. If we cannot raise funds on acceptable terms, we may not be able to grow our business or respond to competitive pressures.

[Table of Contents](#)

Certain future operational facilities may require significant expenditures in capital improvements and operating expenses to develop and foster basic levels of service needed by the spaceflight operation, and the ongoing need to maintain existing operational facilities requires us to expend capital.

As part of our growth strategy, we may utilize additional spaceports outside the United States. Construction of a spaceport or other facilities in which we conduct our operations may require significant capital expenditures to develop, and in the future we may be required to make similar expenditures to expand, improve or construct adequate facilities for our spaceflight operations. While Spaceport America was funded by the State of New Mexico and we intend to pursue similar arrangements in the future, we cannot assure that such arrangements will be available to us on terms similar to those we have with the State of New Mexico or at all. If we cannot secure such an arrangement, we would need to use cash flows from operations or raise additional capital in order to construct additional spaceports or facilities. In addition, as Spaceport America and any other facilities we may utilize mature, our business will require capital expenditures for the maintenance, renovation and improvement of such existing locations to remain competitive and maintain the value of our brand standard. This creates an ongoing need for capital, and, to the extent we cannot fund capital expenditures from cash flows from operations, we will need to borrow or otherwise obtain funds. If we cannot access the capital we need, we may not be able to execute on our growth strategy, take advantage of future opportunities or respond to competitive pressures. If the costs of funding new locations or renovations or enhancements at existing locations exceed budgeted amounts or the time for building or renovation is longer than anticipated, our business, financial condition and results of operations could be materially adversely affected.

We rely on a limited number of suppliers for certain raw materials and supplied components. We may not be able to obtain sufficient raw materials or supplied components to meet our manufacturing and operating needs, or obtain such materials on favorable terms, which could impair our ability to fulfill our orders in a timely manner or increase our costs of production.

Our ability to produce our current and future spaceflight systems and other components of operation is dependent upon sufficient availability of raw materials and supplied components, such as nitrous oxide, valves, tanks, special alloys, helium and carbon fiber, which we secure from a limited number of suppliers. Our reliance on suppliers to secure these raw materials and supplied components exposes us to volatility in the prices and availability of these materials. We may not be able to obtain sufficient supply of raw materials or supplied components, on favorable terms or at all, which could result in delays in manufacture of our spacecraft or increased costs. For example, there are only a few nitrous oxide plants around the world and if one or more of these plants were to experience a slowdown in operations or to shutdown entirely, we may need to qualify new suppliers or pay higher prices to maintain the supply of nitrous oxide needed for our operations.

In addition, we have in the past and may in the future experience delays in manufacture or operation as we go through the requalification process with any replacement third-party supplier, as well as the limitations imposed by ITAR and other restrictions on transfer of sensitive technologies. Additionally, the imposition of tariffs on such raw materials or supplied components could have a material adverse effect on our operations. Prolonged disruptions in the supply of any of our key raw materials or components, difficulty qualifying new sources of supply, implementing use of replacement materials or new sources of supply or any volatility in prices could have a material adverse effect on our ability to operate in a cost-efficient, timely manner and could cause us to experience cancellations or delays of scheduled spaceflights, customer cancellations or reductions in our prices and margins, any of which could harm our business, financial condition and results of operations.

Our spaceflight systems and related equipment may have shorter useful lives than we anticipate.

Our growth strategy depends in part on the continued operation of our current spaceflight system and related equipment, as well as the manufacture of other spaceflight systems in the future. Each spaceflight system has a limited useful life, which is driven by the number of cycles that the system undertakes. While the vehicle is designed for a certain number of cycles, known as the design life, there can be no assurance as to the actual operational life of a spaceflight system or that the operational life of individual components will be consistent with its design life. A number of factors impact the useful lives of the spaceflight systems, including, among other things, the quality of their design and construction, the durability of their component parts and availability of any replacement components, the actual combined environment experienced compared to the assumed combined environment for which the spaceflight systems were designed and tested and the occurrence of any anomaly or series of anomalies or other risks affecting the spaceflight systems during launch, flight and reentry. In addition, we are continually learning, and as our engineering and manufacturing expertise and efficiency increases, we aim to leverage this learning to be able to manufacture our spaceflight systems and related equipment using less of our currently installed equipment, which could render our existing inventory obsolete. Any continued improvements in spaceflight technology may make obsolete our existing spaceflight systems or any component of our spacecraft prior to the end of its life. If the spaceflight systems and related

[Table of Contents](#)

equipment have shorter useful lives than we currently anticipate, this may lead to greater maintenance costs than previously anticipated such that the cost to maintain the spacecraft and related equipment may exceed their value, which would have a material adverse effect on our business, financial condition and results of operations.

Failure of third-party contractors could adversely affect our business.

We are dependent on various third-party contractors to develop and provide critical technology, systems and components required for our spaceflight system. For example, each spaceflight currently requires replenishment of certain components of our RocketMotorTwo propulsion system that we obtain from third-party contractors. Should we experience complications with any of these components, which are critical to the operation of our spacecraft, we may need to delay or cancel scheduled spaceflights. We face the risk that any of our contractors may not fulfill their contracts and deliver their products or services on a timely basis, or at all. We have experienced, and may in the future experience, operational complications with our contractors. The ability of our contractors to effectively satisfy our requirements could also be impacted by such contractors' financial difficulty or damage to their operations caused by fire, terrorist attack, natural disaster or other events. The failure of any contractors to perform to our expectations could result in shortages of certain manufacturing or operational components for our spacecraft or delays in spaceflights and harm our business. Our reliance on contractors and inability to fully control any operational difficulties with our third-party contractors could have a material adverse effect on our business, financial condition and results of operations.

We expect to face intense competition in the commercial spaceflight industry and other industries in which we may develop products.

The commercial spaceflight industry is still developing and evolving, but we expect it to be highly competitive. Currently, our primary competitor in establishing a commercial suborbital spaceflight offering is Blue Origin, a privately funded company founded in 2000. In addition, we are aware of several large, well-funded, public and private entities actively engaged in developing products within the aerospace industry, including SpaceX and Boeing. While these companies are currently focused on providing orbital spaceflight transportation to government agencies, a fundamentally different product from ours, we cannot assure you that one or more of these companies will not shift their focus to include suborbital spaceflight and directly compete with us in the future.

Many of our current and potential competitors are larger and have substantially greater resources than we have and expect to have in the future. They may be able to devote greater resources to the development of their current and future technologies or the promotion and sale of their offerings, or offer lower prices. Our current and potential competitors may also establish cooperative or strategic relationships amongst themselves or with third parties that may further enhance their resources and offerings. Further, it is possible that domestic or foreign companies or governments, some with greater experience in the aerospace industry or greater financial resources than we possess, will seek to provide products or services that compete directly or indirectly with ours in the future. Any such foreign competitor, for example, could benefit from subsidies from, or other protective measures by, its home country.

We believe our ability to compete successfully as a commercial provider of human spaceflight does and will depend on a number of factors, which may change in the future due to increased competition, including the price of our offerings, consumer confidence in the safety of our offerings, consumer satisfaction for the experiences we offer, and the frequency and availability of our offerings. If we are unable to compete successfully, our business, financial condition and results of operations could be adversely affected.

We may in the future invest significant resources in developing new offerings and exploring the application of our proprietary technologies for other uses and those opportunities may never materialize.

While our primary focus for the foreseeable future will be on commercializing human spaceflight, we may invest significant resources in developing new technologies, services, products and offerings. However, we may not realize the expected benefits of these investments. In addition, we expect to explore the application of our proprietary technologies for other commercial and government uses, including, among other things, supersonic and hypersonic point-to-point travel. These anticipated technologies, however, are unproven and these products or technologies may never materialize or be commercialized in a way that would allow us to generate ancillary revenue streams. Relatedly, if such technologies become viable offerings in the future, we may be subject to competition from our competitors within the commercial spaceflight industry, some of which may have substantially greater monetary and knowledge resources than we have and expect to have in the future to devote to the development of these technologies. Further, under the terms of the Amended TMLA, our ability to operationalize some of the technologies may be dependent upon the consent of Virgin. Such competition or any limitations on

[Table of Contents](#)

our ability to take advantage of such technologies could impact our market share, which could have a material adverse effect on our business, financial condition and results of operations.

Such research and development initiatives may also have a high degree of risk and involve unproven business strategies and technologies with which we have limited operating or development experience. They may involve claims and liabilities (including, but not limited to, personal injury claims), expenses, regulatory challenges and other risks that we may not be able to anticipate. There can be no assurance that consumer demand for such initiatives will exist or be sustained at the levels that we anticipate, or that any of these initiatives will gain sufficient traction or market acceptance to generate sufficient revenue to offset any new expenses or liabilities associated with these new investments. Further, any such research and development efforts could distract management from current operations, and would divert capital and other resources from our more established offerings and technologies. Even if we were to be successful in developing new products, services, offerings or technologies, regulatory authorities may subject us to new rules or restrictions in response to our innovations that may increase our expenses or prevent us from successfully commercializing new products, services, offerings or technologies.

The “Virgin” brand is not under our control, and negative publicity related to the Virgin brand name could materially adversely affect our business.

We possess certain exclusive and non-exclusive rights to use the name and brand “Virgin Galactic” and the Virgin signature logo pursuant to the Amended TMLA. We believe the “Virgin” brand, is integral to our corporate identity and represents quality, innovation, creativity, fun, a sense of competitive challenge and employee-friendliness. We expect to rely on the general goodwill of consumers and our pilots and employees towards the Virgin brand as part of our internal corporate culture and external marketing strategy. The Virgin brand is also licensed to and used by a number of other companies unrelated to us and in a variety of industries, and the integrity and strength of the Virgin brand will depend in large part on the efforts and the licensor and any other licensees of the Virgin brand and how the brand is used, promoted and protected by them, which will be outside of our control. Consequently, any adverse publicity in relation to the Virgin brand name or its principals, or in relation to another Virgin-branded company over which we have no control or influence, could have a material adverse effect on our business, financial condition and results of operations.

If we fail to adequately protect our proprietary intellectual property rights, our competitive position could be impaired and we may lose valuable assets, generate reduced revenue and incur costly litigation to protect our rights.

Our success depends, in part, on our ability to protect our proprietary intellectual property rights, including certain methodologies, practices, tools, technologies and technical expertise we utilize in designing, developing, implementing and maintaining applications and processes used in our spaceflight systems and related technologies. To date, we have relied primarily on trade secrets and other intellectual property laws, non-disclosure agreements with our employees, consultants and other relevant persons and other measures to protect our intellectual property, and intend to continue to rely on these and other means, including patent protection, in the future. However, the steps we take to protect our intellectual property may be inadequate, and we may choose not to pursue or maintain protection for our intellectual property in the United States or foreign jurisdictions. We will not be able to protect our intellectual property if we are unable to enforce our rights or if we do not detect unauthorized use of our intellectual property. Despite our precautions, it may be possible for unauthorized third parties to copy our technology and use information that we regard as proprietary to create technology that competes with ours.

Further, the laws of some countries do not protect proprietary rights to the same extent as the laws of the United States, and mechanisms for enforcement of intellectual property rights in some foreign countries may be inadequate. To the extent we expand our international activities, our exposure to unauthorized copying and use of our technologies and proprietary information may increase. Accordingly, despite our efforts, we may be unable to prevent third parties from infringing upon, misappropriating or otherwise violating our technology and intellectual property.

We rely in part on trade secrets, proprietary know-how and other confidential information to maintain our competitive position. Although we enter into non-disclosure and invention assignment agreements with our employees, enter into non-disclosure agreements with our future astronauts, consultants and other parties with whom we have strategic relationships and business alliances and enter into intellectual property assignment agreements with our consultants and vendors, no assurance can be given that these agreements will be effective in controlling access to and distribution of our technology and proprietary information. Further, these agreements do not prevent our competitors from independently developing technologies that are substantially equivalent or superior to our products.

We rely on licenses from third parties for intellectual property that is critical to our business, and we would lose the rights to use such intellectual property if those agreements were terminated or not renewed.

Table of Contents

We rely on licenses from third parties for certain intellectual property that is critical to our branding and corporate identity, as well as the technology used in our spacecraft. Termination of our current or future license agreements could cause us to have to negotiate new or restated agreements with less favorable terms or cause us to lose our rights under the original agreements.

In the case of our branding, we will not own the Virgin brand or any other Virgin-related assets, as we will license the right to use the Virgin brand pursuant to the Amended TMLA. Virgin controls the Virgin brand, and the integrity and strength of the Virgin brand will depend in large part on the efforts and businesses of Virgin and the other licensees of the Virgin brand and how the brand is used, promoted and protected by them, which will be outside of our control. For example, negative publicity or events affecting or occurring at Virgin or other entities who use the Virgin brand, including transportation companies and/or other entities unrelated to us that presently or in the future may license the Virgin brand, may negatively impact the public's perception of us, which may have a material adverse effect on our business, contracts, financial condition, operating results, liquidity and prospects.

In addition, there are certain circumstances under which the Amended TMLA may be terminated in its entirety, including our material breach of the Amended TMLA (subject to a cure period, if applicable), our insolvency, our improper use of the Virgin brand, our failure to commercially launch a spaceflight for paying passengers by a specified date, if we are unable to undertake any commercial flights for paying passengers for a specified period (other than in connection with addressing a significant safety issue), and our undergoing of a change of control to an unsuitable buyer, including a competitor of VEL's group. Termination of the Amended TMLA would eliminate our rights to use the Virgin brand and may result in our having to negotiate a new or reinstated agreement with less favorable terms or cause us to lose our rights under the Amended TMLA, including our right to use the Virgin brand, which would require us to change our corporate name and undergo other significant rebranding efforts. These rebranding efforts may require significant resources and expenses and may affect our ability to attract and retain future astronauts, all of which may have a material adverse effect on our business, contracts, financial condition, operating results, liquidity and prospects.

In the case of a loss of technology used in our spaceflight systems, we may not be able to continue to manufacture certain components for our spacecraft or for our operations or may experience disruption to our manufacturing processes as we test and requalify any potential replacement technology. Even if we retain the licenses, the licenses may not be exclusive with respect to such component design or technologies, which could aid our competitors and have a negative impact on our business.

Protecting and defending against intellectual property claims may have a material adverse effect on our business.

Our success depends in part upon successful prosecution, maintenance, enforcement and protection of our owned and licensed intellectual property, including the Virgin brand and other intellectual property that we license from Virgin under the Amended TMLA. Under the terms of the Amended TMLA, Virgin has the primary right to take actions to obtain, maintain, enforce and protect the Virgin brand. If, following our written request, Virgin elects not to take an action to maintain, enforce or protect the Virgin brand, we may do so, at our expense, subject to various conditions including that so long as doing so would not have a material adverse effect on Virgin, any of Virgin's other licensees or the Virgin brand and we reasonably believe failing to do so would materially adversely affect our business. Should Virgin determine not to maintain, enforce or protect the Virgin brand, we and/or the Virgin brand could be materially harmed and we could incur substantial cost if we elect to take any such action.

To protect our intellectual property rights, we may be required to spend significant resources to monitor and protect these rights. Litigation may be necessary in the future to enforce our intellectual property rights and to protect our trade secrets. Such litigation could be costly, time consuming and distracting to management and could result in the impairment or loss of portions of our intellectual property. Furthermore, our efforts to enforce our intellectual property rights may be met with defenses, counterclaims and countersuits attacking the validity and enforceability of our intellectual property rights. Our inability to protect our proprietary technology, as well as any costly litigation or diversion of our management's attention and resources, could disrupt our business, as well as have a material adverse effect on our financial condition and results of operations. The results of intellectual property litigation are difficult to predict and may require us to stop using certain technologies or offering certain services or may result in significant damage awards or settlement costs. There is no guarantee that any action to defend, maintain or enforce our owned or licensed intellectual property rights will be successful, and an adverse result in any such proceeding could have a material adverse impact on our business, financial condition, operating results and prospects.

In addition, we may from time to time face allegations that we are infringing, misappropriating or otherwise violating the intellectual property rights of third parties, including the intellectual property rights of our competitors. We may be unaware of the intellectual property rights that others may claim cover some or all of our technology or services. Irrespective of the validity

[Table of Contents](#)

of any such claims, we could incur significant costs and diversion of resources in defending against them, and there is no guarantee any such defense would be successful, which could have a material adverse effect on our business, contracts, financial condition, operating results, liquidity and prospects.

Even if these matters do not result in litigation or are resolved in our favor or without significant cash settlements, these matters, and the time and resources necessary to litigate or resolve them, could divert the time and resources of our management team and harm our business, our operating results and our reputation.

We have government customers, which subjects us to risks including early termination, audits, investigations, sanctions and penalties.

We derive limited revenue from contracts with NASA and the U.S. government and may enter into further contracts with the U.S. or foreign governments in the future, and this subjects us to statutes and regulations applicable to companies doing business with the government, including the Federal Acquisition Regulation. These government contracts customarily contain provisions that give the government substantial rights and remedies, many of which are not typically found in commercial contracts and which are unfavorable to contractors. For instance, most U.S. government agencies include provisions that allow the government to unilaterally terminate or modify contracts for convenience, and in that event, the counterparty to the contract may generally recover only its incurred or committed costs and settlement expenses and profit on work completed prior to the termination. If the government terminates a contract for default, the defaulting party may be liable for any extra costs incurred by the government in procuring undelivered items from another source.

Some of our federal government contracts are subject to the approval of appropriations being made by the U.S. Congress to fund the expenditures under these contracts. In addition, government contracts normally contain additional requirements that may increase our costs of doing business, reduce our profits, and expose us to liability for failure to comply with these terms and conditions. These requirements include, for example:

- specialized disclosure and accounting requirements unique to government contracts;
- financial and compliance audits that may result in potential liability for price adjustments, recoupment of government funds after such funds have been spent, civil and criminal penalties, or administrative sanctions such as suspension or debarment from doing business with the U.S. government;
- public disclosures of certain contract and company information; and

Government contracts are also generally subject to greater scrutiny by the government, which can initiate reviews, audits and investigations regarding our compliance with government contract requirements. In addition, if we fail to comply with government contract laws, regulations and contract requirements, our contracts may be subject to termination, and we may be subject to financial and/or other liability under our contracts, the Federal Civil False Claims Act (including treble damages and other penalties), or criminal law. In particular, the False Claims Act's "whistleblower" provisions also allow private individuals, including present and former employees, to sue on behalf of the U.S. government. Any penalties, damages, fines, suspension, or damages could adversely affect our ability to operate our business and our financial results.

If we commercialize outside the United States, we will be exposed to a variety of risks associated with international operations that could materially and adversely affect our business.

As part of our growth strategy, we may leverage our initial U.S. operations to expand internationally. In that event, we expect that we would be subject to additional risks related to entering into international business relationships, including:

- restructuring our operations to comply with local regulatory regimes;
- identifying, hiring and training highly skilled personnel;
- unexpected changes in tariffs, trade barriers and regulatory requirements;
- economic weakness, including inflation, or political instability in foreign economies and markets;
- compliance with tax, employment, immigration and labor laws for employees living or traveling abroad;
- foreign taxes, including withholding of payroll taxes;
- the need for U.S. government approval to operate our spaceflight systems outside the United States;

Table of Contents

- foreign currency fluctuations, which could result in increased operating expenses and reduced revenue;
- government appropriation of assets;
- workforce uncertainty in countries where labor unrest is more common than in the United States; and
- disadvantages of competing against companies from countries that are not subject to U.S. laws and regulations, including anti-corruption laws and anti-money laundering regulations, as well as exposure of our foreign operations to liability under these regulatory regimes.

Our business is subject to a wide variety of extensive and evolving government laws and regulations. Failure to comply with such laws and regulations could have a material adverse effect on our business.

We are subject to a wide variety of laws and regulations relating to various aspects of our business, including with respect to our spaceflight system operations, employment and labor, health care, tax, privacy and data security, health and safety, and environmental issues. Laws and regulations at the foreign, federal, state and local levels frequently change, especially in relation to new and emerging industries, and we cannot always reasonably predict the impact from, or the ultimate cost of compliance with, current or future regulatory or administrative changes. We monitor these developments and devote a significant amount of management's time and external resources towards compliance with these laws, regulations and guidelines, and such compliance places a significant burden on management's time and other resources, and it may limit our ability to expand into certain jurisdictions. Moreover, changes in law, the imposition of new or additional regulations or the enactment of any new or more stringent legislation that impacts our business could require us to change the way we operate and could have a material adverse effect on our sales, profitability, cash flows and financial condition.

Failure to comply with these laws, such as with respect to obtaining and maintaining licenses, certificates, authorizations and permits critical for the operation of our business, may result in civil penalties or private lawsuits, or the suspension or revocation of licenses, certificates, authorizations or permits, which would prevent us from operating our business. For example, commercial space launches, reentry of our spacecraft and the operation of our spaceflight system in the United States require licenses and permits from certain agencies of the Department of Transportation, including the FAA, and review by other agencies of the U.S. Government, including the Department of Defense, Department of State, NASA, and Federal Communications Commission. License approval includes an interagency review of safety, operational, national security, and foreign policy and international obligations implications, as well as a review of foreign ownership. In 2016, the FAA granted us our commercial space launch license with a limited number of verification and validation steps that we must complete before we can include future astronauts on our spaceflights. While we are in the process of completing those steps, which includes submission to the FAA of final integrated vehicle performance results conducted in an operational flight environment, delays in FAA action allowing us to conduct spaceflights with future astronauts on board imposed by the agency could adversely affect our ability to operate our business and our financial results.

Additionally, the FAA and other state government agencies also enforce informed consent and cross-waiver requirements for spaceflight participants and have the authority to regulate training and medical requirements for crew. Certain related federal and state laws provide for indemnification or immunity in the event of certain losses. However, this indemnification is subject to limits, and money to be used for indemnification under federal laws is still subject to appropriation by Congress. Furthermore, no such claim regarding the immunity provided by these informed consent provisions has been brought in New Mexico or in federal courts, and we are unable to determine whether the protections provided by applicable laws or regulations would be upheld by U.S. or foreign courts.

Moreover, regulation of our industry is still evolving, and new or different laws or regulations could affect our operations, increase direct compliance costs for us or cause any third-party suppliers or contractors to raise the prices they charge us because of increased compliance costs. For example, the FAA has an open notice of proposed rulemaking relating to commercial space launches, which could affect us and our operations. Application of these laws to our business may negatively impact our performance in various ways, limiting the collaborations we may pursue, further regulating the export and re-export of our products, services, and technology from the United States and abroad, and increasing our costs and the time necessary to obtain required authorization. The adoption of a multi-layered regulatory approach to any one of the laws or regulations to which we are or may become subject, particularly where the layers are in conflict, could require alteration of our manufacturing processes or operational parameters which may adversely impact our business. Potential conflicts between U.S. policy and international law defining the altitude above the earth's surface where "space" begins and defining the status of, and obligations toward, spaceflight participants could introduce an additional level of legal and commercial complexity. We may not be in complete compliance with all such requirements at all times and, even when we believe we are in complete compliance, a regulatory agency may determine that we are not.

[Table of Contents](#)

We are subject to stringent U.S. export and import control laws and regulations. Unfavorable changes in these laws and regulations or U.S. government licensing policies, our failure to secure timely U.S. government authorizations under these laws and regulations, or our failure to comply with these laws and regulations could have a material adverse effect on our business, financial condition and results of operation.

Our business is subject to stringent U.S. import and export control laws and regulations as well as economic sanctions laws and regulations. We are required to import and export our products, software, technology and services, as well as run our operations in the United States, in full compliance with such laws and regulations, which include the U.S. Export Administration Regulations, the ITAR, and economic sanctions administered by the Treasury Department's Office of Foreign Assets Controls. Similar laws that impact our business exist in other jurisdictions. These foreign trade controls prohibit, restrict, or regulate our ability to, directly or indirectly, export, deemed export, re-export, deemed re-export or transfer certain hardware, technical data, technology, software, or services to certain countries and territories, entities, and individuals, and for end uses. If we are found to be in violation of these laws and regulations, it could result in civil and criminal liabilities, monetary and non-monetary penalties, the loss of export or import privileges, debarment and reputational harm.

Pursuant to these foreign trade control laws and regulations, we are required, among other things, to (i) maintain a registration under the ITAR, (ii) determine the proper licensing jurisdiction and export classification of products, software, and technology, and (iii) obtain licenses or other forms of U.S. government authorization to engage in the conduct of our spaceflight business. The authorization requirements include the need to get permission to release controlled technology to foreign person employees and other foreign persons. Changes in U.S. foreign trade control laws and regulations, or reclassifications of our products or technologies, may restrict our operations. The inability to secure and maintain necessary licenses and other authorizations could negatively impact our ability to compete successfully or to operate our spaceflight business as planned. Any changes in the export control regulations or U.S. government licensing policy, such as those necessary to implement U.S. government commitments to multilateral control regimes, may restrict our operations. Given the great discretion the government has in issuing or denying such authorizations to advance U.S. national security and foreign policy interests, there can be no assurance we will be successful in our future efforts to secure and maintain necessary licenses, registrations, or other U.S. government regulatory approvals.

Failure to comply with federal, state and foreign laws and regulations relating to privacy, data protection and consumer protection, or the expansion of current or the enactment of new laws or regulations relating to privacy, data protection and consumer protection, could adversely affect our business and our financial condition.

We collect, store, process, and use personal information and other customer data, including medical information, and we rely in part on third parties that are not directly under our control to manage certain of these operations and to collect, store, process and use payment information. Due to the volume and sensitivity of the personal information and data we and these third parties manage and expect to manage in the future, as well as the nature of our customer base, the security features of our information systems are critical. A variety of federal, state and foreign laws and regulations govern the collection, use, retention, sharing and security of this information. Laws and regulations relating to privacy, data protection and consumer protection are evolving and subject to potentially differing interpretations. These requirements may not be harmonized, may be interpreted and applied in a manner that is inconsistent from one jurisdiction to another or may conflict with other rules or our practices. As a result, our practices may not have complied or may not comply in the future with all such laws, regulations, requirements and obligations.

We expect that new industry standards, laws and regulations will continue to be proposed regarding privacy, data protection and information security in many jurisdictions, including the California Consumer Privacy Act, and the European e-Privacy Regulation, which is currently in draft form. We cannot yet determine the impact such future laws, regulations and standards may have on our business. Complying with these evolving obligations is costly. For instance, expanding definitions and interpretations of what constitutes "personal data" (or the equivalent) within the United States, the European Economic Area (the "EEA") and elsewhere may increase our compliance costs and legal liability.

As we have expanded our international presence, we are also subject to additional privacy rules, many of which, such as the European Union's General Data Protection Regulation (the "GDPR") and national laws supplementing the GDPR, such as in the United Kingdom, are significantly more stringent than those currently enforced in the United States. The law requires companies to meet stringent requirements regarding the handling of personal data of individuals located in the EEA. These more stringent requirements include expanded disclosures to inform future astronauts about how we may use their personal data through external privacy notices, increased controls on profiling future astronauts and increased rights for data subjects (including future astronauts and employees) to access, control and delete their personal data. In addition, there are mandatory data breach notification requirements. The law also includes significant penalties for non-compliance, which may result in monetary penalties of up to the higher of €20.0 million or 4% of a group's worldwide turnover for the preceding financial year

[Table of Contents](#)

for the most serious violations. The GDPR and other similar regulations require companies to give specific types of notice and informed consent is required for the placement of a cookie or similar technologies on a user's device for online tracking for behavioral advertising and other purposes and for direct electronic marketing, and the GDPR also imposes additional conditions in order to satisfy such consent, such as a prohibition on pre-checked tick boxes and bundled consents, thereby requiring future astronauts to affirmatively consent for a given purpose through separate tick boxes or other affirmative action.

A significant data breach or any failure, or perceived failure, by us to comply with any federal, state or foreign privacy or consumer protection-related laws, regulations or other principles or orders to which we may be subject or other legal obligations relating to privacy or consumer protection could adversely affect our reputation, brand and business, and may result in claims, investigations, proceedings or actions against us by governmental entities or others or other penalties or liabilities or require us to change our operations and/or cease using certain data sets. Depending on the nature of the information compromised, we may also have obligations to notify users, law enforcement or payment companies about the incident and may need to provide some form of remedy, such as refunds, for the individuals affected by the incident.

Failures in our technology infrastructure could damage our business, reputation and brand and substantially harm our business and results of operations.

If our main data center were to fail, or if we were to suffer an interruption or degradation of services at our main data center, we could lose important manufacturing and technical data, which could harm our business. Our facilities are vulnerable to damage or interruption from earthquakes, hurricanes, floods, fires, cyber security attacks, terrorist attacks, power losses, telecommunications failures and similar events. In the event that our or any third-party provider's systems or service abilities are hindered by any of the events discussed above, our ability to operate may be impaired. A decision to close the facilities without adequate notice, or other unanticipated problems, could adversely impact our operations. Any of the aforementioned risks may be augmented if our or any third-party provider's business continuity and disaster recovery plans prove to be inadequate. The facilities also could be subject to break-ins, computer viruses, sabotage, intentional acts of vandalism and other misconduct. Any security breach, including personal data breaches, or incident, including cybersecurity incidents, that we experience could result in unauthorized access to, misuse of or unauthorized acquisition of our or our future astronauts' data, the loss, corruption or alteration of this data, interruptions in our operations or damage to our computer hardware or systems or those of our future astronauts. Moreover, negative publicity arising from these types of disruptions could damage our reputation. We may not carry sufficient business interruption insurance to compensate us for losses that may occur as a result of any events that cause interruptions in our service. Significant unavailability of our services due to attacks could cause users to cease using our services and materially and adversely affect our business, prospects, financial condition and results of operations.

We use complex proprietary software in our technology infrastructure, which we seek to continually update and improve. Replacing such systems is often time-consuming and expensive, and can also be intrusive to daily business operations. Further, we may not always be successful in executing these upgrades and improvements, which may occasionally result in a failure of our systems. We may experience periodic system interruptions from time to time. Any slowdown or failure of our underlying technology infrastructure could harm our business, reputation and ability to acquire and serve our future astronauts, which could materially adversely affect our results of operations. Our disaster recovery plan or those of our third-party providers may be inadequate, and our business interruption insurance may not be sufficient to compensate us for the losses that could occur.

We are highly dependent on our senior management team and other highly skilled personnel, and if we are not successful in attracting or retaining highly qualified personnel, we may not be able to successfully implement our business strategy.

Our success depends, in significant part, on the continued services of our senior management team and on our ability to attract, motivate, develop and retain a sufficient number of other highly skilled personnel, including pilots, manufacturing and quality assurance, engineering, design, finance, marketing, sales and support personnel. Our senior management team has extensive experience in the aerospace industry, and we believe that their depth of experience is instrumental to our continued success. The loss of any one or more members of our senior management team, for any reason, including resignation or retirement, could impair our ability to execute our business strategy and have a material adverse effect on our business, financial condition and results of operations.

Competition for qualified highly skilled personnel can be strong, and we can provide no assurance that we will be successful in attracting or retaining such personnel now or in the future. We have not yet started commercial spaceflight operations, and our estimates of the required team size to support our estimated flight rates may require increases in staffing levels that may require significant capital expenditure. Further, any inability to recruit, develop and retain qualified employees may result in high employee turnover and may force us to pay significantly higher wages, which may harm our profitability. Additionally, we do not carry key man insurance for any of our management executives, and the loss of any key employee or

[Table of Contents](#)

our inability to recruit, develop and retain these individuals as needed, could have a material adverse effect on our business, financial condition and results of operations.

Any acquisitions, partnerships or joint ventures that we enter into could disrupt our operations and have a material adverse effect on our business, financial condition and results of operations.

From time to time, we may evaluate potential strategic acquisitions of businesses, including partnerships or joint ventures with third parties. We may not be successful in identifying acquisition, partnership and joint venture candidates. In addition, we may not be able to continue the operational success of such businesses or successfully finance or integrate any businesses that we acquire or with which we form a partnership or joint venture. We may have potential write-offs of acquired assets and/or an impairment of any goodwill recorded as a result of acquisitions. Furthermore, the integration of any acquisition may divert management's time and resources from our core business and disrupt our operations or may result in conflicts with our business. Any acquisition, partnership or joint venture may not be successful, may reduce our cash reserves, may negatively affect our earnings and financial performance and, to the extent financed with the proceeds of debt, may increase our indebtedness. We cannot ensure that any acquisition, partnership or joint venture we make will not have a material adverse effect on our business, financial condition and results of operations.

We are subject to many hazards and operational risks that can disrupt our business, including interruptions or disruptions in service at our primary facilities, which could have a material adverse effect on our business, financial condition and results of operations.

Our operations are subject to many hazards and operational risks inherent to our business, including general business risks, product liability and damage to third parties, our infrastructure or properties that may be caused by fires, floods and other natural disasters, power losses, telecommunications failures, terrorist attacks, human errors and similar events. Additionally, our manufacturing operations are hazardous at times and may expose us to safety risks, including environmental risks and health and safety hazards to our employees or third parties.

Moreover, our commercial spaceflight operations were recently moved to operate entirely out of a single facility, Spaceport America, in New Mexico, and our manufacturing operations are based in Mojave, California. Any significant interruption due to any of the above hazards and operational to the manufacturing or operation of our spaceflight systems at one of our primary facilities, including from weather conditions, growth constraints, performance by third-party providers (such as electric, utility or telecommunications providers), failure to properly handle and use hazardous materials, failure of computer systems, power supplies, fuel supplies, infrastructure damage, disagreements with the owners of the land on which our facilities are located, or damage sustained to our runway could result in manufacturing delays or the delay or cancellation of our spaceflights and, as a result, could have a material adverse effect on our business, financial condition and results of operations.

In addition, Spaceport America is run by a state agency, the New Mexico Spaceport Authority, and there may be delays or impacts to operations due to considerations unique to doing business with a government agency. For example, governmental agencies often have an extended approval process for service contracts, which may result in delays or limit the timely operation of our Spaceport America facilities.

Moreover, our insurance coverage may be inadequate to cover our liabilities related to such hazards or operational risks. In addition, passenger insurance may not be accepted or may be prohibitive to procure. Moreover, we may not be able to maintain adequate insurance in the future at rates we consider reasonable and commercially justifiable, and insurance may not continue to be available on terms as favorable as our current arrangements. The occurrence of a significant uninsured claim, or a claim in excess of the insurance coverage limits maintained by us, could harm our business, financial condition and results of operations.

Natural disasters, unusual weather conditions, epidemic outbreaks, terrorist acts and political events could disrupt our business and flight schedule.

The occurrence of one or more natural disasters such as tornadoes, hurricanes, fires, floods and earthquakes, unusual weather conditions, epidemic outbreaks, terrorist attacks or disruptive political events in certain regions where our facilities are located, or where our third-party contractors' and suppliers' facilities are located, could adversely affect our business. Natural disasters including tornados, hurricanes, floods and earthquakes may damage our facilities or those of our suppliers, which could have a material adverse effect on our business, financial condition and results of operations. Severe weather, such as rainfall, snowfall or extreme temperatures, may impact the ability for spaceflight to occur as planned, resulting in additional expense to reschedule the operation and customer travel plans, thereby reducing our sales and profitability. Terrorist attacks, actual or threatened acts of war or the escalation of current hostilities, or any other military or trade disruptions impacting our

[Table of Contents](#)

domestic or foreign suppliers of components of our products, may impact our operations by, among other things, causing supply chain disruptions and increases in commodity prices, which could adversely affect our raw materials or transportation costs. These events also could cause or act to prolong an economic recession in the United States or abroad. To the extent these events also impact one or more of our suppliers or contractors or result in the closure of any of their facilities or our facilities, we may be unable to maintain spaceflight schedules, provide other support functions to our astronaut experience or fulfill our other contracts. In addition, the disaster recovery and business continuity plans we have in place currently are limited and are unlikely to prove adequate in the event of a serious disaster or similar event. We may incur substantial expenses as a result of the limited nature of our disaster recovery and business continuity plans and, more generally, any of these events could cause consumer confidence and spending to decrease, which could adversely impact our commercial spaceflight operations.

We have identified two material weaknesses in our internal control over financial reporting and may identify additional material weaknesses in the future or otherwise fail to maintain an effective system of internal control, which may result in material misstatements of our financial statements or cause us to fail to meet our periodic reporting obligations.

In connection with the audit of our consolidated financial statements as of and for the years ended December 31, 2019 and 2018, we identified two material weaknesses in our internal control over financial reporting. 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 our annual or interim financial statements will not be prevented or detected on a timely basis. The first material weakness is related to the lack of a sufficient number of personnel to execute, review and approve all aspects of the financial statement close and reporting process. This material weakness may not allow for us to have proper segregation of duties and the ability to close our books and records and report our results, including required disclosures, on a timely basis. The second material weakness arises from the need to augment our information technology and application controls.

We are in the process of designing and implementing measures to improve our internal control over financial reporting to remediate the material weaknesses, primarily by implementing additional review procedures within our accounting and finance department, hiring additional staff, designing and implementing information technology and application controls in our financially significant systems, and, if appropriate, engaging external accounting experts to supplement our internal resources in our computation and review processes. While we are designing and implementing measures to remediate the material weaknesses, we cannot predict the success of such measures or the outcome of our assessment of these measures at this time. We can give no assurance that these measures will remediate either of the deficiencies in internal control or that additional material weaknesses or significant deficiencies in our internal control over financial reporting will not be identified in the future. Our failure to implement and maintain effective internal control over financial reporting could result in errors in our financial statements that may lead to a restatement of our financial statements or cause us to fail to meet our reporting obligations.

As a public company, we are generally required, pursuant to Section 404 of the Sarbanes-Oxley Act, to furnish a report by management on, among other things, the effectiveness of our internal control over financial reporting for each Annual Report on Form 10-K to be filed with the SEC, starting with our annual report for the year ending December 31, 2020. This assessment will need to include disclosure of any material weaknesses identified by our management in our internal control over financial reporting. Beginning with our Annual Report on Form 10-K for the year ending December 31, 2020, our independent registered public accounting firm will also be required to attest to the effectiveness of our internal control over financial reporting. We are required to disclose changes made in our internal control and procedures on a quarterly basis. To comply with the requirements of being a public company, we are undertaking, and expect to undertake, various actions, such as implementing new internal controls and procedures and hiring accounting or internal audit staff. Failure to comply with the Sarbanes-Oxley Act could potentially subject us to sanctions or investigations by the SEC, the New York Stock Exchange (the "NYSE") or other regulatory authorities, which would require additional financial and management resources.

Our operating results may fluctuate significantly, which makes our future operating results difficult to predict and could cause our operating results to fall below expectations or any guidance we may provide.

Our quarterly and annual operating results may fluctuate significantly, which makes it difficult for us to predict our future operating results. These fluctuations may occur due to a variety of factors, many of which are outside of our control, including:

- the number of flights we schedule for a period, the number of seats we are able to sell in any given spaceflight and the price at which we sell them;
- unexpected weather patterns, maintenance issues, natural disasters or other events that force us to cancel or reschedule flights;

Table of Contents

- the cost of raw materials or supplied components critical for the manufacture and operation of our spaceflight system;
- the timing and cost of, and level of investment in, research and development relating to our technologies and our current or future facilities;
- developments involving our competitors;
- changes in governmental regulations or in the status of our regulatory approvals or applications;
- future accounting pronouncements or changes in our accounting policies; and
- general market conditions and other factors, including factors unrelated to our operating performance or the operating performance of our competitors.

The individual or cumulative effects of factors discussed above could result in large fluctuations and unpredictability in our quarterly and annual operating results. As a result, comparing our operating results on a period-to-period basis may not be meaningful.

This variability and unpredictability could also result in our failing to meet the expectations of industry or financial analysts or investors for any period. If our revenue or operating results fall below the expectations of analysts or investors or below any guidance we may provide, or if the guidance we provide is below the expectations of analysts or investors, the price of our common stock could decline substantially. Such a stock price decline could occur even when we have met any previously publicly stated guidance we may provide.

The historical financial results of our financial information included elsewhere in this report may not be indicative of what our actual financial position or results of operations would have been.

The historical financial results included in this report for our company prior to the Virgin Galactic Business Combination do not necessarily reflect the financial condition, results of operations or cash flows we would have achieved as a standalone company during the periods presented or that we will achieve in the future. This is primarily the result of the following factors:

- the VG Companies' historical financial results reflect charges for certain support functions that are now provided to us under the transition services agreements that we entered into in connection with the Virgin Galactic Business Combination;
- the VG Companies' historical financial results reflect charges for the use of certain intellectual property licensed from Virgin under a prior trademark license agreement, which was replaced with the Amended TMLA in connection with the Virgin Galactic Business Combination;
- we have only recently started incurring, and will continue to incur, additional ongoing costs as a result of the Virgin Galactic Business Combination, including costs related to public company reporting, investor relations and compliance with the Sarbanes-Oxley Act; and
- our capital structure is different from that reflected in the historical financial statements prior to the Virgin Galactic Business Combination.

We may become involved in litigation that may materially adversely affect us.

From time to time, we may become involved in various legal proceedings relating to matters incidental to the ordinary course of our business, including intellectual property, commercial, product liability, employment, class action, whistleblower and other litigation and claims, and governmental and other regulatory investigations and proceedings. Such matters can be time-consuming, divert management's attention and resources, cause us to incur significant expenses or liability or require us to change our business practices. Because of the potential risks, expenses and uncertainties of litigation, we may, from time to time, settle disputes, even where we believe that we have meritorious claims or defenses. Because litigation is inherently unpredictable, we cannot assure you that the results of any of these actions will not have a material adverse effect on our business.

We are subject to environmental regulation and may incur substantial costs.

We are subject to federal, state, local and foreign laws, regulations and ordinances relating to the protection of the environment, including those relating to emissions to the air, discharges to surface and subsurface waters, safe drinking water,

[Table of Contents](#)

greenhouse gases and the management of hazardous substances, oils and waste materials. Federal, state and local laws and regulations relating to the protection of the environment may require a current or previous owner or operator of real estate to investigate and remediate hazardous or toxic substances or petroleum product releases at or from the property. Under federal law, generators of waste materials, and current and former owners or operators of facilities, can be subject to liability for investigation and remediation costs at locations that have been identified as requiring response actions. Compliance with environmental laws and regulations can require significant expenditures. In addition, we could incur costs to comply with such current or future laws and regulations, the violation of which could lead to substantial fines and penalties.

We may have to pay governmental entities or third parties for property damage and for investigation and remediation costs that they incurred in connection with any contamination at our current and former properties without regard to whether we knew of or caused the presence of the contaminants. Liability under these laws may be strict, joint and several, meaning that we could be liable for the costs of cleaning up environmental contamination regardless of fault or the amount of waste directly attributable to us. Even if more than one person may have been responsible for the contamination, each person covered by these environmental laws may be held responsible for all of the clean-up costs incurred. Environmental liabilities could arise and have a material adverse effect on our financial condition and performance. We do not believe, however, that pending environmental regulatory developments in this area will have a material effect on our capital expenditures or otherwise materially adversely affect its operations, operating costs, or competitive position.

Changes in tax laws or regulations may increase tax uncertainty and adversely affect results of our operations and our effective tax rate.

We will be subject to taxes in the United States and certain foreign jurisdictions. Due to economic and political conditions, tax rates in various jurisdictions, including the United States, may be subject to change. Our future effective tax rates could be affected by changes in the mix of earnings in countries with differing statutory tax rates, changes in the valuation of deferred tax assets and liabilities and changes in tax laws or their interpretation. In addition, we may be subject to income tax audits by various tax jurisdictions. Although we believe our income tax liabilities are reasonably estimated and accounted for in accordance with applicable laws and principles, an adverse resolution by one or more taxing authorities could have a material impact on the results of our operations.

Risks Related to Our Ownership Structure

We are a controlled company within the meaning of the NYSE rules, 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.

Vieco US, the Sponsor and the chairman of our board of directors, Chamath Palihapitiya, collectively control more than 50% of our common stock and, on account of the voting agreement between those holders included in the stockholders' agreement entered in connection with the consummation of the Virgin Galactic Business Combination (the "Stockholders' Agreement"), we are considered a "controlled company" for the purposes of NYSE rules and corporate governance standards. As a controlled company, we are exempt from certain NYSE corporate governance requirements, including those that would otherwise require our board of directors to have a majority of independent directors and require that we either establish compensation and nominating and corporate governance committees, each 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 are not currently relying 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 common stock will not have the same protections afforded to stockholders of companies that are subject to all of the NYSE corporate governance requirements.

Vieco US and the other stockholders that are party to the Stockholders' Agreement have the ability to control the direction of our business, and the concentrated ownership of our common stock will prevent you and other stockholders from influencing significant decisions.

Pursuant to the terms of the Stockholders' Agreement, we are required to take all necessary action to cause the specified designees of Vieco US and Mr. Palihapitiya to be nominated to serve on our board of directors, and each of the holders that is party to the Stockholders' Agreement is required, among other things, to vote all of our securities held by such party in a manner necessary to elect the individuals designated by such holders. For so long as these parties hold a majority of our common stock, they will be able to control the composition of our board of directors, which in turn will be able to control all matters affecting us, subject to the terms of the Stockholders' Agreement, including:

Table of Contents

- any determination with respect to our business direction and policies, including the appointment and removal of officers and, in the event of a vacancy on our board of directors, additional or replacement directors;
- any determinations with respect to mergers, business combinations or disposition of assets;
- determination of our management policies;
- our financing policy;
- our compensation and benefit programs and other human resources policy decisions; and
- the payment of dividends on our common stock.

Additionally, as of December 31, 2019, Vieco US individually controlled shares representing a majority of our total outstanding shares of common stock. Even if Vieco US were to control less than a majority of our total outstanding shares of common stock, it will be able to influence the outcome of corporate actions so long as it owns a significant portion of our total outstanding shares of common stock. Specifically, under the terms of the Stockholders' Agreement, for so long as Vieco US continues to beneficially own at least 25% of the shares of our common stock it beneficially owned upon completion of the Virgin Galactic Business Combination, Vieco US's consent is required for, among other things:

- any non-ordinary course sales of our assets having a fair market value of at least \$10.0 million;
- any acquisition of an entity, or the business or assets of any other entity, having a fair market value of at least \$10.0 million;
- certain non-ordinary course investments having a fair market value of at least \$10.0 million;
- any increase or decrease in the size of our board of directors;
- any payment by us of dividends or distributions to our stockholders or repurchases of stock by us, subject to certain limited exceptions; or
- incurrence of certain indebtedness.

Furthermore, Vieco US's consent is also required for the following, among other things, for so long as Vieco US continues to beneficially own at least 10% of the shares of our common stock it beneficially owned upon completion of the Virgin Galactic Business Combination:

- any sale, merger, business combination or similar transaction to which we are a party;
- any amendment, modification or waiver of any provision of our certificate of incorporation or bylaws;
- any liquidation, dissolution, winding-up or causing any voluntary bankruptcy or related actions with respect to us; or
- any issuance or sale of any shares of our capital stock or securities convertible into or exercisable for any shares of our capital stock in excess of 5% of our then-issued and outstanding shares, other than issuances of shares of capital stock upon the exercise of options to purchase shares of our capital stock.

Because the interests of these stockholders may differ from our interests or the interests of our other stockholders, actions that these stockholders take with respect to us may not be favorable to us or our other stockholders.

Delaware law and our organizational documents contain certain provisions, including anti-takeover provisions, that limit the ability of stockholders to take certain actions and could delay or discourage takeover attempts that stockholders may consider favorable.

Our certificate of incorporation and bylaws and Delaware law contain provisions that could have the effect of rendering more difficult, delaying, or preventing an acquisition that stockholders may consider favorable, including transactions in which stockholders might otherwise receive a premium for their shares. These provisions could also limit the price that investors might be willing to pay in the future for shares of our common stock, and therefore depress the trading price of our common stock. These provisions could also make it difficult for stockholders to take certain actions, including electing directors who are not nominated by the current members of our board of directors or taking other corporate actions, including effecting changes in our management. Among other things, our certificate of incorporation and bylaws include provisions regarding:

Table of Contents

- the ability of our board of directors to issue shares of preferred stock, including “blank check” preferred stock and to determine the price and other terms of those shares, including preferences and voting rights, without stockholder approval, which could be used to significantly dilute the ownership of a hostile acquirer;
- subject to the terms of the Stockholders’ Agreement, our board of directors has the exclusive right to expand the size of the board of directors and to elect directors to fill a vacancy created by the expansion of the board of directors or the resignation, death or removal of a director, which will prevent stockholders from being able to fill vacancies on the board of directors;
- once we no longer qualifies as a “controlled company” under the listing standards of the NYSE, our stockholders will not be able to act by written consent, which will force stockholder action to be taken at an annual or special meeting of stockholders;
- the prohibition of cumulative voting in the election of directors, which limits the ability of minority stockholders to elect director candidates;
- the limitation of the liability of, and the indemnification of, our directors and officers;
- the ability of our board of directors to amend the bylaws, which may allow our board of directors to take additional actions to prevent an unsolicited takeover and inhibit the ability of an acquirer to amend the bylaws to facilitate an unsolicited takeover attempt;
- advance notice procedures with which stockholders must comply to nominate candidates to our board of directors or to propose matters to be acted upon at a stockholders’ meeting, which could preclude stockholders from bringing matters before annual or special meetings of stockholders and delay changes in our board of directors and also may 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 our company; and
- expansive negative consent rights for Vieco US, which provide that as long as Vieco US maintains certain ownership thresholds to appoint a director under the Stockholders’ Agreement, the written consent of Vieco US is required to enter into certain business combinations or related transactions.

These provisions, alone or together, could delay or prevent hostile takeovers and changes in control or changes in our board of directors or management.

The provisions of our certificate of incorporation requiring exclusive forum in the Court of Chancery of the State of Delaware for certain types of lawsuits may have the effect of discouraging lawsuits against our directors and officers.

Our certificate of incorporation provides that, to the fullest extent permitted by law, and unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers, employees or agents to us or our stockholders, (iii) any action asserting a claim against us or any of our directors, officers, stockholders, employees or agents arising out of or related to any provision of the General Corporation Law of the State of Delaware or our certificate of incorporation or bylaws or (iv) any action asserting a claim against us or any of our directors, officers, stockholders, employees or agents governed by the internal affairs doctrine; provided, however, that, in the event that the Court of Chancery of the State of Delaware lacks subject matter jurisdiction over any such action or proceeding, the sole and exclusive forum for such action or proceeding will be another state or federal court located within the State of Delaware, in each such case, unless the Court of Chancery (or such other state or federal court located within the State of Delaware, as applicable) has dismissed a prior action by the same plaintiff asserting the same claims because such court lacked personal jurisdiction over an indispensable party named as a defendant therein. Notwithstanding the foregoing, our certificate of incorporation provides that the exclusive forum provision will not apply to suits brought to enforce a duty or liability created by the Securities Act of 1933, as amended (the “Securities Act”), or the Securities Exchange Act of 1934, as amended (the “Exchange Act”), or any other claim for which the federal courts have exclusive jurisdiction.

These provisions may have the effect of discouraging lawsuits against our directors and officers. The enforceability of similar choice of forum provisions in other companies’ certificates of incorporation has been challenged in legal proceedings, and it is possible that, in connection with any applicable action brought against us, a court could find the choice of forum provisions contained in the certificate of incorporation to be inapplicable or unenforceable in such action.

[Table of Contents](#)

Our certificate of incorporation limits liability of Vieco US and Mr. Palihapitiya and their respective affiliates' liability to us for breach of fiduciary duty and could also prevent us from benefiting from corporate opportunities that might otherwise have been available to us.

Our certificate of incorporation provides that, to the fullest extent permitted by law, and other than corporate opportunities that are expressly presented to one of our directors in his or her capacity as such, Vieco US and Mr. Palihapitiya and their respective affiliates (other than us and our officers and employees):

- will not have any fiduciary duty to refrain from engaging in the same or similar business activities or lines of business as us, even if the opportunity is one that we might reasonably be deemed to have pursued or had the ability or desire to pursue if granted the opportunity to do so;
- will have no duty to communicate or offer such business opportunity to us; and
- will not be liable to us for breach of any fiduciary or other duty, as a director or officer or otherwise, by reason of the fact that such exempted person pursues or acquires such business opportunity, directs such business opportunity to another person or fails to present such business opportunity, or information regarding such business opportunity, to us.

Risks Related to Our Securities and Being a Public Company

Future resales of common stock may cause the market price of our securities to drop significantly, even if our business is doing well.

Subject to certain exceptions, pursuant to the registration rights agreement entered in connection with the consummation of the Virgin Galactic Business Combination (the "Registration Rights Agreement"), Vieco US is contractually restricted for the first two years following the Virgin Galactic Business Combination from selling or transferring more than 50% of the shares of common stock it received in connection with the Virgin Galactic Business Combination, and the Sponsor is contractually restricted for the first two years following the Virgin Galactic Business Combination from selling or transferring any of its shares of common stock. However, following the expiration of such lockup, neither Vieco US nor the Sponsor will be restricted from selling shares of our common stock held by them, other than by applicable securities laws. As such, sales of a substantial number of shares of our common stock in the public market could occur at any time. These sales, or the perception in the market that the holders of a large number of shares intend to sell shares, could reduce the market price of our common stock.

As restrictions on resale and registration statements for the sale of the shares held by the parties to the Registration Rights Agreement are available for use, the sale or possibility of sale of these shares could have the effect of increasing the volatility in the market price of our common stock, or decreasing the market price itself.

The trading price of our common stock, warrants and units may be volatile.

The trading price of our common stock, as well as our warrants and units, may fluctuate due to a variety of factors, including:

- changes in the industries in which we operate;
- the number of flights we schedule for a period, the number of seats we are able to sell in any given spaceflight and the price at which we sell them;
- developments involving our competitors;
- unexpected weather patterns, maintenance issues, natural disasters or other events that force us to cancel or reschedule flights;
- variations in our operating performance and the performance of our competitors in general;
- actual or anticipated fluctuations in our quarterly or annual operating results;
- publication of research reports by securities analysts about us, our competitors or our industry;
- the public's reaction to our press releases, public announcements and filings with the SEC;
- additions and departures of key personnel;

Table of Contents

- changes in laws and regulations affecting our business;
- commencement of, or involvement in, litigation involving us;
- changes in our capital structure, such as future issuances of securities or the incurrence of debt;
- the volume of shares of our common stock available for public sale; and
- general economic and political conditions such as recessions, interest rates, fuel prices, international currency fluctuations, corruption, political instability and acts of war or terrorism.

These market and industry factors may materially reduce the market price of our common stock, warrants and units regardless of the operating performance of our, including the VG Companies businesses acquired in the Virgin Galactic Business Combination.

The obligations associated with being a public company will involve significant expenses and will require significant resources and management attention, which may divert from our business operations.

As a public company, we are subject to the reporting requirements of the Exchange Act and the Sarbanes-Oxley Act. The Exchange Act requires the filing of annual, quarterly and current reports with respect to a public company's business and financial condition. The Sarbanes-Oxley Act requires, among other things, that a public company establish and maintain effective internal control over financial reporting. As a result, we are incurring, and will continue to incur significant legal, accounting and other expenses that the VG Companies did not previously incur. Our management team and many of our other employees will need to devote substantial time to compliance, and may not effectively or efficiently manage its transition into a public company.

Additionally, we lost our status as an "emerging growth company" and a "smaller reporting company" under federal securities laws as of December 31, 2019, meaning that we can no longer utilize the exemptions and reduced disclosure requirements available to such companies.

An active trading market for our common stock, warrants and units may not be maintained.

We can provide no assurance that we will be able to maintain an active trading market for our common stock, warrants or units on the NYSE or any other exchange in the future. If an active market for our common stock is not maintained, or if we fail to satisfy the continued listing standards of the NYSE for any reason and our securities are delisted, it may be difficult for our security holders to sell their securities without depressing the market price for the securities or at all. An inactive trading market may also impair our ability to both raise capital by selling shares of common stock and acquire other complementary products, technologies or businesses by using our shares of common stock as consideration.

Securities analysts may not publish favorable research or reports about our business or may publish no information at all, which could cause our stock price or trading volume to decline.

The trading market for our common stock is influenced to some extent by the research and reports that industry or financial analysts publish about us and our business. We do not control these analysts, and the analysts who publish information about our common stock may have had relatively little experience with us or our industry, which could affect their ability to accurately forecast our results and could make it more likely that we fail to meet their estimates. In the event we obtain securities or industry analyst coverage, if any of the analysts who cover us provide inaccurate or unfavorable research or issue an adverse opinion regarding our stock price, our stock price could decline. If one or more of these analysts cease coverage of us or fail to publish reports covering us regularly, we could lose visibility in the market, which in turn could cause our stock price or trading volume to decline.

The issuance of shares of our common stock upon issuance of our outstanding warrants will increase the number of shares eligible for future resale in the public market and result in dilution to our stockholders.

As of December 31, 2019, warrants to purchase an aggregate of approximately 31.0 million shares of our common stock were outstanding and exercisable. The exercise price of these warrants is \$11.50 per share. To the extent such warrants are exercised, additional shares of our common stock will be issued, which will result in dilution to the holders of our 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 common stock.

[Table of Contents](#)

The terms of the warrants may be amended in a manner adverse to a holder if holders of at least 65% of the then outstanding public warrants approve of such amendment.

The warrants were issued in registered form under a warrant agreement (the “Warrant Agreement”) between us and Continental Stock Transfer & Trust Company, as warrant agent. The Warrant Agreement provides that the terms of the warrants may be amended without the consent of any holder to cure any ambiguity or correct any defective provision, but requires the approval by the holders of at least 65% of the then outstanding public warrants to make any change that adversely affects the interests of the registered holders of public warrants. Accordingly, we may amend the terms of the public warrants in a manner adverse to a holder if holders of at least 65% of the then outstanding public warrants approve of such amendment. Although our ability to amend the terms of the public warrants with the consent of at least 65% of the then outstanding public warrants is unlimited, examples of such amendments could be amendments to, among other things, increase the exercise price of the warrants, shorten the exercise period or decrease the number of shares of our common stock purchasable upon exercise of a warrant.

Registration of the shares of our common stock issuable upon exercise of the warrants under the Securities Act may not be in place when an investor desires to exercise warrants.

Under the terms of the Warrant Agreement, we are obligated to file and maintain an effective registration statement under the Securities Act, covering the issuance of shares of our common stock issuable upon exercise of the warrants. We cannot assure you that we will be able to do so if, for example, any facts or events arise that represent a fundamental change in the information set forth in the registration statement or prospectus, the financial statements contained or incorporated by reference therein are not current or correct or we are required to address any comments the SEC may issue in connection with such registration statement. For so long as the issuance of the shares of common stock issuable upon exercise of the warrants is not covered by an effective registration statement, registered under the Securities Act, we are required to permit holders to exercise their warrants on a cashless basis. However, no warrant will be exercisable for cash or on a cashless basis, and we will not be obligated to issue any shares to holders seeking to exercise their warrants, unless the issuance of the shares upon such exercise is registered or qualified under the securities laws of the state of the exercising holder or an exemption from registration is available. If and when the warrants become redeemable by us, we may exercise our redemption right even if we are unable to register or qualify the underlying shares of common stock for sale under all applicable state securities laws.

We may redeem your unexpired warrants prior to their exercise at a time that is disadvantageous to you, thereby making your warrants worthless.

We have the ability to redeem outstanding warrants at any time prior to their expiration, at a price of \$0.01 per warrant, provided that the last reported sales price of our common stock equals or exceeds \$18.00 per share (as adjusted for share splits, share dividends, rights issuances, subdivisions, reorganizations, recapitalizations and the like) for any 20 trading days within a 30 trading-day period ending on the third trading day prior to the date we send the notice of redemption to the warrant holders. If and when the warrants become redeemable by us, we may exercise our redemption right even if we are unable to register or qualify the underlying securities for sale under all applicable state securities laws. Redemption of the outstanding warrants could force you to: (i) exercise your warrants and pay the exercise price therefor at a time when it may be disadvantageous to you to do so (ii) sell your warrants at the then-current market price when you might otherwise wish to hold your warrants; or (iii) accept the nominal redemption price which, at the time the outstanding warrants are called for redemption, is likely to be substantially less than the market value of your warrants. Additionally, in the event we redeem the warrants, our board of directors may elect to require all holders of warrants to exercise such warrants on a cashless basis, by surrendering the warrants for a number of shares of our common stock as calculated in accordance with the Warrant Agreement, even if the holder of a warrant would otherwise prefer to exercise the warrant for cash.

None of the warrants issued to the Sponsor in a private placement that occurred concurrently with our initial public offering will be redeemable by us so long as they are held by our Sponsor or its permitted transferees.

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

We currently intend to retain our future earnings, if any, to finance the further development and expansion of our business and do not intend to pay cash dividends in the foreseeable future. Any future determination to pay dividends will be at the discretion of our board of directors and will depend on our financial condition, results of operations, capital requirements, restrictions contained in the Stockholders’ Agreement and future agreements and financing instruments, business prospects and such other factors as our board of directors deems relevant.

Table of Contents

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

We operate primarily at two locations in California and New Mexico. All of our facilities are located on land that is leased from third parties. We believe that such facilities meet our current and future anticipated needs.

We maintain more than 200,000 square feet of manufacturing and operations facilities at the Mojave Air and Space Port in Mojave, California. This campus includes six main operational buildings and several storage buildings under separate lease agreements that collectively house fabrication, assembly, warehouse, office and test operations. These facilities are leased pursuant to several agreements, which generally have two- or three-year initial terms coupled with renewal options. Several leases are either operating in renewal periods or on a month-to-month basis.

We will conduct our commercial operations at Spaceport America in Sierra County, New Mexico. Located on more than 25 square miles of desert landscape and with access to more than 6,000 square miles of protected airspace, Spaceport America is the world's first purpose-built commercial spaceport and is home to the Virgin Galactic Gateway to Space terminal. State and local governments in New Mexico have invested more than \$200.0 million in Spaceport America, with Virgin Galactic serving as the facility's anchor tenant under a 20-year lease scheduled to expire in 2028, subject to our right to extend the term for an additional five years.

Item 3. Legal Proceedings

We are from time to time subject to various claims, lawsuits and other legal and administrative proceedings arising in the ordinary course of business. Some of these claims, lawsuits and other proceedings may involve highly complex issues that are subject to substantial uncertainties, and could result in damages, fines, penalties, non-monetary sanctions or relief. However, we do not consider any such claims, lawsuits or proceedings that are currently pending, individually or in the aggregate, to be material to our business or likely to result in a material adverse effect on our future operating results, financial condition or cash flows.

Item 4. Mine Safety Disclosures

Not applicable.

Part II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information

Our common stock is traded on the NYSE under the symbol "SPCE."

Holders

As of February 26, 2020, there were 195,769,015 holders of record of our shares of common stock. The actual number of stockholders of our common stock is greater than this number of record holders and includes stockholders who are beneficial owners but whose shares of common stock are held in street name by banks, brokers and other nominees.

Recent Sales of Unregistered Equity Securities

On October 25, 2019, as contemplated by the Merger Agreement, we issued Vieco US 130,000,000 shares of our common stock as consideration for its share capital in the VG Companies.

On October 25, 2019, immediately following the consummation of the Virgin Galactic Business Combination, and as contemplated by the subscription agreement between SCH and Boeing, Boeing purchased 1,924,402 newly issued shares of our common stock for aggregate consideration of \$20.0 million.

On November 4, 2019, we issued 413,486 shares of our common stock to a financial advisor as partial consideration for advisory services rendered in connection with the Virgin Galactic Business Combination.

[Table of Contents](#)

We issued the foregoing shares of our common stock in transactions not involving an underwriter and not requiring registration under Section 5 of the Securities Act, in reliance on the exemption afforded by Section 4(a)(2) thereof.

Issuer Purchases of Equity Securities

As contemplated by the merger agreement entered in connection with the Virgin Galactic Business Combination, we repurchased from Vieco US on October 25, 2019, at the election of Vieco US, 5,209,562 of the shares of our common stock that had been issued to Vieco US as consideration for the Virgin Galactic Business Combination, at a purchase price of \$10.00 per share.

Other than as disclosed in the preceding paragraph, we did not purchase any of our equity securities that are registered under Section 12(b) of the Exchange Act during the three months ended December 31, 2019.

Stock Performance Graph

The following graph shows the total stockholder return of an investment of \$100 cash on October 28, 2019 (the date our common stock began trading on the NYSE after the Virgin Galactic Business Combination) through December 31, 2019 for (1) our common stock, (2) Standard & Poor's ("S&P") 500 Index and (3) the average of aerospace companies with comparable market capitalization between \$1.5 billion to \$8.0 billion listed in the NYSE. All values assume reinvestment of the full amount of all dividends. The comparisons in the table are required by the SEC and are not intended to forecast or be indicative of possible future performance of our common stock. This graph shall not be deemed "soliciting material" or be deemed "filed" 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 of our filings under the Securities Act, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.



As of December 31, 2019, the comparable aerospace companies used are comprised of the following companies: AAR, Corporation, Aerojet Rocketdyne Holdings Inc., CAE, Inc., Cubic Corporation, Curtiss-Wright Corp., ESCO Technologies Inc., Hexcel Corp., Kaman Corporation and Spirit AeroSystems Holdings Inc.

Item 6. Selected Consolidated Financial Data

The consolidated balance sheet data and consolidated statement of operations data as of December 31, 2019, 2018 and 2017 are derived from our audited consolidated financial statements included elsewhere in this report.

[Table of Contents](#)

The information is only a summary and should be read in conjunction with our consolidated financial statements and related notes and Part II, Item 7. “*Management’s Discussion and Analysis of Financial Condition and Results of Operations*” contained elsewhere in this report. Our historical results are not necessarily indicative of future results.

The historical consolidated financial statements include certain expenses of V10, Galactic Ventures, LLC and VO Holdings, Inc. that were allocated to the VG Companies prior to the Virgin Galactic Business Combination for corporate-related and operating functions based on an allocation methodology that considered the VG Companies’ headcount, unless directly attributable to the business. General corporate overhead expense allocations included tax, accounting and auditing professional fees, and certain employee benefits. Operating expense allocations included use of machinery and equipment and other general administrative expense. The allocations may not, however, reflect the expense the VG Companies would have incurred as an independent company for the periods presented. Actual costs that may have been incurred if the VG Companies had been a stand-alone company would have depended on a number of factors, including the chosen organizational structure, what functions were outsourced or performed by employees and strategic decisions made in areas such as information technology and infrastructure. Subsequent to the Virgin Galactic Business Combination, we perform these functions using our own resources or purchased services.

	Years Ended December 31,		
	2019	2018	2017
	<i>(In thousands)</i>		
Consolidated Statements of Operations and Comprehensive Loss Data:			
Revenue	\$ 3,781	\$ 2,849	\$ 1,754
Cost of revenue	2,004	1,201	488
Gross profit	1,777	1,648	1,266
Operating expenses:			
Selling, general and administrative expenses	82,166	50,902	46,886
Research and development expenses	132,873	117,932	93,085
Operating loss	(213,262)	(167,186)	(138,705)
Interest income	2,297	633	241
Interest expense	36	10	21
Other income	128	28,571	453
Loss before income taxes	(210,873)	(137,992)	(138,032)
Income tax expense	62	147	155
Net loss	\$ (210,935)	\$ (138,139)	\$ (138,187)

	Years Ended December 31,		
	2019	2018	2017
	<i>(In thousands)</i>		
Consolidated Statements of Cash Flows Data:			
Net cash provided by (used in):			
Operating activities	\$ (203,556)	\$ (145,703)	\$ (136,675)
Investing activities	\$ (19,411)	\$ (10,590)	\$ (5,597)
Financing activities	\$ 634,320	\$ 156,595	\$ 137,870

	As of December 31,	
	2019	2018
	<i>(In thousands)</i>	
Consolidated Balance Sheets Data:		
Cash and cash equivalents	\$ 480,443	\$ 73,990
Other current assets	56,228	45,107
Total current assets	536,671	119,097
Total assets	\$ 605,546	\$ 156,039
Total current liabilities	\$ 115,845	\$ 106,322
Total liabilities	\$ 137,986	\$ 114,480
Total equity	\$ 467,560	\$ 41,559

Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations

Unless the context otherwise requires, all references in this section to the “Company,” “we,” “us,” or “our” refer to the business of the VG Companies and their subsidiaries prior to the consummation of the Virgin Galactic Business Combination and Virgin Galactic Holdings, Inc. and its subsidiaries after consummation of the Virgin Galactic Business Combination. Prior to the Virgin Galactic Business Combination and prior to the series of V10 reorganization steps, Galactic Ventures, LLC (“GV”), a wholly-owned subsidiary of V10, was the direct parent of VG Companies.

You should read the following discussion and analysis of our financial condition and results of operations together with the consolidated financial statements and related notes included elsewhere in this Annual Report on Form 10-K. This discussion contains forward-looking statements that reflect our plans, estimates, and beliefs that involve risks and uncertainties. As a result of many factors, such as those set forth under the “Risk Factors” and “Cautionary Note Regarding Forward-Looking Statements” sections and elsewhere in this Annual Report on Form 10-K, our actual results may differ materially from those anticipated in these forward-looking statements.

The following generally compares our results of operations for the years ended December 31, 2019 and 2018. A detailed discussion comparing our results of operations for the years ended December 31, 2018 and 2017 can be found in “The VG Companies’ Management’s Discussion and Analysis of Financial Condition and Results of Operations,” of our definitive proxy statement filed on October 10, 2019.

Overview

We are at the vanguard of a new industry, pioneering the commercial exploration of space with reusable spaceflight systems. We believe the commercial exploration of space represents one of the most exciting and important technology initiatives of our time. This industry has begun growing dramatically due to new products, new sources of private and government funding, and new technologies. Demand is emerging from new sectors and demographics. As government space agencies have retired or reduced their own capacity to send humans into space, private companies are beginning to make crucial inroads into the fields of human space exploration. We have embarked into this commercial exploration journey with a mission to put humans into space and return them safely to Earth on a routine and consistent basis. We believe the success of this mission will provide the foundation for a myriad of exciting new industries.

We are a vertically integrated aerospace company pioneering human spaceflight for private individuals and researchers. Our spaceship operations consist of commercial human spaceflight and flying commercial research and development payloads into space. Our operations also include the design and development, manufacturing, ground and flight testing, and post-flight maintenance of our spaceflight vehicles. We focus our efforts in spaceflights using our reusable technology for human tourism and for research and education. We intend to offer our customers a unique, multi-day experience culminating in a spaceflight that includes several minutes of weightlessness and views of Earth from space. As part of our commercial operations, we have exclusive access to the Gateway to Space facility at Spaceport America located in New Mexico. Spaceport America is the world’s first purpose built commercial spaceport and will be the site of our initial commercial spaceflight operations. We believe the site provides us with a competitive advantage when creating our spaceflight plans as it not only has a desert climate with relatively predictable weather conditions preferable to support our spaceflights, it also has airspace that is restricted for surrounding commercial air traffic that facilitates frequent and consistent flight scheduling.

Our primary mission is to launch the first commercial program for human spaceflight. In December 2018, we made history by flying our groundbreaking spaceship, SpaceShipTwo, to space. This represented the first flight of a spaceflight system built for commercial service to take humans into space. Shortly thereafter, we flew our second spaceflight in SpaceShipTwo in February 2019, and, in addition to the two pilots, carried a crew member in the cabin. Since our December 2018 spaceflight, 7,957 individuals have expressed interest in space travel as of February 23, 2020. We had also received reservations for more than 600 spaceflight tickets and collected more than \$80.0 million in future astronaut deposits as of December 31, 2019. With each ticket purchased, future astronauts will experience a multi-day journey that includes a tour of the spaceport, flight suit fitting, spaceflight training and culminating with a trip to space on the final day.

We have also developed an extensive set of vertically integrated aerospace development capabilities encompassing preliminary vehicle design and analysis, detail design, manufacturing, ground testing, flight testing, and maintenance of our spaceflight system. Our spaceflight system consists of three primary components: our carrier aircraft, WhiteKnightTwo; our spaceship, SpaceShipTwo; and our hybrid rocket motor.

[Table of Contents](#)

SpaceShipTwo is a spaceship with the capacity to carry pilots and future astronauts, or commercial research and development payloads, into space and return them safely to Earth. Fundamentally, SpaceShipTwo is a rocket-powered aerospace vehicle that operates more like a plane than a traditional rocket. SpaceShipTwo is powered by a hybrid rocket propulsion system, which we refer to as "RocketMotorTwo", which propels the spaceship on a trajectory into space. SpaceShipTwo's cabin has been designed to maximize the future astronaut's safety, experience and comfort. A dozen windows line the sides and ceiling of the spaceship, offering the future astronauts the ability to view the blackness of space as well as stunning views of the Earth below. Our mothership, WhiteKnightTwo, is a twin-fuselage, custom-built aircraft designed to carry SpaceShipTwo up to an altitude of approximately 45,000 feet where the spaceship is released for its flight into space. Using WhiteKnightTwo's air launch capability, rather than a standard ground-launch, reduces the energy requirements of our spaceflight system as SpaceShipTwo does not have to rocket its way through the higher density atmosphere closest to the Earth's surface.

Our team is currently in various stages of designing, testing and manufacturing additional spaceships, carrier aircraft and rocket motors in order to meet the expected demand for human spaceflight experiences. Concurrently, we are researching and developing new products and technologies to grow our company. We are developing a captive carry/launch service that will be featured in our carrier aircraft, WhiteKnightTwo. Such features of the WhiteKnightTwo, along with its ability to carry heavy payloads into high altitudes, offers us a unique market offering for a wide array of future astronauts in the future.

Our operations also include efforts in spaceflight opportunities for research and education. For example, professional researchers have utilized parabolic aircraft and drop towers to create moments of microgravity and conduct significant research activities. In most cases, these solutions offer only seconds of microgravity per flight and do not offer access to the upper atmosphere or space. Other researchers have conducted experiments on sounding rockets or satellites. These opportunities are expensive, infrequent and impose highly limiting operational constraints. We believe that research experiments will benefit from prolonged exposure to space conditions and yield better results aboard SpaceShipTwo due to the large cabin, gentler flight, relatively low cost, advantageous operational parameters, and frequent flights. As such, researchers and educators are able to conduct critical experiments and obtain important data without having to sacrifice time and resources. Our commitment to advancing research and science was present in our December 2018 and February 2019 spaceflights as we transported payloads into space for research purposes under a NASA flight contract.

We have also leveraged our knowledge and expertise in manufacturing spaceships to occasionally perform engineering services for future astronauts, such as research, design, development, manufacturing and integration of advanced technology systems.

Factors Affecting Our Performance

We believe that our performance and future success depend on a number of factors that present significant opportunities for us but also pose risks and challenges, including those discussed below and in the section of this Annual Report on 10-K titled "Risk Factors."

Commercial Launch of Our Human Spaceflight Program

We are in the final phases of developing our commercial spaceflight program. Prior to commercialization, we must complete our test flight program, which includes a rigorous series of ground and flight tests, including our baseline spaceflight metrics, flight paths and safety protocol that will be used throughout our spaceflight program. We expect to conclude the final portion of the test flight program, which includes a submission to the Federal Aviation Administration for a modification to our license that will allow us to conduct a spaceflight with a customer on board in 2020. Any delays in successful completion of our test flight program will impact our ability to generate human spaceflight revenue.

Customer Demand

While not yet in commercial service for human spaceflight, we have already received significant interest from potential future astronauts. Going forward, we expect the size of our backlog and the number of future astronauts that have flown to space on our spaceflight system to be an important indicator of our future performance. As of December 31, 2019, we had reservations for SpaceShipTwo flights from more than 600 future astronauts. Since 2014, we have not been actively selling our astronaut experience, having established a proof of market and in order to focus resources on community management and achieving technological feasibility of our spaceflight system, but as of February 23, 2020, we have received 7,957 flight reservation inquiries since SpaceShipTwo's first spaceflight in December 2018.

Available Capacity and Annual Flight Rate

We face constraints of resources and competing demand for our human spaceflights. We expect to commence commercial operations with a single SpaceShipTwo, VSS Unity, and a single WhiteKnightTwo carrier aircraft, VMS Eve, which together comprise our only spaceflight system. As a result, our annual flight rate will be constrained by the availability and capacity of this spaceflight system. To reduce this constraint, we are in various stages of designing, testing and manufacturing two additional SpaceShipTwo vehicles as well as an additional WhiteKnightTwo carrier. We believe that expanding the fleet will allow us to increase our annual flight rate once commercialization is achieved.

Safety Performance of Our Spaceflight Systems

Our spaceflight systems are highly specialized with sophisticated and complex technology. We have built operational processes to ensure that the design, manufacture, performance and servicing of our spaceflight systems meet rigorous quality standards. However, our spaceflight systems are still subject to operational and process problems, such as manufacturing and design issues, pilot errors, or cyber-attacks. Any actual or perceived safety issues may result in significant reputational harm to our business and our ability to generate human spaceflight revenue.

Component of Results of Operations

Revenue

To date, we have primarily generated revenue by transporting scientific commercial research and development payloads using our spaceflight systems and by providing engineering services as a subcontractor to the primary contractor of a long-term contract with the U.S. government. We also have generated revenues from a sponsorship arrangement.

Following the commercial launch of our human spaceflight services, we expect the significant majority of our revenue to be derived from sales of tickets to fly to space. We also expect that we will continue to receive a small portion of our revenue by providing services relating to the research, design, development, manufacture and integration of advanced technology systems.

Cost of Revenue

Costs of revenue related to spaceflights include costs related to the consumption of a rocket motor, fuel, payroll and benefits for our pilots and ground crew, and maintenance. Cost of revenue related to the engineering services consist of expenses related to materials and human capital, such as payroll and benefits. Once we have completed our test flight program and commenced commercial operations, we will capitalize the cost to construct any additional SpaceShipTwo vehicles. Cost of revenue will include vehicle depreciation once those spaceships are placed into service. We have not capitalized any spaceship development costs to date.

Gross Profit and Gross Margin

Gross profit is calculated based on the difference between our revenue and cost of revenue. Gross margin is the percentage obtained by dividing gross profit by our revenue. Our gross profit and gross margin has varied historically based on the mix of revenue-generating spaceflights and engineering services. As we approach the commercialization of our spaceflights, we expect our gross profit and gross margin may continue to vary as we scale our fleet of spaceflight systems.

Selling, General and Administrative

Selling, general and administrative expenses consist of human capital related expenses for employees involved in general corporate functions, including executive management and administration, accounting, finance, tax, legal, information technology, marketing, and human resources; depreciation expense and rent relating to facilities, including the lease with Spaceport America, and equipment; professional fees; and other general corporate costs. Human capital expenses primarily include salaries and benefits. As we continue to grow as a company, we expect that our selling, general and administrative costs will increase on an absolute dollar basis.

We also expect to incur additional expenses as a result of operating as a public company, including expenses necessary to comply with the rules and regulations applicable to companies listed on a national securities exchange and related to compliance and reporting obligations pursuant to the rules and regulations of the SEC, as well as higher expenses for general and director and officer insurance, investor relations, and professional services.

Research and Development

Research and development expense represents costs incurred to support activities that advance our human spaceflight towards commercialization, including basic research, applied research, concept formulation studies, design, development, and related testing activities. Research and development costs consist primarily of the following costs for developing our spaceflight systems:

- flight testing programs, including rocket motors, fuel, and payroll and benefits for pilots and ground crew performing test flights;
- equipment, material, and labor hours (including from third party contractors) for developing the spaceflight system's structure, spaceflight propulsion system, and flight profiles; and
- rent, maintenance, and depreciation of facilities and equipment and other overhead expenses allocated to the research and development departments.

As of December 31, 2019, our current primary research and development objectives focus on the development of our SpaceShipTwo vehicles for commercial spaceflights and developing our RocketMotorTwo, a hybrid rocket propulsion system that will be used to propel our SpaceShipTwo vehicles into space. The successful development of SpaceShipTwo and RocketMotorTwo involves many uncertainties, including:

- timing in finalizing spaceflight systems design and specifications;
- successful completion of flight test programs, including flight safety tests;
- our ability to obtain additional applicable approvals, licenses or certifications from regulatory agencies, if required, and maintaining current approvals, licenses or certifications;
- performance of our manufacturing facilities despite risks that disrupt productions, such as natural disasters and hazardous materials;
- performance of a limited number of suppliers for certain raw materials and components;
- performance of our third-party contractors that support our research and development activities;
- our ability to maintain rights from third parties for intellectual properties critical to research and development activities; and
- our ability to continue funding and maintain our current research and development activities.

A change in the outcome of any of these variables could delay the development of SpaceShipTwo and RocketMotorTwo, which in turn could impact when we are able to commence our human spaceflights.

As we are currently still in our final development and testing stage of our spaceflight system, we have expensed all research and development costs associated with developing and building our spaceflight system. We expect that our research and development expenses will decrease once technological feasibility is reached for our spaceflight systems as the costs incurred to manufacture additional SpaceShipTwo vehicles, built by leveraging the invested research and development, will no longer qualify as research and development activities.

Interest Income

Interest income consists primarily of interest earned on cash and cash equivalents held by us in interest bearing demand deposit accounts.

Interest Expense

Interest expense relates to our finance lease obligations.

Other Income

Other income consists of miscellaneous non-operating items, such as merchandising and legal settlements.

Income Tax Provision

We are subject to income taxes in the United States and the United Kingdom. Our income tax provision consists of an estimate of federal, state, and foreign income taxes based on enacted federal, state, and foreign tax rates, as adjusted for allowable credits, deductions, uncertain tax positions, changes in the valuation of our deferred tax assets and liabilities, and changes in tax laws.

Results of Consolidated Operations

The following tables set forth our results of operations for the periods presented and expresses the relationship of certain line items as a percentage of revenue for those periods. The period-to-period comparisons of financial results is not necessarily indicative of future results.

	Years Ended December 31,	
	2019	2018
	<i>(In thousands)</i>	
Revenue	\$ 3,781	\$ 2,849
Cost of revenue	2,004	1,201
Gross profit	1,777	1,648
Operating expenses:		
Selling, general and administrative expenses	82,166	50,902
Research and development expenses	132,873	117,932
Operating loss	(213,262)	(167,186)
Interest income	2,297	633
Interest expense	36	10
Other income	128	28,571
Loss before income taxes	(210,873)	(137,992)
Income tax expense	62	147
Net loss	\$ (210,935)	\$ (138,139)

Year Ended December 31, 2019 Compared to Year Ended December 31, 2018

Revenue

	Years Ended December 31,		\$ Change	% Change
	2019	2018		
	<i>(In thousands, except %)</i>			
Revenue	\$ 3,781	\$ 2,849	\$ 932	33 %

Revenue increased by \$0.9 million, or 33%, to \$3.8 million for the year ended December 31, 2019 from \$2.8 million for the year ended December 31, 2018. This is primarily due to flying payload in February 2019 in connection with our testing program and an increase in engineering services provided under long-term U.S. government contracts in 2019.

Cost of Revenue and Gross Profit

	Years Ended December 31,		\$ Change	% Change
	2019	2018		
<i>(In thousands, except %)</i>				
Cost of revenue	\$ 2,004	\$ 1,201	\$ 803	67 %
Gross profit	\$ 1,777	\$ 1,648	\$ 129	8 %
Gross margin	47 %	58 %		

Cost of revenue increased by \$0.8 million, or 67%, to \$2.0 million for the year ended December 31, 2019 from \$1.2 million for the year ended December 31, 2018. The change in cost of revenue is primarily due to labor costs associated with providing engineering services under long-term U.S. government contracts and flight costs for flying payload in February 2019. Gross profit increased by \$0.1 million, or 8%, to \$1.8 million for the year ended December 31, 2019 from \$1.6 million for the year ended December 31, 2018. Gross margin for the year ended December 31, 2019 decreased by 11 percentage points compared to the year ended December 31, 2018. The increase in gross profit and the decrease in gross margin is primarily driven by smaller gross margins associated with the increased mix of long-term engineering services and similarly for flying payload in February 2019.

Selling, General and Administrative Expenses

	Years Ended December 31,		\$ Change	% Change
	2019	2018		
<i>(In thousands, except %)</i>				
Selling, general and administrative expense	\$ 82,166	\$ 50,902	\$ 31,264	61 %

Selling, general and administrative expenses increased by \$31.3 million, or 61%, to \$82.2 million for the year ended December 31, 2019 from \$50.9 million for the year ended December 31, 2018. This \$31.3 million increase was primarily due to general corporate growth, including preparation for becoming a public company in connection with the Virgin Galactic Business Combination.

Research and Development Expenses

	Years Ended December 31,		\$ Change	% Change
	2019	2018		
<i>(In thousands, except %)</i>				
Research and development expenses	\$ 132,873	\$ 117,932	\$ 14,941	13 %

Research and development expenses increased by \$14.9 million, or 13%, to \$132.9 million for the year ended December 31, 2019 from \$117.9 million for the year ended December 31, 2018. The increase was primarily due to costs associated with developing our spaceflight system, of which \$6.8 million was due to increased material costs, \$5.7 million was due to increased human capital expenses, such as payroll, benefits and third-party contractor costs, related to growth in our engineering research and development headcount and \$0.6 million was due to other research and development costs. Total spaceflight system development costs incurred during the year ended December 31, 2019 was \$114.5 million as compared to \$101.5 million for the year ended December 31, 2018. The remaining increase in research and development is primarily related to an increase of \$1.7 million costs associated with test flights which totaled \$18.2 million for the year ended December 31, 2019, as compared to \$16.4 million for the year ended December 31, 2018. Test flight expenses include costs related to consumption of rocket motors, fuel, and payroll and benefit costs for our pilots and ground crew.

Interest Income

	Years Ended December 31,		\$ Change	% Change
	2019	2018		
	<i>(In thousands, except %)</i>			
Interest income	2,297	633	\$ 1,664	263 %

Interest income increased by \$1.7 million, or 263%, to \$2.3 million for the year ended December 31, 2019 from \$0.6 million for the year ended December 31, 2018. The increase was primarily due to increase in cash and cash equivalents related to the proceeds of the Virgin Galactic Business Combination, which are being held in an interest-bearing account.

Interest Expense

Interest expense was immaterial for the years ended December 31, 2019 and 2018.

Other Income

	Years Ended December 31,		\$ Change	% Change
	2019	2018		
	<i>(In thousands, except %)</i>			
Other income	\$ 128	\$ 28,571	\$ (28,443)	(100)%

Other income for the year ended December 31, 2019 decreased by \$28.4 million, or 100%, to \$0.1 million compared to \$28.6 million in December 31, 2018 primarily due to a \$28.0 million nonrecurring gain from a legal settlement received from one of our suppliers during the first half of the year ended December 31, 2018.

Income Tax Expense

Income tax expense was immaterial for the years ended December 31, 2019 and 2018. We have accumulated net operating losses at the federal and state level as we have not yet started commercial operations. We maintain a substantially full valuation allowance against our net deferred tax assets. The income tax expenses shown above are primarily related to minimum state filing fees in the states where we have operations as well as corporate income taxes for our operations in the United Kingdom, which operates on a cost-plus arrangement.

Liquidity and Capital Resources

Prior to the consummation of the Virgin Galactic Business Combination, our operations have historically participated in cash management and funding arrangements managed by V10 and GV. Only cash and cash equivalents held in bank accounts legally owned by entities dedicated to us are reflected in the consolidated balance sheets. Cash and cash equivalents held in bank accounts legally owned by V10 and GV were not directly attributable to us for any of the periods presented. Transfers of cash, both to and from V10 and GV by us have been reflected as a component of net parent investment and membership equity in the consolidated balance sheets and as a financing activity on the accompanying consolidated statements of cash flows.

As of December 31, 2019, we had cash and cash equivalents and restricted cash of \$492.7 million. From the time of our inception to the consummation of the Virgin Galactic Business Combination, we have financed our operations and capital expenditures through cash flows financed by V10 and GV. Our principal sources of liquidity following the Virgin Galactic Business Combination and the October 2019 investment by an entity affiliated with the Boeing Company will be our cash and cash equivalents and any additional capital we may obtain through borrowings or additional sales of our equity securities.

Historical Cash Flows

	Years Ended December 31,	
	2019	2018
	<i>(In thousands)</i>	
Net cash provided by (used in)		
Operating activities	\$ (203,556)	\$ (145,703)
Investing activities	(19,411)	(10,590)
Financing activities	634,320	156,595
Net change in cash and cash equivalents and restricted cash	<u>\$ 411,353</u>	<u>\$ 302</u>

Operating Activities

Net cash used in operating activities was \$203.6 million for the year ended December 31, 2019, primarily consisting of \$210.9 million of net losses, adjusted for non-cash items, which primarily included depreciation and amortization expense of \$7.0 million and stock based compensation expense of \$2.5 million, as well as a \$2.1 million increase in cash consumed by working capital. The increase in cash consumed by working capital was primarily driven by an increase in certain assets including inventories, prepayments and other current assets alongside a decrease in certain liabilities including accounts payable and accrued liabilities. This increase in cash consumed by working capital was partially offset by an increase in certain liabilities including amounts due to related parties, net and customer deposits, alongside a decrease in certain assets including accounts receivable and other noncurrent assets.

Net cash used in operating activities was cash \$145.7 million for 2018, primarily consisting of \$138.1 million of net losses, adjusted for certain non-cash items, which primarily included depreciation and amortization expense of \$5.8 million and \$(0.5) million of deferred rent expense, as well as a \$12.9 million increase in cash consumed primarily by an increase in inventories, due from related party, net, accounts receivable, and a decrease in customer deposits offset by an increase in accounts payable and accrued liabilities.

Investing Activities

Net cash used in investing activities was \$19.4 million for the year ended December 31, 2019, primarily consisting of purchases of manufacturing equipment, leasehold improvements at the Mojave Air and Space Port facility, purchases of furniture and fixtures, IT infrastructure upgrades, and spare parts as well as construction activities at the Gateway to Space facility and at spaceflight systems fueling facilities.

Net cash used in investing activities was \$10.6 million for 2018, primarily consisting of purchases of tooling and manufacturing equipment, design and construction projects at our New Mexico facility, including upgrades to communications systems, IT infrastructure upgrades, main hangar design and architectural services, buildout of maintenance and ground support facilities, and spaceflight systems fueling facilities.

Financing Activities

Net cash provided by financing activities was \$634.3 million for the year ended December 31, 2019 consisting primarily of proceeds of \$500.0 million from the Virgin Galactic Business Combination, equity contributions from V10 of \$162.4 million and proceeds of \$20.0 million from issuance of our common stock, partially offset by issuance costs of \$48.0 million incurred in connection with the Virgin Galactic Business Combination.

Net cash provided by financing activities was \$156.6 million for 2018, consisting primarily of equity contributions received from V10.

Funding Requirements

We expect our expenses to increase substantially in connection with our ongoing activities, particularly as we continue to advance the development of our spaceflight system and the commercialization of our human spaceflight operations. In addition, we expect cost of revenue to increase significantly as we commence commercial operations and add additional spaceships to our operating fleet.

Specifically, our operating expenses will increase as we:

- scale up our manufacturing processes and capabilities to support expanding our fleet with additional spaceships, carrier aircraft and rocket motors upon commercialization;
- pursue further research and development on our future human spaceflights, including those related to our research and education efforts, supersonic and hypersonic point-to-point travel;
- hire additional personnel in research and development, manufacturing operations, testing programs, and maintenance as we increase the volume of our spaceflights upon commercialization;
- seek regulatory approval for any changes, upgrades or improvements to our spaceflight technologies and operations in the future, especially upon commercialization;
- maintain, expand and protect our intellectual property portfolio; and
- hire additional personnel in management to support the expansion of our operational, financial, information technology, and other areas to support our operations as a public company.

We expect that our current cash and cash equivalents will fund our operating expenses and capital expenditure requirements for at least 24 months. We have based this estimate on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we expect. Additionally, changing circumstances may cause us to consume capital significantly faster than we currently anticipate, and we may need to spend more money than currently expected because of circumstances beyond our control.

Additionally, we are in the final phases of developing our commercial spaceflight program. While we anticipate initial commercial launch with a single SpaceShipTwo, we currently have two additional SpaceShipTwo vehicles under construction and expect the direct costs to complete these two vehicles to be in the range of \$40 million to \$60 million. Assuming commercial adoption of our human spaceflight program occurs at the level we anticipate, we plan to expand the fleet to a total of five SpaceShipTwo vehicles by the end of 2023. We anticipate the costs to manufacture additional vehicles will begin to decrease as we continue to scale up our manufacturing processes and capabilities. Until we have achieved technological feasibility with our spaceflight systems, we will not capitalize expenditures incurred to construct any additional components of our spaceflight systems and continue to expense these costs as incurred to research and development.

The commercial launch of our human spaceflight program and the anticipated expansion of our fleet have unpredictable costs and are subject to significant risks, uncertainties and contingencies, many of which are beyond our control, that may affect the timing and magnitude of these anticipated expenditures. Some of these risk and uncertainties are described in more detail in this Annual Report on Form 10-K under the heading “*Risk Factors—Risks Related to Our Business.*”

Commitments and Contingencies

The following table summarizes our contractual obligations as of December 31, 2019.

	Total	Payments Due by Periods ¹			
		<1 year	1-3 years	3-5 years	>5 years
		<i>(In thousands)</i>			
Operating lease obligations	\$ 48,820	\$ 5,006	\$ 7,362	\$ 6,452	\$ 30,000
Finance lease obligations	392	57	219	116	—
Total lease obligations	\$ 49,212	\$ 5,063	\$ 7,581	\$ 6,568	\$ 30,000

¹We are a party to operating leases primarily for land and buildings (e.g., office buildings, warehouses and spaceport) and certain equipment (e.g., copiers) under non-cancelable operating and finance leases. These leases expire at various dates through 2035.

Off-Balance Sheet Arrangements

We do not engage in any off-balance sheet activities or have any arrangements or relationships with unconsolidated entities, such as variable interest, special purpose, and structured finance entities.

Critical Accounting Policies and Estimates

Our discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with GAAP. The preparation of our consolidated financial statements and related disclosures requires us to make estimates, assumptions and judgments that affect the reported amounts of assets, liabilities, revenues, costs and expenses and related disclosures. We believe that the estimates, assumptions and judgments involved in the accounting policies described below have the greatest potential impact on our financial statements and, therefore, we consider these to be our critical accounting policies. Accordingly, we evaluate our estimates and assumptions on an ongoing basis. Our actual results may differ from these estimates under different assumptions and conditions. Please refer to Note 2 in our consolidated financial statements included elsewhere in this Annual Report on Form 10-K for information about these critical accounting policies, as well as a description of our other significant accounting policies.

Revenue Recognition

We have yet to undertake our first commercial spaceflight for paying private individuals and consequently have not generated any human spaceflight revenue. In December 2018 and February 2019, we successfully carried payloads into space and accordingly recognized revenue related to these spaceflights. Additionally, we have one fixed-price contract as a subcontractor to the primary contractor of a long-term contract with the U.S. government, under which we perform the specified work on a time-and-materials basis subject to a guaranteed maximum price.

For the years ended December 31, 2018 and 2017, we recognized revenue when delivery of our obligations to our customer has occurred, the collection of the relevant receivable is probable, persuasive evidence of an arrangement exists, and the sales price is fixed or determinable. Revenue is measured at the fair value of the consideration received excluding discounts, rebates, Value Added Tax, and other sales taxes or duty. Cash payments for spaceflights are classified as customer deposits until persuasive evidence of an arrangement exists. Revenues from spaceflight is recognized when spaceflight service has been delivered. Revenue from engineering services is recognized on a time-and-materials basis for direct labor hours incurred at fixed hourly rates.

For the year ended December 31, 2019, we recognize revenue when control of the promised service is transferred to our customers in an amount that reflects the consideration we expect to be entitled to in exchange for those services, in accordance with the new standards. However, there is no significant impact in the recognition of revenue.

Inventories

Inventories consist of raw materials expected to be used for the development of the human spaceflight program and customer specific contracts. Inventories are stated at the lower of cost or net realizable value. If events or changes in circumstances indicate that the utility of our inventories have diminished through damage, deterioration, obsolescence, changes in price or other causes, a loss is recognized in the period in which it occurs. We capitalize labor, material, subcontractor and overhead costs as work-in-process for contracts where control has not yet passed to the customer. In addition, we capitalizes costs incurred to fulfill a contract in inventories in advance of contract award as work-in-process if we determine that contract award is probable. We determine the costs of other product and supply inventories by using the first-in first-out or average cost methods.

Research and Development

We conduct research and development activities to develop existing and future technologies that advance our spaceflight system towards commercialization. Research and development activities include basic research, applied research, concept formulation studies, design, development, and related test program activities. Costs incurred for developing our spaceflight system and flight profiles primarily include equipment, material, and labor hours. Costs incurred for performing test flights primarily include rocket motors, fuel, and payroll and benefits for pilots and ground crew. Research and development costs also include rent, maintenance, and depreciation of facilities and equipment and other allocated overhead expenses. We expense all research and development costs as incurred. Once we have achieved technological feasibility, we will capitalize the costs to construct any additional components of our spaceflight systems.

Income Taxes

For the period from January 1, 2019 through October 25, 2019 and the years ended December 31, 2019 and 2018, we adopted the separate return approach for the purpose of presenting the combined financial statements, including the income tax provisions and the related deferred tax assets and liabilities. Our historic operations reflect a separate return approach for each jurisdiction in which we had a presence and GV filed a tax return. For the period from October 26, 2019 through December 31, 2019, we will file our own tax return.

We record income tax expense for the anticipated tax consequences of the reported results of operations using the asset and liability method. Under this method, we recognize deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the financial reporting and tax basis of assets and liabilities, as well as for operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using the tax rates that are expected to apply to taxable income for the years in which those tax assets and liabilities are expected to be realized or settled. We record valuation allowances to reduce our deferred tax assets to the net amount that we believe is more likely than not to be realized. Our assessment considers the recognition of deferred tax assets on a jurisdictional basis. Accordingly, in assessing its future taxable income on a jurisdictional basis, we consider the effect of our transfer pricing policies on that income. We have placed a valuation allowance against U.S. federal and state deferred tax assets since the recovery of the assets is uncertain.

We recognize tax benefits from uncertain tax positions only if we believe that it is more likely than not that the tax position will be sustained on examination by the taxing authorities based on the technical merits of the position. As we grow, we will face increased complexity in determining the appropriate tax jurisdictions for revenue and expense items. We adjust these reserves when facts and circumstances change, such as the closing of a tax audit or refinement of an estimate. To the extent that the final tax outcome of these matters is different than the amounts recorded, such differences will affect the income tax expense in the period in which such determination is made and could have a material impact on our financial condition and operating results. The income tax expense includes the effects of any accruals that we believe are appropriate, as well as the related net interest and penalties.

We have not yet started commercial operations and as such we are accumulating net operating losses at the federal and state levels, which are reflected in the income tax provision section of the balance sheet. The presented income tax expenses in these statements are primarily related to minimum state filing fees in the states where we have operations as well as corporate income taxes for our operations in the United Kingdom, which operates on a cost-plus arrangement and therefore incurs income tax expenses.

Stock-Based Compensation

V10 granted options with performance conditions and service requirements. Compensation cost is recognized if it is probable that the performance condition will be achieved. The performance conditions restrict exercisability or settlement until certain liquidity events occur, such as a qualifying initial public offering or change in control. No accrual has been recorded as none of the performance conditions have been achieved nor deemed probable of being achieved.

In connection with the Virgin Galactic Business Combination, our board of directors and stockholders adopted the 2019 Incentive Award Plan (the "2019 Plan"). Pursuant to the 2019 Plan, up to 21,208,755 shares of common stock have been reserved for issuance to employees, consultants and directors. Please refer to Note 13 in our consolidated financial statements included elsewhere in this Annual Report on Form 10-K for further information regarding stock-based compensation.

Cash Incentive Plan

Our employees participate in a multiyear cash incentive plan (the “Cash Incentive Plan”) to provide cash bonuses based on the attainment of three qualifying milestones with defined target dates. The maximum aggregate amount of cash awards under the Cash Incentive Plan is \$30.0 million. Compensation cost is recognized if it is probable that a milestone will be achieved.

On October 25, 2019, the second qualifying milestone under the VG Companies' multiyear cash incentive plan was amended such that the participants who remained continuously employed by us are entitled to receive 100% of the bonus that such participant would have otherwise received upon the achievement of the original second qualifying milestone. We recognized the \$9.9 million in compensation costs owed to participants for the second qualifying milestone and such amount was paid on November 8, 2019.

Please refer to Note 2 in our consolidated financial statements included elsewhere in this Annual Report on Form 10-K for further information regarding cash-based bonus compensation.

Recent Accounting Pronouncements

Please refer to Note 3 in our consolidated financial statements included elsewhere in this Annual Report on Form 10-K for a description of recently adopted accounting pronouncements and recently issued accounting pronouncements not yet adopted as of the date of this prospectus.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

We have operations within the United States and the United Kingdom and as such we are exposed to market risks in the ordinary course of our business, including the effects of interest rate changes and fluctuations in foreign currency exchange rates. Information relating to quantitative and qualitative disclosures about these market risks is set forth below.

Interest Rate Risk

Cash and cash equivalents consist solely of cash held in depository accounts and as such are not affected by either an increase or decrease in interest rates. Furthermore, we consider all highly liquid investments with a maturity of three months or less as cash equivalents. Currently, we do not possess any cash equivalents, but if we did, the short term nature of these investments would also not be significantly impacted by changes in the interest rates. We believe that a 10% increase or decrease in interest rates would not have a material effect on our interest income or expense.

Foreign Currency Risk

The functional currency of our operations in the United Kingdom is the local currency. We translate the financial statements of the operations in the United Kingdom to United States Dollars and as such we are exposed to foreign currency risk. Currently, we do not use foreign currency forward contracts to manage exchange rate risk, as the amount subject to foreign currency risk is not material to our overall operations and results.

Item 8. Financial Statements and Supplementary Data

The financial statements required by this Item are included in Item 15 of this report and are presented beginning on page F-1.

Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure

As previously reported on our Current Report on Form 8-K, dated November 15, 2019, upon the approval of the audit committee of our board of directors, Marcum LLP (“Marcum”) was dismissed as our independent registered public accounting firm, and KPMG LLP (“KPMG”) was engaged as our independent registered public accounting firm effective November 12, 2019. Marcum served as our independent registered public accounting firm since May 5, 2017, our inception as Social Capital Hedosophia Holdings Corp., whereas KPMG served as the independent registered public accounting firm for Virgin Galactic, LLC, The Spaceship Company, LLC, Virgin Galactic (UK) Limited and their respective subsidiaries (collectively, the “Virgin Galactic Business”) prior to the consummation of the Virgin Galactic Business Combination. The audit committee decided to engage KPMG because, for accounting purposes, our historical financial statements include a continuation of the financial statements of the Virgin Galactic Business.

Marcum’s report on our financial statements for the fiscal year ended December 31, 2018 and for the period from May 5, 2017 (inception) through December 31, 2017 did not contain an adverse opinion or disclaimer of opinion, nor were such reports qualified or modified as to uncertainty, audit scope or accounting principles. During the period of Marcum’s engagement and the subsequent interim period preceding Marcum’s dismissal, there were no disagreements with Marcum on any matter of accounting principles or practices, financial statement disclosure or auditing scope or procedure, which disagreements, if not resolved to the satisfaction of Marcum, would have caused it to make a reference to the subject matter of the disagreement in connection with its reports covering such periods. In addition, no “reportable events,” as defined in Item 304(a)(1)(v) of Regulation S-K, occurred within the period of Marcum’s engagement and the subsequent interim period preceding Marcum’s dismissal.

During the period from May 5, 2017 (inception) through December 31, 2018 and the subsequent interim period preceding the engagement of KPMG, neither we nor anyone on our behalf has previously consulted with KPMG regarding either: (i) the application of accounting principles to a specified transaction, either completed or proposed; or the type of audit opinion that might be rendered on our financial statements, and neither a written report nor oral advice was provided to us that KPMG concluded was an important factor considered by us in reaching a decision as to the accounting, auditing or financial reporting issue; or (ii) any matter that was either the subject of a “disagreement” or a “reportable event” (as described in Items 304(a)(1)(iv) and 304(a)(1)(v) of Regulation S-K, respectively).

Item 9A. Controls and Procedures

Background and Remediation of Material Weakness

In connection with the audit of our consolidated financial statements as of and for the years ended December 31, 2019 and 2018, we identified two material weaknesses in our internal control over financial reporting. 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 our annual or interim financial statements will not be prevented or detected on a timely basis.

The first material weakness is related to the lack of a sufficient number of personnel to execute, review and approve all aspects of the financial statement close and reporting process. This material weakness may not allow for us to have proper segregation of duties and the ability to close our books and records and report our results, including required disclosures, on a timely basis. The second material weakness arises from the need to augment our information technology and application controls in our financial reporting.

We have begun the process of, and we are focused on, designing and implementing effective internal controls measures to improve our internal control over financial reporting and remediate the material weaknesses. Our efforts include a number of actions:

- We are designing and implementing additional review procedures within our accounting and finance department to provide more robust and comprehensive internal controls over financial reporting that address the relative financial statement assertions and risks of material misstatement within our business processes.
- We are actively recruiting additional personnel, in addition to engaging and utilizing third party consultants and specialists to supplement our internal resources and segregate key functions within our business processes, if appropriate.

- We are designing and implementing information technology and application controls in our financially significant systems to address our relative information processing objectives.
- We are enhancing our system's role based access and implementing automated controls to help improve the reliability of our process and reporting.
- We are designing and implementing additional integration in our financially significant systems to provide that our information technology processes alongside efforts in our business processes, are supporting our internal control over financial reporting.
- Finally, we hired an executive in charge of our Sarbanes-Oxley compliance efforts and are actively recruiting additional personnel, in addition to engaging and utilizing third party consultants and specialists to supplement our internal resources and segregate key functions within our business processes, if appropriate.

While these actions and planned actions are subject to ongoing management evaluation and will require validation and testing of the design and operating effectiveness of internal controls over a sustained period of financial reporting cycles, we are committed to the continuous improvement of our internal control over financial reporting and will continue to diligently review our internal control over financial reporting.

Limitations on Effectiveness of Controls and Procedures

In designing and evaluating our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act), management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply judgment in evaluating the benefits of possible controls and procedures relative to their costs.

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our chief executive officer and chief financial officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of the end of the period covered by this Annual Report on Form 10-K. Based on this evaluation, our chief executive officer and chief financial officer concluded that, as of December 31, 2019, our disclosure controls and procedures were effective.

However, after giving full consideration to these material weaknesses, and the additional analyses and other procedures that we performed to ensure that our consolidated financial statements included in this Annual Report on Form 10-K were prepared in accordance with U.S. GAAP, our management has concluded that our consolidated financial statements present fairly, in all material respects, our financial position, results of operations and cash flows for the periods disclosed in conformity with U.S. GAAP.

Management's Report on Internal Controls Over Financial Reporting

This Annual Report on Form 10-K does not include a report of management's assessment regarding our internal control over financial reporting (as defined in Rule 13a-15(f) and 15d-15(f) under the Exchange Act) due to a transition period established by rules of the SEC.

Attestation of Independent Registered Public Accounting Firm

This Annual Report on Form 10-K does not include an attestation by our independent registered public accounting firm regarding our internal control over financial reporting (as defined in Rule 13a-15(f) and 15d-15(f) under the Exchange Act) due to a transition period established by the rules of the SEC.

Changes in Internal Control Over Financial Reporting

Other than described above in this Item 9A, there has been no change in our internal control over financial reporting during the fiscal quarter ended December 31, 2019 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

Part III

In accordance with General Instruction G.(3) of Form 10-K certain information required by this Part III will either be incorporated into this Annual Report on Form 10-K by reference to our definitive proxy statement filed within 120 days after December 31, 2019 or will be included in an amendment to this Annual Report on Form 10-K filed within 120 days after December 31, 2019.

Item 10. Directors, Executive Officers and Corporate Governance

We will provide information that is responsive to this Item 10 in our definitive proxy statement or in an amendment to this Annual Report on Form 10-K not later than 120 days after December 31, 2019. Such information is incorporated into this Item 10 by reference.

Item 11. Executive Compensation

We will provide information that is responsive to this Item 11 in our definitive proxy statement or in an amendment to this Annual Report on Form 10-K not later than 120 days after December 31, 2019. Such information is incorporated into this Item 11 by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

We will provide information that is responsive to this Item 12 in our definitive proxy statement or in an amendment to this Annual Report on Form 10-K not later than 120 days after December 31, 2019. Such information is incorporated into this Item 12 by reference.

Item 13. Certain Relationships and Related Transaction, and Director Independence

We will provide information that is responsive to this Item 13 in our definitive proxy statement or in an amendment to this Annual Report on Form 10-K not later than 120 days after December 31, 2019. Such information is incorporated into this Item 13 by reference.

Item 14. Principal Accounting Fees and Services

We will provide information that is responsive to this Item 14 in our definitive proxy statement or in an amendment to this Annual Report on Form 10-K not later than 120 days after December 31, 2019. Such information is incorporated into this Item 14 by reference.

Part IV

Item 15. Exhibits, Financial Statement Schedules

The following documents are filed as part of this report:

- (1) Financial Statements. Reference is made to the Index to Consolidated Financial Statements beginning on Page F-1 hereof.
- (2) Financial Statement Schedules. None.
- (3) Exhibits. The following exhibits are filed, furnished or incorporated by reference as part of this Annual Report on Form 10-K.

Exhibit No.	Exhibit Description	Incorporated by Reference				Filed/Furnished Herewith
		Form	File No.	Exhibit	Filing Date	
2.1 ⁽³⁾	Agreement and Plan of Merger, dated July 9, 2019, by and among the Registrant, Vieco 10 Limited, Foundation Sub 1, Inc., Foundation Sub 2, Inc., Foundation Sub LLC, TSC Vehicle Holdings, Inc., Virgin Galactic Vehicle Holdings, Inc. and Virgin Galactic Holdings, LLC	8-K/A	001-38202	2.1	07/11/2019	
2.1(a) ⁽³⁾	Amendment No. 1 to Agreement and Plan of Merger, dated October 2, 2019, by and among the Registrant, Vieco 10 Limited, Foundation Sub 1, Inc., Foundation Sub 2, Inc., Foundation Sub LLC, TSC Vehicle Holdings, Inc., Virgin Galactic Vehicle Holdings, Inc., Virgin Galactic Holdings, LLC and Vieco USA, Inc.	S-4	333-233098	2.1(a)	10/03/2019	
3.1	Certificate of Incorporation of the Registrant	8-K	001-38202	3.1	10/29/2019	
3.2	By-Laws of the Registrant	8-K	001-38202	3.2	10/29/2019	
4.1	Specimen Unit Certificate of the Registrant	S-4	333-233098	4.5	10/03/2019	
4.2	Specimen Common Stock Certificate of the Registrant	8-K	001-38202	4.2	10/29/2019	
4.3	Warrant Agreement, dated September 13, 2017, by and between the Registrant and Continental Stock Transfer & Trust Company, as warrant agent	8-K	001-38202	4.4	09/18/2017	
4.4	Description of the Registrant's Securities Registered under Section 12 of the Exchange Act					*
10.1	Form of Indemnification Agreement	S-4	333-233098	10.46	10/03/2019	
10.2 ⁽¹⁾	2019 Incentive Award Plan	8-K	001-38202	10.2	10/29/2019	
10.2(a) ⁽¹⁾	Form of Director Restricted Stock Unit Award Agreement	S-4	333-233098	10.26	08/07/2019	
10.2(b) ⁽¹⁾	Form of Restricted Stock Unit Agreement under the 2019 Incentive Award Plan	8-K	001-38202	10.2(b)	10/29/2019	
10.2(c) ⁽¹⁾	Form of Stock Option Agreement under the 2019 Incentive Award Plan	8-K	001-38202	10.2(c)	10/29/2019	
10.3 ⁽¹⁾	Non-Employee Director Compensation Program	S-4	333-233098	10.47	10/03/2019	
10.4 ⁽¹⁾⁽⁴⁾	Employment Agreement, dated October 25, 2019, by and among the Registrant, Virgin Galactic Holdings, LLC and George Whitesides	8-K	001-38202	10.4	10/29/2019	
10.5 ⁽¹⁾⁽⁴⁾	Employment Agreement, dated October 25, 2019, by and among the Registrant, Virgin Galactic, LLC and Michael Moses	8-K	001-38202	10.5	10/29/2019	
10.6 ⁽¹⁾⁽⁴⁾	Amended and Restated Employment Agreement, dated January 13, 2020, by and among the Registrant, TSC, LLC, Virgin Galactic Holdings, LLC and Enrico Palermo	S-1/A	333-234770	10.6	2/14/2020	*

Exhibit No.	Exhibit Description	Form	Incorporated by Reference			Filed/Furnished Herewith
			File No.	Exhibit	Filing Date	
10.7 ⁽¹⁾⁽⁴⁾	Employment Agreement, dated October 25, 2019, by and among the Registrant, Virgin Galactic Holdings, LLC and Jonathan Campagna	8-K	001-38202	10.7	/	
10.8	Purchase Agreement, dated July 9, 2019, by and among the Registrant, Chamath Palihapitiya and Vieco 10 Limited	8-K/A	001-38202	10.1	07/11/2019	
10.8(a)	Assignment, Consent and Waiver Agreement, dated October 2, 2019, by and among the Registrant, Chamath Palihapitiya, Vieco 10 Limited and Vieco USA, Inc.	S-4	333-233098	10.19(a)	10/03/2019	
10.9	Stockholders' Agreement, dated October 25, 2019, by and among the Registrant, SCH Sponsor Corp., Chamath Palihapitiya and Vieco USA, Inc.	8-K	001-38202	10.9	10/29/2019	
10.10	Amended and Restated Registration Rights Agreement, dated October 25, 2019, by and among the Registrant, Vieco USA, Inc., SCH Sponsor Corp. and Chamath Palihapitiya.	8-K	001-38202	10.10	10/29/2019	
10.11 ⁽²⁾	Deed of Novation, Amendment and Restatement, dated July 9, 2019, by and among the Registrant, Virgin Enterprises Limited and Virgin Galactic, LLC	S-4	333-233098	10.20	08/07/2019	
10.11(a) ⁽²⁾	Deed of Amendment, dated October 2, 2019, by and among the Registrant, Virgin Enterprises Limited and Virgin Galactic, LLC	S-4	333-233098	10.21(a)	10/03/2019	
10.12 ⁽²⁾	U.S. Transition Services Agreement, dated October 25, 2019, by and among TSC LLC, Virgin Galactic, LLC, Galactic Ventures LLC and Virgin Orbit, LLC	8-K	001-38202	10.12	10/29/2019	
10.13 ⁽²⁾	U.K. Transition Services Agreement, dated October 25, 2019, by and between Virgin Galactic Limited and Virgin Management Limited	8-K	001-38202	10.13	10/29/2019	
10.14 ⁽²⁾	Spacecraft Technology License Agreement, dated September 24, 2004, by and between Mojave Aerospace Ventures, LLC and Virgin Galactic, LLC	S-4	333-233098	10.27	08/07/2019	
10.14(a) ⁽²⁾	Amendment No. 1 to the Spacecraft Technology License Agreement, dated July 27, 2009, by and between Mojave Aerospace Ventures, LLC and Virgin Galactic, LLC	S-4	333-233098	10.28	08/07/2019	
10.15	Facilities Lease, dated December 31, 2008, by and between Virgin Galactic, LLC and New Mexico Spaceport Authority	S-4	333-233098	10.29	08/07/2019	
10.15(a)	First Amendment to the Facilities Lease, dated 2009, by and between Virgin Galactic, LLC and New Mexico Spaceport Authority	S-4	333-233098	10.30	08/07/2019	
10.16	Building 79A Lease Agreement, dated January 1, 2018, by and between Mojave Air and Space Port and TSC, LLC	S-4	333-233098	10.32	09/13/2019	
10.17	Land Lease Agreement, dated October 1, 2010, by and between East Kern Airport District and TSC, LLC	S-4	333-233098	10.33	09/13/2019	
10.17(a)	Amendment No. 1 to the Land Lease Agreement, dated October 1, 2013, by and between Mojave Air and Space Sport and TSC, LLC	S-4	333-233098	10.34	09/13/2019	
10.18	Site 14 Lease Agreement, dated February 18, 2015, by and between Mojave Air and Space Sport and TSC, LLC	S-4	333-233098	10.35	09/13/2019	
10.19	First Amendment to the Site 14 Lease Agreement, dated July 1, 2017, by and between Mojave Air and Space Sport and TSC, LLC	S-4	333-233098	10.36	09/13/2019	
10.20	Building 79B Lease Agreement, dated March 1, 2013, by and between Mojave Air and Space Port and TSC, LLC	S-4	333-233098	10.37	10/03/2019	

Incorporated by Reference

Exhibit No.	Exhibit Description	Form	File No.	Exhibit	Filing Date	Filed/Furnished Herewith
10.20(a)	First Amendment to Building 79B Lease, dated June 2, 2014, by and between Mojave Air and Space Port and TSC, LLC	S-4	333-233098	10.38	10/03/2019	
21.1	List of Subsidiaries					
23.1	Consent of KPMG LLP					*
24.1	Powers of Attorney (incorporated by reference to the signature page hereto)					*
31.1	Certification of Principal Executive Officer Pursuant to Securities Exchange Act Rules 13a-14(a) and 15(d)-14(a), as adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002					*
31.2	Certification of Principal Financial Officer Pursuant to Securities Exchange Act Rules 13a-14(a) and 15(d)-14(a), as adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002					*
32.1	Certification of Principal Executive Officer Pursuant to 18 U.S.C. Section 1350, as adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002					**
32.2	Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002					**
101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document					*
101.SCH	Inline XBRL Taxonomy Extension Schema Document					*
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document					*
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document					*
101.LAB	Inline XBRL Taxonomy Extension Labels Linkbase Document					*
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document					*
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)					*

* Filed herewith.

** Furnished herewith.

(1) Indicates management contract or compensatory plan.

(2) Certain portions of this exhibit (indicated by “[***]”) have been omitted pursuant to Regulation S-K, Item (601)(b)(10).

(3) Schedules and exhibits have been omitted pursuant to Item 601(b)(2) of Regulation S-K. The Registrant agrees to furnish supplementally a copy of any omitted schedule or exhibit to the SEC upon request.

(4) An attachment to this exhibit has been omitted pursuant to Item 601(a)(5) of Regulation S-K because the information contained therein is not material and is not otherwise publicly disclosed. The Registrant will furnish supplementally a copy of the attachment to the SEC or its staff upon request.

Item 16. Form 10-K Summary

None.

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

Virgin Galactic Holdings, Inc.

By: /s/ George Whitesides

Name: George Whitesides

Title: Chief Executive Officer and President

Power of Attorney

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints George Whitesides and Jonathan Campagna, or either of them, as his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to file and sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the United States 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 in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their or his substitutes or substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities 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.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ George Whitesides</u> George Whitesides	Chief Executive Officer and President (Principal Executive Officer) and Director	February 27, 2020
<u>/s/ Jonathan Campagna</u> Jonathan Campagna	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	February 27, 2020
<u>/s/ Chamath Palihapitiya</u> Chamath Palihapitiya	Director	February 27, 2020
<u>/s/ Wanda Austin</u> Wanda Austin	Director	February 27, 2020
<u>/s/ Adam Bain</u> Adam Bain	Director	February 27, 2020
<u>/s/ Craig Kreeger</u> Craig Kreeger	Director	February 27, 2020
<u>/s/ Evan Lovell</u> Evan Lovell	Director	February 27, 2020

Signature

Title

Date

/s/ George Mattson

George Mattson

Director

February 27, 2020

/s/ James Ryans

James Ryans

Director

February 27, 2020

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

	Page No.
<u>Report of Independent Registered Public Accounting Firm</u>	<u>F-2</u>
<u>Consolidated Balance Sheets</u>	<u>F-4</u>
<u>Consolidated Statements of Operations and Comprehensive Loss</u>	<u>F-5</u>
<u>Consolidated Statements of Equity</u>	<u>F-6</u>
<u>Consolidated Statements of Cash Flows</u>	<u>F-7</u>
<u>Notes to Consolidated Financial Statements</u>	<u>F-5</u>
<u>(1) Organization</u>	<u>F-8</u>
<u>(2) Summary of Significant Accounting Policies</u>	<u>F-8</u>
<u>(3) Recent Accounting Pronouncements</u>	<u>F-20</u>
<u>(4) Virgin Galactic Business Combination</u>	<u>F-23</u>
<u>(5) Related Party Transaction</u>	<u>F-25</u>
<u>(6) Inventory</u>	<u>F-25</u>
<u>(7) Property, Plant, and Equipment, net</u>	<u>F-26</u>
<u>(8) Leases</u>	<u>F-27</u>
<u>(9) Accrued Liabilities</u>	<u>F-29</u>
<u>(10) Income Taxes</u>	<u>F-29</u>
<u>(11) Stockholders' Equity</u>	<u>F-34</u>
<u>(12) Earnings Per Share</u>	<u>F-36</u>
<u>(13) Stock-Based Compensation</u>	<u>F-36</u>
<u>(14) Commitments and Contingencies</u>	<u>F-39</u>
<u>(15) Employee Benefit Plan</u>	<u>F-40</u>
<u>(16) Supplemental Cash Flow Information</u>	<u>F-41</u>
<u>(17) Quarterly Financial Data (unaudited)</u>	<u>F-42</u>

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
Virgin Galactic Holdings, Inc.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Virgin Galactic Holdings, Inc. and subsidiaries (the Company) as of December 31, 2019 and 2018, the related consolidated statements of operations and comprehensive loss, equity, and cash flows for each of the years in the three-year period ended December 31, 2019, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2019, in conformity with U.S. generally accepted accounting principles.

Change in Accounting Principle

As discussed in Notes 3 and 8 to the consolidated financial statements, the Company has changed its method of accounting for leases as of January 1, 2019 due to the adoption of Accounting Standard Update (ASU) No. 2016-02, Leases (Topic 842), as amended.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (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 consolidated 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 consolidated 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 consolidated 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 consolidated 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 consolidated financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of a critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing separate opinions on the critical audit matter or on the accounts or disclosures to which it relates.

Evaluation of research and development costs

As discussed in Note 2(t) to the consolidated financial statements, the Company expenses all research and development costs incurred to develop its spaceflight systems. The Company incurred \$136 million of research and development costs during the year ended December 31, 2019.

We identified the evaluation of research and development costs as a critical audit matter. There was a high degree of auditor judgment and subjectivity involved in evaluating the future benefits, if any, provided by research and development expenditures to progress the Company's spaceflight systems.

The primary procedures we performed to address this critical audit matter included the following. We obtained an understanding of the Company's determination to record research and development expenditures as expenses in the period incurred. We assessed the determination by obtaining documentation of the remaining steps required to achieve commercial spaceflight operations. We reviewed regulatory correspondence to evaluate the status of spaceflight system development and milestones achieved. We obtained and evaluated the Company's analysis regarding the development costs incurred to progress its spaceflight systems.

/s/KPMG LLP

We have served as the Company's auditor since 2019.

Los Angeles, California
February 27, 2020

VIRGIN GALACTIC HOLDINGS, INC.
Consolidated Balance Sheets
(In thousands)

	As of December 31,	
	2019	2018
Assets		
Current assets		
Cash and cash equivalents	\$ 480,443	\$ 73,990
Restricted cash	12,278	7,378
Accounts receivable	461	1,279
Inventories	26,817	23,288
Prepayments and other current assets	16,672	4,195
Due from related party, net	—	8,967
Total current assets	536,671	119,097
Property, plant, and equipment, net	49,333	34,214
Right-of-use asset	16,927	—
Other noncurrent assets	2,615	2,728
Total assets	\$ 605,546	\$ 156,039
Liabilities and Stockholders' Equity		
Current liabilities		
Accounts payable	\$ 7,038	\$ 7,217
Current portion of operating lease obligation	2,354	—
Current portion of finance lease obligation	47	56
Accrued liabilities	22,277	18,166
Customer deposits	83,362	80,883
Due to related parties, net	767	—
Total current liabilities	115,845	106,322
Deferred rent	—	8,158
Operating lease obligation, net of current portion	21,867	—
Financing lease obligation, net of current portion	274	—
Total liabilities	\$ 137,986	\$ 114,480
Commitments and contingencies (Note 14)		
Stockholders' Equity		
Net parent investment	—	41,477
Preferred stock, \$0.0001 par value; 10,000,000 authorized; none issued and outstanding	—	—
Common stock, \$0.0001 par value; 700,000,000 shares authorized; 196,001,038 and 0 shares issued and outstanding as of December 31, 2019 and 2018, respectively	20	—
Additional paid-in capital	589,158	—
Accumulated deficit	(121,677)	—
Accumulated other comprehensive income	59	82
Total stockholders' equity	467,560	41,559
Total liabilities and stockholders' equity	\$ 605,546	\$ 156,039

See accompanying notes to consolidated financial statements.

VIRGIN GALACTIC HOLDINGS, INC.
Consolidated Statements of Operations and Comprehensive Loss
(In thousands except for per share data)

	Years Ended December 31,		
	2019	2018	2017
Revenue	\$ 3,781	\$ 2,849	\$ 1,754
Cost of revenue	2,004	1,201	488
Gross profit	1,777	1,648	1,266
Selling, general, and administrative expenses	82,166	50,902	46,886
Research and development expenses	132,873	117,932	93,085
Operating loss	(213,262)	(167,186)	(138,705)
Interest income	2,297	633	241
Interest expense	36	10	21
Other income	128	28,571	453
Loss before income taxes	(210,873)	(137,992)	(138,032)
Income tax expense	62	147	155
Net loss	(210,935)	(138,139)	(138,187)
Other comprehensive loss:			
Foreign currency translation adjustment	(23)	(52)	(21)
Total comprehensive loss for the year	\$ (210,958)	\$ (138,191)	\$ (138,208)
Net loss per share:			
Basic and diluted	\$ (1.09)	\$ (0.71)	\$ (0.71)
Weighted-average shares outstanding:			
Basic and diluted	194,378,154	193,663,150	193,663,150

See accompanying notes to consolidated financial statements.

VIRGIN GALACTIC HOLDINGS, INC.
Consolidated Statements of Equity
(In thousands except for per unit and share data)

	Member's Equity		Preferred Stock		Common Stock		Additional paid-in capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Total	
	Net Parent Investment	Units	Member's Capital	Shares	Par Value	Common Stock					Par Value
Balance as of December 31, 2016	\$ 23,165	—	\$ —	—	\$ —	—	\$ —	\$ —	\$ 155	\$ 23,320	
Net loss	(138,187)	—	—	—	—	—	—	—	—	(138,187)	
Other comprehensive loss	—	—	—	—	—	—	—	—	(21)	(21)	
Net transfer from Parent Company	137,955	—	—	—	—	—	—	—	—	137,955	
Balance as of December 31, 2017	22,933	—	—	—	—	—	—	—	134	23,067	
Net loss	(138,139)	—	—	—	—	—	—	—	—	(138,139)	
Other comprehensive loss	—	—	—	—	—	—	—	—	(52)	(52)	
Net transfer from Parent Company	156,683	—	—	—	—	—	—	—	—	156,683	
Balance as of December 31, 2018	41,477	—	—	—	—	—	—	—	82	41,559	
Net loss	(89,258)	—	—	—	—	—	—	(121,677)	—	(210,935)	
Other comprehensive income (loss)	—	—	—	—	—	—	—	—	(23)	(23)	
Net transfer from Parent Company	106,119	—	—	—	—	—	—	—	—	106,119	
Contributions from Parent Company	—	—	56,310	—	—	—	—	—	—	56,310	
Conversion from net parent investment into members' equity	(58,338)	100	58,338	—	—	—	—	—	—	—	
Conversion of members' equity into common stock	—	(100)	(114,648)	—	—	114,790,438	12	114,636	—	—	
Stock-based compensation	—	—	—	—	—	—	—	2,535	—	2,535	
Issuance of common stock, net of costs	—	—	—	—	—	1,924,402	—	20,000	—	20,000	
Effect of reverse recapitalization, net of costs	—	—	—	—	—	79,286,198	8	451,987	—	451,995	
Balance as of December 31, 2019	\$ —	—	\$ —	—	\$ —	196,001,038	\$ 20	\$ 589,158	\$ (121,677)	\$ 59	\$ 467,560

See accompanying notes to consolidated financial statements.

VIRGIN GALACTIC HOLDINGS, INC.
Consolidated Statements of Cash Flows
(In thousands)

	Years Ended December 31,		
	2019	2018	2017
Cash flows from operating activities			
Net loss	\$ (210,935)	\$ (138,139)	\$ (138,187)
Stock-based compensation	2,535	—	—
Depreciation and amortization	6,999	5,807	5,148
Deferred rent	—	(547)	1,464
(Gain) loss on disposal of property and equipment	(38)	25	—
Change in assets and liabilities			
Accounts receivable	819	(416)	138
Inventories	(3,528)	(13,122)	(1,191)
Prepayments and other current assets	(12,476)	(76)	1,205
Other noncurrent assets	1,178	101	(4)
Due from related party, net	9,734	(1,786)	(3,653)
Accounts payable and accrued liabilities	(323)	3,690	62
Customer deposits	2,479	(1,240)	(1,657)
Net cash used in operating activities	<u>(203,556)</u>	<u>(145,703)</u>	<u>(136,675)</u>
Cash flows from investing activity			
Capital expenditures	(19,411)	(10,590)	(5,597)
Cash used in investing activity	<u>(19,411)</u>	<u>(10,590)</u>	<u>(5,597)</u>
Cash flows from financing activities			
Payments of finance lease obligations	(104)	(88)	(85)
Net transfer from Parent Company	106,119	156,683	137,955
Proceeds from Parent Company	56,310	—	—
Proceeds from issuance of common stock	20,000	—	—
Proceeds from reverse recapitalization	500,000	—	—
Payments for reverse recapitalization and common stock issuance costs	(48,005)	—	—
Net cash provided by financing activities	<u>634,320</u>	<u>156,595</u>	<u>137,870</u>
Net increase (decrease) increase in cash and cash equivalents	<u>411,353</u>	<u>302</u>	<u>(4,402)</u>
Cash, cash equivalents and restricted cash at beginning of year	81,368	81,066	85,468
Cash, cash equivalents and restricted cash at end of year	<u>\$ 492,721</u>	<u>\$ 81,368</u>	<u>\$ 81,066</u>
Cash and cash equivalents	\$ 480,443	\$ 73,990	\$ 75,426
Restricted cash	12,278	7,378	5,640
Cash, cash equivalents and restricted cash	<u>\$ 492,721</u>	<u>\$ 81,368</u>	<u>\$ 81,066</u>

See accompanying notes to consolidated financial statements.

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

(1) Organization

Virgin Galactic Holdings, Inc. and its wholly owned subsidiaries ("VGH, Inc.") are focused on the development, manufacture and operations of spaceships and related technologies for the purpose of conducting commercial human spaceflight and flying commercial research and development payloads into space. The development and manufacturing activities are located in Mojave, California with plans to operate the commercial spaceflights out of Spaceport America located in New Mexico. VGH, Inc. is majority owned by Vieco USA, Inc. ("Vieco US"), a wholly owned subsidiary of Vieco 10 Limited, a British Virgin Islands Company ("V10").

VGH, Inc. was originally formed as a Cayman Islands exempted company on May 5, 2017 under the name Social Capital Hedosophia Holdings Corp ("SCH"). SCH was a public investment vehicle incorporated as a blank check company for the purpose of effecting a merger, share exchange, asset acquisition, share purchase, reorganization or similar business combination with one or more businesses. On July 9, 2019, SCH and V10 executed a definitive merger agreement between SCH and the entities under common control of V10 comprising the Virgin Galactic operating businesses (the "VG Companies") (the "Virgin Galactic Business Combination"). The closing of the Virgin Galactic Business Combination occurred on October 25, 2019 and, in connection with the closing, SCH re-domiciled as a Delaware corporation under the name Virgin Galactic Holdings, Inc. Upon closing, the entities comprising the VG Companies became wholly owned subsidiaries of VGH, Inc. and in exchange the VGH, Inc. common stock due to V10 as consideration was received and directly held by Vieco US.

Throughout the notes to the consolidated financial statements, unless otherwise noted, "we," "us," "our," the "Company" and similar terms refer to the VG Companies prior to the consummation of the Virgin Galactic Business Combination, and VGH, Inc. and its subsidiaries after the Virgin Galactic Business Combination. Prior to the Virgin Galactic Business Combination and prior to the series of V10 reorganizational steps, Galactic Ventures, LLC ("GV"), a wholly-owned subsidiary of V10, was the direct parent of VG Companies.

(2) Summary of Significant Accounting Policies

(a) Virgin Galactic Business Combination and Basis of Presentation

The Virgin Galactic Business Combination was accounted for as a reverse recapitalization. Under this method of accounting, SCH has been treated as the acquired company for financial reporting purposes. This determination was primarily based on current shareholders of the VG Companies having a relative majority of the voting power of the combined entity, the operations of the VG Companies prior to the acquisition comprising the only ongoing operations of the combined entity, and senior management of the VG Companies comprising the majority of the senior management of the combined entity. Accordingly, for accounting purposes, the financial statements of the combined entity represent a continuation of the financial statements of the VG Companies with the acquisition being treated as the equivalent of the VG Companies issuing stock for the net assets of SCH, accompanied by a recapitalization. The net assets of SCH were recognized as of the date of the Virgin Galactic Business Combination at historical cost, with no goodwill or other intangible assets recorded. Operations prior to the Virgin Galactic Business Combination in these financial statements are those of the VG Companies and the accumulated deficit of VG Companies has been carried forward after the Virgin Galactic Business Combination. Earnings per share calculations for all periods prior to the Virgin Galactic Business Combination have been retrospectively adjusted for the equivalent number of shares outstanding immediately after the Virgin Galactic Business Combination to effect the reverse acquisition.

These consolidated financial statements are prepared in accordance with U.S. generally accepted accounting principles ("GAAP") and pursuant to the rules and regulations of the U.S. Securities and Exchange Commission ("SEC"). All intercompany transactions and balances between the various legal entities comprising the Company have been eliminated in consolidation.

Prior to the Virgin Galactic Business Combination, these consolidated financial statements have been derived from the historical consolidated financial statements of V10 and include assets, liabilities, revenues and expenses directly attributable to our operations and allocations of corporate expenses from the V10 and GV for providing certain corporate functions, which included, but are not limited to, general corporate expenses related to finance, legal, compliance, facilities, and employee benefits. Following the

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

Virgin Galactic Business Combination, these consolidated financial statements represent the stand-alone activity of the Company.

Prior to the Virgin Galactic Business Combination, corporate expenses were allocated to us from V10 and GV on the basis of direct usage when identifiable or on the basis of headcount. The Company, V10 and GV each consider the basis on which the expenses have been allocated to be a reasonable reflection of the utilization of services provided to or the benefit received by the Company. Following the Virgin Galactic Business Combination, the Company expects to incur additional expenses as a stand-alone company. It is not practicable to estimate actual costs that would have been incurred had the Company been a stand-alone company during the periods presented prior to the Virgin Galactic Business Combination. Actual costs that may have been incurred if the Company had been a stand-alone company would depend on a number of factors, including the chosen organizational structure, what functions were outsourced or performed by employees and strategic decisions made in areas such as information technology and infrastructure.

The historical consolidated financial statements prior to the Virgin Galactic Business Combination do not reflect any attribution of debt or allocation of interest expense.

Following the Virgin Galactic Business Combination, we perform these corporate functions using our own resources or purchased services. We have entered into a transition service agreement with V10 in connection with the separation, many of which are expected to have terms longer than one year.

Prior to the Virgin Galactic Business Combination, the Company was historically funded as part of our V10 and GV's treasury program. Cash and cash equivalents were managed through bank accounts legally owned by us, V10 and GV. Accordingly, cash and cash equivalents held by our V10 and GV at the corporate level were not attributable to us for any of the periods presented. Only cash amounts legally owned by entities dedicated to the Company are reflected in the condensed consolidated balance sheets. Transfers of cash, both to and from V10 and GV's treasury program by us or related parties, are reflected as a component of net parent investment or membership equity in the consolidated balance sheets and as a financing activity on the accompanying consolidated statements of cash flows.

Prior to the Virgin Galactic Business Combination, as the various entities that make up the Company were not historically held by a single legal entity prior to the contribution of the VG Companies into VGH, LLC on July 8, 2019, total net parent investment is shown in lieu of equity in the consolidated financial statements as of the applicable historical periods. Balances between us, V10 and GV that were not historically cash settled are included in net parent investment. Net parent investment represents V10's interest in the recorded assets of us and represents the cumulative investment by V10 in us through July 8, 2019, inclusive of operating results.

Prior to the Virgin Galactic Business Combination, certain of our employees historically participated in V10's stock-based compensation plans in the form of options issued pursuant to V10's plan. The performance conditions set forth in V10 stock-based compensation plans resulted in no stock-based compensation expense recognized during all periods presented prior to consummation of the Virgin Galactic Business Combination.

Prior to the Virgin Galactic Business Combination, the operations of the Company were included in the consolidated U.S. federal, and certain state and local and foreign income tax returns filed by GV, where applicable. Income tax expense and other income tax related information contained in the consolidated financial statements for periods prior to the Virgin Galactic Business Combination are presented on a separate return basis as if the Company had filed its own tax returns. The income taxes of the Company as presented in the consolidated financial statements may not be indicative of the income taxes that the Company will generate in the future. Additionally, certain tax attributes such as net operating losses or credit carryforwards are presented on a separate return basis and have been removed subsequent to the Virgin Galactic Business Combination. In jurisdictions where the Company has been included in the tax returns filed by GV, any income tax receivables resulting from the related income tax provisions have been reflected in the consolidated balance sheets within net parent investment or membership equity, as applicable. Following the Virgin Galactic Business Combination, the Company will file separate standalone tax returns as we effectively became a new and separate tax filer from GV with zero tax attributes and liabilities carrying over.

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

(b) Reclassification

The accompanying financial statements include reclassification from prior presentation as summarized below:

	12/31/2018	Reclassification	12/31/2018
	As Reported		As Adjusted
<i>(In thousands)</i>			
Balance Sheet			
Current assets			
Cash and cash equivalents	\$ 81,368	\$ (7,378)	\$ 73,990
Restricted cash and cash equivalents	—	7,378	7,378
Total current assets	119,097	—	119,097
Total assets	\$ 156,039	\$ —	\$ 156,039

We reclassified to restricted cash any cash deposits received from our future astronauts that are contractually restricted for operational use until the condition of carriage is signed or deposits are refunded. These reclassifications did not have a material impact on our condensed consolidated statements of operations or cash flows. See Note 2 for further information regarding our adoption of Accounting Standards Update 2016-18, Statement of Cash Flows (Topic 230): Restricted Cash.

(c) Use of Estimates

The preparation of the consolidated financial statements in conformity with GAAP required us to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. We base these estimates on historical experience and on various other assumptions that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying amounts of assets and liabilities that are not readily apparent from other sources. Actual results may differ materially from these estimates. Significant estimates inherent in the preparation of the consolidated financial statements include, but are not limited to, accounting for cost of revenue, useful lives of property, plant and equipment, net, accrued liabilities, income taxes including deferred tax assets and liabilities and impairment valuation, stock-based awards and contingencies.

(d) Cash and Cash Equivalents

The Company's cash consists of cash on hand and, for periods prior to the consummation of the Virgin Galactic Business Combination, was not swept to a centralized cash pool, or maintained, operated, or legally owned by V10 and GV. We consider all highly liquid investments with an original maturity of three months or less, when acquired, to be cash equivalents.

(e) Restricted Cash

We classify as restricted cash any cash deposits received from our future astronauts, that are contractually restricted for operational use until the condition of carriage is signed or the deposits are refunded.

(f) Accounts Receivable

Accounts receivable are recorded at the invoiced amount and unbilled receivable, less an allowance for any potential expected uncollectible amounts and do not bear interest. The Company estimates allowance for doubtful accounts based on historical losses, the age of the receivable balance, credit quality of our customers, current economic conditions, and other factors that may affect the customers' ability to pay. There was no allowance for uncollectible amounts as of December 31, 2019 and 2018, respectively,

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

and no write-offs for the years ended December 31, 2019, 2018 and 2017, respectively. The Company does not have any off balance sheet credit exposure related to its customers.

(g) Inventory

Inventories consist of raw materials expected to be used for the development of the human spaceflight program and customer specific contracts. Inventories are stated at the lower of cost or net realizable value. If events or changes in circumstances indicate that the utility of our inventories have diminished through damage, deterioration, obsolescence, changes in price or other causes, a loss is recognized in the period in which it occurs. We capitalize labor, material, subcontractor and overhead costs as work-in-process for contracts where control has not yet passed to the customer or been consumed by development activities. In addition, we capitalize costs incurred to fulfill a contract in inventories in advance of a contract award as work-in-process if we determine that the contract award is probable. The Company determines the costs of other product and supply inventories by using the first-in first-out or average cost methods.

(h) Prepayments and Other Current Assets

Prepayments consist of prepaid rent, prepaid insurance, and other general prepayments.

(i) Property, Plant, and Equipment, net

Property, plant, and equipment, net and leasehold improvements are stated at cost, less accumulated depreciation.

Depreciation on property, plant, and equipment, net is calculated on the straight-line method over the estimated useful lives of the assets. Leasehold improvements are amortized over the shorter period of the estimated life or the lease term.

The estimated useful lives of property and equipment are principally as follows:

Asset	Useful Life
Buildings	39 years
Leasehold Improvements	Shorter of the estimated useful life or lease term
Aircraft	20 years
Machinery & equipment	5 to 7 years
IT software and equipment	3 to 5 years

We incur repair and maintenance costs on major equipment, which is expensed as incurred.

(j) Leases

The Company determines whether an arrangement contains a lease at inception. A lease is a contract that provides the right to control an identified asset for a period of time in exchange for consideration. For identified leases, the Company determines whether it should be classified as an operating or finance lease. Operating leases are recorded in the balance sheet as: right-of-use asset (“ROU asset”) and operating lease obligation. 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. ROU assets and operating lease liabilities are recognized at the commencement date of the lease and measured based on the present value of lease payments over the lease term. The ROU asset also includes deferred rent liabilities. The Company’s lease arrangements generally do not provide an implicit interest rate. As a result, in such situations the Company uses its incremental borrowing rate based on the information available at commencement date in determining the present value of lease payments. The Company includes options to extend or terminate the lease when it is reasonably certain that it will exercise that option in the measurement of its ROU assets and liabilities. Lease expense for operating leases is recognized on a

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

straight-line basis over the lease term. The Company has some lease agreements with lease and non-lease components, which are accounted for as a single lease component.

(k) Capitalized Software

We capitalize certain costs associated with the development or purchase of internal-use software. The amounts capitalized are included in property, plant, and equipment, net on the accompanying consolidated balance sheets and are amortized on a straight-line basis over the estimated useful life of the resulting software, which approximates 3 years. As of December 31, 2019 and 2018, net capitalized software, totaled \$2.4 million and \$1.3 million, including accumulated amortization of \$5.3 million and \$5.0 million, respectively. No amortization expense is recorded until the software is ready for its intended use. For the years ended December 31, 2019, 2018, and 2017, amortization expense related to capitalized software was \$0.8 million, \$0.5 million and \$0.6 million, respectively.

(l) Long-Lived Assets

Long-lived assets primarily consist of property, plant, and equipment, net and are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If circumstances require a long-lived asset to be tested for possible impairment, we first compare undiscounted cash flows expected to be generated by that asset group to its carrying amount. We assess impairment for asset groups, which represent a combination of assets that produce distinguishable cash flows. If the carrying amount of the asset group is not recoverable on an undiscounted cash flow basis, an impairment is recognized to the extent that the carrying amount exceeds its fair value. Fair value is determined through various valuation techniques, including discounted cash flow models, quoted market values, and third-party independent appraisals, as considered necessary. We have not recorded any impairment charges during the years presented.

(m) Other Noncurrent Assets

Other noncurrent assets consist primarily of deposits.

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

(n) Fair Value Measurements

We utilize valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible. We estimate fair value based on assumptions that market participants would use in pricing an asset or liability in the principal or most advantageous market. When considering market participant assumptions in fair value measurements, the following fair value hierarchy distinguishes between observable and unobservable inputs, which is categorized in one of the following levels:

- Level 1 inputs: Unadjusted quoted prices in active markets for identical assets or liabilities accessible to the reporting entity at the measurement date;
- Level 2 inputs: Other than quoted prices included in Level 1 inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the asset or liability; and
- Level 3 inputs: Unobservable inputs for the asset or liability used to measure fair value to the extent that observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset or liability at measurement date.

The carrying amounts included in the Consolidated Balance Sheets under current assets and current liabilities approximate fair value because of the short maturity of these instruments. The following tables summarize the fair value of assets that are recorded in the Company's Consolidated Balance Sheets as of December 31, 2019 and December 31, 2018 at fair value on a recurring basis:

Fair Value Measurements as of December 31, 2019

	Level 1	Level 2	Level 3
	<i>(In thousands)</i>		
Assets			
Money Market	\$ 423,149	\$ —	\$ —
Certificate of deposit	42,630	—	—
Total assets at fair value	\$ 465,779	\$ —	\$ —

Fair Value of Measurements as of December 31, 2018

	Level 1	Level 2	Level 3
	<i>(In thousands)</i>		
Assets			
Money Market	\$ 22,908	\$ —	\$ —
Certificate of deposit	24,277	—	—
Total asset at fair value	\$ 47,185	\$ —	\$ —

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

(o) Segments

Operating segments are defined as components of an entity for which separate financial information is available and that is regularly reviewed by the Chief Operating Decision Maker (“CODM”) in deciding how to allocate resources to an individual segment and in assessing performance. The Company’s CODM is its Chief Executive Officer. The Company has determined that it operates in one operating segment and one reportable segment, as the CODM reviews financial information presented on a consolidated basis for purposes of making operating decisions, allocating resources, and evaluating financial performance.

(p) Comprehensive Loss

Comprehensive loss generally represents all changes in equity other than transactions with owners. Our comprehensive loss consists of net loss and foreign currency translation adjustments.

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

(q) Revenue Recognition

Spaceflight operations and other revenue is recognized for providing human spaceflights and carrying payload cargo into space. While we have yet to undertake our first commercial human spaceflight, we successfully carried multiple payloads into space in February 2019 and the year ended December 31, 2018 and recognized revenue related to these spaceflights during the years ended December 31, 2019 and 2018, respectively. No revenue was recognized for the year ended December 31, 2017. In addition, we have a sponsorship arrangement for which revenue is recognized over the sponsorship term.

Engineering services revenue is recognized for providing services for the research, design, development, manufacture, integration and sustainment of advanced technology aerospace systems, products and services. We have arrangements as a subcontractor to the primary contractor of a long-term contract with the U.S. Government and perform the specified work on a time-and-materials basis subject to a guaranteed maximum price.

For the year ended December 31, 2019

We recognize revenue when control of the promised service is transferred to our customers in an amount that reflects the consideration we expect to be entitled to in exchange for those services.

Our spaceflight operations and other revenue contracts generally contain only one type of distinct performance obligation, carrying spaceflight payloads with delivery of the associated flight data. Revenue for each spaceflight payload is recognized at a point in time upon delivery of flight data to the customer. Revenue for future contracts for human spaceflights is expected to be recognized at a point in time upon successful completion of a spaceflight.

Our engineering services revenue contract obligates us to provide services that together are one distinct performance obligation; the delivery of engineering services. The Company elected to apply the ‘as-invoiced’ practical expedient to such revenues, and as a result, will bypass estimating the variable transaction price. Revenue is recognized as control of the performance obligation is transferred over time to the customer.

Disaggregation of Revenue

Spaceflight operations revenue, engineering services revenue and sponsorship revenue was \$0.8 million, \$2.8 million, and \$0.2 million for the year ended December 31, 2019, respectively.

Contract Balances

Contract assets are comprised of billed accounts receivable and unbilled receivables, which is the result of timing of revenue recognition, billings and cash collections. The Company records accounts receivable when it has an unconditional right to consideration.

The revenue recognized in the engineering services revenue contract often exceeds the amount billed to the customer. The Company records the portion of the revenue amounts to which the Company is entitled but for which the Company has not yet been paid as an unbilled receivable. Unbilled receivables are included in accounts receivable on the Consolidated Balance Sheets and were \$0.2 million as of January 1, 2019. As of December 31, 2019, there were no unbilled receivables. As of December 31, 2019, the Company has no other contract assets.

Contract liabilities primarily relate to spaceflight operations and other revenue contracts and are recorded when cash payments are received or due in advance of performance. Cash payments for spaceflight services are classified as customer deposits until enforceable rights and obligations exist, when such deposits also become nonrefundable. Customer deposits become nonrefundable and are recorded as deferred revenue following the Company’s delivery of the conditions of carriage to the customer and execution of an informed consent. As of December 31, 2019, the Company has no deferred revenue.

Payment terms vary by customer and type of revenue contract. It is generally expected that the period of time between payment and transfer of promised goods or services will be less than one year. In such

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

instances, the Company has elected the practical expedient to not evaluate whether a significant financing component exists.

Remaining Performance Obligations

As of December 31, 2019, we have one engineering services revenue contract for which we expect to transfer all remaining promises to the customer in the fiscal year ending December 31, 2020. We do not disclose information about remaining performance obligations for (a) contracts with an original expected length of one year or less, (b) revenues recognized at the amount at which we have the right to invoice for services performed, or (c) variable consideration allocated to wholly unsatisfied performance obligations.

Contract Costs

The Company has not incurred any contract costs in obtaining or fulfilling its contracts.

All of the Company's revenues are related to two customers for the year ended December 31, 2019, with a single customer accounting for approximately 42% of accounts receivable as of December 31, 2019.

For the years ended December 31, 2018 and 2017

We recognize revenue when delivery of our obligations to our customer has occurred, the collection of the relevant receivable is probable, persuasive evidence of an arrangement exists, and the sales price is fixed or determinable. Revenue is measured at the fair value of the consideration received excluding discounts, rebates, value added tax, and other sales taxes or duty. Cash payments for spaceflight services are classified as customer deposits until persuasive evidence of an arrangement exists, when such deposits also become nonrefundable. Customer deposits become nonrefundable and are recorded as deferred revenue following the Company's delivery of the conditions of carriage to the customer and execution of an informed consent. Spaceflight operations revenue is recognized when delivery of the service has been completed, namely the experience of spaceflight or satellite payload flight. Cash payments for sponsorships are deferred and recognized as revenue evenly over the sponsorship term. Engineering services revenue is recognized on a time-and-materials basis for direct labor hours incurred at fixed hourly rates.

Spaceflight operations revenue was \$0.8 million for the year ended December 31, 2018. No spaceflight operations revenue was recognized for the year ended December 31, 2017. Engineering services revenue was \$1.2 million and \$1.0 million for the years ended December 31, 2018 and 2017, respectively. Sponsorship revenue was \$0.8 million and \$0.8 million for the years ended December 31, 2018 and 2017, respectively.

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

(r) Cost of Revenue

Costs of revenue related to spaceflights include costs related to the consumption of a rocket motor, fuel, payroll and benefits for our pilots and ground crew, and maintenance. Costs of revenue related to the engineering services consist of expenses related to materials and human capital, such as payroll and benefits. Once technological feasibility is reached, we will capitalize the cost to construct any additional spaceship vehicles. Costs of revenue will include spaceship vehicle depreciation once those spaceship vehicles are placed into service.

(s) Selling, General and Administrative

Selling, general and administrative expenses consist of human capital related expenses for employees involved in general corporate functions, including executive management and administration, accounting, finance, tax, legal, information technology, marketing and human resources; depreciation expense and rent relating to facilities, including the lease with Spaceport America, and equipment; professional fees and other general corporate costs. Human capital expenses primarily include salaries and benefits.

(t) Research & Development

We conduct research and development (“R&D”) activities to develop existing and future technologies that advance our spaceflight system towards commercialization. R&D activities include basic research, applied research, concept formulation studies, design, development, and related test program activities. Costs incurred for developing our spaceflight system and flight profiles primarily include equipment, material, and labor hours. Costs incurred for performing test flights primarily include rocket motors, fuel, and payroll and benefits for pilots and ground crew. R&D costs also include rent, maintenance, and depreciation of facilities and equipment and other allocated overhead expenses. We expense all R&D costs as incurred and have not capitalized any spaceship vehicle development costs to date.

(u) Income Taxes

As of October 25, 2019 and December 31, 2018 and for the period from January 1, 2019 through October 25, 2019 and for the years ended December 31, 2018 and 2017, we adopted the separate return approach for the purpose of presenting the combined financial statements, including the income tax provisions and the related deferred tax assets and liabilities. The historic operations of the Company reflect a separate return approach for each jurisdiction in which the Company had a presence and GV has filed tax returns for the years ended December 31, 2018 and 2017 and will file a tax return for the period from January 1, 2019 through October 25, 2019. As of December 31, 2019 and for the period from October 26, 2019 through December 31, 2019, we will file a separate stand-alone tax return.

The Company records income tax expense for the anticipated tax consequences of the reported results of operations using the asset and liability method. Under this method, the Company recognizes deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the financial reporting and tax basis of assets and liabilities, as well as for operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using the tax rates that are expected to apply to taxable income for the years in which those tax assets and liabilities are expected to be realized or settled. The Company records valuation allowances to reduce its deferred tax assets to the net amount that it believes is more likely than not to be realized. Its assessment considers the recognition of deferred tax assets on a jurisdictional basis. Accordingly, in assessing its future taxable income on a jurisdictional basis, the Company considers the effect of its transfer pricing policies on that income. The Company has placed a full valuation allowance against U.S. federal and state deferred tax assets since the recovery of the assets is uncertain.

The Company recognizes tax benefits from uncertain tax positions only if it believes that it is more likely than not that the tax position will be sustained on examination by the taxing authorities based on the technical merits of the position. As the Company expands, it will face increased complexity in determining the appropriate tax jurisdictions for revenue and expense items which may differ from that of GV. The

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

Company's policy is to adjust these reserves when facts and circumstances change, such as the closing of a tax audit or refinement of an estimate. To the extent that the final tax outcome of these matters is different than the amounts recorded, such differences will affect the income tax expense in the period in which such determination is made and could have a material impact on its financial condition and operating results. The income tax expense includes the effects of any accruals that the Company believes are appropriate, as well as the related net interest and penalties.

(v) Long Term Incentive Plan and Cash Incentive Plan

Long Term Incentive Plan

Prior to the consummation of the Virgin Galactic Business Combination, certain members of management participated in V10's Long Term Incentive Plan (the "LTIP Plan"). The LTIP Plan's purpose was to enhance the ability for us to attract, motivate, and retain certain of our key executives and to strengthen their commitment to us by providing additional compensation in the form of one or more bonus pools payable under the LTIP Plan in the case of a trigger event.

Upon any trigger event (generally a stock sale, asset sale, public offering, or full return of capital at V10), a bonus pool was to be created where the realization value for such trigger event is greater than the base value, as defined by the LTIP Plan. The participants would then be entitled to receive their allocation of the bonus pool in cash within 60 days of the trigger event's occurrence. In 2018, the LTIP Plan was cancelled and replaced with a multiyear cash incentive plan (the "Cash Incentive Plan"), described below.

Cash Incentive Plan

On June 19, 2017, the Company adopted the Cash Incentive Plan to provide cash bonuses to employees based on the attainment of three qualifying milestones with defined target dates. The maximum aggregate amount of cash awards under the Cash Incentive Plan is \$30.0 million, and approved awards have been allocated equally to each milestone. Compensation cost is recognized when it is probable that a milestone will be achieved. Upon achieving each milestone by the defined target date, 50% of the cash award for that milestone will be vested and the remaining 50% will be vested upon the one year anniversary of the target date if the employee maintained employment in good standing. In the event the milestone is not achieved by the defined target date, but no later than six months after the defined target date, the milestone award would be reduced by half, of which 50% will be vested upon achieving the delayed target date and the remaining 50% will be vested upon the one year anniversary of the delayed target date if the employee maintained employment in good standing. If the milestone is not achieved by six months after the defined target date, the award attributed to that milestone would expire and the associated cash award value would be reserved for future grants under the Cash Incentive Plan.

The first qualifying milestone was not achieved under the Cash Incentive Plan. The second qualifying milestone under the Company's multiyear cash incentive plan was amended upon the closing of the Virgin Galactic Business Combination such that the participants who remained continuously employed through the closing of the Virgin Galactic Business Combination were entitled to receive 100% of the bonus that such participant would have otherwise received upon the achievement of the original second qualifying milestone, as amended. The Company recognized and settled the \$9.9 million in compensation costs owed to participants for the second qualifying milestone upon the closing of the Transaction. The remaining third milestone is deemed not probable of being achieved. As such, no accrual has been recorded related to this plan as of December 31, 2019 or December 31, 2018. In the event the Company believes a payment related to the Cash Incentive Plan will become probable in the future, an accrual will be recorded at that time based on the anticipated payout.

(w) Concentrations of Credit Risks and Significant Vendors and Customers

Financial instruments that potentially subject us to a significant concentration of credit risk consist primarily of cash and cash equivalents and of certificates of deposit. In respect to accounts receivable, we are not exposed to any significant credit risk to any single counterparty or any company of counterparties having similar characteristics.

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

(x) Foreign Currency

The functional currency of our foreign subsidiary operating in the United Kingdom is the local currency. Assets and liabilities are translated to the United States dollar using the period-end rates of exchange. Revenue and expenses are translated to the United States dollar using average rates of exchange for the period. Exchange differences arising from this translation of foreign currency are recorded as other comprehensive income.

(y) Stock-Based Compensation

We recognize all stock-based awards to employees and directors as stock-based compensation expense based upon their fair values on the date of grant.

We estimate the fair value of stock-based payment awards on the date of grant. The value of the portion of the award that is ultimately expected to vest is recognized as an expense during the requisite service periods. We have estimated the fair value for each option award as of the date of grant using the Black-Scholes option pricing model. The Black-Scholes option pricing model considers, among other factors, the expected life of the award and the expected volatility of our stock price. We recognize the stock-based compensation expense over the requisite service period using the straight-line method for service condition only awards, which is generally a vesting term of four years. Stock options typically have a contractual term of 10 years. The stock options granted have an exercise price equal to the closing stock price of our common stock on the grant date. Compensation expense for restricted stock units are based on the market price of the shares underlying the awards on the grant date. Compensation expense for performance-based awards reflects the estimated probability that the performance condition will be met. Compensation expense for awards with total stockholder return performance metrics reflects the fair value calculated using the Monte Carlo simulation model, which incorporates stock price correlation and other variables over the time horizons matching the performance periods.

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

(3) Recent Accounting Pronouncements

Changes to GAAP are established by the Financial Accounting Standards Board (“FASB”) in the form of Accounting Standards Updates (“ASU”).

The Company considers the applicability and impact of all ASUs. ASUs not listed below were assessed and determined to be either not applicable or are expected to have minimal impact on our consolidated financial position and results of operations.

(a) Issued Accounting Standard Updates

In August 2018, the FASB issued ASU 2018-13, *Disclosure Framework-Changes to the Disclosure Requirements for Fair Value Measurement (Topic 820)*, which modified the disclosure requirements on fair value measurements. ASU 2018-13 is effective for annual and interim periods in fiscal years beginning after December 15, 2019, with early adoption permitted for removed or modified disclosures. The Company is currently assessing the impact of ASU 2018-13 in its consolidated financial statements.

In May 2019, the FASB issued ASU 2019-05, *Financial Instruments - Credit Losses (Topic 326)*. The purpose of ASU 2019-05 is to provide the option to irrevocably elect the fair value option applied on an instrument-by-instrument basis for certain financial assets upon adoption of ASU 2016-13. Adoption of ASU 2019-05 coincides with the adoption of ASU 2016-13 and will therefore be effective for interim and annual reporting periods beginning after December 15, 2019. The Company’s traded accounts receivables are within the scope of ASU 2019-05. The Company has concluded that historical data, adjusted for any current events and expected future economic factors, is the most appropriate modelling information to determine the Company’s expected credit losses. The Company is currently assessing the impact of ASU 2019-05 in its consolidated financial statements.

In December 2019, the FASB issued ASU 2019-12, *Income Taxes (Topic 740)*, which affects general principles within Topic 740, and are meant to simplify and reduce the cost of accounting for income taxes. It removes certain exceptions to the general principles in Topic 740 and simplifies areas including franchise taxes that are partially based on income, transactions with a government that result in a step up in the tax basis of goodwill, the incremental approach for intraperiod tax allocation, interim period income tax accounting for year-to-date losses that exceed anticipated losses and enacted changes in tax laws in interim periods. The changes are effective for annual periods beginning after December 15, 2020. The Company is currently assessing the impact of ASU 2019-12 in its consolidated financial statements.

(b) Adopted Accounting Standard Updates

Leases

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*, with subsequent amendments. The amended ASU 2016-02 requires lessees to recognize on the balance sheet a right-of-use asset, representing its right to use the underlying asset for the lease term, and a lease liability for all leases with terms greater than 12 months. Under legacy GAAP, operating leases were not recognized by a lessee in its balance sheet. In general, the asset and liability each equal the present value of lease payments. The recognition, measurement, and presentation of expenses and cash flows arising from a lease by a lessee have not significantly changed from current GAAP. The amended ASU 2016-02 retains a distinction between finance leases (i.e., capital leases under current GAAP) and operating leases. The classification criteria for distinguishing between finance leases and operating leases will be substantially similar to the classification criteria for distinguishing between capital leases and operating leases under current GAAP. The amended ASU 2016-02 also requires qualitative and quantitative disclosures designed to assess the amount, timing, and uncertainty of cash flows arising from leases. A modified retrospective transition approach shall be used when adopting ASU 2016-02, which includes a number of optional practical expedients that entities may elect to apply.

Prior to January 1, 2019, the Company accounted for leases under ASC 840, *Accounting for Leases*. Effective January 1, 2019, the Company adopted the guidance of ASC 842, *Leases*, which requires an entity to recognize a right-of-use asset (lessee’s right to use an asset over the life of a lease or “ROU”) and a lease liability for virtually all leases. The Company adopted ASC 842 under the simplified transition method, which

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

allows companies to forgo the comparative reporting requirements initially required under the modified retrospective transition approach and apply the new guidance prospectively. The new standard provides a number of optional practical expedients in transition. The Company elected the 'package of practical expedients', which permitted the Company not to reassess under the new standard its prior conclusions about lease identification, lease classification and initial direct costs; and all of the new standard's available transition practical expedients. As a result, the comparative financial information has not been updated and the required disclosures prior to the date of adoption have not been updated and continue to be reported under the accounting standards in effect for those periods. The adoption of ASC 842 on January 1, 2019 resulted in the recognition of operating lease right-of-use assets of \$16.7 million, lease liabilities for operating leases of \$24.8 million, and a zero cumulative-effect adjustment to accumulated deficit. The Company elected to exclude from its balance sheets recognition of leases having a term of 12 months or less ("short-term leases"). Lease expense is recognized on a straight-line basis over the lease term. The adoption did not have a significant impact on the Consolidated Statement of Operations and Comprehensive Loss because the majority of the Company's leases are currently classified as operating, which under the guidance will continue to be recognized as expense on a straight-line basis. The adoption, however, resulted in a significant gross-up in total assets and total liabilities on the consolidated balance sheet. The amount of the liability represents the aggregate discounted amount of the Company's minimum lease obligations as of the reporting date. The difference between the asset and liability amounts represents deferred rent liabilities and lease incentives as of the reporting date that are netted against the asset amount. As of December 31, 2019, total future undiscounted minimum payments under our operating leases amounted to \$48.8 million.

Revenue from Contracts with Customers

In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)*. The core principle of ASU 2014-09 is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In addition, ASU 2014-09 requires additional disclosure around the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers.

On January 1, 2019, the Company adopted ASU 2014-09 and applied this guidance to those contracts which were not completed at the date of adoption using the modified retrospective method. The Company elected to not separately evaluate the effects of each contract modification before the date of initial application. The comparative information has not been restated and continues to be reported under our accounting policies in effect for those periods.

The Company did not have a cumulative effect of initially applying the new revenue standard and there was no adjustment to the opening balance of net parent investment. There were also no effects on net cash provided by operating activities, net cash used in investing activities or net cash used in financing activities for the year ended December 31, 2019.

Other

Effective January 1, 2019, we early adopted ASU 2018-02, *Income Statement-Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income*, which allows companies to reclassify from accumulated comprehensive other income to retained earnings stranded tax effects resulting from the enactment of the Tax Act. ASU 2018-02 was enacted on December 22, 2017 and requires certain disclosures about the stranded tax effects. An entity has the option of applying the new guidance at the beginning of the period of adoption or retrospectively to each period (or periods) in which the tax effects related to items remaining in accumulated other comprehensive income are recognized. The adoption of ASU 2018-02 did not have a material impact on the Company's consolidated financial statements.

Effective January 1, 2019, we adopted ASU 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cash* and retrospectively for the years presented, which requires restricted cash and restricted cash equivalents to be included with cash and cash equivalents when reconciling the beginning and ending amounts in the statements of cash flows. The adoption of ASU 2016-18 did not have a material effect on the Company's consolidated financial statements.

VIRGIN GALACTIC HOLDINGS, INC.

Notes to Consolidated Financial Statements

Effective January 1, 2019, we adopted ASU 2018-07, *Stock Compensation - Nonemployee Share-Based Payments (Topic 718)*, which simplifies the accounting for share-based payments to nonemployees by aligning with the accounting for share-based payments to employees, with certain exceptions. The adoption of ASU 2018-07 did not have a material effect on the Company's consolidated financial statements.

Effective January 1, 2018, we adopted ASU 2017-09, *Stock Compensation – Scope of Modification Accounting (Topic 718)*, which requires an entity to apply modification accounting in Topic 718 for changes to terms or conditions of a share-based payment awards. The adoption of ASU 2017-09 did not have a material effect on the Company's consolidated financial statements.

Effective January 1, 2017, we adopted ASU 2016-09, *Compensation – Stock Compensation (Topic 718)*, which requires an entity to recognize excess tax benefits and tax deficiencies (including tax benefits of dividends) on share-based compensation awards as income tax expense. Previously such benefits or deficiencies were recognized in the balance sheet as adjustments to additional paid-in capital. The adoption of ASU 2016-09 did not have a material impact on the Company's consolidated financial statements.

Effective January 1, 2017, we adopted ASU 2015-11, *Inventory (Topic 330): Simplifying the Measurement of Inventory*, which requires an entity to measure inventory at the lower of cost or net realizable value and eliminates current GAAP options for measuring market value. ASU 2015-11 defines realizable value as the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. The adoption of ASU 2015-11 did not have a material impact on the Company's consolidated financial statements.

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

(4) Virgin Galactic Business Combination

The closing of the Virgin Galactic Business Combination occurred on October 25, 2019. In connection with the Virgin Galactic Business Combination:

- Holders of 15,877,288 Class A public shares of SCH exercised their rights to redeem those shares to cash, of which 3,771,178 shares were redeemed on September 9, 2019 at a redemption price approximating \$10.37 per share for an aggregate redemption of \$39.1 million and 12,106,110 shares were redeemed on October 23, 2019 at a redemption price approximating \$10.39 per share for an aggregate redemption of \$125.7 million;
- SCH filed a notice of deregistration with the Cayman Islands Registrar of Companies and concurrently filed a certificate of incorporation and a certificate of corporate domestication with the Secretary of State of the State of Delaware under the name Virgin Galactic Holdings, Inc.;
- Upon the domestication, each issued and outstanding Class A ordinary share, par value \$0.0001 per share, of SCH was converted, on a one-for-one basis, into one share of VGH, Inc. common stock, par value \$0.0001 per share;
- Upon the domestication, each issued and outstanding Class B ordinary share, par value \$0.0001 per share, of SCH was converted, on a one-for-one basis, into one share of VGH, Inc. common stock; provided, however, that with respect to the 17,250,000 Class B ordinary shares of SCH held by SCH Sponsor Corp. (the "Sponsor"), the Sponsor instead received 15,750,000 shares of VGH, Inc. common stock;
- VGH, Inc. issued 130,000,000 new shares of its common stock to Vieco US at a deemed value of \$10.00 per share for an aggregate merger consideration of \$1.3 billion in exchange for all outstanding shares of common stock or limited liability company interests, as applicable, of each of the VG Companies;
- Vieco US elected for VGH, Inc. to repurchase 5,209,562 shares of VGH, Inc. common stock held by Vieco US at a price of \$10.00 per share in cash for an aggregate cash consideration of \$52.1 million (the "Repurchase");
- Vieco US elected for Chamath Palihapitiya, SCH's chief executive officer and member of its board of directors, to purchase 10,000,000 shares of the VGH, Inc. common stock held by Vieco US at a price of \$10.00 per share in cash, of which has no impact to the cash and cash equivalents balance held by VGH, Inc. subsequent to the Virgin Galactic Business Combination or the total shares of VGH, Inc.'s common stock issued and outstanding (the "Secondary Purchase");
- VGH, Inc. settled the outstanding underwriting fees incurred by SCH in connection with the SCH initial public offering that were deferred until the closing of the Virgin Galactic Business Combination for which the final cash amount owed subsequent to all redemptions was \$21.9 million and recorded as a reduction to additional paid-in capital;
- VGH, Inc. settled the \$30.0 million in remaining unpaid direct and incremental transaction costs incurred by SCH, V10, and the VG Companies prior to, or concurrent with, the closing of the Virgin Galactic Business Combination, of which \$25.1 million was settled in cash and \$4.9 million was settled by the issuance of 413,486 shares of VGH, Inc. common stock. These transaction costs were recorded as a reduction to additional paid-in capital;
- An entity affiliated with The Boeing Company ("Boeing") purchased 1,924,402 newly issued shares of VGH, Inc. common stock in exchange for aggregate consideration of \$20.0 million;
- The VG Companies settled the \$9.9 million owed to participants of the amended cash incentive plan upon the achievement of the second qualifying milestone in connection with the closing of the Virgin Galactic Business Combination.
- SCH granted 1,500,000 RSU awards to certain former members of the board of directors of SCH in connection with the Virgin Galactic Business Combination that are to be settled in VGH, Inc.

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

common stock (the "Director RSU Awards"). The Director RSU Awards were vested upon grant and remain unsettled as the underlying shares have not been issued.

Remaining funds held in the trust account of \$453.0 million, before proceeds raised pursuant to the issuance of new shares to Boeing and payment by the VG Companies to settle the amounts owed under the second qualifying milestone of the Cash Incentive Plan, were released to be used for working capital and general corporate purposes.

After giving effect to the redemption of the Class A public shares, the Repurchase, and the Secondary Purchase, shares of our common stock issued and outstanding immediately after the closing of the Virgin Galactic Business Combination were as follows:

Shareholder	No. of Shares	% Ownership
Vieco US	114,790,438	58.6 %
VGH, Inc.'s public shareholders	53,122,712	27.1 %
SCH Sponsor Corp. & related parties (including Mr. Palihapitiya)	25,750,000	13.1 %
Boeing	1,924,402	1.0 %
Shares issued to settle transaction costs ⁽¹⁾	413,486	0.2 %
Total⁽²⁾	196,001,038	100.0 %

⁽¹⁾ Shares were issued in November 2019 as partial consideration for advisory services rendered in connection with the Virgin Galactic Business Combination.

⁽²⁾ Outstanding shares of our common stock excludes the 1,500,000 shares of our common stock underlying the Director RSU Awards that were granted by SCH in connection with the Virgin Galactic Business Combination. The Director RSU Awards vested at the closing of the Virgin Galactic Business Combination but will not settle into shares of common stock until a date, selected by us, that occurs between January 1, 2020 and December 31, 2020.

Transaction Costs

Advisory, financing, integration and other transaction costs directly incurred by Virgin Galactic Business Combination totaled \$52.9 million for the year ended December 31, 2019, including \$4.9 million in stock-based compensation expense recorded for the shares issued to the financial advisors.

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

(5) Related Party Transactions

The Company licenses its brand name from certain entities affiliated with Virgin Enterprises Limited (“VEL”), a company incorporated in England. VEL is an affiliate of V10. Under the trademark license, the Company has the exclusive right to operate under the brand name “Virgin Galactic” within the United States, Australia, South Africa, and the European Union. Royalty payables, excluding sponsorship royalties, for the use of license are the greater of 1% of revenue or \$0.05 million per quarter, adjusted to \$0.02 million per quarter effective on the fourth quarter of 2017, prior to the commercial launch date. Sponsorship royalties payable are 25% of revenue. We paid license and royalty fees of \$0.08 million, \$0.09 million and \$0.15 million for the years ended December 31, 2019, 2018, and 2017, respectively.

As a result of the Virgin Galactic Business Combination, the Company entered into a transition services agreement (“TSA”) with Virgin Orbit, LLC (“VO”) and GV on October 25, 2019. Prior to the Virgin Galactic Business Combination, the VG Companies historically performed certain services for VO, V10 and GV. The Company is allocated corporate expenses from V10 and GV for corporate-related functions based on an allocation methodology that considers our headcount, unless directly attributable to the business. General corporate overhead expense allocations include tax, accounting and auditing professional fees, and certain employee benefits. From the effective date to the period ended December 31, 2019, the Company billed VO, V10 and GV for services provided under the TSA. We were allocated \$1.20 million, \$0.13 million and \$0.13 million corporate expenses, net, from V10 and GV for the years ended December 31, 2019, 2018 and 2017, respectively. Corporate expense are included within selling, general and administrative expenses in the accompanying consolidated statements of operations.

The Company is allocated operating expense from VO Holdings, Inc. and its subsidiaries (“VOH”), a majority owned company of V10 and GV for operations-related functions based on an allocation methodology that considers our headcount, unless directly attributable to the business. Operating expense allocations include use of machinery and equipment and other general administrative expenses. We were allocated \$0.2 million, \$0.3 million, and \$0.3 million of operating expenses, net, from VOH for each of the years ended December 31, 2019, 2018, and 2017, respectively. The Company has a (payable) receivable (to) from VOH of \$(0.80) million and \$9.0 million as of December 31, 2019 and 2018, respectively.

(6) Inventory

As of December 31, 2019 and 2018, inventory is comprised of the following:

	As of December 31,	
	2019	2018
	<i>(In thousands)</i>	
Raw Materials	\$ 22,578	\$ 20,940
Work in-progress	4,239	2,348
	\$ 26,817	\$ 23,288

For the year ended December 31, 2019, the Company wrote down \$0.3 million and there were no write downs of inventory to net realizable value for the years ended December 31, 2018 and 2017.

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

(7) Property, Plant, and Equipment, net

As of December 31, 2019 and 2018, property, plant, and equipment, net consists of the following :

	As of December 31,	
	2019	2018
	<i>(In thousands)</i>	
Buildings	\$ 9,142	\$ 9,142
Leasehold improvements	20,048	16,570
Aircraft	320	320
Machinery and equipment	33,608	22,114
IT software and equipment	17,151	13,602
Construction in progress	3,674	620
	<u>83,943</u>	<u>62,368</u>
Less accumulated depreciation and amortization	(34,610)	(28,154)
Property, plant, and equipment, net	<u>\$ 49,333</u>	<u>\$ 34,214</u>

Total depreciation and amortization for the years ended December 31, 2019, 2018 and 2017 was \$6.9 million, \$5.8 million and \$5.1 million, respectively, of which \$3.7 million, \$1.2 million and \$1.4 million was recorded in research and development expense, respectively. Depreciation and amortization of assets acquired under finance leases was \$0.10 million, \$0.08 million and \$0.08 million for the years ended December 31, 2019, 2018 and 2017, respectively.

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

(8) Leases

We lease our offices and other facilities and certain manufacturing and office equipment under long-term, non-cancelable operating and finance leases. Some leases include options to purchase, terminate, or extend for one or more years. These options are included in the lease term when it is reasonably certain that the option will be exercised. We do not recognize ROU assets and lease liabilities for leases with terms at inception of twelve months or less.

At inception, we determine if an arrangement contains a lease and whether that lease meets the classification criteria of a finance or operating lease. Some of our arrangements contain lease components (e.g., minimum rent payments) and non-lease components (e.g., services). We have elected to account for these lease and non-lease components as a single lease component. We are also electing not to apply the recognition requirements to short-term leases of twelve months or less and instead will recognize lease payments as expense on a straight-line basis over the lease term.

Operating lease right-of-use assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. ROU assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. The Company utilizes its incremental borrowing rate in determining the present value of lease payments unless the implicit rate is readily determinable. The Company's incremental borrowing rate varies between 8.3% to 11.8% depending on the length of the lease. This was determined by a third-party valuation firm based on market yields. The operating lease ROU asset includes any lease payments made and excludes lease incentives. Our variable lease payments primarily consist of lease payments resulting from changes in the consumer price index. Variable lease payments are excluded from the ROU assets and lease liabilities and are recognized in the period in which the obligation for those payments is incurred. Our ROU assets and lease payments may include options to extend or terminate the lease when it is reasonably certain that we will exercise that option. Lease expense for minimum lease payments is recognized on a straight-line basis over the lease term.

Finance leases are recorded as an asset and an obligation at an amount equal to the present value of the minimum lease payments during the lease term. Amortization expense and interest expense associated with finance leases are included in selling, general, and administrative expense and interest expense, respectively, on the consolidated statements of comprehensive loss.

The following table approximates the impact that the adoption of ASC 842 had on the Company's December 31, 2019 Consolidated Balance Sheet as impacted by landlord provided incentives and the present value of future cash flows calculation against both the asset and liability:

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

The components of lease expense related to leases for the period are as follows:

	Year ended December 31, 2019
	<i>(In thousands)</i>
Lease Cost:	
Operating lease expense	\$ 4,243
Short-term lease expense	219
Finance lease cost:	
Amortization of right-of-use assets	98
Interest on lease liabilities	29
Total finance lease cost	127
Variable lease cost	803
Total lease cost	\$ 5,392

The components of supplemental cash flow information related to leases for the period are as follows:

	Year ended December 31, 2019
	<i>(In thousands, except term and rate data)</i>
Cash flow information:	
Cash paid for amounts included in the measurement of lease liabilities for the year ended December 31, 2019:	
Operating cash flows from operating leases	\$ 4,462
Operating cash flows from finance leases	\$ 29
Financing cash flows from finance leases	\$ 104
Non-cash activity:	
Right-of-use assets obtained in exchange for lease obligations	
Operating leases	\$ 17,658
Finance Leases	\$ 430
Other Information:	
Weighted average remaining lease term:	
Operating leases (in years)	13.36
Finance leases (in years)	3.96
Weighted average discount rates:	
Operating leases	11.77 %
Finance leases	9.37 %

The supplemental balance sheet information related to leases for the period is as follows:

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

	As of December 31, 2019
	<i>(In thousands)</i>
<u>Operating leases</u>	
Long-term right-of-use assets	\$ 16,632
Short-term operating lease liabilities	\$ 2,354
Long-term operating lease liabilities	21,867
Total operating lease liabilities	\$ 24,221

Lease expense for the years ended December 31, 2019, 2018 and 2017 was \$5.3 million, \$4.5 million and \$3.9 million, respectively.

(9) Accrued Liabilities

A summary of the components of accrued liabilities are as follows:

	As of December 31,	
	2019	2018
	<i>(In thousands)</i>	
Accrued payroll	\$ 2,027	\$ 3,386
Accrued vacation	2,797	2,717
Accrued bonus	6,502	5,828
Other accrued expenses	10,951	6,235
Total accrued liabilities	\$ 22,277	\$ 18,166

(10) Income Taxes

As of October 25, 2019 and December 31, 2018 and for the period from January 1, 2019 through October 25, 2019 and for the years ended December 31, 2018 and 2017, we adopted the separate return approach for the purpose of presenting the combined financial statements, including the income tax provisions and the related deferred tax assets and liabilities. The historic operations of the Company reflect a separate return approach for each jurisdiction in which the Company had a presence and GV filed tax returns for the years ended December 31, 2018 and 2017, respectively. GV will file tax returns for the period from January 1, 2019 through October 25, 2019. As of December 31, 2019, and for the period from October 26, 2019 through December 31, 2019, we will file separate standalone tax returns.

For the years ended December 31, 2019, 2018 and 2017, loss before income taxes are as follows:

	Years ended December 31,		
	2019	2018	2017
	<i>(In thousands)</i>		
U.S. operations	\$ (211,405)	\$ (137,952)	\$ (138,368)
Foreign operations	532	(40)	336
Loss before income taxes	\$ (210,873)	\$ (137,992)	\$ (138,032)

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

Income tax expense attributable to loss from continuing operations consists of:

	Current	Deferred	Total
	<i>(In thousands)</i>		
Year ended December 31, 2019			
U.S. operations	\$ —	\$ —	\$ —
State and local	27	—	27
Foreign jurisdiction	50	(15)	35
	<u>\$ 77</u>	<u>\$ (15)</u>	<u>\$ 62</u>
Year ended December 31, 2018			
U.S. operations	\$ —	\$ —	\$ —
State and local	2	—	2
Foreign jurisdiction	142	3	145
	<u>\$ 144</u>	<u>\$ 3</u>	<u>\$ 147</u>
Year ended December 31, 2017			
U.S. operations	\$ —	\$ —	\$ —
State and local	7	—	7
Foreign jurisdiction	130	18	148
	<u>\$ 137</u>	<u>\$ 18</u>	<u>\$ 155</u>

Prior to the Virgin Galactic Business Combination, the Company's income tax return was included in the consolidated U.S. Federal and state tax returns of GV. The Virgin Galactic Business Combination resulted in a separation from GV whereby the historical tax attributes including research and development tax credits, net operating loss carryforwards, income taxes payable and reserves for uncertain tax positions remain with GV. Immediately following the Virgin Galactic Business Combination, the Company effectively became a new and separate tax filer from GV with zero tax attributes and liabilities carrying over.

In accordance with ASC 740-20-45-11, the Virgin Galactic Business Combination is considered a transaction among or with its shareholders requiring the tax effects to be recorded through equity. Were it not for the valuation allowance, the Company would have recorded a tax expense of \$130.5 million through equity to account for the change in deferred tax assets and liabilities. Due to the offsetting decrease in the valuation allowance on the Company's U.S. federal and state net deferred tax assets, there is a corresponding net tax benefit of \$(130.5) million resulting in zero total tax effect recorded to equity. Further, as a result of the Virgin Galactic Business Combination, the estimated purchase price consideration ("Purchase Price") was allocated to the Company's assets pursuant to Internal Revenue Code §1060 and related Treasury Regulations with the remaining balance of an estimated \$230.5 million recorded to tax goodwill in deferred tax assets and liabilities. The estimated tax goodwill represent provisional amounts and the Company's current best estimates. Any subsequent adjustments recorded to the provisional amounts will be recorded as adjustments to tax expense for the year ending December 31, 2020.

Deferred Tax Assets and Liabilities

Deferred income taxes reflect the net tax effects of (a) temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes, and (b) operating losses and tax credit carryforwards.

The Company records income tax expense for the anticipated tax consequences of the reported results of operations using the asset and liability method. Under this method, the Company recognizes deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the financial reporting and tax basis of assets and liabilities, as well as for operating loss and tax credit carryforwards. Deferred tax assets and

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

liabilities are measured using the tax rates that are expected to apply to taxable income for the years in which those tax assets and liabilities are expected to be realized or settled. The Company records valuation allowances to reduce its deferred tax assets to the net amount that it believes is more likely than not to be realized. Its assessment considers the recognition of deferred tax assets on a jurisdictional basis. Accordingly, in assessing its future taxable income on a jurisdictional basis, the Company considers the effect of its transfer pricing policies on that income. The Company has placed a full valuation allowance against U.S. federal and state deferred tax assets since the recovery of the assets is uncertain.

The tax effects of significant items comprising the Company's deferred taxes are as follows:

	2019	2018
	<i>(In thousands)</i>	
Deferred tax assets:		
Net operating loss carryforwards	\$ 10,981	\$ 177,297
Start-up costs	—	97,195
Research and development	2,955	43,367
Accrued liabilities	3,402	872
Deferred rent	1,843	1,555
Deferred revenue	8	618
Plant and equipment, principally due to differences in depreciation and capitalized interest	1,254	—
Goodwill	230,543	—
Total gross deferred tax assets	250,986	320,904
Less valuation allowance	(250,818)	(317,444)
Net deferred tax assets	\$ 168	\$ 3,460
Deferred tax liabilities:		
Plant and equipment, principally due to differences in depreciation and capitalized interest	\$ —	\$ (3,313)
Total gross deferred tax liabilities	—	(3,313)
Net deferred tax assets	\$ 168	\$ 147

ASC 740 requires that the tax benefit of net operating losses ("NOLs"), temporary differences and credit carryforwards be recorded as an asset to the extent that management assesses that realization is "more likely than not." Realization of the future tax benefits is dependent on the Company's ability to generate sufficient taxable income within the carryforward period. Management believes that recognition of the deferred tax assets arising from the above-mentioned future tax benefits from operating loss carryforwards is currently not likely to be realized and, accordingly, has provided a valuation allowance against its deferred tax assets.

During the year ended December 31, 2019, as a result of the Virgin Galactic Business Combination, the Company obtained an increase in the U.S. federal and state tax basis of its assets. This resulted in a significant change the Company's deferred tax balances and valuation allowance presented in the required disclosure when comparing December 31, 2019 to December 31, 2018.

The changes in valuation allowance related to current year operating activity was an increase in the amount of \$65 million during the year ended December 31, 2019. The overall change in valuation allowance for the year included a \$130.5 million increase recorded directly to equity related to a deferred tax adjustments recorded as a result of the Virgin Galactic Business Combination.

NOLs and tax credit gross carryforwards as of December 31, 2019 are as follows:

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

	Amount	Expiration Years
	<i>(In thousand)</i>	
NOLs, Federal	\$ 45,375	See notes below
NOLs, State	\$ 20,809	See notes below
Tax credits, Federal	\$ 1,755	See notes below
Tax credits, State	\$ 1,200	See notes below

The effective tax rate of the Company's (provision) benefit for income taxes differs from the federal statutory rate as follows:

	Years Ended December 31,					
	2019		2018		2017	
	<i>(In thousands)</i>					
Statutory rate	\$ (44,401)	21.0 %	\$ (28,978)	21.0 %	\$ (48,311)	35.0 %
Rate change	0	— %	0	— %	108,906	(78.9)%
State income tax	(5,867)	2.8 %	(9,497)	6.9 %	(7,922)	5.7 %
Research & Development	(8,593)	4.1 %	(3,806)	2.8 %	(2,367)	1.7 %
Change in valuation allowance	64,515	(30.5)%	43,476	(31.5)%	(51,864)	37.6 %
Reduction of allocated R&D from GV	(8,376)	4.0 %	—	— %	—	— %
Other, net	2,784	(1.4)%	(1,048)	0.8 %	1,713	(1.1)%
Total	<u>62</u>	<u>— %</u>	<u>147</u>	<u>— %</u>	<u>155</u>	<u>— %</u>

The total tax provision for the period January 1, 2019 through December 31, 2019 excludes the tax effects of the Virgin Galactic Business Combination which was recorded to equity.

Net Operating Losses

All tax attributes, including net operating losses ("NOL's") generated prior to the Virgin Galactic Business Combination were realized by GV. There are no subsequent changes to the ownership structure and accordingly, there are no IRC limitations to the Company's NOL's, and Tax Credits generated for the period from October 26, 2019 to December 31, 2019.

As of December 31, 2019, the Company has approximately \$45.4 million and \$20.8 million of federal and state NOLs respectively. Under the new Tax Cuts and Jobs Act, all NOLs incurred after December 31, 2017 are carried forward indefinitely for federal tax purposes. California has not conformed to the indefinite carry forward period for NOLs. The NOLs begin expiring in the calendar year 2039 for state purposes.

In the ordinary course of its business, the Company incurs costs that, for tax purposes, are determined to be qualified research and development ("R&D") expenditures within the meaning of IRC §41 and are, therefore, eligible for the Increasing Research Activities credit under IRC §41. The R&D tax credit carryforward as of December 31, 2019 is \$1.8 million and \$1.2 million for Federal and State, respectively. The R&D tax credit carryforwards begin expiring in the calendar year 2039 for federal purposes. The Company has adjusted the deferred tax assets related to Federal R&D credit carryover to account for any expiring tax credits.

Uncertain Tax Positions

The Company recognizes tax benefits from uncertain tax positions only if it believes that it is more likely than not that the tax position will be sustained on examination by the taxing authorities based on the technical merits of the position. As the Company expands, it will face increased complexity in determining the appropriate tax jurisdictions for revenue and expense items. The Company's policy is to adjust these reserves when facts and circumstances change,

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

such as the closing of a tax audit or refinement of an estimate. To the extent that the final tax outcome of these matters is different than the amounts recorded, such differences will affect the income tax expense in the period in which such determination is made and could have a material impact on its financial condition and operating results. The income tax expense includes the effects of any accruals that the Company believes are appropriate, as well as the related net interest and penalties.

As of December 31, 2019, the Company has total uncertain tax positions of \$0.9 million of which \$0.7 million is net of tax related to R&D tax credit, which is recorded as a reduction of the deferred tax asset related credit carry-forwards. No interest or penalties have been recorded related to the uncertain tax positions. A reconciliation of the beginning and ending balances of unrecognized tax benefits is as follows:

	Years ending December 31,	
	2019	2018
	<i>(In thousands)</i>	
Balance at the beginning of the year	\$ 18,040	\$ 16,984
Additions based on tax positions related to current year	3,324	1,067
Additions based on tax positions related to prior years	—	—
Deductions based on tax positions related to prior years	(9)	(11)
Reductions of allocated tax attributes from GV	(20,450)	—
Balance at the end of year	\$ 905	\$ 18,040

The U.S. federal and state unrecognized tax benefits through October 25, 2019 were calculated under the separate return method and relieved as a result of the Virgin Galactic Business Combination. Accordingly, the tabular rollforward reflects other reductions for the unrecognized tax benefits accrued up to the date of the Virgin Galactic Business Combination. The ending unrecognized tax benefits at December 31, 2019 are for the expected tax positions taken during the period from October 26, 2019 through December 31, 2019.

It is not expected that there will be a significant change in uncertain tax position in the next 12 months. The Company is subject to U.S. federal and state income tax as well as to income tax in multiple state jurisdictions, and one foreign jurisdiction. In the normal course of business, the Company is subject to examination by tax authorities. There are no tax examinations in progress as of December 31, 2019. The U.S. federal and state income tax returns for the period from October 26, 2019 through December 31, 2019 will be the Company's first tax returns filed as a stand-alone tax filer and therefore the statute of limitations will be determined by the date on which the tax returns are filed and in accordance with the statute periods in the respective taxing jurisdictions. The statute of limitations for our foreign tax jurisdiction is open for tax years after December 31, 2017.

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

(11) Stockholders' Equity

Preferred and Common Stock

The total number of shares of all classes of capital stock which we have authority to issue is 710,000,000 of which 700,000,000 are common stock, par value \$0.0001 per share, and 10,000,000 are preferred stock par value \$0.0001 per share. The designations and the powers, privileges and rights, and the qualifications, limitations or restrictions thereof in respect to each of our class of capital stock are as follows:

(a) Preferred Stock - Subject to the stockholders' agreement entered in connection with the Virgin Galactic Business Combination, the Company's Board of Directors (the "Board") is expressly granted authority to issue shares of the preferred stock, in one or more series, and to fix for each such series such voting powers, full or limited, or no voting powers, and such designations, preferences and relative participating, optional or other special rights and such qualifications, limitations or restrictions thereof, including without limitation thereof, dividend rights, conversion rights, redemption privileges and liquidation preferences, as shall be stated and expressed in the resolution or resolutions adopted by the Board providing for the issue of such series all to the fullest extent now or hereafter permitted by Delaware Law.

(b) Common Stock - Each holder of common stock is entitled to one vote for each share of common stock held by such holder. The holders of common stock are entitled to the payment of dividends when and as declared by the Board in accordance with applicable law and to receive other distributions from the Company. Any dividends declared by the Board to the holders of the then outstanding shares of common stock will be paid to the holders thereof pro rata in accordance with the number of shares of common stock held by each such holder as of the record date of such dividend.

In the event of any liquidation, dissolution or winding up of the Company, whether voluntary or involuntary, the funds and assets of the Company that may be legally distributed to the Company's stockholders will be distributed among the holders of the then outstanding shares of Common Stock pro rata in accordance with the number of shares of common stock held by each such holder. The foregoing rights of the holders of the common stock are subject to and qualified by the rights of, the holders of the preferred stock of any series as may be designated by the Board upon any issuance of the preferred stock of any series.

Warrants

In SCH's initial public offering, each unit sold at a price of \$10.00 per unit consisted of one Class A ordinary share and one-third of one warrant (each whole warrant, a "SCH Public Warrant"). In connection with the Virgin Galactic Business Combination, upon Domestication, each then issued and outstanding redeemable SCH Public Warrant (including SCH Public Warrants that were part of SCH's outstanding units at the time of the Virgin Galactic Business Combination) converted automatically into a redeemable warrant (the "VGH, Inc. Public Warrants). Each VGH, Inc. Public Warrant entitles the holder to purchase one ordinary share of VGH, Inc. common stock at a price of \$11.50 per share and were exercisable as of December 31, 2019. Unless earlier redeemed, the VGH, Inc. Public Warrants will expire five years from the completion of the Virgin Galactic Business Combination. The Company may redeem the outstanding VGH, Inc. Public Warrants at a price of \$0.01 per VGH, Inc. Public Warrant upon a minimum of 30 days' prior written notice of redemption, and only in the event that the last sale price of the Company's common stock is at least \$18.00 per share for any 20 trading days within a 30-trading day period ending on the third trading day prior to the date on which notice of redemption is given. If the Company redeems the VGH, Inc. Public Warrants as described above, it will have the option to require all holders that wish to exercise their VGH, Inc. Public Warrants to do so on a "cashless basis." As of December 31, 2019, there were 22,999,977 outstanding VGH, Inc. Public Warrants (including VGH, Inc. Public Warrants that were part of VGH, Inc.'s then outstanding units).

The Warrant Agreement relating to the VGH, Inc. Public Warrants also obligates the Company to use its best efforts to file with the Securities and Exchange Commission a registration statement for the registration, under the Securities Act of 1933, as amended (the "Securities Act"), of the issuance of the shares of VGH, Inc. common stock issuable upon exercise of the VGH, Inc. Public Warrants, and to cause the same to become effective and remain effective while the VGH, Inc. Public Warrants remain outstanding. On January 27, 2020, by the terms of the Warrant

VIRGIN GALACTIC HOLDINGS, INC.

Notes to Consolidated Financial Statements

Agreement and on account of no such registration statement being effective, the holders of the VGH, Inc. Public Warrants became entitled to exercise their VGH, Inc. Public Warrants on a cashless basis for so long as such an effective registration statement is not available.

Simultaneously with the consummation of the initial public offering of SCH, the Sponsor purchased 8,000,000 warrants to purchase one SCH Class A ordinary share at an exercise price of \$11.50 (the "SCH Private Placement Warrants") at a price of \$1.50 per warrant, or \$12.0 million in the aggregate, in a private placement. In connection with the Virgin Galactic Business Combination, upon the domestication, each of the then-outstanding SCH Private Placement Warrants converted automatically into a warrant to acquire one share of VGH, Inc. common stock pursuant to the Warrant Agreement (the "VGH Private Placement Warrants").

Each VGH Private Placement Warrant entitles the holder to purchase one ordinary share of VGH, Inc. common stock for \$11.50 per share. The VGH Private Placement Warrants are identical to the VGH, Inc. Public Warrants except that the SCH Private Placement Warrants are not redeemable by VGH, Inc., and may be exercised for cash or on a cashless basis so long as they are held by the Sponsor or any of its permitted transferees. Additionally, pursuant to the terms of the amended and restated registration rights agreement entered in connection with the consummation of the Virgin Galactic Business Combination, the Sponsor has the right to have the resale of such shares of VGH, Inc. common stock acquired upon exercise of the VGH Private Placement Warrants registered under the Securities Act of 1933, as amended.

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

(12) Earnings Per Share

The following table presents net loss per share and related information:

	Years Ended December 31,		
	2019	2018	2017
	<i>(in thousands, except for per share data)</i>		
Basic and diluted:			
Net loss	\$ (210,935)	\$ (138,139)	\$ (138,187)
Weighted average common shares outstanding	194,378,154	193,663,150	193,663,150
Basic and diluted net loss per share	\$ (1.09)	\$ (0.71)	\$ (0.71)

Earnings per share calculations for all periods prior to the Virgin Galactic Business Combination have been retrospectively adjusted for the equivalent number of shares outstanding immediately after the Virgin Galactic Business Combination to effect the reverse recapitalization. Subsequent to the Virgin Galactic Business Combination, earnings per share will be calculated based on the weighted average number of common stock then outstanding.

Basic and dilutive net loss per share is computed by dividing the net loss for the period by the weighted average number of common stock outstanding during the period. The weighted average shares of common stock outstanding is based on the 193,663,150 shares of common stock outstanding immediately after the reverse recapitalization in connection with Virgin Galactic Business Combination and assumes these shares have been outstanding as of the beginning of the earliest period presented. The weighted average shares of common stock outstanding also reflects as of the closing date of the Virgin Galactic Business Combination the issuance of 1,924,402 shares to Boeing, the issuance of 413,486 shares to settle transaction costs and the common stock equivalent of the vested 1,500,000 Director RSU Awards granted in connection to the Virgin Galactic Business Combination that remain unsettled as of December 31, 2019.

For the years ended December 31, 2019, 2018 and 2017, the Company has excluded the potential effect of warrants to purchase shares of common stock totaling 30,999,977 shares and the dilutive effect of outstanding stock options and unvested restricted stock units, as described in Note 13, in the calculation of diluted loss per share, as the effect would be anti-dilutive due to losses incurred.

(13) Stock-Based Compensation

2014 Stock Plan

Prior to the Virgin Galactic Business Combination, the Company maintained a stock-based compensation plan (the "2014 Plan") at the V10 level.

The 2014 Stock Plan provided for grants of nonqualified stock options for employees. The exercise price was determined based on invested capital at the time of the grant, and escalates by an 8% hurdle rate on an annual basis. The exercisability of these options was based on time and performance vesting conditions. Performance vesting was defined as change in control, defined as greater than 50% at V10 or an initial public offering at the V10, provided such change in control or initial public offering at V10, occurred on or before the seventh anniversary of the applicable grant date. In the event that the performance vesting condition were satisfied prior to the full satisfaction of the time vesting condition, the option would have continued to vest and become exercisable in accordance with the vesting schedule unless the compensation committee approved to fully vest these options. On October 25, 2019, the 2014 Stock Plan was canceled and was replaced with the 2019 Incentive Award Plan (the "2019 Plan"). As the performance conditions set forth in the 2014 Plan were not probable of being met, no stock-based compensation expense was recognized for the period from January 1, 2019 through October 25, 2019 or the years December 31, 2018, and 2017. No options were exercisable for the period from January 1, 2019 through October 25, 2019 or the years ended December 31, 2018 or 2017.

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

	Options outstanding			Weighted- average contractual term (in years)
	Shares available for grant	Number of shares granted	Weighted- average exercise price	
Balances as of December 31, 2016	1,775,660	840,525	\$ 7.50	5.14
Authorized	—	—		
Granted	(167,750)	167,750	8.66	
Forfeited	750	(750)	9.66	
Balances as of December 31, 2017	1,608,660	1,007,525	\$ 7.69	4.50
Authorized	—	—		
Granted	(1,000)	1,000	9.44	
Forfeited	134,125	(134,125)	7.72	
Balances as of December 31, 2018	1,741,785	874,400	\$ 7.70	3.53
Authorized	—	—		
Granted	—	—	\$ —	
Forfeited	154,775	(154,775)	\$ 7.68	
Cancelled	(1,896,560)	(719,625)	\$ 7.70	
Balances as of October 25, 2019	—	—	\$ —	0

2019 Plan

The Board and stockholders of the Company adopted the 2019 Plan in connection with the Virgin Galactic Business Combination. Pursuant to the 2019 Plan, up to 21,208,755 shares of common stock have been reserved for issuance, upon exercise of awards made to employees, directors and other service providers.

The Company made a grant of stock options to certain employees in connection with the consummation of the Virgin Galactic Business Combination. Twenty five percent of such stock options cliff vest at the grant date first anniversary and will ratably vest monthly over the next three years, subject to continued employment on each vesting date. Vested options will be exercisable at any time until ten years from the grant date, subject to earlier expiration under certain terminations of service and other conditions. The stock options granted have an exercise price equal to the closing stock price of our common stock on the grant date. The following table sets forth the summary of options activity under the Plans (dollars in thousands except per share data):

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (in years)	Aggregate Intrinsic Value ⁽¹⁾
Options outstanding at December 31, 2018	—	\$ —	0	—
Granted	6,212,609	\$ 11.58		
Exercised	—	\$ —		
Forfeited options	(90,565)	\$ 11.79		
Options outstanding at December 31, 2019	6,122,044	\$ 11.58	9.83	—
Options exercisable at December 31, 2019	—	\$ —	9.83	—

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

⁽¹⁾ Aggregate intrinsic value is calculated based on the difference between our closing stock price at year end and the exercise price, multiplied by the number of in-the-money options and represents the pre-tax amount that would have been received by the option holders, had they all exercised all their options on the fiscal year end date.

For the year ended December 31, 2019, we recorded \$1.9 million of stock-based compensation expense of which \$1.2 million and \$0.7 million was included in selling, general and administrative expenses and research and development, respectively. At December 31, 2019, the unrecognized stock-based compensation related to these options was \$44.8 million and is expected to be recognized over a weighted-average period of 3.8 years.

Restricted Stock Units

For the year ended December 31, 2019, we granted 1,795,209 RSUs to employees. The RSUs vest over four years with 25% cliff vest at the first year anniversary of the grant date and ratably over the next three years and granted that the Company's share price value is greater than \$10 per share at the time RSUs vest. Stock-based compensation expense for the RSUs is recognized on a straight-line basis using the Monte Carlo valuation method for the RSUs granted to employees.

For the year ended December 31, 2019, we recorded \$0.5 million of RSU expense of which \$0.3 million and \$0.2 million was included in selling, general and administrative expenses and research & development, respectively. At December 31, 2019, the unrecognized stock-based compensation related to RSUs was \$12.0 million and is expected to be recognized over a weighted-average period of 3.8 years.

RSU activity during the year ended December 31, 2019 was as follows:

	Shares	Weighted Average Fair Value
Outstanding at January 1, 2019	—	\$ —
Granted	1,795,209	7.11
Vested	—	—
Forfeited	(27,495)	7.11
Outstanding at December 31, 2019	<u>1,767,714</u>	\$ 7.11

Fair value of our RSUs is based on our closing stock price on the date of grant. The weighted average grant date fair value of RSUs that were granted during the year ended December 31, 2019 was \$12.8 million. The weighted average grant date fair value RSUs granted during the year ended December 31, 2019 was \$7.11.

Stock-Based Compensation

We use the Black-Scholes option pricing model to determine the fair value of stock options. The determination of the fair value of stock-based payment awards on the date of grant using an option-pricing model is affected by our stock price as well as assumptions regarding complex and subjective variables. These variables include the expected stock price volatility over the term of the awards, risk-free interest rate and expected dividends.

We estimated expected volatility based on historical data of the price of our common stock over the expected term of the options. The expected term, which represents the period of time that options granted are expected to be outstanding, is estimated based on guidelines provided in U.S. SEC Staff Accounting Bulletin No. 110 and represents the average of the vesting tranches and contractual terms. The risk-free rate assumed in valuing the options is based on the U.S. Treasury rate in effect at the time of grant for the expected term of the option. We do not anticipate paying any cash dividends in the foreseeable future and, therefore, used an expected dividend yield of zero in the option pricing model. Stock-based compensation awards are amortized on a straight-line basis over a four-year period. We made an accounting policy election to account for forfeitures in the period they occur.

The weighted average assumptions used to value the option grants are as follows:

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

	2019
Expected life (in years)	6.0
Volatility	75.0 %
Risk free interest rate	1.7 %
Dividend yield	— %

The weighted average fair value per option at the grant date for options issued during the year ended December 31, 2019 was \$7.63.

(14) Commitments and Contingencies

(a) Leases

The Company has certain noncancelable operating leases primarily for its premises. These leases generally contain renewal options for periods ranging from 3 to 20 years and require the Company to pay all executory costs, such as maintenance and insurance. Certain lease arrangements have rent free periods or escalating payment provisions, and we recognize rent expense of such arrangements on a straight line basis.

Future minimum lease payments under noncancelable operating leases (with initial or remaining lease terms in excess of one year) and future minimum finance lease payments as of December 31, 2019 are as follows:

	Operating Leases	Finance Leases
	<i>(In thousands)</i>	
Year ending December 31:		
2020	\$ 5,006	\$ 57
2021	4,093	117
2022	3,269	102
2023	3,226	82
2024	3,226	34
Thereafter	30,000	—
Total lease payments	\$ 48,820	\$ 392
Less:		
Imputed interest/present value discount	(24,599)	\$ (71)
Present value of lease liabilities	\$ 24,221	\$ 321

As of December 31, 2018, our contractual obligations for future minimum lease payments with initial or remaining noncancelable lease terms in excess of one year are as follows:

	Payments Due by Periods
	<i>(In thousands)</i>
< 1 year	4,072
1-3 years	7,772
3-5 years	7,310
> 5 years	32,339
Total	51,493

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

(b) *Legal Proceedings*

From time to time, the Company is a party to various lawsuits, claims and other legal proceedings that arise in the ordinary course of business. The Company applies accounting for contingencies to determine when and how much to accrue for and disclose related to legal and other contingencies. Accordingly, the Company discloses contingencies deemed to be reasonably possible and accrues loss contingencies when, in consultation with legal advisors, it is concluded that a loss is probable and reasonably estimable. Although the ultimate aggregate amount of monetary liability or financial impact with respect to these matters is subject to many uncertainties and is therefore not predictable with assurance, management believes that any monetary liability or financial impact to the Company from these matters, individually and in the aggregate, beyond that provided at December 31, 2019, would not be material to the Company's financial position, results of operations or cash flows. However, there can be no assurance with respect to such result, and monetary liability or financial impact to the Company from legal proceedings, lawsuits and other claims could differ materially from those projected.

In September 2018, Ali Sarraf, a former contractor employed through a third party staffing agency, alleged on behalf of himself and other aggrieved employees that the Company and the staffing agency, purportedly violated California state wage and hour laws. The Company has and continues to deny Sarraf's allegations and defend against their claims vigorously with what the Company believes to be substantial and meritorious defenses. Plaintiffs are seeking unspecified damages.

For the year ended December 31, 2018, the Company received \$28.0 million from a legal settlement received from one of its suppliers, which was recorded in other income in the consolidated statements of operations and comprehensive loss for the year ended December 31, 2018.

(15) Employee Benefit Plan

The Company has defined contribution plans, under which the Company pays fixed contributions into a separate entity, and additional contributions to the plans are based upon a percentage of the employees' elected contributions. The Company will have no legal or constructive obligation to pay further amounts. Obligations for contributions to defined contribution plans are recognized within selling, general, and administrative expenses and research and development in the consolidated statements of operations and comprehensive loss, as incurred. Defined contributions were \$4.1 million, \$3.6 million and \$2.7 million for the years ended December 31, 2019, 2018 and 2017, respectively.

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

(16) Supplemental Cash Flow Information

	Years ended December 31,		
	2019	2018	2017
	<i>(In thousands)</i>		
Supplemental disclosure			
Cash payments for:			
Income tax paid	\$ 226	\$ 176	\$ 350
	<u>\$ 226</u>	<u>\$ 176</u>	<u>\$ 350</u>
Schedule for noncash operating activities			
Adoption of ASC 842 leases - Operating leases	\$ 17,658	\$ —	\$ —
	<u>\$ 17,658</u>	<u>\$ —</u>	<u>\$ —</u>
Schedule for noncash investing activities			
Unpaid property, plant, and equipment received	\$ 2,571	\$ 1,288	\$ 602
	<u>\$ 2,571</u>	<u>\$ 1,288</u>	<u>\$ 602</u>
Schedule for noncash financing activities			
Conversion of VGH, LLC membership units to VGH, Inc. common stock	\$ 114,648	\$ —	\$ —
Unpaid transaction costs	\$ 4,875	\$ —	\$ —
Adoption of ASC 842 leases - Finance leases	430	—	—
	<u>\$ 119,953</u>	<u>\$ —</u>	<u>\$ —</u>

VIRGIN GALACTIC HOLDINGS, INC.
Notes to Consolidated Financial Statements

(17) Quarterly Financial Data (unaudited)

Summarized unaudited quarterly financial data for quarters ended March 31, 2018 through December 31, 2019 is as follows:

Quarters Ended:	March 31, 2019	June 30, 2019	September 30, 2019	December 31, 2019
	<i>(In thousands, except for per share data)</i>			
Net sales	\$ 1,782	\$ 638	\$ 832	\$ 529
Gross profit	\$ 776	\$ 360	\$ 426	\$ 215
Net loss	\$ (42,593)	\$ (44,068)	\$ (51,475)	\$ (72,799)
Basic net loss per share ¹	\$ (0.22)	\$ (0.23)	\$ (0.27)	\$ (0.37)
Diluted net loss per share ¹	\$ (0.22)	\$ (0.23)	\$ (0.27)	\$ (0.37)
Quarters Ended:	March 31, 2018	June 30, 2018	September 30, 2018	December 31, 2018
	<i>(In thousands, except for per share data)</i>			
Net sales	\$ 507	\$ 669	\$ 386	\$ 1,287
Gross profit	\$ 312	\$ 545	\$ 318	\$ 473
Net loss	\$ (40,562)	\$ (12,676)	\$ (39,184)	\$ (45,717)
Basic net loss per share ¹	\$ (0.21)	\$ (0.07)	\$ (0.20)	\$ (0.24)
Diluted net loss per share ¹	\$ (0.21)	\$ (0.07)	\$ (0.20)	\$ (0.24)

¹Net loss per share calculations for the quarters ended March 31, 2018 through September 30, 2019 are based on the weighted average basic and diluted shares totaling 193,663,150. Net loss per share calculations for the quarter ended December 31, 2019 are based on the weighted average basic and diluted shares of 194,378,154.

DESCRIPTION OF THE REGISTRANT'S SECURITIES REGISTERED UNDER SECTION 12 OF THE EXCHANGE ACT

The following description sets forth certain material terms and provisions of the securities of Virgin Galactic Holdings, Inc. (“we,” “us” or “our”) that are registered under Section 12 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). The following description of our securities is not complete and may not contain all the information you should consider before investing in our securities. This description is summarized from, and qualified in its entirety by reference to, our certificate of incorporation and bylaws, which are incorporated herein by reference. The summary below is also qualified by reference to the provisions of the General Corporation Law of the State of Delaware (the “DGCL”).

As of December 31, 2019, we had three classes of securities registered under the Exchange Act: our common stock, par value \$0.0001 per share; warrants to purchase shares of our common stock; and units consisting of a share of common stock and one-third of a warrant to purchase shares of our common stock.

Authorized Capital Stock

The total amount of our authorized capital stock consists of 700,000,000 shares of common stock, par value \$0.0001 per share, and 10,000,000 shares of preferred stock, par value \$0.0001 per share.

Common Stock

General

Holders of our common stock are not entitled to preemptive or other similar subscription rights to purchase any of our securities. Our common stock is neither convertible nor redeemable. Unless our board of directors determines otherwise, we expect to issue all shares of our capital stock in uncertificated form.

Voting Rights

Each holder of our common stock is entitled to one vote per share on each matter submitted to a vote of stockholders, as provided by the certificate of incorporation. Our bylaws provide that the holders of a majority of the capital stock issued and outstanding and entitled to vote thereat, present in person or represented by proxy, will constitute a quorum at all meetings of the stockholders for the transaction of business. When a quorum is present, the affirmative vote of a majority of the votes cast is required to take action, unless otherwise specified by law, the Stockholders’ Agreement, dated October 25, 2019, by and among us, Vieco USA, Inc. (“Vieco US”), SCH Sponsor Corp. (“SCH Sponsor”) and Chamath Palihapitiya (as may be amended from time to time, the “Stockholders’ Agreement”), our bylaws or our certificate of incorporation, and except for the election of directors, which is determined by a plurality vote. There are no cumulative voting rights.

Under the Stockholders’ Agreement, Vieco US has the right to designate three directors (the “VG designees”) for as long as Vieco US beneficially owns a number of shares of our common stock representing at least the 50% of the number of shares beneficially owned by Vieco US immediately following the effective time of the transactions effected on October 25, 2019 in connection with our initial business combination, provided that (x) when such percentage falls below 50%, Vieco US will have the right to designate only two directors, (y) when such percentage falls below 25%, Vieco US will have the right to designate only one director and (z) when such percentage falls below 10%, Vieco US will not have the right to designate any directors. Each of SCH Sponsor and Mr. Palihapitiya have agreed to vote, or cause to vote, all of their outstanding shares of common stock at any annual or special meeting of stockholders in which directors are elected, so as to cause the election of the VG designees.

Additionally, pursuant to the Stockholders’ Agreement, Mr. Palihapitiya has the right to designate two directors (“CP designees”), one of which must qualify as an “independent director” under applicable stock exchange regulations, for as long as Mr. Palihapitiya and SCH Sponsor collectively beneficially own a number of shares of our common stock representing at least 90% of the number of shares beneficially owned by them as of immediately following the effective time of the transactions effected on October 25, 2019 in connection with our initial business combination (excluding the shares purchased from Vieco US by Mr. Palihapitiya on that date), provided that (x)

when such percentage falls below 90%, Mr. Palihapitiya will have the right to designate only one director, who will not be required to qualify as an “independent director” and (y) when such percentage falls below 50%, Mr. Palihapitiya will not have the right to designate any directors. Vieco US has agreed to vote, or cause to vote, all of its outstanding shares of our common stock at any annual or special meeting of stockholders in which directors are elected, so as to cause the election of the CP designees.

Dividend Rights

Each holder of shares of our common stock is entitled to the payment of dividends and other distributions as may be declared by our board of directors from time to time out of our assets or funds legally available for dividends or other distributions. These rights are subject to the preferential rights of the holders of our preferred stock, if any, and any contractual limitations on our ability to declare and pay dividends.

Other Rights

Each holder of our common stock is subject to, and may be adversely affected by, the rights of the holders of any series of our preferred stock that we may designate and issue in the future.

Liquidation Rights

If we are involved in voluntary or involuntary liquidation, dissolution or winding up of our affairs, or a similar event, each holder of our common stock will participate pro rata in all assets remaining after payment of liabilities, subject to prior distribution rights of our preferred stock, if any, then outstanding.

Anti-Takeover Effects of the Certificate of Incorporation and the Bylaws

Our certificate of incorporation and our bylaws contain provisions that may delay, defer or discourage another party from acquiring control of our company. We expect that these provisions, which are summarized below, will discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of our company to first negotiate with our board of directors, which we believe may result in an improvement of the terms of any such acquisition in favor of our stockholders. However, they also give our board of directors the power to discourage mergers that some stockholders may favor.

Special Meetings of Stockholders

Our certificate of incorporation provides that a special meeting of stockholders may be called by the (a) the chairperson of our board of directors, (b) our board of directors or (c) for so long as we qualify as a “controlled company” under Section 303A of the New York Stock Exchange Listed Company Manual (a “Controlled Company”), by any holder of record of at least 25% of our issued and outstanding shares, provided that our board of directors approves such request.

Action by Written Consent

Our certificate of incorporation provides that any action required or permitted to be taken at any meeting of stockholders may, except as otherwise required by law or the Stockholders’ Agreement, for so long as we qualify as a Controlled Company, be taken without a meeting, without prior notice and without a vote, if a consent in writing, setting forth the action so taken, will be signed by the holders of record of not less than a majority of our outstanding shares of stock entitled to vote thereon. Pursuant to the Stockholders’ Agreement, Vieco US will first consult and discuss with our board of directors before taking such action by written consent for so long as the earlier to occur of (i) Vieco US no longer has the right to designate two directors to our board of directors and (ii) Mr. Palihapitiya no longer has the right to designate two directors to our board of directors (the “Sunset Date”).

Removal of Directors

Pursuant to the Stockholders’ Agreement, Vieco US has the exclusive right to remove one or more of the Vieco US directors from our board of directors and Mr. Palihapitiya has the exclusive right to remove one or more of Mr. Palihapitiya’s directors from our board of directors. Vieco US and Mr. Palihapitiya have the exclusive right

to designate directors for election to our board of directors to fill vacancies created by reason of death, removal or resignation of the Vieco US directors and the directors designated by Mr. Palihapitiya, respectively. Vieco US will not be able to remove independent directors until the expiration of the earlier of the Sunset Date and the expiration of the two-year lock-up period.

Vieco US's Approval Rights

Amendment to Certificate of Incorporation and Bylaws

The DGCL provides generally that the affirmative vote of a majority of the outstanding stock entitled to vote on amendments to a corporation's certificate of incorporation or bylaws is required to approve such amendment, unless a corporation's certificate of incorporation or bylaws, as the case may be, requires a greater percentage. Our bylaws may be further amended, altered, changed or repealed by a majority vote of our board of directors. However, pursuant to the Stockholders' Agreement, no amendment to our certificate of incorporation or bylaws may be made without Vieco US's prior written consent for so long as Vieco US has the right to designate one director to our board of directors under the Stockholders' Agreement.

Operational Matters

Vieco US has expansive rights of approval for certain material operational and other matters for us, including:

- for so long as Vieco US is entitled to designate one director to our board of directors under the Stockholders' Agreement, in addition to any vote or consent of the stockholders or our board of directors as required by law, we and our subsidiaries must obtain Vieco US's prior written consent to engage in:
 - any business combination or similar transaction;
 - a liquidation or related transaction; or
 - an issuance of capital stock in excess of 5% of our then issued and outstanding shares or those of any of our subsidiaries; and
 - for so long as Vieco US is entitled to designate two directors to our board of directors under the Stockholders' Agreement, in addition to any vote or consent of our stockholders or board of directors as required by law, we must obtain Vieco US's prior written consent to engage in:
 - a business combination or similar transaction having a fair market value of \$10.0 million or more;
 - a non-ordinary course sale of assets or equity interest having a fair market value of \$10.0 million or more;
 - an acquisition of any business or assets having a fair market value of \$10.0 million or more;
 - approval of any non-ordinary course investment having a fair market value of \$10.0 million or more;
 - an issuance or sale of any shares of our capital stock, other than an issuance of shares of our capital stock upon the exercise of options to purchase shares of our capital stock;
 - making any dividends or distribution to our stockholders other than those made in connection with the cessation of services of employees;
 - incurring indebtedness outside of the ordinary course in an amount greater than \$25.0 million in a single transaction or \$100.0 million in aggregate consolidated indebtedness;
-

- amendment of the terms of the Stockholders' Agreement or the Amended and Restated Registration Rights Agreement, dated October 25, 2019, by and among us, Vieco US, SCH Sponsor and Mr. Palihapitiya;
- a liquidation or similar transaction;
- transactions with any interested stockholder pursuant to Item 404 of Regulation S-K; or
- increasing or decreasing the size of our board of directors.

Delaware Anti-Takeover Statute

Section 203 of the DGCL provides that if a person acquires 15% or more of the voting stock of a Delaware corporation, such person becomes an "interested stockholder" and may not engage in certain "business combinations" with such corporation for a period of three years from the time such person acquired 15% or more of such corporation's voting stock, unless: (1) our board of directors of such corporation approves the acquisition of stock or the merger transaction before the time that the person becomes an interested stockholder, (2) the interested stockholder owns at least 85% of the outstanding voting stock of such corporation at the time the merger transaction commences (excluding voting stock owned by directors who are also officers and certain employee stock plans) or (3) the merger transaction is approved by our board of directors and at a meeting of stockholders, not by written consent, by the affirmative vote of two-thirds of the outstanding voting stock which is not owned by the interested stockholder. A Delaware corporation may elect in its certificate of incorporation or bylaws not to be governed by this particular Delaware law.

Under our certificate of incorporation, we have opted out of Section 203 of the DGCL.

Pursuant to the Stockholders' Agreement, until the Sunset Date, our board of directors may not approve any transaction (excluding those involving consideration less than \$0.1 million) between an interested stockholder (defined as Vieco US or any affiliate of Vieco US) and us, without the affirmative vote of at least a majority of our directors that are not designees of Vieco US.

Under certain circumstances, this provision would make it more difficult for us to effect various transactions with a person who would be an "interested stockholder" for these purposes. However, this provision would not be likely to discourage any parties interested in entering into a potential transaction with us, other than Vieco US and its affiliates. This provision may encourage Vieco US and Vieco US's affiliates, to the extent they are interested in entering into certain significant transactions with us, to negotiate in advance with the full board of directors because the board approval requirement would be satisfied by the affirmative vote of at least a majority of our directors that are not designees of Vieco US.

Corporate Opportunity

Under our certificate of incorporation, an explicit waiver regarding corporate opportunities is granted to certain "exempted persons" (including Vieco US and Mr. Palihapitiya and their respective affiliates, successors, directly or indirectly managed funds or vehicles, partners, principals, directors, officers, members, managers and employees, including any of the foregoing who will serve as our directors). Such "exempted persons" will not include us or our officers or employees and such waiver will not apply to any corporate opportunity that is expressly offered to any of our directors in their capacity as such (in which such opportunity we do not renounce an interest or expectancy). Our certificate of incorporation provides that, to the fullest extent permitted by law, (i) the exempted persons do not have any fiduciary duty to refrain from engaging directly or indirectly in the same or similar business activities or lines of business as us, (ii) we renounce any interest or expectancy in, or in being offered an opportunity to participate in, business opportunities that are from time to time presented to the exempted persons, even if the opportunity is one that we might reasonably be deemed to have pursued or had the ability or desire to pursue if granted the opportunity to do so and (iii) no exempted person will have any duty to communicate or offer such business opportunity to us and no exempted person will be liable to us for breach of any fiduciary or other duty, as a director or officer or otherwise, by reason of the fact that such exempted person pursues or acquires such business

opportunity, directs such business opportunity to another person or fails to present such business opportunity, or information regarding such business opportunity, to us.

Limitations on Liability and Indemnification of Officers and Directors

Our certificate of incorporation limits the liability of our directors to the fullest extent permitted by the DGCL, and our bylaws provide that we will indemnify them to the fullest extent permitted by such law. We have entered into and expect to continue to enter into agreements to indemnify our directors, executive officers and other employees as determined by our board of directors. Under the terms of such indemnification agreements, we are required to indemnify each of our directors and officers, to the fullest extent permitted by the laws of the state of Delaware, if the basis of the indemnitee's involvement was by reason of the fact that the indemnitee is or was our director or officer or was serving at our request in an official capacity for another entity. We must indemnify our officers and directors against all reasonable fees, expenses, charges and other costs of any type or nature whatsoever, including any and all expenses and obligations paid or incurred in connection with investigating, defending, being a witness in, participating in (including on appeal), or preparing to defend, be a witness or participate in any completed, actual, pending or threatened action, suit, claim or proceeding, whether civil, criminal, administrative or investigative, or establishing or enforcing a right to indemnification under the indemnification agreement. The indemnification agreements also require us, if so requested, to advance all reasonable fees, expenses, charges and other costs that such director or officer incurred, provided that such person will return any such advance if it is ultimately determined that such person is not entitled to indemnification by us. Any 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.

Exclusive Jurisdiction of Certain Actions

Our certificate of incorporation requires, to the fullest extent permitted by law, that derivative actions brought in our name against our directors, officers or employees for breach of fiduciary duty, any provision of the DGCL, our certificate of incorporation or our bylaws or other similar actions may be brought only in the Court of Chancery in the State of Delaware and, if brought outside of Delaware, the stockholder bringing the suit will be deemed to have consented to service of process on such stockholder's counsel. Notwithstanding the foregoing, our certificate of incorporation provides that the exclusive forum provision will not apply to suits brought to enforce a duty or liability created by the Securities Act of 1933, as amended (the "Securities Act"), the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction. Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all suits brought to enforce any duty or liability created by the Securities Act or the rules and regulations thereunder. Similarly, Section 27 of the Exchange Act creates exclusive federal jurisdiction over all suits brought to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder. Although we believe this provision benefits us by providing increased consistency in the application of Delaware law in the types of lawsuits to which it applies, the provision may have the effect of discouraging lawsuits against our directors and officers.

Transfer Agent

The transfer agent for our common stock is Continental Stock Transfer & Trust Company.

Warrants

Our outstanding warrants consist of warrants initially sold in our initial public offering (the "public warrants") and warrants initially sold in a private placement concurrently with our initial public offering to SCH Sponsor (the "private warrants" and, together with the public warrants, the "warrants"). The private warrants are identical to the public warrants, except that so long as they are held by SCH Sponsor or its permitted transferees the private warrants may be exercised for cash or on a "cashless basis" and are not redeemable by us.

Our warrants are issued in registered (book-entry) form under the Warrant Agreement, dated September 13, 2017, by and between us and Continental Stock Transfer & Trust Company, as warrant agent (the "Warrant Agent"). The following summary of certain provisions relating to our warrants does not purport to be complete and is subject to, and is qualified in its entirety by reference to the Warrant Agreement. You should review the Warrant Agreement for a complete description of the terms and conditions applicable to the warrants.

General

Each whole warrant entitles the holder to purchase one share of our common stock for \$11.50 per share, subject to certain adjustments (the “Exercise Price”). The public warrants will expire at the earliest to occur of (i) 5:00 p.m., New York City time on October 25, 2024 and (ii) 5:00 p.m., New York City time on the redemption date, if any, that we may fix in accordance with the Warrant Agreement. The private warrants are not subject to redemption by us, and therefore will expire at 5:00 p.m., New York City time on October 25, 2024. We may extend the duration of the warrants so long as we provide at least 20 days’ prior written notice to all registered holders. Any such extension must be identical among all of the warrants. Any warrant not exercised prior to its expiration will become void.

We will not issue fractional warrants upon any detachment of the warrants from then units. If, upon the detachment of public warrants from the units or otherwise, a holder of warrants would be entitled to receive a fractional warrant, we will round down to the nearest whole number the number of warrants to be issued to such holder.

Exercise and Expiration

A warrant may be exercised by delivering to the Warrant Agent (i) the warrant, (ii) an election to purchase, a form of which is attached to the Warrant Agreement, and (iii) the payment in full of the Exercise Price and any and all applicable taxes due in connection with the exercise.

So long as they are held by SCH Sponsor or a permitted transferee, the private warrants can be exercised on a cashless basis for a number of shares of our common stock equal to the quotient obtained by dividing (x) the product of (i) the number of shares of common stock underlying the warrants and (ii) the excess of the “fair market value” of our common stock over the Exercise Price by (y) the “fair market value” of our common stock. In this scenario, the “fair market value” means the average last sale price of our common stock for the 10 trading days ending on the third trading day prior to the date on which notice of exercise of the warrant is sent to the Warrant Agent.

As soon as practicable after the exercise of any warrant we will issue a book-entry position or certificate, as applicable, for the shares of common stock. All shares of common stock issued upon the proper exercise of a warrant in conformity with the Warrant Agreement will be validly issued, fully paid and nonassessable.

Additionally, a warrant holder may notify us in writing of the holder’s election to be subject to a provision of the Warrant Agreement preventing the holder from exercising a warrant, to the extent that, after giving effect to such exercise, the holder (together with its affiliates), to the Warrant Agent’s actual knowledge, would beneficially own in excess of 9.8% (the “Maximum Percentage”) of our outstanding common stock immediately after giving effect to such exercise. By written notice to us, a warrant holder may increase or decrease the Maximum Percentage to any other percentage specified in such notice; provided, however, that any such increase will not be effective until the sixty-first (61st) day after such notice is delivered to us.

Registration and Cashless Exercise

We have agreed to use our best efforts to file with the Securities and Exchange Commission (the “Commission”) as soon as practicable a registration statement for the registration, under the Securities Act, of the shares of common stock issuable upon exercise of the warrants. We are obligated to use our best efforts to cause the same to become effective and to maintain the effectiveness of such registration statement, and a current prospectus relating thereto, until the expiration of the warrants. Warrant holders have the right, until such registration statement is declared effective by the Commission, and during any other period that we may fail to have maintained an effective registration statement covering the shares of common stock issuable upon exercise of the warrants, to exercise such warrants on a “cashless basis.” In a cashless exercise, holders may exchange their warrants for a number of shares of our common stock equal to the quotient obtained by dividing (x) the product of (i) the number of shares of common stock underlying the warrants and (ii) the excess of the “fair market value” of our common stock over the Exercise Price by (y) the “fair market value” of our common stock. In this scenario, the “fair market

value” means the volume weighted average price of our common stock as reported during the 10-trading-day period ending on the trading day prior to the date that notice of exercise is received by the Warrant Agent. Unless and until all of the warrants have been exercised or have expired, we will continue to be obligated to comply with the registration obligations described in this paragraph.

Additionally, we may require exercises of public warrants to be made on a “cashless basis” if our common stock is, at the time of any exercise, not listed on a national securities exchange such that it satisfies the definition of a “covered security” under Section 18(b)(1) of the Securities Act. In that case, we will not be required to file or maintain in effect a registration statement for the registration of the shares of common stock issuable upon exercise of the warrants. Instead, we will be required to use our best efforts to register or qualify for sale those shares of common stock under the applicable blue sky laws, to the extent an exemption is not available.

If, by reason of any exercise of warrants on a “cashless basis”, the holder of any warrant would be entitled, upon the exercise of such warrant, to receive a fractional interest in a share of common stock, we will round down to the nearest whole number, the number of shares of common stock to be issued to such holder.

Redemption and Notice

We have the right to redeem the warrants, at any time while they are exercisable and prior to their expiration, at the price of \$0.01 per warrant (the “Redemption Price”). If we choose to do so, we are required to (i) redeem all of the outstanding warrants (other than private warrants held by SCH Sponsor or its permitted transferees), (ii) fix a date for the redemption and (iii) provide notice to the registered holders of the warrants at least 30 days prior to the redemption date.

We will mail any such notice of redemption by first class mail, postage prepaid, not less than 30 days prior to the redemption date to registered warrant holders. The notice will be sent to each registered holder’s last address as it appears on the registration books. Any notice so mailed will be conclusively presumed to have been duly given, whether or not the registered holder actually receives such notice.

We may only redeem the warrants if (i) the last reported sale price of our common stock has been at least \$18.00 per share (subject to certain adjustments), on 20 trading days within the 30-trading-day period ending on the third trading day prior to the date on which notice of the redemption is given and (ii) there is an effective registration statement covering the shares of common stock issuable upon exercise of the warrants, and a current prospectus relating thereto, available throughout the 30 days prior to the redemption date. If there is no effective registration statement and current prospectus available, we may, at the election of our board, nonetheless require holders to exercise their warrants on a “cashless basis,” provided that the conditions set forth in clause (i) above are satisfied.

If we require holders to exercise their warrants on a “cashless basis” in such a scenario, holders of the warrants will be required to surrender the warrants for a number of shares of our common stock equal to the quotient obtained by dividing (x) the product of (i) the number of shares of common stock underlying the warrants and (ii) the excess of the “fair market value” of our common stock over the Exercise Price by (y) the “fair market value” of our common stock. In this scenario, the “fair market value” means the average last sale price of our common stock for the 10 trading days ending on the third trading day prior to the date that notice of redemption is sent to the holders of the warrants.

The warrants may be exercised for cash or on a “cashless basis”, as applicable, at any time after we send a notice of redemption and prior to the redemption date. If we require all warrant holders to exercise their warrants on a “cashless basis,” the notice of redemption will contain the information necessary to calculate the number of shares of common stock to be received upon exercise of the warrants.

On and after the redemption date, the record holder of the warrants will have no further rights except to receive, upon surrender of the warrants, the Redemption Price.

Adjustments

The number of shares of common stock issuable upon the exercise of the warrants is subject to customary adjustments in certain circumstances, such as a stock split, dividend or reclassification of our common stock, as described in the Warrant Agreement. In the event the number of shares of common stock purchasable upon the exercise of the warrants is adjusted, the Exercise Price will be adjusted (to the nearest cent) by:

- taking the Exercise Price immediately prior to such adjustment,
- multiplying it by the number of shares of common stock purchasable upon the exercise of the warrants immediately prior to such adjustment, and then
- dividing by the number of shares of common stock so purchasable immediately thereafter.

If, by reason of any adjustment made pursuant to the events described above (each, an “Adjustment”), the holder of any warrant would be entitled, upon the exercise of such warrant, to receive a fractional interest in a share, we will, upon such exercise, round down to the nearest whole number the number of shares of common stock to be issued to such holder.

Warrant holders will also have replacement rights in the case of certain reorganization, merger, consolidation or sale transactions involving our company or substantially all of our assets (each a “Replacement Event”). Upon the occurrence of any Replacement Event, warrant holders will have the right to purchase and receive (in lieu of shares of our common stock) the kind and amount of stock or other securities or property (including cash) receivable upon such Replacement Event that the holder would have received if the warrants were exercised immediately prior to such event.

Upon any adjustment of the Exercise Price or the number of shares issuable upon exercise of a warrant, we will provide written notice of such adjustment to the Warrant Agent stating the Exercise Price resulting from such adjustment and the increase or decrease, if any, in the number of shares purchasable at such price upon the exercise of a warrant. We will also provide notice of any adjustment described above to each warrant holder at the last address set forth in the warrant register stating the date of the event.

Additionally, in case of any event affecting us to which the adjustments described above are not strictly applicable, but which would require an adjustment to the terms of the warrants in order to avoid an adverse impact on the warrants and to effectuate the intent and purpose of the adjustments provided for in the Warrant Agreement, we will appoint an appropriate independent firm to give its opinion as to whether any adjustment is necessary and, if so, the terms of such adjustment. In such an event, we will then adjust the terms of the warrants in a manner consistent with the recommended adjustment.

Transfers and Exchanges

Warrants may be exchanged or transferred upon surrender of the warrant to the Warrant Agent, together with a written request for exchange or transfer. Upon any transfer, a new warrant representing an equal aggregate number of warrants will be issued and the old warrant will be cancelled by the Warrant Agent.

Book-entry warrants may be transferred only in whole and warrants bearing a restrictive legend, including the private warrants, may transferred or exchanged only if the Transfer Agent has received an opinion of counsel stating that such transfer may be made and indicating whether the new warrants must also bear a restrictive legend.

No Rights as a Stockholder

A warrant does not entitle the holder to any of the rights of a stockholder of our company, including, without limitation, the right to receive dividends, the right to vote or the right to receive notice as stockholders in respect of the meetings of stockholders or the election of directors of our company.

Units

Our units are comprised of one share of our common stock and one-third of one whole public warrant. Unit holders must elect to separate the units into the underlying public shares and warrants prior to exercising the underlying warrants or the rights of the underlying common stock. If holders hold their units in an account at a brokerage firm or bank, holders must notify their broker or bank that they elect to separate the units into the underlying public shares and warrants, or if a holder holds units registered in the holder's own name, the holder must contact the Warrant Agent, directly and instruct them to do so.

Consent of Independent Registered Public Accounting Firm

To the Board of Directors
Virgin Galactic Holdings, Inc.:

We consent to the incorporation by reference in the registration statement on Form S-8 (No. 333-235750), pertaining to the 2019 Incentive Award Plan, of our report dated February 27, 2020, with respect to the consolidated balance sheets of Virgin Galactic Holdings, Inc. as of December 31, 2019 and 2018, the related consolidated statements of operations and comprehensive loss, equity, and cash flows for each of the years in the three-year period ended December 31, 2019, and the related notes (collectively, the consolidated financial statements), which report appears in the December 31, 2019 annual report on Form 10-K of Virgin Galactic Holdings, Inc.

/s/ KPMG LLP

Los Angeles, California
February 27, 2020

**CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO SECTION 302 OF
THE SARBANES-OXLEY ACT OF 2002**

I, George Whitesides, certify that:

1. I have reviewed this Annual Report on Form 10-K of Virgin Galactic Holdings, Inc.;
 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 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 we 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 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.
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February 27, 2020

/s/ George Whitesides

George Whitesides

Chief Executive Officer and President

(Principal Executive Officer)

**CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO SECTION 302 OF
THE SARBANES-OXLEY ACT OF 2002**

I, Jon Campagna, certify that:

1. I have reviewed this Annual Report on Form 10-K of Virgin Galactic Holdings, Inc.;
 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 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 we 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 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.
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February 27, 2020

/s/ Jon Campagna

Jon Campagna
Chief Financial Officer
(Principal Financial Officer)

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of Virgin Galactic Holdings, Inc. (the “Company”) on Form 10-K for the period ended December 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, George Whitesides, Chief Executive Officer and President (Principal Executive Officer) and Director, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of and for the period covered by the Report.

February 27, 2020

/s/ George Whitesides

George Whitesides

Chief Executive Officer and President

(Principal Executive Officer)

This certification shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), or incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by specific reference in such a filing.

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of Virgin Galactic Holdings, Inc. (the “Company”) on Form 10-K for the period ended December 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Jon Campagna, Chief Financial Officer (Principal Financial Officer), certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of and for the period covered by the Report.

February 27, 2020

/s/ Jon Campagna

Jon Campagna

Chief Financial Officer

(Principal Financial Officer)

This certification shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), or incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by specific reference in such a filing.