

PRELIMINARY PROSPECTUS (Subject to Completion)

Dated _____, 2021

American Depositary Shares

HESAI

Hesai Group

Representing

Class B Ordinary Shares

This is an initial public offering of American depositary shares, or ADSs, of Hesai Group.

We are offering _____ ADSs. [The selling shareholders identified in this prospectus are offering an aggregate of _____ additional ADSs.] Each ADS represents _____ of our Class B ordinary shares, par value \$0.0001 per share. We anticipate the initial public offering price per ADS will be between US\$ _____ and US\$ _____. [We will not receive any proceeds from the ADSs sold by the selling shareholders.]

Prior to this offering, there has been no public market for the ADSs or our Class B ordinary shares. We intend to apply for the listing of the ADSs on [the New York Stock Exchange/Nasdaq Stock Market] under the symbol “[HSAI].”

We are an “emerging growth company” under applicable U.S. federal securities laws and are eligible for reduced public company reporting requirements.

See “Risk Factors” beginning on page [17](#) for factors you should consider before buying the ADSs.

PRICE US\$ PER ADS

Neither the United States Securities and Exchange Commission nor any other regulatory body has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

	Per ADS	Total
Initial public offering price	US\$ _____	US\$ _____
Underwriting discount and commissions ⁽¹⁾	US\$ _____	US\$ _____
Proceeds, before expenses, to us	US\$ _____	US\$ _____
[Proceeds, before expenses, to the selling shareholders]	US\$ _____	US\$ _____

(1) See “Underwriting” for additional information regarding compensation payable by us to the underwriters.

The underwriters have a 30-day option to purchase up to an additional _____ ADSs from us [and certain selling shareholders] at the initial public offering price less the underwriting discount.

The underwriters expect to deliver the ADSs to purchasers on _____, 2021.

Goldman Sachs**Morgan Stanley****Credit Suisse**

Prospectus dated _____, 2021.

The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and we are not soliciting offers to buy these securities in any state where the offer or sale is not permitted.

[Page intentionally left blank for graphics]

TABLE OF CONTENTS

Prospectus Summary	1
The Offering	13
Summary Consolidated Financial Data	15
Risk Factors	17
Special Note Regarding Forward-Looking Statements	59
Use of Proceeds	61
Dividend Policy	62
Capitalization	63
Dilution	64
Enforceability of Civil Liabilities	66
Corporate History and Structure	68
Selected Consolidated Financial Data	69
Management's Discussion and Analysis of Financial Condition and Results of Operations	71
Industry	88
Business	97
Regulation	120
Management	133
Principal [and Selling] Shareholders	139
Related Party Transactions	141
Description of Share Capital	142
Description of American Depositary Shares	153
Shares Eligible for Future Sale	163
Taxation	165
Underwriting	171
Expenses Related to this Offering	181
Legal Matters	182
Experts	183
Where You Can Find Additional Information	184
Index to Consolidated Financial Statements	F-1

We have not authorized anyone to provide any information other than that contained in this prospectus or in any free writing prospectus prepared by or on behalf of us or to which we may have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We and the underwriters have not authorized any other person to provide you with different or additional information. We are offering to sell, and seeking offers to buy the ADSs, only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or any sale of the ADSs.

We have not taken any action to permit a public offering of the ADSs outside the United States or to permit the possession or distribution of this prospectus outside the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about and observe any restrictions relating to the offering of the ADSs and the distribution of the prospectus outside the United States.

Until _____, 2021 (the 25th day after the date of this prospectus), all dealers that buy, sell or trade ADSs, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to the obligation of dealers to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

PROSPECTUS SUMMARY

The following summary is qualified in its entirety by, and should be read in conjunction with, the more detailed information and financial statements appearing elsewhere in this prospectus. In addition to this summary, we urge you to read the entire prospectus carefully, especially the risks of investing in the ADSs discussed under “Risk Factors,” before deciding whether to invest in the ADSs. This prospectus contains information from an industry report dated June 2021 commissioned by us and prepared by Frost & Sullivan, an independent research firm, regarding our industry and our market position in China. We refer to this report as the “Frost & Sullivan Report.”

Overview

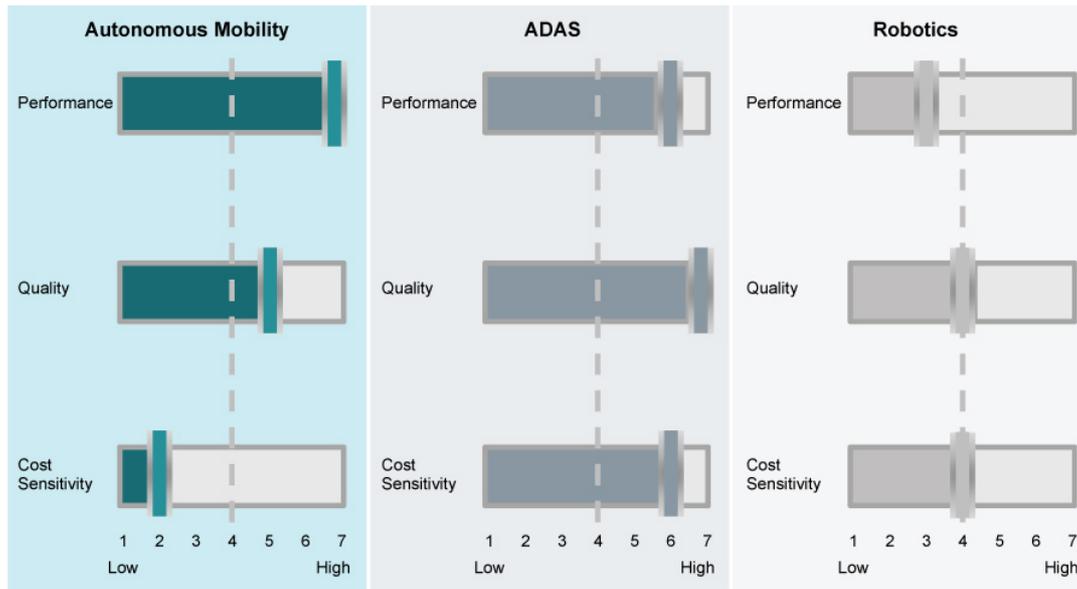
We are the global leader in three-dimensional light detection and ranging (LiDAR) solutions. Our LiDAR products enable a broad spectrum of applications across (i) autonomous vehicle fleets providing passenger and freight mobility services, or Autonomous Mobility, (ii) passenger or commercial vehicles with advanced driver assistance systems, or ADAS, and (iii) other applications such as last-mile delivery robots, street sweeping robots, and logistics robots in restricted areas, or Robotics. According to the Frost & Sullivan Report, we are the global leader for LiDARs in the Autonomous Mobility market in 2020 in terms of revenue, having an approximately 40% share of the global market. Since our inception, we have sold and shipped over 10,000 LiDAR units, over 90% of which are high-end LiDAR units with 32 or more laser channels. As of December 31, 2020, 12 out of the 15 top global autonomous driving companies used our LiDARs as their primary LiDAR solution, meaning that we had the largest share by purchase dollar amount for the current fleet of each of the 12 companies, according to the Frost & Sullivan Report. These top 15 companies are defined in terms of testing miles traveled as reported by the California Department of Motor Vehicles in 2020.

We believe there are three critical elements in designing and manufacturing LiDARs: Performance, Quality, and Cost. These qualities are defined as follows.

Elements of LiDAR	Definition
Performance	The explicit specifications of a LiDAR unit that directly reflect its performance, including detection range (for example, 200 meters or longer at 10% reflectivity), point density (number of points generated per second, which is horizontal resolution times vertical resolution, multiplied by frame rate), distance accuracy and precision, reflectivity accuracy, and interference rejection, among others.
Quality	The implicit aspects of a LiDAR unit that represent its ability to perform consistently under a variety of circumstances over time, including robustness under extreme operating temperatures, different levels of humidity, waterproof levels, and mechanical shocks and stresses. Quality also represents a product’s manufacturing consistency, functional safety (typically ASIL-B), and viability as an automotive-grade component.
Cost	The per unit price for each LiDAR unit. Customers of LiDAR units for different applications and industries have varying levels of cost sensitivity, which is usually influenced by factors such as timeline for mass adoption, operating scale, and the business models of the target application, among others.

We design our LiDARs to push the limits across each of the three elements, while striking the optimal balance for different applications and industries. In principle, LiDARs for Autonomous Mobility require higher performance and quality, as they are critical to the successful development and safe operation of cutting-edge autonomous driving solutions, with cost tending to be a secondary consideration. For Robotics, our customers have demonstrated varying levels of cost sensitivity depending on the application, which range from last-mile delivery robots to street sweeping robots. The emerging ADAS market for LiDAR imposes stricter demands on all three aspects, especially in terms of lower cost, as compared to other markets.

The graphic below illustrates the different requirements on Performance, Quality, and Cost for the markets we serve.



LiDARs are highly sophisticated instruments, consisting of the following key components.

- *TX/RX system*, or the laser transmitter (TX) and receiver (RX) system, which holds the electronic and photonic components that send and receive laser light and process the signals into distance measurements. The TX/RX system is critical to ensuring a LiDAR's high performance and its design is one of the key areas where we excel compared to other LiDAR providers.
- *Beam steering system*, which steers the laser light for the TX/RX system. See "Business — Our LiDAR Technology — Beam Steering System."
- *Other supporting infrastructure*, including optics, mechanical structures, circuits, and firmware, among others.

To address the needs of our customers in different industries, we combine different TX/RX systems with different beam steering systems to define various LiDAR configurations, delivering numerous permutations of Performance, Quality and Cost characteristics. No matter what kind of beam steering system is used, the TX/RX system is the key in the entire LiDAR.

Our TX/RX system design, which is semiconductor-based, uses application-specific integrated circuits, or ASICs, and offers significant advantages over the architectures based on discrete components. Our XT series, for example, is based on our proprietary ASICs and is able to deliver superior performance at high precision, lower power consumption per channel, in a smaller form factor and at a lower cost compared to architectures based on discrete components. ASICs allow us to maximize the performance of LiDARs via fully customizing the signal processing while concurrently reducing power consumption. In addition, the legacy LiDAR involves assembling hundreds of discrete components, which leads to a higher likelihood of quality issues and inconsistency, whereas the ASIC-based LiDARs integrate multiple functions into a few chips, which reduces system complexity. The resulting LiDARs come at a lower cost thanks to a simplified manufacturing process. We will continue to upgrade our ASICs and leverage the existing advanced manufacturing processes in the semiconductor supply chain to deliver better price-to-performance.

Our proprietary manufacturing process constitutes another of our major advantages and has contributed to our success to date. As the LiDAR industry continues to evolve quickly, our in-house manufacturing capabilities enable us to effectively meet the needs of rapid product development and short iteration cycles. Moreover, given the complexity and high level of expertise required to manufacture our products, we believe

in-house manufacturing allows us to better control product quality, improve manufacturing efficiency, and safeguard manufacturing process know-how. We have strategically built our current manufacturing facility, which covers approximately 270,000 square feet and is certified under IATF 16949 and ISO 9001, in Jiading, Shanghai, the hub for automotive OEMs and Tier 1 suppliers of automotive components in China. Our current manufacturing facility has an annual production capacity of 35,000 units, and we plan to grow this capacity to 66,000 units by the end of 2021. We are also building a new facility of approximately 740,000 square feet, which is expected to commence operation in 2022 and is expected to eventually increase our annual production capacity up to approximately 1.2 million units.

We provide LiDAR solutions to the Autonomous Mobility, ADAS and Robotics markets.

- *Autonomous Mobility.* We believe customers with operations in real-world applications are the best judges for evaluating the Performance and Quality of existing LiDAR products in the market. According to the Frost & Sullivan Report, we are the global No. 1 LiDAR solution provider in terms of revenue in the Autonomous Mobility application market in 2020. Our top customers in terms of revenues in 2020 for LiDAR solutions in the Autonomous Mobility industry include, among others, a leading global OEM headquartered in the United States, Baidu, Inc., Aurora, Pony.ai, and Uber. Our top five customers by contract amount in the three months ended March 31, 2021 were a leading global OEM headquartered in the United States, a leading global OEM headquartered in Germany, Zoox, WeRide, and Baidu. In particular, we had also established relationships with Autonomous Mobility companies for freight and logistics services, such as Aurora and TuSimple. According to the Frost & Sullivan Report, the LiDAR solution market for Autonomous Mobility in terms of revenue was US\$0.1 billion in 2020, and is expected to reach US\$24.8 billion in 2030, representing a compound annual growth rate, or CAGR, of 73.6%.
- *ADAS.* In addition to the stringent Performance and Quality requirements in Autonomous Mobility applications, the ADAS market also requires automotive-grade production Quality and affordability for scaled deployments in passenger vehicles. We believe our LiDARs, utilizing our ASIC-based architecture and developed through deep collaboration with established OEM partners, are uniquely positioned to meet the Performance, Quality, and Cost requirements and will drive our success, both technologically and commercially, in the ADAS market. While the market for LiDAR-incorporated ADAS is still nascent, we have entered into strategic cooperation with Li Auto, one of the top electric vehicle OEMs in China, and Lotus, a British sports car OEM. According to the Frost & Sullivan Report, the global LiDAR solution market for ADAS in terms of revenue was US\$0.1 billion in 2020, and is expected to reach US\$64.6 billion in 2030, representing a CAGR of 87.6%.
- *Robotics.* In addition to the Autonomous Mobility and ADAS markets that we strategically focus on, we also leverage our proprietary TX/RX system with embedded ASICs to develop LiDAR products for the Robotics market. We have entered into multi-year agreements with a leading last-mile delivery robotics company headquartered in the United States, Meituan, and Neolix for deployments of last-mile delivery services in this market. According to the Frost & Sullivan Report, the global LiDAR solution market for Robotics in terms of revenue was US\$0.1 billion in 2020, and is expected to reach US\$15.0 billion in 2030, representing a CAGR of 65.0%.

We have already started commercializing our technology and have begun shipping our LiDAR units in increasing volumes. We recognized revenue on over 3,500 shipped LiDAR units in the first half of 2021 as compared to approximately 700 shipped units in the first half of 2020. We have been growing rapidly while maintaining industry-leading gross margins as compared to major publicly listed LiDAR companies, according to the Frost & Sullivan Report. Our net revenues increased by 19.4% from RMB348.1 million in 2019 to RMB415.5 million (US\$63.7 million) in 2020. Our gross margin for 2019 and 2020 was 70.3% and 57.5%, respectively, and our net loss for the same periods was RMB120.2 million and RMB107.2 million (US\$16.4 million), respectively. Our EBITDA, a non-GAAP financial measure, was negative RMB128.7 million and negative RMB109.1 million (US\$16.7 million) in 2019 and 2020, respectively. See “Management’s Discussion and Analysis of Financial Condition and Results of Operations — Non-GAAP Financial Measure.”

Industry Approaches and Their Limitations

According to the Frost & Sullivan Report, the global market for LiDAR solutions is expected to grow from US\$0.3 billion in 2020, to US\$12.9 billion in 2025, and further to US\$104.4 billion in 2030, supported by an expanding set of applications across multiple end markets, including Autonomous Mobility, ADAS and Robotics.

Existing approaches for LiDAR products today can be categorized as follows.

- *Legacy Approach.* In this approach, hundreds of discrete off-the-shelf components are assembled to form a large number of TX/RX channels in the vertical direction, combined with a low-speed, fully rotational, one-dimensional beam steering system in the horizontal direction. The approach suffers from high cost, complex manufacturing process resulting in inconsistent products, and poor product reliability.
- *Minimum Channel Approach.* In addressing the shortcomings of the legacy approach, some companies have taken a seemingly intuitive approach by minimizing the number of TX/RX channels, and compensating for lower channel number with various novel beam steering systems. While this approach solves for the problems of inconsistency, quality, and high cost associated with the high number of TX/RX channels in the legacy approach, it introduces a new set of challenges by relying on novel, non-conventional beam steering systems. These high-speed beam steering systems have not been proven to meet the stringent requirements of the automotive industry. The point cloud data produced by such LiDARs are less compatible with established perception algorithms due to the unconventional scanning pattern.
- *Line-flash ASIC Approach.* A third approach uses an ASIC-based TX/RX system with both a high number of channels that are fired at the same time and a low-speed, one-dimensional beam steering system. This approach introduces severe crosstalk that becomes even more pronounced on highly reflective targets. In addition, the approach fires in all vertical directions concurrently, resulting in a lower power density on each laser (due to eye safety limits) and consequently reducing detection range.

In summary, customers across the Autonomous Mobility, ADAS, and Robotics markets have been limited to compromises between Performance, Quality, and Cost. LiDAR products on the market today that meet baseline requirements on Performance and Quality are expensive and are not suitable for the mass adoption of LiDAR technology in the scaled deployments of future applications.

Our Innovative Approach to TX/RX Design

We have built an innovative approach to solve the dilemma. Our ASIC-based approach features a large number of channels driven by ASICs, combined with a simple but robust beam steering system. In this way, we are able to deliver a system that offers far greater performance and higher quality and consistency at scanning lower cost. In particular, our proprietary ASICs drive a large number (currently up to 128) of individually addressable laser channels with dynamic exposure functions in the TX/RX system. Our TX features one-dimensional solid-state electronic scanning that shoots lasers in sequence in the vertical direction and a low-speed rotating mechanism in the horizontal direction, which is a proven design in the automotive industry. The combination of a large number of laser channels driven by ASICs and a low-speed rotating mechanism enables three-dimensional scanning of the environment. As of May 31, 2021, we had recognized revenue from over 1,000 units of the XT series sold that feature this ASIC approach of one-dimensional solid-state electronic scanning.

Our current TX/RX system integrates laser emitters, receivers, and ASICs. The TX includes dense vertical cavity surface emitting lasers (VCSEL) arrays as emitters and ASICs that drive these laser emitters. The RX includes silicon photomultiplier (SiPM, a receiver combining signals from multiple single photon avalanche diodes, or SPADs) arrays and ASICs that perform as the switch and processor for all the laser receivers. The picture below shows our TX/RX system with laser emitters, receivers, and ASICs on our 128-channel LiDAR.

Hesai's 128-channel TX/RX System



LiDARs based on ASICs generally have several key advantages: (i) maximized performance since ASICs allow for application customization, reduced power consumption, and optimized signal processing tuning; (ii) enhanced quality as the high level of integration of components and simplified manufacturing process of ASICs can improve consistency; and (iii) optimized cost as ASICs replace hundreds of discrete off-the-shelf components for manufacturing efficiency and leverage the semiconductor supply chain to enhance price-to-performance. Comparing our 32-channel XT series product embedded with proprietary ASICs with a comparable 16-channel LiDAR following the legacy approach at similar size, our solution features twice the number of laser channels, 60% longer detection range on a low reflectivity target, double the point density, lower the power consumption per channel, and comes at half the cost.

In addition to the aforementioned inherent advantages of using ASICs in the TX/RX system, our approach further differentiates itself in the following ways.

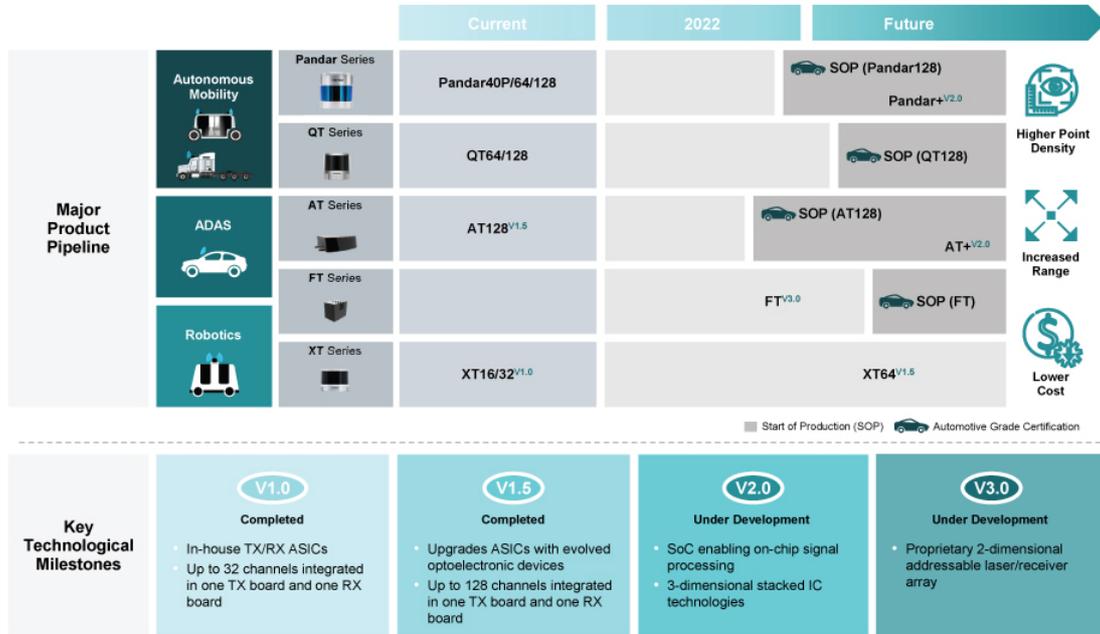
- *Continuation of a Proven Design.* Our proprietary ASICs reflect our LiDAR design know-how that has been validated in real-world applications through the over 10,000 units of LiDAR we have shipped. These LiDARs cumulatively facilitated tens of millions of kilometers of real-world autonomous driving, according to the Frost & Sullivan Report.
- *ASICs Validated Through Volume Shipment.* We have recognized revenue from over 1,000 units of XT32 sold, our ASIC-based LiDAR product, and have entered into framework agreements for over 14,400 units of XT32 as of the date of this prospectus.
- *CMOS Image Sensor (CIS)-like Approach.* We have taken the approach of adopting a large number of TX/RX channels through an ASIC architecture, and we expect the cost per channel to decline exponentially over time following the progression of the semiconductor industry. Our approach is analogous to the evolution of the CIS in the camera industry, where the number of pixels has grown exponentially over the years and the performance of the integrated sensor has kept advancing while the cost of each pixel has kept declining. Silicon-based semiconductor technology has enabled similar progression in many sectors, especially in consumer electronics, over the past few decades.
- *Individually Addressable versus Line Flash.* Our proprietary ASIC design enables each of the TX/RX channels to individually shoot and receive laser signals with channel-level dynamic exposure functions. This design can effectively avoid channel crosstalk and the dilution of power density per channel compared to line flash design.

Our LiDAR approach also features the following.

- *905nm/940nm versus 1550nm Wavelengths.* Our LiDAR approach features 905nm and 940nm wavelengths using GaAs-based VCSELs, which are well proven for three-dimensional sensing used in consumer electronics such as smartphones. We believe the laser and receiver components for 1550nm wavelength generally suffer from high power consumption, higher cost of fiber laser, and low sensitivity of InGaAs-based receivers. Accordingly, a LiDAR with 1550nm wavelengths requires many non-automotive-grade components to support a marginally longer detection range at a much higher cost with limited point density as a result of the massive power consumption of 1550nm system. As a result, we strategically adopt mature GaAs-based VCSELs at 905nm/940nm wavelengths. We also see a high possibility that we can further optimize LiDARs at 905nm/940nm wavelengths to exceed the 1550nm wavelength approach in terms of detection range by upgrading the laser receivers and the ASICs processing them.

- **Software and Algorithms.** Our proprietary software is key to providing our customers with a complete solution. Our perception software based on edge-computing allows customers to receive processed data in a structured package, identifying vehicles, pedestrians, and others. The perception results from the algorithms become intermediate data for central computing. The algorithms are specifically trained based on our LiDAR point cloud pattern features under different applications to fully capture the intricacies of different objects. For example, we work closely with Li Auto in enhancing their perception accuracy by transferring know-how from perception algorithms based on our LiDARs to their central computing algorithms.

We plan to adopt ASICs across a majority of our product lines. The following picture illustrates our ASIC development roadmap along with our major product pipeline.



Our Strengths

We believe the following strengths position us well to capitalize on the opportunities in providing LiDAR solutions for the Autonomous Mobility, ADAS, and Robotics markets:

- recognized global leadership;
- strong partnerships with industry-leading players;
- commercially validated solutions backed by superior research and development on LiDAR technologies and ASICs;
- strong in-house manufacturing enabling rapid development and high Quality; and
- visionary management team with a proven track record of innovation and commercialization.

Our Growth Strategies

Our aim is to solidify our dominant position in providing LiDAR solutions to the Autonomous Mobility market and extend that leadership to the emerging ADAS and Robotics markets. Key elements of our strategies include:

- leveraging our proprietary ASICs and leadership in the Autonomous Mobility market to penetrate the ADAS market;

- extending and enhancing partnerships with industry-leading companies;
- investing in manufacturing capabilities that enable us to continue to deliver products with high performance and reliability at an attractive price to our customers;
- optimizing our cost structure to make LiDAR more affordable for widespread adoption;
- expanding into the Robotics market to serve more industries; and
- developing software suites to provide comprehensive LiDAR solutions with flexibility.

Corporate History and Structure

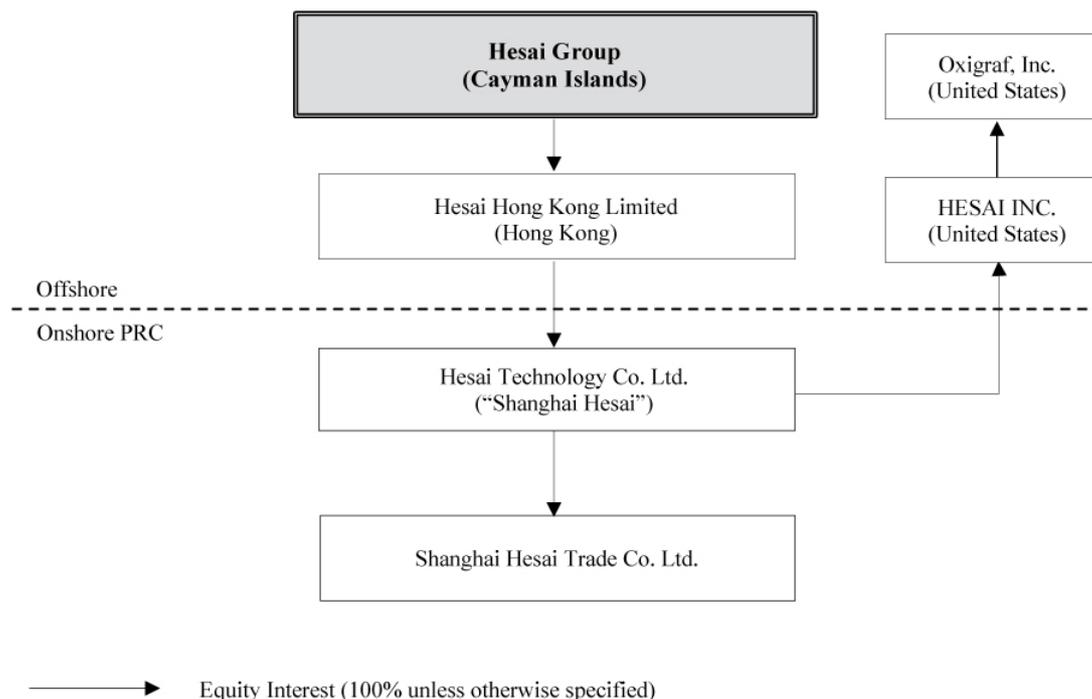
We commenced our operations in October 2014 through Hesai Photonics Technology Co., Ltd., now known as Hesai Technology Co., Ltd., or Shanghai Hesai, a limited liability company incorporated under the laws of the PRC. Our initial focus was on high-performance laser sensors used in natural gas and other industries, but we shifted our primary business to the development, manufacturing and sales of LiDAR products in 2016. Since then, we have developed and produced a full range of LiDAR solutions and products for various applications in Autonomous Mobility, ADAS and Robotics.

Through Shanghai Hesai, we established HESAI INC., a California corporation, and Shanghai Hesai Trade Co., Ltd., a PRC limited liability company, in October 2017 and May 2019, respectively. HESAI INC. and Shanghai Hesai Trade Co., Ltd. serve as our primary sales platforms in the U.S. and China, respectively.

To facilitate our offshore financing, we established Hesai Group, our offshore holding company incorporated under the laws of the Cayman Islands, in April 2021. Shortly following its incorporation, Hesai Group established a wholly owned subsidiary in Hong Kong, Hesai Hong Kong Limited, which now holds 100% interest in Shanghai Hesai.

In May and June 2021, as part of our reorganization, the shareholders of Shanghai Hesai transferred their equity interests in Shanghai Hesai to Hesai Hong Kong Limited, and they or their affiliates subscribed for ordinary shares of Hesai Group in proportion to their respective interests in Shanghai Hesai prior to the reorganization, where entities owned by the three founders subscribed for Class A ordinary shares and other shareholders of Shanghai Hesai subscribed for Class B ordinary shares. Around the same time, we completed a new round of financing, issuing Class B ordinary shares of Hesai Group to a number of new investors.

The following diagram illustrates our corporate structure, including our principal subsidiaries, as of the date of this prospectus:



Summary of Risk Factors

Investing in our ADSs involves significant risks. You should carefully consider all of the information in this prospectus before making an investment in our ADSs. Below please find a summary of the principal risks we face, organized under relevant headings. These risks are discussed more fully in the section titled "Risk Factors."

Risks Related to Our Business and Industry

Risks and uncertainties related to our business and industry include, but are not limited to, the following:

- We are an early stage company with a history of losses, and we may not be able to achieve profitability in the future.
- Our limited operating history makes it difficult to evaluate our future prospects and the risks and challenges we may encounter.
- Our LiDAR products used on vehicles are highly complex and may contain defects or otherwise fail to perform in line with expectations, which could reduce the market adoption of our new products, damage our reputation with current or prospective customers, expose us to product liability and other claims and adversely affect our operating results.
- If our LiDAR products are not selected by automotive or robot OEMs or their suppliers, our business will be materially and adversely affected.
- We currently have and target many customers that are large corporations with substantial negotiating power, exacting product standards and potentially competitive internal solutions. If we are unable to sell our products to these customers or do so on terms acceptable to us, our prospects and results of operations will be adversely affected.

- Our ability to develop, manufacture, and deliver LiDAR products of high quality and appeal to customers, on schedule, and on a large scale is still evolving.
- We are early in our efforts to develop and commercialize our in-house ASICs, and we cannot assure you that such efforts will succeed.
- We operate in highly competitive markets and some market participants have substantially greater resources. We compete against a large number of both established competitors and new market entrants.
- Although we believe that LiDAR is the industry standard for Autonomous Mobility, ADAS and certain other emerging markets, market adoption of LiDAR is uncertain. If market adoption of LiDAR does not continue to develop, or develops more slowly than we expect, our business will be adversely affected.
- Because LiDAR is new in most of the markets we are seeking to enter, forecasts of market growth in this prospectus may not be accurate.
- We continue to implement strategic initiatives designed to grow our business, including developing new technologies and products. We cannot assure you that our choices of technologies and products to focus on will prove correct, or that our initiatives will succeed and bring sufficient growth in revenue to offset the costs.
- We have been and may continue to be negatively impacted by the ongoing global chip shortage.
- We rely on third-party suppliers and because some of the raw materials and key components in our products come from limited or single source suppliers, we are susceptible to supply shortages, long lead times for components, and supply changes, any of which could disrupt our supply chain and could delay deliveries of our products to customers.
- We may be unable to adequately control the costs associated with our operations.
- We expect to incur substantial R&D costs and devote significant resources to identifying and commercializing new products, which could significantly reduce our profitability and may never result in revenue to us.
- The markets in which we compete are characterized by rapid technological change, which requires us to continue to develop new products and product innovations and could adversely affect market adoption of our products.
- Our ADSs may be delisted under the Holding Foreign Companies Accountable Act if the PCAOB is unable to inspect auditors who are located in China. The delisting of our ADSs, or the threat of their being delisted, may materially and adversely affect the value of your investment. Additionally, the inability of the PCAOB to conduct inspections deprives our investors with the benefits of such inspections.

Risks Related to Doing Business in China

Risks and uncertainties related to doing business in China include, but are not limited to, the following:

- Changes in China's economic, political or social conditions or government policies could have a material adverse effect on our business and operations.
- Uncertainties with respect to the PRC legal system could materially and adversely affect us.
- We may rely on dividends and other distributions on equity paid by our PRC subsidiaries to fund any cash and financing requirements we may have, and any limitation on the ability of our PRC subsidiaries to make payments to us could have a material and adverse effect on our ability to conduct our business.

General Risks Related to Our ADSs and This Offering

Risks and uncertainties related to our ADSs and this offering include, but are not limited to, the following:

- An active trading market for our ordinary shares or our ADSs may not develop and the trading price for our ADSs may fluctuate significantly.
- We are an emerging growth company within the meaning of the Securities Act and may take advantage of certain reduced reporting requirements.
- Our dual-class share structure with different voting rights will limit your ability to influence corporate matters and could discourage others from pursuing any change of control transactions that holders of our Class B ordinary shares and ADSs may view as beneficial.

Implication of Being an Emerging Growth Company

As a company with less than US\$1.07 billion in revenue for our last fiscal year, we qualify as an “emerging growth company” pursuant to the Jumpstart Our Business Startups Act of 2012, as amended, or the JOBS Act. An emerging growth company may take advantage of specified reduced reporting and other requirements compared to those that are otherwise applicable generally to public companies. These provisions include exemption from the auditor attestation requirement under Section 404 of the Sarbanes-Oxley Act of 2002 in the assessment of the emerging growth company’s internal control over financial reporting. The JOBS Act also provides that an emerging growth company does not need to comply with any new or revised financial accounting standards until such date that a private company is otherwise required to comply with such new or revised accounting standards. Pursuant to the JOBS Act, we have elected to take advantage of the benefits of this extended transition period for complying with new or revised accounting standards. As a result, our operating results and financial statements may not be comparable to the operating results and financial statements of other companies who have adopted the new or revised accounting standards.

We will remain an emerging growth company until the earliest of (a) the last day of the fiscal year during which we have total annual gross revenues of at least US\$1.07 billion; (b) the last day of our fiscal year following the fifth anniversary of the completion of this offering; (c) the date on which we have, during the preceding three-year period, issued more than US\$1.0 billion in non-convertible debt; or (d) the date on which we are deemed to be a “large accelerated filer” under the Securities Exchange Act of 1934, as amended, or the Exchange Act, which would occur if the market value of our ADSs that are held by non-affiliates exceeds US\$700 million as of the last business day of our most recently completed second fiscal quarter. Once we cease to be an emerging growth company, we will not be entitled to the exemptions provided in the JOBS Act discussed above.

Implication of Being a Foreign Private Issuer

We are a foreign private issuer within the meaning of the rules under the Exchange Act, and as such we are exempt from certain provisions of the securities rules and regulations in the United States that are applicable to U.S. domestic issuers. Moreover, the information we are required to file with or furnish to the SEC will be less extensive and less timely compared to that required to be filed with the SEC by U.S. domestic issuers. In addition, as an exempted company incorporated in the Cayman Islands, we are permitted to adopt certain home country practices in relation to corporate governance matters that differ significantly from the [NYSE corporate governance listing standards/Nasdaq Stock Market Rules]. See “Risk Factors — General Risks Relating to Our ADSs and This Offering — As a company incorporated in the Cayman Islands, we are permitted to adopt certain home country practices in relation to corporate governance matters that differ significantly from the [NYSE/Nasdaq Stock Market] listing standards..”

Corporate Information

Our principal executive offices are located at 9th Floor, Building L2-B, 1588 Zhuguang Road, Qingpu District, Shanghai 201702, People’s Republic of China. Our telephone number at this address is +86 (21) 3158-8240. Our registered office in the Cayman Islands is located at the offices of Ogier Global (Cayman) Limited, 89 Nexus Way, Camana Bay, Grand Cayman, KY1-9009, Cayman Islands.

Investors should submit any inquiries to the address and telephone number of our principal executive offices. Our main website is www.hesaitech.com. The information contained on our website is not a part of this prospectus. Our agent for service of process in the United States is _____, located at _____.

Conventions That Apply to This Prospectus

Unless otherwise indicated or the context otherwise requires, references in this prospectus to:

- “15 top global autonomous driving companies” are to the top 15 companies ranked by testing miles traveled as reported by the California Department of Motor Vehicles in 2020;
- “ADAS” are to advanced driver-assistance systems;
- “ADSs” are to American depositary shares, each of which represents Class B ordinary shares;
- “AEC-Q” are to a standard issued by the Automotive Electronics Council regarding the conformity of components;
- “ASIC” are to application-specific integrated circuit;
- “ASTM” are to the American Society for Testing and Materials;
- “Autonomous Mobility” are to using driverless vehicles to move passengers or goods autonomously, examples include robotaxis and robotrucks;
- “beam steering” are to scanning of the laser beam, which changes the emission directions of the laser beam in a LiDAR system;
- “BVI” are to the British Virgin Islands;
- “CAGR” are to compound annual growth rate;
- “China” or the “PRC” are to the People’s Republic of China, excluding, for the purposes of this prospectus only, Hong Kong, Macau and Taiwan;
- “Class A ordinary shares” are to our Class A ordinary shares, par value US\$0.0001 per share;
- “Class B ordinary shares” are to our Class B ordinary shares, par value US\$0.0001 per share;
- “Cost” are to the per unit price for each LiDAR unit. Customers of LiDAR units for different applications and industries have varying levels of cost sensitivity, which is usually influenced by factors such as timeline for mass adoption, volume of units needed and business models of the target application, among others;
- “FMEA” are to failure mode and effects analysis;
- “FMEDA” are to failure modes effects and diagnostic analysis;
- “FOV” are to field of view;
- “FTA” are to fault tree analysis;
- “GaAs” are to gallium arsenide;
- “GB standards” are to Guobiao standards, the Chinese national standards;
- “Hesai,” “we,” “us,” “our company” and “our” are to Hesai Group, our Cayman Islands holding company, and its subsidiaries;
- “IC” are to integrated circuit;
- “InGaAs” are to indium gallium arsenide;
- “IEC” are to the International Electrotechnical Commission;
- “IPC” are to the Association Connecting Electronics Industries;
- “ISO” are to the International Organization for Standardization;
- “ISO/TS 16949” are to a standard based on ISO 9001, including specific requirements from the automotive sector for the design, development, production, installation and servicing of all automotive-related products;
- “JEDEC” are to the Joint Electron Device Engineering Council;

- “LiDAR” are to light detection and ranging, a remote sensing method that uses light to measure the distance or range of objects;
- “MEMS” are to micro-electro-mechanical system;
- “nm” are to nanometer;
- “OEM” are to original equipment manufacturer;
- “OPA” are to optical phased array, a technology enabling laser to emit towards a specific direction by adjusting the phase of each phase shifter in an array phase shifter based on the principle of interference of light;
- “ordinary shares” are to our Class A and Class B ordinary shares, par value US\$0.0001 per share;
- “our WFOE” are to Hesai Technology Co., Ltd.;
- “Performance” are to the explicit specifications of a LiDAR unit that directly reflect its performance, including detection range (for example, 200 meters or longer at 10% reflectivity), point density (number of points generated per second, which is horizontal resolution times vertical resolution, multiplied by frame rate), distance accuracy and precision, reflectivity accuracy, and interference rejection, among others;
- “primary LiDAR solution” for an autonomous driving company are to the LiDARs whose vendor has the largest share by purchase dollar amount among all LiDARs used in the current fleet of the autonomous driving company;
- “Quality” are to the implicit aspects of a LiDAR unit that represent its ability to perform consistently under a variety of circumstances over time, including robustness under extreme operating temperatures, different levels of humidity, waterproof levels, and mechanical shocks and stresses. Quality also represents a product’s manufacturing consistency, functional safety (typically ASIL-B), and viability as an automotive-grade component;
- “RMB” and “Renminbi” are to the legal currency of China;
- “Robotics” are to last-mile delivery robot, street sweeping robot, and logistics robot in restricted areas;
- “RX” are to laser receiver;
- “SAE” are to the Society of Automotive Engineers;
- “SiPM” are to a receiver combining signals from multiple SPADs;
- “SoC” are to system on a chip;
- “SPAD” are to single photon avalanche diode;
- “ToF” are to Time of Flight, which is a method for measuring the distance between a sensor and an object, based on the time difference between the emission of the laser pulse and its return to the sensor, after being reflected by an object;
- “TX” are to laser transmitter;
- “US\$,” “U.S. dollars,” “\$,” and “dollars” are to the legal currency of the United States;
- “V2X” are to vehicle to everything, a technology enabling vehicles to interact with external traffic environment, including vehicles, infrastructure, internet and pedestrians; and
- “VCSEL” are to vertical cavity surface emitting laser.

Unless the context indicates otherwise, all information in this prospectus assumes no exercise by the underwriters of their option to purchase additional ADSs. Unless otherwise noted, all translations from Renminbi to U.S. dollars and from U.S. dollars to Renminbi in this prospectus are made at a rate of RMB6.5250 to US\$1.0000, the exchange rate in effect as of December 31, 2020 as set forth in the H.10 statistical release of The Board of Governors of the Federal Reserve System. We make no representation that any Renminbi or U.S. dollar amounts could have been, or could be, converted into U.S. dollars or Renminbi, as the case may be, at any particular rate, or at all.

THE OFFERING	
Offering price	We currently estimate that the initial public offering price will be between US\$ and US\$ per ADS.
ADSs offered by us	ADSs (or ADSs if the underwriters exercise their option to purchase additional ADSs in full).
[ADSs offered by the selling shareholders	ADSs (or ADSs if the underwriters exercise their over-allotment option in full).]
ADSs outstanding immediately after this offering	ADSs (or ADSs if the underwriters exercise their option to purchase additional ADSs in full).
Ordinary shares outstanding immediately after this offering	Class A ordinary shares and Class B ordinary shares (or Class B ordinary shares if the underwriters exercise their option to purchase additional ADSs in full).
The ADSs	Each ADS represents Class B ordinary shares, par value US\$0.0001 per share. The depositary will hold Class B ordinary shares underlying your ADSs. You will have rights as provided in the deposit agreement among us, the depositary and holders and beneficial owners of ADSs from time to time. We do not expect to pay dividends in the foreseeable future. If, however, we declare dividends on our Class B ordinary shares, the depositary will pay you the cash dividends and other distributions it receives on our Class B ordinary shares after deducting its fees and expenses in accordance with the terms set forth in the deposit agreement. You may surrender your ADSs to the depositary in exchange for Class B ordinary shares. The depositary will charge you fees for any exchange. We may amend or terminate the deposit agreement without your consent. If you continue to hold your ADSs after an amendment to the deposit agreement, you agree to be bound by the deposit agreement as amended. To better understand the terms of the ADSs, you should carefully read the “Description of American Depositary Shares” section of this prospectus. You should also read the deposit agreement, which is filed as an exhibit to the registration statement that includes this prospectus.
Option to purchase additional ADSs	We [and the selling shareholders] have granted to the underwriters an option, exercisable within 30 days from the date of this prospectus, to purchase up to an aggregate of additional ADSs.
Use of proceeds	We expect that we will receive net proceeds of approximately US\$ million from this offering, assuming an initial public offering price of US\$ per ADS, which is the midpoint of the estimated range of the initial public offering

	<p>price shown on the front cover of this prospectus, after deducting underwriting discounts and commissions and estimated offering expenses payable by us.</p> <p>We intend to use the net proceeds from this offering for (i) investment in our manufacturing capabilities, including constructing new manufacturing facilities and purchasing new manufacturing and testing equipment; (ii) research and development, including development of our next-generation ASICs and further investment in our software solutions; and (iii) general corporate purposes, which may include potential strategic investments and acquisitions, although we have not identified any specific investments or acquisition opportunities at this time. See “Use of Proceeds” for more information. [We will not receive any of the proceeds from the sale of ADSs by the selling shareholders.]</p>
[Lock-up	[We, our directors, executive officers and all of our existing shareholders and holders of share-based awards] have agreed with the underwriters not to sell, transfer or dispose of any ADSs, Class B ordinary shares or similar securities for a period of 180 days after the date of this prospectus. See “Shares Eligible for Future Sale” and “Underwriting.”]
Listing	We intend to apply to have the ADSs listed on the [New York Stock Exchange/Nasdaq Stock Market] under the symbol “[HSAI].” The ADSs and our Class B ordinary shares will not be listed on any other stock exchange or traded on any automated quotation system.
Payment and settlement	The underwriters expect to deliver the ADSs against payment therefor through the facilities of the Depository Trust Company on _____, 2021.
Depository	<p>The number of ordinary shares that will be outstanding immediately after this offering:</p> <ul style="list-style-type: none"> • is based on 111,170,957 ordinary shares outstanding as of the date of this prospectus; • includes _____ ordinary shares in the form of ADSs that we will issue and sell in this offering, assuming the underwriters do not exercise their over-allotment option to purchase additional ADSs; and • excludes all ordinary shares issuable upon exercise of our outstanding options and ordinary shares reserved for future issuances under our share incentive plan.

SUMMARY CONSOLIDATED FINANCIAL DATA

The following summary consolidated statements of operations for the years ended December 31, 2019 and 2020, summary consolidated balance sheets data as of December 31, 2019 and 2020, and summary consolidated cash flow data for the years ended December 31, 2019 and 2020 have been derived from our audited consolidated financial statements included elsewhere in this prospectus. Since Hesai Group had not been established for the years presented, the audited consolidated financial statements belong to Shanghai Hesai, which became a wholly owned subsidiary of Hesai Group upon the completion of our reorganization in June 2021. See “Corporate History and Structure — Corporate History.”

The consolidated financial statements of Shanghai Hesai are prepared and presented in accordance with accounting principles generally accepted in the United States of America, or U.S. GAAP. Our historical results are not necessarily indicative of results expected for future periods. You should read this Summary Consolidated Financial Data section together with our consolidated financial statements and the related notes and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” included elsewhere in this prospectus.

The following table presents our summary consolidated statements of operations and comprehensive (loss)/income data for the years ended December 31, 2019 and 2020:

	For the Year Ended December 31,		
	2019	2020	
	RMB	RMB	US\$
Summary Consolidated Statement of Comprehensive Loss:			
Net revenues	348,084	415,514	63,680
Cost of revenues	103,377	176,600	27,065
Gross profit	244,707	238,914	36,615
Operating expenses:			
Research and development expenses	149,817	229,653	35,196
General and administrative expenses	55,112	76,553	11,732
Sales and marketing expenses	38,740	49,904	7,648
Other operating expenses/(income), net	149,089	(15,384)	(2,358)
Total operating expenses	392,758	340,726	52,218
Loss from operations	(148,051)	(101,812)	(15,603)
Interest income	19,107	20,925	3,207
Foreign exchange gain/(loss)	9,619	(25,696)	(3,938)
Other income/(loss), net	31	(832)	(128)
Net loss before income tax	(119,294)	(107,415)	(16,462)
Income tax expenses	930	(199)	(30)
Net loss	(120,224)	(107,216)	(16,432)
Change in redemption value of preferred equity	(55,247)	—	—
Net loss attributable to ordinary shareholders	(175,471)	(107,216)	(16,432)
Net loss per share attributable to ordinary shareholders:			
Basic and diluted	(0.58)	(0.31)	(0.05)
Weighted average shares used in calculating net loss per ordinary share:			
Basic and diluted	301,671,134	349,299,147	349,299,147

The following table presents our summary consolidated balance sheets data as of December 31, 2019 and 2020:

	As of December 31,		
	2019	2020	
	RMB	RMB	US\$
	(in thousands)		
Summary Consolidated Balance Sheet Data:			
Cash and cash equivalents	112,737	256,688	39,339
Short-term investments	910,972	638,981	97,928
Accounts receivable (net of allowance for doubtful accounts of RMB2,257 and RMB5,270 as of December 31, 2019 and 2020, respectively)	36,511	56,319	8,631
Inventories	70,243	149,925	22,977
Prepayments and other current assets	31,835	40,658	6,232
Total current assets	1,170,260	1,209,239	185,324
Total assets	1,242,362	1,312,125	201,091
Accounts payable	18,608	55,437	8,496
Accrued expenses and other current liabilities	229,091	91,895	14,084
Total current liabilities	271,168	166,740	25,554
Total liabilities	313,150	174,932	26,810
Redeemable preferred equity	1,098,639	—	—
Total shareholders' (deficit)/equity	(169,427)	1,137,193	174,281
Total liabilities, redeemable preferred equity and shareholders' (deficit)/equity	1,242,362	1,312,125	201,091

The following table presents our summary consolidated statements of cash flows data for the years ended December 31, 2019 and 2020:

	For the Year Ended December 31,		
	2019	2020	
	RMB	RMB	US\$
	(in thousands)		
Summary Consolidated Cash Flow Data:			
Net cash provided by/(used in) operating activities	46,166	(352,015)	(53,951)
Net cash (used in)/provided by investing activities	(779,497)	179,027	27,437
Net cash provided by financing activities	739,741	323,437	49,570
Net increase in cash and cash equivalents	6,410	150,449	23,056
Cash and cash equivalents at the beginning of the year	104,336	112,737	17,278
Effect of foreign currency exchange rate changes on cash and cash equivalents	1,991	(6,498)	(995)
Cash and cash equivalents at the end of the year	112,737	256,688	39,339

RISK FACTORS

An investment in our ADSs involves significant risks. You should consider carefully all of the information in this prospectus, including the risks and uncertainties described below, before making an investment in our ADSs. Any of the following risks could have a material and adverse effect on our business, financial condition and results of operations. In any such case, the market price of our ADSs could decline, and you may lose all or part of your investment.

Risks Related to Our Business and Industry

We are an early stage company with a history of losses, and we may not be able to achieve profitability in the future.

We have a history of net losses. We incurred net losses of RMB120.2 million and RMB107.2 million (US\$16.4 million) in 2019 and 2020, respectively. We may continue to incur operating and net losses in the foreseeable future. Our potential profitability is dependent upon continued increase in customer needs for our LiDAR products and our success in competing against other participants in the markets in which we operate, which may not occur.

Our revenues may not grow sufficiently to offset the increase in our expenses as we:

- continue to invest in the design and upgrading of our LiDAR products;
- expand our production capabilities to produce our LiDAR products, including constructing new manufacturing facilities;
- enhance our efforts to develop and commercialize LiDAR products for Robotics and other emerging markets;
- expand our design, development, installation and servicing capabilities;
- continue to build up inventories of parts and components for our LiDAR products;
- hire additional engineers and other personnel as we expand our business; and
- increase our sales and marketing activities and develop our distribution infrastructure.

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

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

We have been focused on developing our LiDAR products since 2016. This relatively limited operating history makes it difficult to evaluate our future prospects and the risks and challenges we may encounter. Risks and challenges we have faced or expect to face include our ability to:

- produce and deliver LiDAR and software products of acceptable performance;
- develop and commercialize our in-house ASICs;
- forecast our revenue and budget for and manage our expenses;
- attract new customers and retain existing customers;
- comply with existing and new or modified laws and regulations applicable to our business;
- plan for and manage capital expenditures for our current and future products, and manage our supply chain and supplier relationships related to our current and future products;
- anticipate and respond to macroeconomic changes and changes in the markets in which we operate;

- maintain and enhance the value of our reputation and brand;
- effectively manage our growth and business operations, including the impacts of the COVID-19 pandemic on our business;
- develop and protect intellectual property;
- hire, integrate and retain talented people at all levels of our organization; and
- successfully develop new solutions to enhance the experience of customers.

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

Our LiDAR products used on vehicles are highly complex and may contain defects or otherwise fail to perform in line with expectations, which could reduce the market adoption of our new products, damage our reputation with current or prospective customers, expose us to product liability and other claims and adversely affect our operating results.

We sell the majority of our LiDAR products to Autonomous Mobility companies to be installed on vehicles. Those products are highly technical and very complex and require high standards to manufacture and have in the past and will likely in the future experience defects, errors or reliability issues at various stages of development. We may be unable to timely release new products, manufacture existing products, correct problems that have arisen or correct such problems to our customers’ satisfaction. Additionally, undetected errors, defects or security vulnerabilities, especially as new products are introduced or as new versions are released, could result in serious injury or even death to the end users of technology incorporating our products, or those in the surrounding area, litigation against us, negative publicity and other consequences. These risks are particularly prevalent in the highly competitive Autonomous Mobility and ADAS markets. Some errors or defects in our products may only be discovered after they have been tested, commercialized and deployed by customers, in which case we may incur significant additional development costs and product recall, repair or replacement costs. These problems may also result in claims, including class actions, against us by our customers or others. Our reputation or brand may be damaged as a result of these problems and customers may be reluctant to buy our products, which could adversely affect our ability to retain existing customers and attract new customers and could adversely affect our financial results.

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

Furthermore, any defects in or significant malfunctioning of our LiDAR products may weaken customer confidence in LiDAR products. As the markets for LiDAR products are emerging and evolving, loss of customer confidence in LiDAR products could have a material adverse impact on the future of such markets in general and our business prospects in particular.

If our LiDAR products are not selected by automotive or robot OEMs or their suppliers, our business will be materially and adversely affected.

Automotive and robot OEMs and their suppliers typically design and develop Autonomous Mobility, ADAS, Robotics and other key technologies over several years. These OEMs and suppliers undertake

extensive testing or qualification processes prior to placing orders for large quantities of products such as our LiDAR products, because such products will function as part of a larger system or platform and must meet certain other specifications. We spend significant time and resources to have our products selected by automotive and robot OEMs and their suppliers. If our LiDAR products are not selected by an automotive or robot OEM with respect to a particular vehicle or robot model, we may not have an opportunity to supply our products to the OEM for that model for a period of many years. If our LiDAR products are not selected by an OEM or its suppliers for one vehicle or robot model or if our LiDAR products are not successful in that model, it is unlikely that our product will be deployed in other models of that OEM. If we fail to win a significant number of vehicle or robot models from one or more of automotive or robot OEMs or their suppliers, our business, results of operations and financial condition will be materially and adversely affected.

Furthermore, even if our products are selected and we enter into framework agreements with OEMs or their suppliers, as we have with many of our customers, we cannot assure you such framework agreements will always materialize into actual purchase orders, as in such agreements, our counterparties often retain the discretion as to whether and when to place orders for our products, and our supply of products may be subject to other conditions such as meeting certain development milestones.

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

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

Our ability to develop, manufacture, and deliver LiDAR products of high quality and appeal to customers, on schedule, and on a large scale is still evolving.

The sustainability of our business depends, in large part, on our ability to timely execute our plan to develop, manufacture, and deliver on a large scale LiDAR products of high quality and appeal to customers. Our current manufacturing facility has an annual production capacity of 35,000 units, and we plan to grow this capacity to 66,000 units by the end of 2021. To date we have limited LiDAR manufacturing experience to balance production volume and product quality and appeal, and therefore cannot assure you that we will be able to achieve our targeted production volume of commercially viable LiDAR products on a timely basis, or at all.

Our continued development, manufacturing, and delivery of LiDAR products of high quality to achieve our targeted production volume are and will be subject to risks, including with respect to:

- lack of necessary funding;
- delays or disruptions in our supply chain;
- quality control deficiencies;
- compliance with environmental, workplace safety, and relevant regulations; and
- cost overruns.

As we operate in highly competitive and rapidly evolving markets, to remain competitive, we may be required to introduce new LiDAR models earlier or more frequently than is originally planned. We cannot

assure you that any future models we launch will appeal to the customers as we expect or that any introduction of new models will not affect the sales of existing models.

Furthermore, we rely on third-party suppliers for the provision and development of many of the key components and materials used in our LiDAR products. To the extent our suppliers experience any difficulties in providing us with or developing necessary components, we could experience delays in delivering products. Any delay in the development, manufacturing, and delivery of LiDAR products could subject us to customer complaints and materially and adversely affect our reputation, demand for our products, and our growth prospects.

We are early in our efforts to develop and commercialize our in-house ASICs, and we cannot assure you that such efforts will succeed.

We established a dedicated team within our organization to develop our in-house ASICs at the end of 2017. Since then, we have made significant progress in the development, production and application of our ASIC technology and products. Our current ASIC products are sophisticated and technologically advanced in many aspects. However, due to the short history, our in-house ASICs remain in a relatively early developmental and production stage and subject to significant technological and functional limitations. We cannot assure you that we will be able to continue to refine and upgrade our ASIC technology to achieve market-leading quality and functionality. In addition, we are early in our efforts to apply our ASIC technology to LiDAR products. We may fail in our efforts to commercialize our ASIC technology despite the significant research and development, or R&D, and sales and marketing costs we have incurred and expect to incur, in which case our financial performance and business prospects will suffer.

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

The markets for sensing technology applicable to autonomous solutions in the automobile and Robotics industries are highly competitive. Our future success will depend on our ability to remain a leader in our targeted markets by continuing to develop and protect from infringement advanced LiDAR technology in a timely manner and to stay ahead of existing and new competitors. Our competitors are numerous and they compete with us directly by offering LiDAR products and indirectly by attempting to solve some of the same challenges with different technology. We face competition from camera and radar companies, other developers of LiDAR products, and other technology and automotive and Robotics supply companies, some of which have significantly greater resources than we do. In the automotive market, our competitors have commercialized both LiDAR- and non-LiDAR-incorporated ADAS technology that has achieved market adoption, strong brand recognition and may continue to improve. Other competitors are working towards commercializing Autonomous Mobility technology and either by themselves, or with a partner, have substantial financial, marketing, R&D and other resources. Some of our customers in the Autonomous Mobility and ADAS markets have announced development efforts or made acquisitions directed at creating their own LiDAR-incorporated or other sensing technologies, which would compete with our solutions, although we do not know how close these competitors are to commercializing Autonomous Mobility systems or novel ADAS applications. In markets outside of the automotive industry, such as the Robotics industry, our competitors, like us, seek to develop new sensing applications. Even in these emerging markets, we face substantial competition from numerous competitors seeking to prove the value of their technology.

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

Although we believe that LiDAR is the industry standard for Autonomous Mobility, ADAS and certain other emerging markets, market adoption of LiDAR is uncertain. If market adoption of LiDAR does not continue to develop, or develops more slowly than we expect, our business will be adversely affected.

While our LiDAR products can be applied to different uses across end markets, a substantial part of our revenue is generated from automotive applications. Despite the fact that the automotive industry has engaged in considerable effort to research and test LiDAR products for Autonomous Mobility and ADAS applications, the automotive industry may not introduce LiDAR products in commercially available vehicles

or do so on a large scale. We continually study emerging and competing sensing technologies and methodologies and we may add new sensing technologies. However, LiDAR products remain relatively new and it is possible that other sensing modalities, or a new disruptive modality based on new or existing technology, including a combination of technologies, will achieve acceptance or leadership in the Autonomous Mobility and ADAS industries. Even if LiDAR products are used in initial generations of Autonomous Mobility technology and certain ADAS products, we cannot guarantee that LiDAR products will be designed into or included in subsequent generations of such commercialized technology. In addition, we expect that initial generations of autonomous vehicles will be focused on limited applications, such as robotaxis, and that mass market adoption of autonomous technology may lag behind these initial applications significantly. The speed of market growth for Autonomous Mobility or ADAS is difficult if not impossible to predict, and it is more difficult to predict this market's future growth in light of the economic consequences of the COVID-19 pandemic.

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

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

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

Because LiDAR is new in most of the markets we are seeking to enter, forecasts of market growth in this prospectus may not be accurate.

Market opportunity estimates and growth forecasts included in this prospectus are subject to significant uncertainty and are based on assumptions and estimates that may not prove to be accurate. The forecasts and estimates in this prospectus relating to the expected size and growth of the markets for LiDAR-incorporated technology may prove to be inaccurate. Even if these markets experience the forecasted growth described in this prospectus, we may not grow our business at similar rates, or at all. Our future growth is subject to many factors, including market adoption of our products, which is subject to many risks and uncertainties. Accordingly, the forecasts and estimates of market size and growth described in this prospectus should not be taken as indicative of our future growth. In addition, these forecasts do not take into

account the impact of the current global COVID-19 pandemic, and we cannot assure you that these forecasts will not be materially and adversely affected as a result.

We continue to implement strategic initiatives designed to grow our business, including developing new technologies and products. We cannot assure you that our choices of technologies and products to focus on will prove correct, or that our initiatives will succeed and bring sufficient growth in revenue to offset the costs.

We continue to make investments and implement initiatives designed to grow our business. In particular, we have formulated plans to focus our R&D efforts on certain new technologies and products which we believe will be essential to our future growth. For example, we are currently in the process of developing LiDAR products with more channels or lower cost for the Autonomous Mobility market. See “Business — Our Solutions and Products — Product Roadmap” for more details. However, as the LiDAR markets are new and rapidly evolving and we have a short operating history and limited experience, we cannot assure you that our choices of technologies and products to focus on will prove correct. In the event that our new technologies and products fail to be adopted by the market, our business prospects and financial condition could be materially and adversely affected.

In addition, our strategic initiatives may prove more expensive than we currently anticipate, and we may not succeed in increasing our revenue, if at all, in an amount sufficient to offset these higher expenses and to achieve and maintain profitability. The market opportunities we are pursuing are at an early stage of development, and it is difficult to predict the size and growth rate of our target markets, customer demand for our products, commercialization timelines, developments in autonomous sensing and related technology, the entry of competitive products, or the success of existing competitive products and services. If our revenue does not grow over the long term, our ability to achieve and maintain profitability may be adversely affected, and the value of our business may significantly decrease.

We have been and may continue to be negatively impacted by the ongoing global chip shortage.

As we are early in our efforts to develop and apply our in-house ASICs, we remain dependent on third-party chips for our LiDAR products. The COVID-19 pandemic caused disruptions in supply chains and logistics, which in turn impacted the production and supply of chips around the globe. The increase in global demand for products such as personal computers owing to some countries’ shift to a stay-at-home economy has further increased the demand for chips and exacerbated the shortage. As of the date of this prospectus, the global chip shortage is still ongoing and it remains uncertain when it will ease or whether it will worsen. The shortage in chip supplies has led to increases in the prices of chips and has caused chip producers to allocate available chips more selectively among their customers across these industries. We have experienced difficulty in securing sufficient and prompt chip supplies, including automotive grade receivers and FPGA (field-programmable gate array) chips, due to the ongoing global chip shortage, and our business operation and financial performance have suffered as a result. As the shortage continues or even worsens, we may not be able to obtain adequate supplies of chips on commercially acceptable terms or at all, and as a result we may fail to fulfill our customers’ orders. Any failure to fulfill our customers’ orders could cause us to record lower sales and lose customers. We may also need to increase the prices of our products in response to the higher chip costs, which could have a negative impact on our competitiveness.

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

Some of the components that go into the manufacture of our LiDAR products are sourced from third-party suppliers. Our future success will depend in part on our ability to manage our supply chain to manufacture and deliver our products at scale. We are dependent on certain major suppliers. One supplier accounted for more than 10% of our purchases for each of 2019 and 2020. We are therefore subject to the risk of shortages and long lead times in the supply of components that come from limited or single source suppliers and the risk that our suppliers discontinue or modify components used in our products. We have a global supply chain, and the COVID-19 pandemic and other health epidemics and outbreaks may adversely affect our ability to source components in a timely or cost effective manner from our third-party suppliers due

to, among other things, work stoppages or interruptions. For example, our products depend on lasers and we currently consume a substantial portion of the available market. Any shortage of these lasers could materially and adversely affect our ability to manufacture our LiDAR products. In addition, the lead times associated with certain components are lengthy and preclude rapid changes in quantities and delivery schedules. We have in the past experienced and may in the future experience component shortages and price fluctuations of certain key components and materials, and the predictability of the availability and pricing of these components may be limited. Component shortages or pricing fluctuations could be material in the future. In the event of a component shortage, supply interruption or material pricing change from suppliers of these components, we may not be able to develop alternate sources in a timely manner or at all in the case of sole or limited sources. Developing alternate sources of supply for these components may be time-consuming, difficult, and costly and we may not be able to source these components on terms that are acceptable to us, or at all, which may undermine our ability to meet our requirements or to fill customer orders in a timely manner. Any interruption or delay in the supply of any of these parts or components, or the inability to obtain these parts or components from alternate sources at acceptable prices and within a reasonable amount of time, would adversely affect our ability to meet our scheduled product deliveries to our customers. This could adversely affect our relationships with our customers and channel partners and could cause delays in shipment of our products and adversely affect our operating results. In addition, increased component costs could result in lower gross margins. Even where we are able to pass increased component costs along to our customers, there may be a lapse of time before we are able to do so such that we must absorb the increased cost. If we are unable to buy these components in quantities sufficient to meet our requirements on a timely basis, we will not be able to deliver products to our customers, which may result in such customers using competitive products instead of ours.

We may be unable to adequately control the costs associated with our operations.

We have devoted significant capital to developing and growing our business, including developing and manufacturing our LiDAR products, our in-house ASICs, purchasing equipment, constructing our manufacturing facilities, procuring required raw materials, and building our sales and servicing infrastructure. We expect to further incur significant costs that will impact our profitability, including R&D expenses as we roll out new LiDAR and ASIC models and improve existing models, expenditures in the expansion of our manufacturing capacities, additional operating costs and expenses for production ramp-up, raw material and key component procurement costs, and selling and distribution expenses as we build our brand and market our products. In particular, the prices for raw materials and components fluctuate upon factors beyond our control, and could adversely affect our business and results of operations. Substantial increases in the prices for key raw materials or components such as automotive grade chips would increase our cost of revenue and our operating expenses, and could reduce our margins. Furthermore, currency fluctuations, tariffs and other economic or political conditions may result in significant increases in freight charges and raw material costs. In addition, we may lose control over the increase of costs in connection with our services including after-sale services. Our ability to become profitable in the future will not only depend on our ability to successfully market our LiDAR products and other products and services but also our ability to control our costs. If we are unable to design, develop, manufacture, market, sell, and service our products and provide services in a cost-efficient manner, our margins, profitability, and prospects would be materially and adversely affected.

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

Our future growth depends on penetrating new markets, adapting existing products to new applications and customer requirements, and introducing new products that achieve market acceptance. We plan to incur substantial, and potentially increasing, R&D costs as part of our efforts to design, develop, manufacture and commercialize new products and enhance existing products. Our R&D expenses were RMB149.8 million and RMB229.7 million (US\$35.2 million) for the years ended December 31, 2019 and 2020, respectively, and are likely to grow in the future. Because we account for R&D as an operating expense, these expenditures will adversely affect our results of operations in the future. Further, our R&D program may not produce successful results, and our new products may not achieve market acceptance, create additional revenue or become profitable.

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

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

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

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

We have expanded our operations, and as we ramp up our development, production and sales, significant expansion will be required. Our future operating results depend to a large extent on our ability to manage this expansion and growth successfully. Risks that we face in undertaking this expansion include, among others:

- managing our supply chain to support fast business growth;
- managing a larger organization with a greater number of employees in different divisions;
- controlling expenses and investments in anticipation of expanded operations;
- establishing or expanding new product development, manufacturing, sales, and service facilities;
- implementing and enhancing administrative infrastructure, systems, and processes;
- improving our operational, financial and management controls, compliance programs and reporting systems; and
- addressing new markets and potentially unforeseen challenges as they arise.

Any failure to manage our growth effectively could materially and adversely affect our business, financial condition, results of operations, and prospects.

Continued pricing pressures may result in lower than anticipated margins, or losses, which may adversely affect our business.

Cost-cutting initiatives adopted by our customers often result in increased downward pressure on pricing. In addition, many of our customers, particularly automotive OEMs, possess significant leverage over their suppliers, including us, because they are large multinational companies with substantial negotiating power and the automotive component supply industry is inherently highly competitive, serves a limited

number of customers and has a high fixed cost base. The growing competition among both established players and new market entrants in the industry further exacerbates the pricing pressures we face.

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

Our business has been and may continue to be adversely affected by the ongoing global COVID-19 pandemic or other health epidemics and outbreaks.

Since late 2019, the outbreak of a novel strain of coronavirus named COVID-19 has materially and adversely affected the global economy. In response, China has imposed widespread lockdowns, closure of work places and restrictions on mobility and travel to contain the spread of the virus. Some other countries, including the U.S., also introduced various restrictions in response to the COVID-19 pandemic.

Our business has been affected by the COVID-19 outbreak. For example, the COVID-19 pandemic caused disruptions in supply chains and logistics, which in turn impacted the production and supply of chips around the globe and resulted in the continued global chip shortage that has negatively impacted our business operation and financial performance. See “— We have been and may continue to be negatively impacted by the ongoing global chip shortage.” In addition, the COVID-19 outbreak has caused companies in China and elsewhere, including us and our suppliers and customers, to implement temporary adjustment of work schedules and travel plans, mandating employees to work from home and collaborate remotely. As a result, we have experienced lower efficiency and productivity, internally and externally, which adversely affected our business operation.

The ongoing COVID-19 pandemic as well as other possible health epidemics and outbreaks could continue to have a material adverse impact on our or our customers’ business operations including reduction or suspension of operations in China, the U.S. or certain parts of the world. Our engineering and manufacturing operations, among others, cannot all be conducted in a remote working structure and often require on-site access to materials and equipment. We have customers with international operations in varying industries. We also depend on suppliers and manufacturers worldwide. Depending upon the duration of the ongoing COVID-19 pandemic and the associated business interruptions, our customers, suppliers, manufacturers and partners may suspend or delay their engagement with us, which could result in a material adverse effect on our financial condition. Our response to the ongoing COVID-19 pandemic may prove to be inadequate and we may be unable to continue our operations in the manner we had prior to the outbreak, and may endure interruptions, reputational harm, delays in our product development and shipments, all of which could have an adverse effect on our business, operating results, and financial condition. In addition, when the pandemic subsides, we cannot assure you as to the timing of any economic recovery, which could continue to have a material adverse effect on our target markets and our business.

Our ADSs may be delisted under the Holding Foreign Companies Accountable Act if the PCAOB is unable to inspect auditors who are located in China. The delisting of our ADSs, or the threat of their being delisted, may materially and adversely affect the value of your investment. Additionally, the inability of the PCAOB to conduct inspections deprives our investors with the benefits of such inspections.

The Holding Foreign Companies Accountable Act, or the HFCA Act, was enacted on December 18, 2020. The HFCA Act states if the SEC determines that we have filed audit reports issued by a registered public accounting firm that has not been subject to inspection by the U.S. Public Company Accounting Oversight Board, or the PCAOB, for three consecutive years beginning in 2021, the SEC shall prohibit our shares or ADSs from being traded on a national securities exchange or in the over the counter trading market in the U.S.

Our auditor, the independent registered public accounting firm that issues the audit report included elsewhere in this prospectus, as an auditor of companies that are traded publicly in the United States and a firm registered with the PCAOB, is subject to laws in the United States pursuant to which the PCAOB conducts regular inspections to assess its compliance with the applicable professional standards. Since our auditor is

located in China, a jurisdiction where the PCAOB has been unable to conduct inspections without the approval of the Chinese authorities, our auditor is currently not inspected by the PCAOB.

On March 24, 2021, the SEC adopted interim final rules relating to the implementation of certain disclosure and documentation requirements of the HFCA Act. We will be required to comply with these rules if the SEC identifies us as having a “non-inspection” year under a process to be subsequently established by the SEC. The SEC is assessing how to implement other requirements of the HFCA Act, including the listing and trading prohibition requirements described above. In May 2021, the PCAOB issued for public comment a proposed rule related to the PCAOB’s responsibilities under the HFCA Act, which, according to the PCAOB, would establish a framework for the PCAOB to use when determining, as contemplated under the HFCA Act, whether the PCAOB is unable to inspect or investigate completely registered public accounting firms located in a foreign jurisdiction because of a position taken by one or more authorities in that jurisdiction. As of the date of this prospectus, the proposed rule has not been adopted.

The SEC may propose additional rules or guidance that could impact us if our auditor is not subject to PCAOB inspection. For example, on August 6, 2020, the President’s Working Group on Financial Markets, or the PWG, issued the *Report on Protecting United States Investors from Significant Risks from Chinese Companies* to the then President of the United States. This report recommended the SEC implement five recommendations to address companies from jurisdictions that do not provide the PCAOB with sufficient access to fulfil its statutory mandate. Some of the concepts of these recommendations were implemented with the enactment of the HFCA Act. However, some of the recommendations were more stringent than the HFCA Act. For example, if a company was not subject to PCAOB inspection, the report recommended that the transition period before a company would be delisted would end on January 1, 2022.

The SEC has announced that the SEC staff is preparing a consolidated proposal for the rules regarding the implementation of the HFCA Act and to address the recommendations in the PWG report. It is unclear when the SEC will complete its rulemaking and when such rules will become effective and what, if any, of the PWG recommendations will be adopted. The implications of this possible regulation in addition to the requirements of the HFCA Act are uncertain. Such uncertainty could cause the market price of our ADSs to be materially and adversely affected, and our securities could be delisted or prohibited from being traded “over-the-counter” earlier than would be required by the HFCA Act. If our securities are unable to be listed on another securities exchange by then, such a delisting would substantially impair your ability to sell or purchase our ADSs when you wish to do so, and the risk and uncertainty associated with a potential delisting would have a negative impact on the price of our ADSs.

The PCAOB’s inability to conduct inspections in China prevents it from fully evaluating the audits and quality control procedures of our independent registered public accounting firm. As a result, we and investors in our ordinary shares are deprived of the benefits of such PCAOB inspections. The inability of the PCAOB to conduct inspections of auditors in China makes it more difficult to evaluate the effectiveness of our independent registered public accounting firm’s audit procedures or quality control procedures as compared to auditors outside of China that are subject to the PCAOB inspections, which could cause investors and potential investors in our stock to lose confidence in our audit procedures and reported financial information and the quality of our financial statements.

In May 2013, the PCAOB announced that it had entered into a Memorandum of Understanding on Enforcement Cooperation with the CSRC and the PRC Ministry of Finance, which establishes a cooperative framework between the parties for the production and exchange of audit documents relevant to investigations undertaken by the PCAOB in the PRC or by the CSRC or the PRC Ministry of Finance in the United States. The PCAOB continues to be in discussions with the CSRC and the PRC Ministry of Finance to permit joint inspections in the PRC of audit firms that are registered with the PCAOB and audit Chinese companies that trade on U.S. exchanges.

The current tensions in international trade and rising political tensions, particularly between the United States and China, may adversely impact our business, financial condition, and results of operations.

Although we are a primarily China-based company, we have operations in the U.S. and many of our major customers and suppliers are located in the U.S. and other countries outside of China. Therefore, any unfavorable government policies on international trade, such as capital controls or tariffs, may affect the

demand for our products and services, impact the competitive position of our products, or prevent us from being able to sell products in certain countries. If any new tariffs, legislation, or regulations are implemented, or if existing trade agreements are renegotiated, such changes could adversely affect our business, financial condition, and results of operations. Recently there have been heightened tensions in international economic relations, such as that between the United States and China. The U.S. government has imposed, and has proposed to impose additional, new, or higher tariffs on certain products imported from China to penalize China for what it characterizes as unfair trade practices. China has responded by imposing, and proposing to impose additional, new, or higher tariffs on certain products imported from the United States. Following mutual retaliatory actions for months, on January 15, 2020, the United States and China entered into the Economic and Trade Agreement between the United States of America and the People's Republic of China as a phase one trade deal, effective on February 14, 2020. In addition, the U.S. government has issued new rules that expanded the definition of military end use and eliminated the applicability of certain license exceptions for exports to countries including China, thereby expanding the export license requirements for U.S. companies to sell certain items to companies in China that have operations that could support military end uses. The U.S. government has also broadened the restrictions on the sale of goods manufactured outside the United States that are produced using certain controlled U.S.-origin technology or software to companies on a special list, or the Entity List, and the restrictions on the use of U.S.-origin semiconductor manufacturing equipment that produces semiconductor devices for companies on the Entity List.

In addition, political tensions between the United States and China have escalated due to, among other things, trade disputes, the COVID-19 outbreak, sanctions imposed by the U.S. Department of Treasury on certain officials of the Hong Kong Special Administrative Region and the PRC central government and the executive orders issued by former U.S. President Donald J. Trump in August 2020 that prohibit certain transactions with certain Chinese companies. Against this backdrop, China has implemented, and may further implement, measures in response to the changing trade policies, treaties, tariffs and sanctions and restrictions against Chinese companies initiated by the U.S. government. For example, On January 9, 2021, the Ministry of Commerce, or the MOFCOM, promulgated the Rules on Counteracting Unjustified Extra-Territorial Application of Foreign Legislation and Other Measures, or MOFCOM Order No. 1 of 2021. Pursuant to MOFCOM Order No. 1 of 2021, where a citizen, legal person or other organization of China is prohibited or restricted by foreign legislation and other measures from engaging in normal economic, trade and related activities with a third nation (or region) or its citizens, legal persons or other organizations, they shall truthfully report such matters to the competent department of commerce of the State Council within 30 days. The working mechanism will take following factors into account when assessing whether there exists unjustified extra-territorial application of foreign legislation and other measures: (i) whether international law or the basic principles of international relations are violated; (ii) potential impact on China's national sovereignty, security and development interests; (iii) potential impact on the legitimate rights and interests of the citizens, legal persons or other organizations of China; (iv) other factors that shall be taken into account. If it is determined that there exists unjustified extra-territorial application of foreign legislation and other measures, MOFCOM may issue an injunction that the relevant foreign legislation and other measures shall not be accepted, executed, or observed. A citizen, legal person or other organization in China may apply for exemption from compliance with an injunction. On June 10, 2021, the Standing Committee of National People's Congress, or the SCNPC, passed the Counter Foreign Sanctions Law, which became effective immediately. The Counter Foreign Sanctions Law provides a legal basis not only for the Chinese government to take action in response to foreign sanctions, but also for Chinese citizens and organizations to bring civil actions for injunctive relief or damages. Since the MOFCOM Order No. 1 of 2021 and the Counter Foreign Sanctions Law are newly enacted, there exist high uncertainties with respect to their interpretations and implementations.

Rising political tensions could reduce levels of trade, investment, technological exchange, and other economic activities between the two major economies, which would have a material adverse effect on global economic conditions and the stability of global financial markets. Any of these factors could have a material adverse effect on our and our customers' business, prospects, financial condition, and results of operations.

As our business depends on markets and supplies located overseas, tariffs and export control measures taken by the PRC, U.S. or any other government or other trade tensions or unfavorable trade policies may affect the costs and/or marketability of our products. Currently, the export of our LiDAR products to the U.S.

is subject to 25% tariffs. The current international trade tensions and political tensions between the United States and China, and any escalation of such tensions, may have a material negative impact on our ability to secure the supply of raw materials and key components necessary for our operations and our ability to continue to sell to global customers and further grow our customer base. For example, while we are not currently affected by the Entity List in any material respect, as the Entity List continues to expand and evolve, future versions of it may encompass some of our significant suppliers or customers, in which event our business may be affected if we fail to promptly secure alternative sources of supply or demand on terms acceptable to us. Our business, financial condition, and results of operations may be significantly affected by the continued international trade and political tensions.

Fluctuations in exchange rates could have a material and adverse effect on our results of operations and the value of your investment.

The conversion of Renminbi into foreign currencies, including U.S. dollars, is based on rates set by the People's Bank of China. Renminbi has fluctuated against the U.S. dollar, at times significantly and unpredictably. The value of Renminbi against the U.S. dollar and other currencies is affected by changes in China's political and economic conditions and actions by China's foreign exchange policies, among other things. We cannot assure you that Renminbi will not appreciate or depreciate significantly in value against the U.S. dollar in the future. It is difficult to predict how market forces or PRC or U.S. government policies may impact the exchange rate between Renminbi and the U.S. dollar in the future.

There remains significant international pressure on the PRC government to adopt a more flexible currency policy. Any significant appreciation or depreciation of Renminbi may materially and adversely affect our revenues, earnings and financial position, and the value of, and any dividends payable on, our ADSs in U.S. dollars. As a significant portion of our cash and cash equivalents and short-term investments are denominated in U.S. dollars, fluctuations in exchange rates between Renminbi and U.S. dollars may result in foreign exchange gains or losses. Furthermore, to the extent that we need to convert U.S. dollars we receive from this offering into Renminbi to pay our operating expenses, appreciation of Renminbi against the U.S. dollar would have an adverse effect on the Renminbi amount we would receive from the conversion. Conversely, a significant depreciation of Renminbi against the U.S. dollar may significantly reduce the U.S. dollar equivalent of our earnings, which in turn could adversely affect the price of our ADSs.

Very limited hedging options are available in China to reduce our exposure to exchange rate fluctuations. To date, we have not entered into any hedging transactions in an effort to reduce our exposure to foreign currency exchange risk. While we may decide to enter into hedging transactions in the future, the availability and effectiveness of these hedges may be limited and we may not be able to adequately hedge our exposure or at all. In addition, our currency exchange losses may be magnified by PRC exchange control regulations that restrict our ability to convert Renminbi into foreign currency. As a result, fluctuations in exchange rates may have a material adverse effect on your investment.

Changes in PRC government policies relevant to us or our customers could materially and adversely affect our business, financial condition, results of operations, and prospects.

The growth of our business benefits from PRC government policies at central and local levels. Such policies include not only those relevant to us, such as the preferential tax policy for "high and new technology enterprises," but also those that support the development of new energy vehicles, or NEVs, and domestically manufactured vehicles, which apply to many of our domestic automotive customers. Adverse changes in relevant PRC government policies may materially affect our business, financial condition, results of operations, and prospects.

Under the PRC Enterprise Income Tax Law and its implementation rules, the statutory enterprise income tax rate is 25%, but certain "high and new technology enterprises" are qualified for a preferential enterprise income tax rate subject to certain qualification criteria. A "high and new technology enterprise," which qualification is reassessed every three years, is entitled to a favorable income tax rate of 15%. Our WFOE obtained the high and new technology enterprise accreditation in 2019 and currently enjoys the preferential tax treatment. However, our WFOE may fail to renew its status as a high and new technology enterprise when such qualification expires in 2022. In addition, the relevant government authorities may decide to cancel or modify such preferential treatment for high and new technology enterprises. Therefore, we

cannot assure you of the continued availability of such tax preference which we currently enjoy. In the event that our WFOE fails to maintain its qualified status, experiences any increase in the enterprise income tax rate, or faces any discontinuation, retroactive or future reduction or refund of any of the preferential tax treatments currently enjoyed, our business, financial condition and results of operations could be materially and adversely affected.

Many of our customers in China focus on the development and production of NEVs and have been entitled to certain government incentives or subsidies. For example, producers of extended-range electric vehicles enjoy certain favorable government incentives and subsidies, including exemption from vehicle purchase tax, one-time government subsidies, exemption from license plate restrictions in certain cities, exemption from driving restrictions in certain cities, and preferential utility rates for charging facilities. However, China's central and local governments have begun to phase out such incentives and subsidies. In April 2020, the PRC Ministry of Finance and other national regulatory authorities issued a circular to extend the original end date of subsidies for NEV purchasers to the end of 2022 and reduce the amount of subsidies in 10% increments each year commencing from 2020. However, only certain NEVs are eligible for such subsidies starting from July 2020. Any reduction, elimination or discriminatory application of government subsidies and economic incentives because of policy changes, the reduced need for such subsidies and incentives due to the perceived success of NEVs, fiscal tightening or other factors may affect government incentives or subsidies and result in diminished competitiveness of the NEV industry generally. The business of our Chinese NEV customers may suffer as a result, which in turn may have a material and negative impact on us as a LiDAR supplier.

The expansion of our manufacturing facilities may be subject to delays, disruptions, cost overruns, or may not produce expected benefits.

Although our existing manufacturing capacity is sufficient for our current and near-term demand, we plan to construct a new manufacturing facility in Jiading, Shanghai to prepare for further production ramp-up of our existing and future LiDAR products. The new facility is expected to commence manufacturing in 2022. The expansion could experience delays or other difficulties, and will require significant capital. Any failure to complete the expansion on schedule and within budget could adversely affect our financial condition, production capacity, and results of operations. Moreover, we could encounter similar or additional risks if we were to establish new manufacturing facilities in addition to the Jiading one.

Under PRC laws, construction projects are subject to broad and strict government supervision and approval procedures, including but not limited to project approvals and filings, construction land and project planning approvals, construction permits, occupational disease control approvals, environment protection approvals, the pollution discharge permits, drainage license, work safety approvals, fire protection approvals, and the completion of inspection and acceptance by relevant authorities. We have received the regulatory approvals needed at the current stage for the expansion project of our manufacturing facility in Jiading. To the extent additional approvals or permits are needed for our construction work and we fail to secure such approvals or permits, our expansion plan may be disrupted or discontinued. In addition, any potential violation of laws and regulations related to construction may subject us to fines, suspension of construction, and other administrative penalties. Any of the foregoing could materially and adversely affect our business operations.

If we fail to comply with environmental protection, fire protection, drainage or health and safety laws and regulations, we could become subject to fines or penalties or incur costs that could have a material adverse effect on the success of our business.

We are subject to numerous environmental protection, fire protection, drainage or health and safety laws and regulations, including but not limited to those governing the emission of hazardous gas, the use of radioisotopes and radiation-emitting devices, the handling, use, storage, treatment and disposal of hazardous materials, drainage and wastes discharge of stationary pollution sources. We have been compliant with such laws and regulations in all material aspects. However, the cost of compliance with such laws and regulations is substantial. In addition, as we continue to expand our manufacturing facilities and capabilities, we cannot assure you that there will not be violations or suspected violations in our facilities that result in us becoming subject to governmental investigations or penalties, which may include cessation of operation,

finances, and confiscation of illegal gains. Furthermore, although we believe we take adequate precautions in compliance with relevant regulations with respect to the hazardous gas generated from the welding activities in our manufacturing facilities, we cannot eliminate the risk of such hazardous gas having a negative impact on the health of our employees at the facilities. Any potential failure to comply with environmental, fire protection, drainage or health and safety laws and regulations and/or failure to adequately protect the health of our employees could have a material adverse impact on our business operations and financial performance.

Our leased property interests and title to certain land and buildings we own may be defective and our right to lease and use the properties may be challenged, or we may fail to extend or renew our current leases or locate desirable alternatives for our facilities on commercially acceptable terms, which could materially and adversely affect our business.

We presently lease several premises in China. Some of the lessors of these leases have not provided us with sufficient documents to prove their ownership of the premises or their rights to lease the premises to us for our intended use. Therefore, we cannot assure you that such lessors are entitled to lease the relevant real properties to us. If the lessors are not entitled to lease the real properties to us and the owners of such real properties decline to ratify the lease agreements between us and the respective lessors, we may not be able to enforce our rights to lease such properties under the respective lease agreements against the owners. If our lease agreements are claimed as null and void by third parties who are the real owners of such leased real properties, we could be required to vacate the properties and have limited recourse. Furthermore, under PRC laws, all lease agreements are required to be registered with the local housing authorities. Currently our lease agreements have not been registered with the relevant authorities. Failure to complete these required registrations may expose us to potential monetary fines.

When our current leases expire, we may fail to extend or renew our leases for reasons such as unavailability of the relevant premises for a new lease term or substantially higher rent demanded by the owners. We cannot assure you that suitable alternative locations will be readily available on commercially reasonable terms, or at all, and if we are unable to relocate our operations in a timely manner, our operations may be adversely affected.

In addition, our use of the land and buildings we lease or own may not be consistent with their approved usage, and some approvals, licenses and permits may not have been obtained for the construction and continuous use of such buildings. We cannot assure you that we will be able to successfully remedy the defects or obtain all the requisite approvals, licenses or permits. Failure to do so could disrupt our operations and result in significant relocation expenses, which could adversely affect our business, financial condition and results of operations.

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

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

Our sales and operations in international markets outside of China expose us to operational, financial and regulatory risks.

International sales beyond China comprise a substantial amount of our overall revenue. Sales to international customers accounted for 63.9% and 55.4% of our revenue in 2019 and 2020, respectively. We are committed to growing our international sales. While we have committed resources, and are working closely with OEMs and other collaborators outside China, to expand our international operations and sales channels, these efforts may not be successful. International operations are subject to a number of other risks, including:

- exchange rate fluctuations;
- political and economic instability, international terrorism and anti-China sentiment;
- global or regional health crises, such as the COVID-19 pandemic or other health epidemics and outbreaks;
- potential for violations of anti-corruption laws and regulations, such as those related to bribery and fraud;
- preference for locally branded products, and laws and business practices favoring local competition;
- increased difficulty in managing inventory;
- delayed revenue recognition;
- less effective protection of intellectual property;
- stringent regulation of the autonomous or other systems or products using our products and stringent consumer protection and product compliance regulations;
- difficulties and costs of staffing and managing foreign operations;
- import and export laws and the impact of tariffs; and
- changes in local tax and customs duty laws or changes in the enforcement, application or interpretation of such laws.

The occurrence of any of these risks could negatively affect our international business and consequently our business, operating results and financial condition.

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

Our customers use our products in Autonomous Mobility and ADAS applications, which present the risk of significant injury, including fatalities. We may be subject to claims if a product using our LiDAR technology is involved in an accident and persons are injured or purport to be injured. Similarly, our customers could be subjected to claims as a result of such accidents and bring legal claims against us to attempt to hold us liable. In addition, if lawmakers or governmental agencies were to determine that the use of our products or Autonomous Mobility or certain ADAS applications increased the risk of injury to all or a subset of our customers, they may pass laws or adopt regulations that limit the use of our products or increase our liability associated with the use of our products or that regulate the use of or delay the deployment of Autonomous Mobility and ADAS technology. Any of these events could adversely affect our brand, relationships with customers, operating results or financial condition.

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

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

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

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

Our business plans require a significant amount of capital. In addition, our future capital needs may require us to issue additional equity or debt securities that may dilute our shareholders or introduce covenants that may restrict our operations or our ability to pay dividends.

We will need significant capital to, among other things, conduct R&D, expand our production capacity, and increase our sales and marketing efforts. As we ramp up our production capacity and operations, we may also require significant capital to maintain our property, plant, and equipment and such costs may be greater than what we currently anticipate. We expect that our level of capital expenditures will be significantly affected by customer demand for our products and services. The fact that we have a limited operating history means we have limited historical data on the demand for our products and services. As a result, our future capital requirements may be uncertain and actual capital requirements may be different from what we currently anticipate. We may seek equity or debt financing to finance a portion of our capital expenditures. Such financing might not be available to us in a timely manner or on terms that are acceptable to us, or at all. If we cannot obtain sufficient capital on acceptable terms, our business, financial condition, and prospects may be materially and adversely affected.

Our ability to obtain the necessary financing to carry out our business plan is subject to a number of factors, including general market conditions and investor acceptance of our business plan. These factors may make the timing, amount, terms and conditions of such financing unattractive or unavailable to us. If we are unable to raise sufficient funds, we will have to significantly reduce our spending, delay or cancel our planned activities, or substantially change our corporate structure. We might not be able to obtain any funding or service any of the debts we incurred, and we might not have sufficient resources to conduct our business as projected, either of which could mean that we would be forced to curtail or discontinue our operations.

In addition, our future capital needs could require us to issue additional equity or debt securities or obtain a credit facility. The issuance of additional equity or equity-linked securities could dilute our

shareholders. The incurrence of indebtedness would result in an increase in debt service obligations and could result in operating and financing covenants that would restrict our operations or our ability to pay dividends to our shareholders.

Our future growth depends on the successful commercialization of Autonomous Mobility, ADAS and Robotics technologies and products, which may not materialize.

Our LiDAR products serve primarily the Autonomous Mobility, ADAS and Robotics fields, all of which are new and evolving. While we have seen and continue to see rapid and substantial progress made in these fields, how they will continue to evolve, particularly whether and how Autonomous Mobility, ADAS and Robotics technologies and products can be successfully commercialized, remains largely uncertain. Various factors such as technological development, manufacturing costs, market acceptance, regulatory environment, and general economic conditions can affect the future of these new and evolving fields. In the event that any of Autonomous Mobility, ADAS and Robotics fails to develop and mature as expected, and we fail to find additional commercial applications for our LiDAR products, the potential markets for our products could be significantly reduced and our business and prospects may suffer as a result.

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

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

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

If we succeed in having our LiDAR products selected, we expect to enter into supply agreements with the relevant customers. Market practice dictates that these supply agreements typically require us to supply for a particular model of Autonomous Mobility or ADAS product. These contracts can be short-term and/or subject to renegotiation, sometimes as frequently as annually, all of which may affect product pricing, and may be terminated by our customers at any time. Therefore, even if we are successful in having our LiDAR products selected and the systems into which our products are built are commercialized, the discontinuation of, the loss of business with respect to, or a lack of commercial success of a particular vehicle model or technology package for which we are a significant supplier could mean that the expected sales of our products will not materialize, materially and adversely affecting our business.

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

We are pursuing opportunities in markets that are undergoing rapid changes, including technological and regulatory changes, and it is difficult to predict the timing and size of the opportunities. For example, LiDAR-incorporated Autonomous Mobility and ADAS applications require complex technology. Because these automotive systems depend on technology from many companies, commercialization of Autonomous Mobility or ADAS products could be delayed or impaired due to certain technological components not

being ready to be deployed in vehicles or other applications. The commercial partners with whom we currently have contracts may not be able to commercialize our technology immediately, or at all. Regulatory, safety or reliability developments, many of which are outside of our control, could also cause delays or otherwise impair commercial adoption of these new technologies, which will adversely affect our growth. Our future financial performance will depend on our ability to make timely investments in the correct market opportunities. If one or more of these markets experience a shift in customer or prospective customer demand, our products may not compete as effectively, if at all, and they may not be designed into commercialized products. For instance, if a new regulation or industry standard permits only LiDAR with certain wavelengths to be used on public roads, and our products fall outside that scope, the adoption of and customer demand for our products will be significantly affected. Given the evolving nature of the markets in which we operate, it is difficult to predict customer demand or adoption rates for our products or the future growth of the markets in which we operate. As a result, the financial projections in this prospectus necessarily reflect various estimates and assumptions that may not prove accurate and these projections could differ materially from actual results due to the risks included in this “Risk Factors” section, among others. If demand does not develop or if we cannot accurately forecast customer demand, the size of our markets, or inventory requirements, our business, results of operations and financial condition will be adversely affected.

Our results of operations may vary significantly from period to period due to the seasonality of our business and fluctuations in our operating costs.

Our results of operations may vary significantly from period to period due to many factors, including seasonal factors that may affect the demand for our LiDAR products. The sales volume of our LiDAR products is typically higher in the second half of the year than that of the first half. Our limited operating history makes it difficult for us to judge the exact nature or extent of the seasonality of our business. Our results of operations could also suffer if we do not achieve revenue consistent with our expectations for this seasonal demand because many of our expenses are based on anticipated levels of annual revenue.

We also expect our period-to-period results of operations to vary based on our operating costs, which we anticipate will increase significantly in future periods as we, among other things, invest more resources to design, develop, and manufacture our LiDAR products, build new manufacturing facilities, increase our sales and marketing activities, and increase our general and administrative functions to support our growing operations.

As a result of these factors, we believe that period-to-period comparisons of our results of operations are not necessarily meaningful and that these comparisons cannot be relied upon as indicators of future performance. Moreover, our results of operations may not meet expectations of equity research analysts or investors. If this occurs, the trading price of our ADSs could fall substantially either suddenly or over time.

We generate a substantial portion of our revenue from a limited number of customers and products, and the loss of, or a significant reduction in, revenue from such customers or products could materially and adversely affect our results of operations.

Although we have and continue to pursue a broad customer base, we are dependent on a collection of large customers with strong purchasing power. In each of 2019 and 2020, one customer accounted for more than 10% of our revenue. A few customers accounted for more than 10% of our balances of accounts receivable, contract assets and amount due from related parties in 2019 or 2020. The loss of business from any of our major customers (whether by lower overall demand for our products, cancellation of existing contracts or product orders or the failure to award us new business) could have a material adverse effect on our business and results of operations. There is also a risk that one or more of our major customers could be unable to pay our invoices as they become due or that a customer will simply refuse to make such payments if it experiences financial difficulties. If a major customer were to enter into bankruptcy proceedings or similar proceedings whereby contractual commitments are subject to stay of execution and the possibility of legal or other modification, we could be forced to record a substantial loss.

Furthermore, we have been dependent on a limited number of products to generate a substantial portion of our revenue. For example, Pandar64, a popular LiDAR product launched in January 2019, accounted for 64.2% and 44.9% of our revenue in 2019 and 2020, respectively. The markets for LiDAR products and customers’ needs and preferences are rapidly evolving. We, as well as many of our competitors,

are constantly upgrading LiDAR products and rolling out new products with higher performance and better quality. To the extent any of our major products loses its appeal to customers and in turn its market share, whether due to competition from our competitors' products or our own alternative products or overall lower demand for LiDAR products, among other things, our business and results of operations could be materially and adversely affected.

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

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

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

Developments in alternative technology may adversely affect the demand for our LiDAR technology.

Significant developments in alternative technologies, such as cameras and radar, may materially and adversely affect our business, prospects, financial condition and operating results in ways we do not currently anticipate. Existing and other camera and radar technologies may emerge as customers' preferred alternatives to our products. Any failure by us to develop new or enhanced technologies or processes, or to react to changes in existing technologies, could materially delay our development and introduction of new and enhanced products in the autonomous vehicle industry, which could result in the loss of competitiveness of our LiDAR products, decreased revenue and a loss of market share to competitors. Our R&D efforts may not be sufficient to adapt to changes in technology. As technologies change, we plan to upgrade or adapt our LiDAR products with the latest technology. However, our products may not compete effectively with alternative systems if we are not able to source and integrate the latest technology into our existing LiDAR products.

We may need to defend ourselves against intellectual property right infringement claims, which may be time-consuming and would cause us to incur substantial costs.

Entities or individuals, including our competitors, may hold or obtain patents, copyrights, trademarks, or other proprietary rights that would prevent, limit, or interfere with our ability to make, use, develop, sell or market our LiDAR products or components, which could make it more difficult for us to operate our business. From time to time, we may receive communications from intellectual property right holders regarding their proprietary rights. Companies holding patents or other intellectual property rights may bring suits alleging infringement of such rights or otherwise assert their rights and urge us to take licenses, whether such allegations are true or not. For example, in 2019, Velodyne Lidar, Inc. filed a lawsuit against us with the U.S. Federal District Court for the Northern District of California and the U.S. International Trade Commission for alleged infringement of its patents for mechanical rotational LiDAR registered in the United States. See "Business — Legal Proceedings." Our applications and uses of trademarks relating to our design, software, or artificial intelligence technology could also be found to infringe upon existing trademark ownership and rights. In addition, if we are determined to have infringed upon a third party's intellectual property rights, we may be required to do one or more of the following:

- cease selling, incorporating certain components into, or using products or offering services that incorporate or use the challenged intellectual property;
- pay substantial damages;

- seek a license from the holder of the infringed intellectual property right, which may not be available on reasonable terms or at all;
- redesign our products or services; or
- establish and maintain alternative branding for our products and services.

In the event of a successful claim of infringement against us and our failure or inability to obtain a license to the infringed technology or other intellectual property right, our business, financial condition, results of operations, and prospects could be materially and adversely affected. In addition, any litigation or claims, whether or not valid, could result in substantial costs, negative publicity, and diversion of resources and management attention.

We may not be able to prevent others from unauthorized use of our intellectual property, which could harm our business and competitive position.

We regard our trademarks, patents, domain names, trade secrets, proprietary technologies, and similar intellectual property as critical to our success. We rely on trademark and patent law, trade secret protection and confidentiality and license agreements with our employees and others to protect our proprietary rights.

We have invested significant resources to develop our own intellectual property. Failure to maintain or protect these rights could harm our business. In addition, any unauthorized use of our intellectual property by third parties may adversely affect our current and future revenues and our reputation.

Implementation and enforcement of PRC laws relating to intellectual property have historically been deficient and ineffective. Accordingly, protection of intellectual property rights in China may not be as effective as in the United States or other developed countries. Furthermore, policing unauthorized use of proprietary technology is difficult and expensive. We rely on a combination of patent, copyright, trademark, and trade secret laws and restrictions on disclosure to protect our intellectual property rights. Despite our efforts to protect our proprietary rights, third parties may attempt to copy or otherwise obtain and use our intellectual property or seek court declarations that they do not infringe upon our intellectual property rights. Monitoring unauthorized use of our intellectual property is difficult and costly, and we cannot assure you that the steps we have taken or will take will prevent misappropriation of our intellectual property. From time to time, we may have to resort to litigation to enforce our intellectual property rights, which could result in substantial costs and diversion of our resources.

As our patents may expire and may not be extended, our patent applications may not be granted, and our patent rights may be contested, circumvented, invalidated, or limited in scope, our patent rights may not protect us effectively. In particular, we may not be able to prevent others from developing or exploiting competing technologies, which could materially and adversely affect our business, financial condition, and results of operations.

As of May 31, 2021, we had 224 patents granted and over 300 pending patent applications in China, and 15 patents granted and 108 pending patent applications in other jurisdictions, such as the United States and Europe. We cannot assure you that all our pending patent applications will result in issued patents. Even if our patent applications succeed and we are issued patents accordingly, it is still uncertain whether these patents will be contested, circumvented, or invalidated in the future. In addition, the rights granted under any issued patents may not provide us with meaningful protection or competitive advantages. The claims under any patents may not be broad enough to prevent others from developing technologies that are similar or that achieve results similar to ours. It is also possible that the intellectual property rights of others could bar us from licensing and exploiting our patents. Numerous patents and pending patent applications owned by others exist in the fields where we have developed and are developing our technology. These patents and patent applications might have priority over our patent applications and could subject our patent applications to invalidation. Finally, in addition to those who may claim priority, any of our existing patents or pending patent applications may also be challenged by others on the basis that they are otherwise invalid or unenforceable.

We are subject to risks associated with strategic alliances or acquisitions.

We have entered into and may in the future enter into strategic alliances, including joint ventures or minority equity investments, with various third parties to further our business purpose from time to time. These alliances could subject us to a number of risks, including risks associated with sharing proprietary information, non-performance by third parties, and increases in expenses in establishing new strategic alliances, any of which may materially and adversely affect our business. We may have limited ability to monitor or control the actions of these third parties and, to the extent any of these third parties suffers negative publicity or harm to their reputation from events relating to their businesses, we may also suffer negative publicity or harm to our reputation by virtue of our association with any such third party.

In addition, if appropriate opportunities arise, we may acquire additional assets, products, technologies, or businesses that are complementary to our existing business. In addition to possible shareholder approval, we may have to obtain approvals and licenses from relevant government authorities for the acquisitions and to comply with any applicable laws and regulations of China or other jurisdictions, which could result in increasing delay and costs, and may derail our business strategy if we fail to do so. Moreover, the costs of identifying and consummating acquisitions may be significant. Furthermore, past and future acquisitions and the subsequent integration of new assets and businesses into our own require significant attention from our management and could result in a diversion of resources from our existing business, which in turn could have an adverse effect on our operations. Acquired assets or businesses may not generate the financial results we expect. Acquisitions could result in the use of substantial amounts of cash, potentially dilutive issuances of equity securities, the occurrence of significant goodwill impairment charges, amortization expenses for other intangible assets, and exposure to potential unknown liabilities of the acquired business. Any acquired business may be involved in legal proceedings originating from historical periods prior to the acquisition, and we may not be fully indemnified, or at all, for any damage to us resulting from such legal proceedings, which could materially and adversely affect our financial position and results of operations.

We plan to grant options and other types of awards under our share incentive plan, which may result in increased share-based compensation expenses.

We adopted a share incentive plan, or the 2021 Plan, in June 2021 for the purpose of granting share-based compensation awards to employees, directors, and consultants to incentivize their performance and align their interests with ours. Under the 2021 Plan, we are authorized to grant options and other types of awards. The maximum number of ordinary shares that may be issued pursuant to all awards under the 2021 Plan is initially 16,365,047 shares, subject to annual increases. See “Management — Share Incentive Plan.” As of the date of this prospectus, no awards had been granted under the 2021 Plan.

We believe the granting of share-based awards is of significant importance to our ability to attract and retain key personnel and employees, and we plan to grant share-based compensation to employees in the future. As a result, our expenses associated with share-based compensation may increase, which may have an adverse effect on our results of operations.

Furthermore, perspective candidates and existing employees often consider the value of the equity awards they receive in connection with their employment. Thus, our ability to attract or retain highly skilled employees may be adversely affected by declines in the perceived value of our equity or equity awards. Furthermore, there are no assurances that the number of shares reserved for issuance under our share incentive plans will be sufficient to grant equity awards adequate to recruit new employees and to compensate existing employees.

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

We are highly dependent on Dr. Yifan Li, our co-founder and chief executive officer, Dr. Kai Sun, our co-founder and chief scientist, and Mr. Shaoqing Xiang, our co-founder and chief technology officer. Each of the three co-founders leads different aspects of our business. The loss of any of our co-founders would adversely affect our business because such loss could make it more difficult to, among other things, compete with other market participants, manage our R&D activities and retain existing customers or cultivate new

ones. Our other executive officers also play key roles in our business operations, and we rely on their efforts to manage and grow our business.

Our business depends on a variety of other highly skilled personnel as well. Competition for highly skilled personnel is often intense, and we may incur significant costs to attract highly skilled personnel. We may not be successful in attracting, integrating, or retaining qualified personnel to fulfill our current or future needs. We have, from time to time, experienced, and we expect to continue to experience, difficulty in hiring and retaining highly skilled employees with appropriate qualifications. In addition, job candidates and existing employees often consider the value of the equity awards they receive in connection with their employment. If the perceived value of our equity or equity awards declines, it may adversely affect our ability to retain highly skilled employees. If we fail to attract new personnel or fail to retain and motivate our existing personnel, our business and future growth prospects could be adversely affected.

Our management team has limited experience managing a public company.

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

We have identified a material weakness in our internal controls. If we are unable to develop and maintain an effective system of internal control over financial reporting, we may not be able to accurately report our financial results in a timely manner, which may adversely affect investor confidence in us and materially and adversely affect our business and operating results.

Prior to this offering, we have been a private company with limited accounting personnel and other resources with which to address our internal control and procedures. Effective internal control over financial reporting is necessary for us to provide reliable financial reports and, together with adequate disclosure control and procedures, are designed to prevent fraud. In the course of preparing and auditing our consolidated financial statements, we and our independent registered public accounting firm identified one material weakness in our internal control over financial reporting. As defined in the standards established by the PCAOB, 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 company’s annual or interim financial statements will not be prevented or detected on a timely basis.

The material weakness identified relates to lack of sufficient skilled staff with U.S. GAAP knowledge for the purpose of financial reporting to comply with U.S. GAAP and SEC requirements. The material weakness, if not remediated timely, may lead to material misstatements in our consolidated financial statements in the future. Following the identification of the material weakness, we have taken and plan to continue to take remedial measures. See “Management’s Discussion and Analysis of Financial Condition and Results of Operations — Internal Control over Financial Reporting.” We cannot assure you, however, that these measures may fully address this material weakness in our internal control over financial reporting or that we may not identify additional material weaknesses or significant deficiencies in the future.

After we become a public company in the United States, we will be subject to the reporting requirements of the Sarbanes-Oxley Act of 2002. Section 404 of the Sarbanes-Oxley Act of 2002, or Section 404, will require us to include a report from management on the effectiveness of our internal control over financial reporting in our annual report on Form 20-F beginning with the fiscal year ending December 31, 2022. In addition, once we cease to be an “emerging growth company” as such term is defined in the JOBS Act, our independent registered public accounting firm must attest to and report on the effectiveness of our internal control over financial reporting. Our management may conclude that our internal control over financial reporting is not effective. Moreover, even if our management concludes that our internal control over financial reporting is effective, our independent registered public accounting firm, after conducting its own

independent testing, may issue a report that is qualified if it is not satisfied with our internal control or the level at which our control is documented, designed, operated, or reviewed, or if it interprets the relevant requirements differently from us. In addition, after we become a public company, our reporting obligations may place a significant strain on our management, operational, and financial resources and systems for the foreseeable future. We may be unable to complete our evaluation testing and any required remediation in a timely manner.

During the course of documenting and testing our internal control procedures, in order to satisfy the requirements of Section 404, we may identify other weaknesses and deficiencies in our internal control over financial reporting. In addition, if we fail to maintain adequate and effective internal control over financial reporting, as these standards are modified, supplemented, or amended from time to time, we may not be able to conclude on an ongoing basis that we have effective internal control over financial reporting in accordance with Section 404. If we fail to achieve and maintain an effective internal control environment, we could suffer material misstatements in our financial statements and fail to meet our reporting obligations, which would likely cause investors to lose confidence in our reported financial information. This could in turn limit our access to capital markets, harm our results of operations, and lead to a decline in the trading price of our ADSs. Additionally, ineffective internal control over financial reporting could expose us to increasing risk of fraud or misuse of corporate assets and subject us to potential delisting from the stock exchange on which we list, regulatory investigations, and civil or criminal sanctions. We may also be required to restate our financial statements from prior periods.

We may be subject to anti-corruption, anti-bribery, anti-money laundering, financial and economic sanctions, and similar laws, and noncompliance with such laws can subject us to administrative, civil, and criminal penalties, collateral consequences, remedial measures, and legal expenses, all of which could adversely affect our business, results of operations, financial condition, and reputation.

We may be subject to anti-corruption, anti-bribery, anti-money laundering, financial and economic sanctions, and similar laws and regulations in various jurisdictions in which we conduct activities, including the U.S. Foreign Corrupt Practices Act, or the FCPA, and other anti-corruption laws and regulations. The FCPA prohibits us and our officers, directors, employees, and business partners acting on our behalf, including agents, from corruptly offering, promising, authorizing, or providing anything of value to a “foreign official” for the purposes of influencing official decisions or obtaining or retaining business or otherwise obtaining favorable treatment. The FCPA also requires companies to make and keep books, records, and accounts that accurately reflect transactions and dispositions of assets and to maintain a system of adequate internal accounting controls. A violation of these laws or regulations could adversely affect our business, reputation, financial condition, and results of operations.

We have direct or indirect interactions with officials and employees of government agencies and state-owned affiliated entities in the ordinary course of business. We also have business collaborations with government agencies and state-owned affiliated entities. These interactions subject us to an increasing level of compliance-related concerns. We are in the process of implementing policies and procedures designed to ensure compliance by us and our directors, officers, employees, representatives, consultants, agents, and business partners with applicable anti-corruption, anti-bribery, anti-money laundering, financial and economic sanctions, and similar laws and regulations. However, our policies and procedures may not be sufficient and our directors, officers, employees, representatives, consultants, agents, and business partners could engage in improper conduct for which we may be held responsible.

Non-compliance with anti-corruption, anti-bribery, anti-money laundering, or financial and economic sanctions laws could subject us to whistleblower complaints, adverse media coverage, investigations, and severe administrative, civil and criminal sanctions, collateral consequences, remedial measures, and legal expenses, all of which could materially and adversely affect our business, reputation, financial condition, and results of operations.

We may be subject to legal proceedings in the ordinary course of our business. If the outcomes of these proceedings are adverse to us, it could have a material adverse effect on our business, results of operations, and financial condition.

We may be subject to legal proceedings from time to time in the ordinary course of our business, which could have a material adverse effect on our business, results of operations, and financial condition. Claims

arising out of actual or alleged violations of law could be asserted against us by our customers, our competitors, governmental entities in civil or criminal investigations and proceedings, or other entities. These claims could be asserted under a variety of laws, including but not limited to product liability laws, intellectual property laws, labor and employment laws, securities laws, tort laws, contract laws, property laws, and employee benefit laws. There is no guarantee that we will be successful in defending ourselves in legal and administrative actions or in asserting our rights under various laws. Even if we are successful in our attempt to defend ourselves in legal and administrative actions or to assert our rights under various laws, enforcing our rights against the various parties involved may be expensive, time-consuming, and ultimately futile. These actions could expose us to negative publicity and to substantial monetary damages and legal defense costs, injunctive relief, and criminal, civil, and administrative fines and penalties.

We have limited insurance coverage, which could expose us to significant costs and business disruption.

We have limited liability insurance coverage for our products and business operations. A successful liability claim against us, regardless of whether due to injuries suffered by our customers could materially and adversely affect our financial condition, results of operations, and reputation. In addition, we do not have any business disruption insurance. Any business disruption event could result in substantial cost to us and diversion of our resources.

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

A significant natural disaster, such as an earthquake, fire, flood, hurricane or significant power outage or other similar events, such as infectious disease outbreaks or pandemic events, including the ongoing COVID-19 pandemic, could have an adverse effect on our business and operating results. The ongoing COVID-19 pandemic may have the effect of heightening many of the other risks described in this “Risk Factors” section, such as the demand for our products, our ability to achieve or maintain profitability and our ability to raise additional capital in the future. See “— Our business has been and may continue to be adversely affected by the ongoing global COVID-19 pandemic or other health epidemics and outbreaks.” In addition, natural disasters, acts of terrorism or war could cause disruptions in our manufacturing operations, our delivery of products and other aspects of our business, our customers’ or channel partners’ businesses, our suppliers’ businesses, or the economy as a whole. We also rely on information technology systems to communicate among our workforce and with third parties. Any disruption to our communications, whether caused by a natural disaster or by man-made problems, such as power disruptions, could adversely affect our business. We do not have a formal disaster recovery plan or policy in place and do not currently require that our suppliers’ partners have such plans or policies in place. To the extent that any such disruptions result in delays or cancellations of orders or impede our suppliers’ ability to timely deliver product components, or the deployment of our products, our business, operating results and financial condition would be adversely affected.

Interruption or failure of our information technology and communications systems could impact our availability and effectiveness of our software systems.

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

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

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

A significant cyber incident could impact production capability, harm our reputation, cause us to breach our contracts with other parties or subject us to regulatory actions or litigation, any of which could materially affect our business, prospects, financial condition and operating results.

Risks Related to Doing Business in China

Changes in China's economic, political or social conditions or government policies could have a material adverse effect on our business and operations.

We expect that most of our operations will continue to be conducted in China. Accordingly, our results of operations, financial condition and prospects are influenced by economic, political and legal developments in China. China's economy differs from the economies of most developed countries in many respects, including with respect to the amount of government involvement, level of development, growth rate, control of foreign exchange and allocation of resources. Although the PRC government has implemented measures emphasizing the utilization of market forces for economic reform, the reduction of state ownership of productive assets, and the establishment of improved corporate governance in business enterprises, a substantial portion of productive assets in China is still owned by the government. The PRC government also exercises significant control over China's economic growth through strategically allocating resources, controlling the payment of foreign currency-denominated obligations, setting monetary policy and providing preferential treatment to particular industries or companies. While the PRC economy has experienced

significant growth over the past decades, that growth has been uneven across different regions and between economic sectors and may not continue, as evidenced by the slowing of the growth of the Chinese economy since 2012. Any adverse changes in economic conditions in China, in the policies of the Chinese government or in the laws and regulations in China could have a material adverse effect on the overall economic growth of China. Such developments could adversely affect our business and operating results, leading to reduction in demand for our products and services and adversely affect our competitive position.

The Chinese government has implemented various measures to encourage economic growth and guide the allocation of resources. Some of these measures may benefit the overall Chinese economy, but may have a negative effect on us. In addition, in the past the Chinese government has implemented certain measures, including interest rate adjustment, to control the pace of economic growth. These measures may cause decreased economic activity in China, which may adversely affect our business and results of operations.

Uncertainties with respect to the PRC legal system could materially and adversely affect us.

The PRC legal system is a civil law system based on written statutes. Unlike the common law system, prior court decisions under the civil law system may be cited for reference but have limited precedential value. The overall effect of legislation over the past four decades has significantly enhanced the protections afforded to various forms of foreign investments in China. However, China has not developed a fully integrated legal system, and recently enacted laws and regulations may not sufficiently cover all aspects of economic activities in China. Since these laws and regulations are relatively new and the PRC legal system continues to rapidly evolve, and because of the limited number of published decisions and the nonbinding nature of such decisions, and because the laws and regulations often give the relevant regulator significant discretion in how to enforce them, the interpretations of many laws, regulations and rules may not be uniform and enforcement of these laws, regulations and rules involves uncertainties. These uncertainties may affect our judgment on the relevance of legal requirements and our ability to enforce our contractual rights or tort claims. Besides, the PRC is geographically large and divided into various provinces and municipalities and, as such, different laws, rules, regulations and policies may have different and varying applications and interpretations in different parts of the PRC. Legislation or regulations, particularly in local applications, may be enacted without sufficient prior notice or announcement to the public. In addition, the regulatory uncertainties may be exploited through unmerited or frivolous legal actions or threats in attempts to extract payments or benefits from us. Furthermore, the PRC legal system is based in part on government policies and internal rules, some of which are not published on a timely basis, or at all, and may have a retroactive effect. As a result, we may not be aware of our violation of any of these policies and rules until sometime after the violation. Agreements that are governed by PRC laws may be more difficult to enforce by legal or arbitral proceedings in the PRC than that in other countries with different legal systems. In addition, any administrative and court proceedings in China may be protracted, resulting in substantial costs and diversion of resources and management attention.

We may rely on dividends and other distributions on equity paid by our PRC subsidiaries to fund any cash and financing requirements we may have, and any limitation on the ability of our PRC subsidiaries to make payments to us could have a material and adverse effect on our ability to conduct our business.

We are a Cayman Islands holding company and rely on dividends and other distributions on equity from our PRC subsidiaries for our cash requirements, including the funds necessary to pay dividends and other cash distributions to our shareholders and service any debt we may incur outside of PRC. Current PRC regulations permit our PRC subsidiaries to pay dividends to us only out of their accumulated after-tax profits upon satisfaction of relevant statutory conditions and procedures, if any, determined in accordance with Chinese accounting standards and regulations. In addition, each of our PRC subsidiaries is required to set aside at least 10% of its after-tax profits each year, if any, to fund certain reserve funds until the total amount set aside reaches 50% of its registered capital. These reserves, together with the registered capital, are not distributable as cash dividends. Additionally, if our PRC subsidiaries incur debt on their own behalf in the future, the instruments governing their debt may restrict their ability to pay dividends or make other distributions to us.

Any limitation on the ability of our PRC subsidiaries to distribute dividends or other payments to their respective shareholders could materially and adversely limit our ability to grow, make investments or acquisitions that could be beneficial to our businesses, pay dividends or otherwise fund and conduct our business.

The custodians or authorized users of our controlling non-tangible assets, including chops and seals, may fail to fulfill their responsibilities, or misappropriate or misuse these assets.

Under PRC laws, legal documents for corporate transactions are executed using the chop or seal of the signing entity and with the signature of a legal representative whose designation is registered and filed with the relevant branch of the State Administration for Market Regulation, or the SAMR. In order to secure the use of our chops and seals, we have established internal control procedures and rules for using these chops and seals. In any event that the chops and seals are intended to be used, the responsible personnel will submit the application which will then be verified and approved by authorized employees in accordance with our internal control procedures and rules. In addition, in order to maintain the physical security of our chops, we generally have them stored in secure locations accessible only to authorized employees. Although we monitor such authorized employees, the procedures may not be sufficient to prevent all instances of abuse or negligence. There is a risk that our employees could abuse their authority, for example, by entering into a contract not approved by us or seeking to gain control of any of our subsidiaries. If any employee obtains, misuses or misappropriates our chops and seals or other controlling non-tangible assets for whatever reason, we could experience disruption to our normal business operations. We may have to take corporate or legal action, which could involve significant time and resources to resolve and divert management from our operations. In addition, the affected entity may not be able to recover corporate assets that are sold or transferred out of our control in the event of such a misappropriation if a transferee relies on the apparent authority of the representative and acts in good faith.

PRC regulation of loans to and direct investment in PRC entities by offshore holding companies may delay us from using the proceeds of this offering to make loans or additional capital contributions to our PRC subsidiaries, which could materially and adversely affect our liquidity and our ability to fund and expand our business.

Any funds we transfer to our PRC subsidiaries, either as a shareholder loan or as an increase in registered capital, are subject to approval by or registration with relevant governmental authorities in China. According to the relevant PRC regulations on foreign-invested enterprises, or FIEs, in China, capital contributions to our PRC subsidiaries are subject to the registration with SAMR or its local counterpart, reporting of foreign investment information with the MOFCOM and registration with a local bank authorized by the State Administration of Foreign Exchange, or the SAFE.

SAFE promulgated the Notice of the State Administration of Foreign Exchange on Reforming the Administration of Foreign Exchange Settlement of Capital of Foreign-invested Enterprises, or Circular 19, effective on June 1, 2015 and amended on December 30, 2019. According to Circular 19, the flow and use of the RMB capital converted from foreign currency-denominated registered capital of a foreign-invested company is regulated such that RMB capital may not be used for the issuance of RMB entrusted loans, the repayment of inter-enterprise loans or the repayment of banks loans that have been transferred to a third party. Although Circular 19 allows RMB capital converted from foreign currency-denominated registered capital of a foreign-invested enterprise to be used for equity investments within the PRC, it also reiterates the principle that RMB converted from the foreign currency-denominated capital of a foreign-invested company may not be directly or indirectly used for purposes beyond its business scope. SAFE promulgated the Notice of the State Administration of Foreign Exchange on Reforming and Standardizing the Foreign Exchange Settlement Management Policy of Capital Account, or Circular 16, effective on June 9, 2016, which reiterates some of the rules set forth in Circular 19, but changes the prohibition against using RMB capital converted from foreign currency-denominated registered capital of a foreign-invested company to issue RMB entrusted loans to a prohibition against using such capital to issue loans to non-associated enterprises. Violations of SAFE Circular 19 and Circular 16 could result in administrative penalties. Circular 19 and Circular 16 may significantly limit our ability to transfer any foreign currency we hold, including the net proceeds from this offering, to our PRC subsidiaries, which may adversely affect our liquidity and our ability to fund and expand our business in the PRC. On October 23, 2019, SAFE promulgated the Circular of the State Administration of Foreign Exchange on Further Promoting the Facilitation of Cross-border Trade and Investment, or SAFE Circular 28, which permits non-investment foreign-invested enterprises to use their capital funds to make equity investments in China, with genuine investment projects and in compliance with effective foreign investment restrictions and other applicable laws.

In addition, (i) any foreign loan procured by our PRC subsidiaries is required to be registered with the SAFE or its local branches and (ii) any of our PRC subsidiaries may not procure loans that exceed the

statutory limits, which is either the difference between its registered capital and the total investment amount or a multiple of its net assets in the previous year. We may not be able to obtain these government approvals or complete such registrations in a timely manner, or at all, with respect to future capital contributions or foreign loans by us to our PRC subsidiaries. If we fail to receive such approvals or complete such registration or filing, our ability to use the proceeds of this offering to capitalize our PRC operations may be negatively affected, which could adversely affect our liquidity and our ability to fund and expand our business.

Governmental control of currency conversion may limit our ability to utilize our revenues effectively and affect the value of your investment.

The PRC government imposes controls on the convertibility of Renminbi into foreign currencies and, in certain cases, the remittance of currency out of China. We receive our revenues primarily in Renminbi. Under our current corporate structure, our Cayman Islands holding company primarily relies on dividend payments from our PRC subsidiaries to fund any cash and financing requirements we may have. Under existing PRC foreign exchange regulations, payments of current account items, including profit distributions, interest payments, trade, and service-related foreign exchange transactions, can be made in foreign currencies without prior approval of the SAFE by complying with certain procedural requirements. Specifically, under the existing foreign exchange restrictions, without prior approval of the SAFE, cash generated from the operations of our PRC subsidiaries in China may be used to pay dividends to our company, subject to the condition that the remittance of such dividends outside of the PRC complies with certain procedures under PRC foreign exchange regulation, such as the overseas investment registrations by our shareholders or the ultimate shareholders of our corporate shareholders who are PRC residents. However, approval from or registration with appropriate government authorities or designated banks is required where Renminbi is to be converted into foreign currency and remitted out of China to pay capital expenses such as the repayment of loans denominated in foreign currencies. As a result, we need to obtain approval from SAFE or its designated banks to use cash generated from the operations of our PRC subsidiaries to pay off their respective debt in a currency other than Renminbi owed to entities outside China, or to make other capital expenditure payments outside China in a currency other than Renminbi. The PRC government may also at its discretion restrict access to foreign currencies for current account transactions in the future. If the foreign exchange control system prevents us from obtaining sufficient foreign currencies to satisfy our foreign currency demands, we may not be able to pay dividends in foreign currencies to our shareholders, including holders of our ADSs.

China's M&A Rules and certain other PRC regulations establish complex procedures for certain acquisitions of PRC companies, which could make it more difficult for us to pursue growth through acquisitions in China.

A number of PRC laws and regulations have established procedures and requirements that could make merger and acquisition activities in China by foreign investors more time consuming and complex. In addition to the Anti-monopoly Law itself, these include the Regulations on Mergers and Acquisitions of Domestic Enterprises by Foreign Investors, or the M&A Rules, adopted by six PRC regulatory agencies in 2006 and amended in 2009, the Rules of the Ministry of Commerce on Implementation of Security Review System of Mergers and Acquisitions of Domestic Enterprises by Foreign Investors promulgated in 2011, or the Security Review Rules, and the Measures for the Security Review of Foreign Investment, or the Foreign Investment Security Review Measures, promulgated by NDRC and the MOFCOM in December 2020 and came into force on January 18, 2021. For example, the M&A Rules require that the MOFCOM be notified in advance of any change-of-control transaction in which a foreign investor takes control of a PRC domestic enterprise when certain criteria are met. The approval from the MOFCOM shall be obtained in circumstances where overseas companies established or controlled by PRC enterprises or residents acquire affiliated domestic companies. In addition, pursuant to relevant anti-monopoly laws and regulations, the SAMR should be notified in advance of any concentration of undertaking if certain thresholds are triggered. In light of the uncertainties relating to the interpretation, implementation and enforcement of the anti-monopoly laws and regulations of the PRC, we cannot assure you that the anti-monopoly law enforcement agency will not deem our future acquisitions or investments to have triggered filing requirement for anti-monopoly review. Moreover, the Security Review Rules specify that mergers and acquisitions by foreign investors that raise “national defense and security” concerns and mergers and acquisitions through which foreign investors may acquire de facto control over domestic enterprises that raise “national security” concerns are subject to strict review by the MOFCOM, and prohibit any attempt to bypass a security review,

including by structuring the transaction through a proxy or contractual control arrangement. Furthermore, under the Foreign Investment Security Review Measures, investment in certain key areas which results in acquiring the actual control of the assets is required to obtain approval from designated governmental authorities in advance. As the Foreign Investment Security Review Measures are recently promulgated, there are great uncertainties with respect to its interpretation and implementation. In the future, we may grow our business by acquiring complementary businesses. Complying with the requirements of the relevant regulations to complete such transactions could be time consuming, and any required approval processes, including clearance from the SAMR and approval from the MOFCOM and other PRC regulatory authorities, may delay or inhibit our ability to complete such transactions, which could affect our ability to expand our business or maintain our market share.

PRC regulations relating to the establishment of offshore special purpose companies by PRC residents may subject our PRC resident beneficial owners or our PRC subsidiaries to liability or penalties, limit our ability to inject capital into our PRC subsidiaries, limit our PRC subsidiaries' ability to increase their registered capital or distribute profits to us, or may otherwise adversely affect us.

In July 2014, the SAFE promulgated the *Notice on Issues Relating to Foreign Exchange Administration over the Overseas Investment and Financing and Round-trip Investment by Domestic Residents via Special Purpose Vehicles*, or the SAFE Circular 37, to replace the Notice on Relevant Issues Concerning Foreign Exchange Administration for Domestic Residents' Financing and Roundtrip Investment Through Offshore Special Purpose Vehicles, or SAFE Circular 75, which ceased to be effective upon the promulgation of SAFE Circular 37. SAFE Circular 37 requires PRC residents (including PRC individuals and PRC corporate entities) to register with the SAFE or its local branches in connection with their establishment or control of an offshore entity established for the purpose of overseas investment or financing with such PRC residents' legally owned assets or equity interests in domestic enterprises or offshore assets or interests. The term "control" under SAFE Circular 37 is broadly defined as the operation rights, beneficiary rights or decision-making rights acquired by PRC residents in the offshore special purpose vehicles, or SPVs, by means of acquisition, trust, proxy, voting rights, repurchase, convertible bonds or other arrangements. SAFE Circular 37 is applicable to our shareholders who are PRC residents and may be applicable to any offshore acquisitions that we make in the future. In addition, such PRC residents must update their SAFE registrations when the offshore special purpose vehicle undergoes material events relating to any change of basic information (such as change of such PRC citizens or residents, name and operation term), increases or decreases in investment amount, transfers or exchanges of shares, or mergers or divisions. According to the Circular on Further Simplifying and Improving Foreign Exchange Administration Policy on Direct Investment, which became effective on June 1, 2015, local banks will examine and handle foreign exchange registration for overseas direct investment, including the initial foreign exchange registration and amendment registration, under SAFE Circular 37 from June 1, 2015. If any PRC shareholder of such SPVs fails to make the required registration or to update the previously filed registration, the subsidiary of such SPVs in China may be prohibited from distributing their profits or the proceeds from any capital reduction, share transfer or liquidation to the SPVs, and the SPVs may also be prohibited from making additional capital contributions into their subsidiary in China. Moreover, failure to comply with the various SAFE registration requirements described above could result in liability under PRC law for evasion of foreign exchange controls.

Our co-founders Dr. Yifan Li, Dr. Kai Sun, and Mr. Shaoqing Xiang, who indirectly hold shares in our Cayman Islands holding company and are known to us as PRC residents, have completed the foreign exchange registrations in respect of their respective holding companies as required by SAFE regulations. However, we may not be informed of the identities of all the PRC individuals or entities holding direct or indirect interest in our company, nor can we compel our beneficial owners to comply with the SAFE registration requirements. As a result, we cannot assure you that all of our shareholders or beneficial owners who are PRC residents have complied with, and will in the future make, obtain or update any applicable registrations or approvals required by SAFE regulations. Failure by such shareholders or beneficial owners to comply with SAFE regulations, or failure by us to amend the foreign exchange registrations of our PRC subsidiaries, could subject us to fines or legal sanctions, restrict our overseas or cross-border investment activities, limit our PRC subsidiaries' ability to make distributions or pay dividends to us or affect our ownership structure, which could adversely affect our business and prospects.

Any failure to comply with PRC regulations regarding the registration requirements for employee stock incentive plans may subject the PRC plan participants or us to fines and other legal or administrative sanctions.

Pursuant to SAFE Circular 37, PRC residents who participate in share incentive plans in overseas non-publicly-listed companies due to their position as director, senior management or employees of the PRC subsidiaries of the overseas companies may submit applications to SAFE or its local branches for the foreign exchange registration with respect to offshore special purpose companies before they obtain the incentive shares or exercise the share options. In addition, in February 2012, the SAFE promulgated the Notices on Issues Concerning the Foreign Exchange Administration for Domestic Individuals Participating in Stock Incentive Plan of Overseas Publicly Listed Company, replacing earlier rules promulgated in 2007. Pursuant to these rules, PRC citizens and non-PRC citizens who reside in China for a continuous period of not less than one year who participate in any stock incentive plan of an overseas publicly listed company, subject to a few exceptions, are required to register with the SAFE through a domestic qualified agent, which could be the PRC subsidiaries of such overseas-listed company, and complete certain other procedures. See “Regulation — Regulations Relating to Stock Incentive Plans.” We and our executive officers and other employees who are PRC citizens or who reside in the PRC for a continuous period of not less than one year and who have been or will be granted incentive shares or options are subject to these regulations. Failure to complete the SAFE registrations may subject us or them to fines and legal sanctions. We also face regulatory uncertainties that could restrict our ability to adopt additional incentive plans for our directors, executive officers and employees under PRC law. See “Regulation — Regulation Related to Stock Incentive Plans.”

If we are classified as a PRC resident enterprise for PRC enterprise income tax purposes, such classification could result in unfavorable tax consequences to us and our non-PRC shareholders and ADS holders.

Under the PRC Enterprise Income Tax Law and its implementation rules, an enterprise established outside of the PRC with its “de facto management body” within the PRC is considered a “resident enterprise” and will be subject to the enterprise income tax on its global income at the rate of 25%. The implementation rules define the term “de facto management body” as the body that exercises full and substantial control and overall management over the business, productions, personnel, accounts and properties of an enterprise. In 2009, the State Administration of Taxation, or the SAT, issued a circular, known as SAT Circular 82, on April 22, 2009, with retroactive effect from January 1, 2008, which was most recently amended on December 29, 2017, which provides certain specific criteria for determining whether the “de facto management body” of a PRC-controlled enterprise that is incorporated offshore is located in China. Although this circular only applies to offshore enterprises controlled by PRC enterprises or PRC enterprise groups, not those controlled by PRC individuals or foreigners, the criteria set forth in the circular may reflect the SAT’s general position on how the “de facto management body” text should be applied in determining the tax resident status of all offshore enterprises. According to SAT Circular 82, an offshore incorporated enterprise controlled by a PRC enterprise or a PRC enterprise group will be regarded as a PRC tax resident by virtue of having its “de facto management body” in China, and will be subject to PRC enterprise income tax on its global income only if all of the following conditions are met: (i) the primary location of the day-to-day operational management is in the PRC; (ii) decisions relating to the enterprise’s financial and human resource matters are made or are subject to approval by organizations or personnel in the PRC; (iii) the enterprise’s primary assets, accounting books and records, company seals, and board and shareholder resolutions are located or maintained in the PRC; and (iv) at least 50% of voting board members or senior executives habitually reside in the PRC.

We believe none of our entities outside of China is a PRC resident enterprise for PRC tax purposes. However, the tax resident status of an enterprise is subject to determination by the PRC tax authorities and uncertainties remain with respect to the interpretation of the term “de facto management body.” If the PRC tax authorities determine that we are a PRC resident enterprise for enterprise income tax purposes, we will be subject to PRC enterprise income on our worldwide income at the rate of 25% and we will be required to withhold a 10% withholding tax from dividends we pay to our shareholders that are non-resident enterprises, including the holders of our ADSs, unless any such foreign investor’s jurisdiction of incorporation has a tax treaty or similar agreement with China that provides for a different withholding arrangement. In addition, gains realized on the sale or other disposition of our ADSs or ordinary shares may be subject to PRC tax, at a rate of 10% in the case of non-PRC enterprises or 20% in the case of non-PRC

individuals (in each case, subject to the clauses of any applicable tax treaty), if such gains are deemed to be from the PRC. It is unclear whether non-PRC shareholders of our company would be able to claim the benefits of any tax treaties between their jurisdiction of tax residence and the PRC in the event that we are treated as a PRC resident enterprise. Any such tax may reduce the returns on your investment in the ADSs.

We face uncertainty with respect to indirect transfers of equity interests in PRC resident enterprises by their non-PRC holding companies, which may have a material adverse effect on our financial condition and results of operations.

On February 3, 2015, the SAT issued the Public Notice Regarding Certain Corporate Income Tax Matters on Indirect Transfer of Properties by Non-Tax Resident Enterprises, or SAT Bulletin 7, as amended in 2017. SAT Bulletin 7 extends its tax jurisdiction to transactions involving the transfer of PRC taxable assets through offshore transfer of a foreign intermediate holding company. In addition, SAT Bulletin 7 provides certain criteria on how to assess reasonable commercial purposes and has introduced safe harbors for internal group restructurings and the purchase and sale of equity through a public securities market. SAT Bulletin 7 also brings challenges to both foreign transferor and transferee (or other person who is obligated to pay for the transfer) of taxable assets. On October 17, 2017, the SAT issued the Announcement of the State Administration of Taxation on Issues Concerning the Withholding of Non-resident Enterprise Income Tax at Source, or SAT Bulletin 37, which came into effect on December 1, 2017, and was most recently amended on June 15, 2018. SAT Bulletin 37 further clarifies the practice and procedure of the withholding of non-resident enterprise income tax.

Where a non-resident enterprise transfers PRC taxable assets indirectly by disposing of the equity interests of an overseas holding company, which is an Indirect Transfer, the non-resident enterprise as either transferor or transferee, or the PRC entity that directly owns the taxable assets, may report such Indirect Transfer to the relevant tax authority. Using a “substance over form” principle, the PRC tax authority may disregard the existence of the overseas holding company if it lacks a reasonable commercial purpose and was established for the purpose of reducing, avoiding or deferring PRC tax. As a result, gains derived from such Indirect Transfer may be subject to PRC enterprise income tax, and the transferee or other person who is obligated to pay for the transfer is obligated to withhold the applicable taxes, currently at a rate of 10% for the transfer of equity interests in a PRC resident enterprise.

We face uncertainties as to the reporting and other implications of certain past and future transactions where PRC taxable assets are involved, such as offshore restructuring, sale of the shares in our offshore subsidiaries and investments. For transfer of shares in our company by investors who are non-PRC resident enterprises, our PRC subsidiaries may be requested to assist in the filing under SAT Bulletin 7 and/or SAT Bulletin 37. As a result, we may be required to expend valuable resources to comply with SAT Bulletin 7 and/or SAT Bulletin 37, or to establish that we and our non-PRC resident investors should not be taxed under these circulars, which may have a material adverse effect on our financial condition and results of operations.

You may experience difficulties in effecting service of legal process, enforcing foreign judgments or bringing actions in China against us or our management named in this prospectus based on foreign laws.

We are a company incorporated under the laws of the Cayman Islands, we conduct most of our operations in China, and substantially all of our assets are located in China. In addition, most of our senior executive officers reside within China for a significant portion of the time and most of them are PRC nationals. In addition, China does not have treaties providing for the reciprocal recognition and enforcement of judgments of courts with the Cayman Islands and many other countries and regions. Even if you are successful in bringing an action of this kind, PRC laws may render you unable to enforce a judgment against our assets or the assets of our directors and officers. For more information regarding the relevant PRC laws, see “Enforceability of Civil Liabilities.”

It may be difficult for overseas regulators to conduct investigation or collect evidence within China.

Shareholder claims or regulatory investigation that are common in the United States generally are difficult to pursue as a matter of law or practicality in China. For example, in China, there are significant legal and other obstacles to providing information needed for regulatory investigations or litigations initiated

outside China. Although the authorities in China may establish a regulatory cooperation mechanism with the securities regulatory authorities of another country or region to implement cross-border supervision and administration, such cooperation with the securities regulatory authorities in the United States may not be efficient in the absence of mutual and practical cooperation mechanism. Furthermore, according to Article 177 of the PRC Securities Law, or Article 177, which became effective in March 2020, no overseas securities regulator is allowed to directly conduct investigation or evidence collection activities within the territory of the PRC. While detailed interpretation of or implementation rules under Article 177 have yet to be promulgated, the inability for an overseas securities regulator to directly conduct investigation or evidence collection activities within China may further increase difficulties faced by you in protecting your interests. See also “— General Risks Relating to Our ADSs and This Offering — You may face difficulties in protecting your interests, and your ability to protect your rights through U.S. courts may be limited, because we are incorporated under Cayman Islands law.” for risks associated with investing in us as a Cayman Islands company.

The approval of the China Securities Regulatory Commission, or CSRC, may be required in connection with this offering, and, if required, we cannot predict whether we will be able to obtain such approval.

The M&A Rules require an overseas special purpose vehicle formed for listing purposes through acquisitions of PRC domestic companies and controlled by PRC companies or individuals to obtain the approval of the CSRC prior to the listing and trading of such special purpose vehicle’s securities on an overseas stock exchange. The interpretation and application of the regulations remain unclear, and this offering may ultimately require approval from the CSRC. If the CSRC approval is required, it is uncertain how long it will take us to obtain such approval and any failure to obtain or delay in obtaining the approval for this offering would subject us to sanctions imposed by the CSRC and other PRC regulatory agencies, which could include fines and penalties on our operations in China, restrictions or limitations on our ability to pay dividends outside of China, and other forms of sanctions that may materially and adversely affect our business, results of operations and financial condition.

Our PRC legal counsel has advised us that, based on its understanding of the current PRC laws and regulations, we will not be required to submit an application to the CSRC for the approval of the listing and trading of our ADSs on the [NYSE/Nasdaq Stock Market]. However, we cannot assure you that relevant PRC government agencies, including the CSRC, would reach the same conclusion as our PRC legal counsel, and hence we may face regulatory actions or other sanctions from the CSRC or other PRC regulatory agencies. These regulatory agencies may impose fines and penalties on our operations in China, limit our operating privileges in China, delay or restrict the repatriation of the proceeds from this offering into China or take other actions that could have a material adverse effect on our business, financial condition, results of operations and prospects, as well as the trading price of the ADSs. The CSRC or other PRC regulatory agencies also may take actions requiring us, or making it advisable for us, to halt this offering before settlement and delivery of the ADSs offered hereby. Consequently, if you engage in market trading or other activities in anticipation of and prior to settlement and delivery, you do so at the risk that settlement and delivery may not occur. In addition, if the CSRC or other regulatory agencies later promulgate new rules or explanations requiring that we obtain their approvals for this offering, we may be unable to obtain a waiver of such approval requirements, if and when procedures are established to obtain such a waiver. Any uncertainties and/or negative publicity regarding such approval requirement could have a material adverse effect on the trading price of the ADSs.

Proceedings instituted by the SEC against certain PRC-based accounting firms, including our independent registered public accounting firm, could result in financial statements being determined to not be in compliance with the requirements of the Exchange Act.

In December 2012, the SEC instituted administrative proceedings against the Big Four PRC-based accounting firms in China, including our independent registered public accounting firm, alleging that these firms had violated U.S. securities laws and the SEC’s rules and regulations thereunder by failing to provide to the SEC the firms’ audit work papers with respect to certain other PRC-based companies that are publicly traded in the United States.

On January 22, 2014, the initial administrative law judge presiding over the matter rendered an initial decision that each of the firms had violated the SEC’s rules of practice by failing to produce audit papers

and other documents to the SEC. The initial decision censured each of the firms and barred them from practicing before the SEC for a period of six months.

On February 6, 2015, each of the four PRC-based accounting firms agreed to a censure and to pay a fine to the SEC to settle the dispute and avoid suspension of their ability to practice before the SEC and to audit US-listed companies. The settlement required the firms to follow detailed procedures and to seek to provide the SEC with access to Chinese firms' audit documents via the CSRC. Under the terms of the settlement, the underlying proceeding against the four PRC-based accounting firms was deemed dismissed with prejudice four years after entry of the settlement. The four-year mark occurred on February 6, 2019. While we cannot predict if the SEC will further challenge the four PRC-based accounting firms' compliance with U.S. law in connection with U.S. regulatory requests for audit work papers or if the results of such a challenge would result in the SEC imposing penalties such as suspensions, if the accounting firms are subject to additional remedial measures, our ability to file our financial statements in compliance with SEC requirements could be impacted. A determination that we have not timely filed financial statements in compliance with SEC requirements could ultimately lead to our delisting from the [NYSE/Nasdaq Stock Market] or deregistration from the SEC, or both, which would substantially reduce or effectively terminate the trading of our ADSs in the United States.

In the event that the SEC restarts the administrative proceedings, depending upon the final outcome, listed companies in the United States with major PRC operations may find it difficult or impossible to retain auditors in respect of their operations in the PRC, which could result in financial statements being determined not to be in compliance with the requirements of the Exchange Act, including possible delisting. Moreover, any negative news about any such future proceedings against these audit firms may cause investor uncertainty regarding China-based, U.S.-listed companies and the market price of our ADSs may be adversely affected.

If our independent registered public accounting firm was denied, even temporarily, the ability to practice before the SEC and we were unable to timely find another registered public accounting firm to audit and issue an opinion on our financial statements, our financial statements could be determined to be not in compliance with the requirements of the Exchange Act. Such a determination could ultimately lead to the delisting of the ADSs or deregistration from the SEC, or both, which would substantially reduce or effectively terminate the trading of the ADSs in the United States.

General Risks Relating to Our ADSs and This Offering

An active trading market for our ordinary shares or our ADSs may not develop and the trading price for our ADSs may fluctuate significantly.

We intend to list our ADSs on the [NYSE/Nasdaq Stock Market]. Prior to the completion of this offering, there has been no public market for our ADSs or our ordinary shares, and we cannot assure you that a liquid public market for our ADSs will develop. If an active public market for our ADSs does not develop following the completion of this offering, the market price and liquidity of our ADSs may be materially and adversely affected. The initial public offering price for our ADSs is determined by negotiation between us and the underwriters based upon several factors, and the trading price of our ADSs after this offering could decline below the initial public offering price. As a result, investors in our securities may experience a significant decrease in the value of their ADSs.

We are an emerging growth company within the meaning of the Securities Act and may take advantage of certain reduced reporting requirements.

We are an "emerging growth company," as defined in the JOBS Act, and we may take advantage of certain exemptions from requirements applicable to other public companies that are not emerging growth companies including, most significantly, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002 for so long as we remain an emerging growth company. As a result, if we elect not to comply with such auditor attestation requirements, our investors may not have access to certain information they may deem important.

The JOBS Act also provides that an emerging growth company does not need to comply with any new or revised financial accounting standards until such date that a private company is otherwise required to comply with such new or revised accounting standards. This election allows us to delay the adoption of new or revised accounting standards that have different effective dates for public and private companies until those standards apply to private companies, and as a result of this election our financial statements may not be comparable to those of companies that comply with public company effective dates, including other emerging growth companies that have not made this election.

Our dual-class share structure with different voting rights will limit your ability to influence corporate matters and could discourage others from pursuing any change of control transactions that holders of our Class B ordinary shares and ADSs may view as beneficial.

We expect to have a dual-class share structure after the completion of this offering such that our ordinary shares will consist of Class A ordinary shares and Class B ordinary shares. In respect of matters requiring the votes of shareholders, holders of Class B ordinary shares will be entitled to one vote per share, while holders of Class A ordinary shares will be entitled to 10 votes per share based on our proposed dual-class share structure. We will sell Class B ordinary shares represented by our ADSs in this offering. Each Class A ordinary share is convertible into one Class B ordinary share at any time by the holder thereof, while Class B ordinary shares are not convertible into Class A ordinary shares under any circumstances.

Immediately prior to the completion of this offering, our founders will together beneficially own % of our issued Class A ordinary shares. These Class A ordinary shares will constitute approximately % of our total issued and outstanding share capital immediately after the completion of this offering and % of the aggregate voting power of our total issued and outstanding share capital due to the disparate voting powers associated with our dual-class share structure, assuming the underwriters do not exercise their over-allotment option. As a result of the dual-class share structure and the concentration of ownership, holders of our Class A ordinary shares will have considerable influence over matters such as decisions regarding mergers, consolidations and the sale of all or substantially all of our assets, election of directors and other significant corporate actions. They may take actions that are not in the best interest of us or our other shareholders. This concentration of ownership may discourage, delay or prevent a change in control of our company, which could have the effect of depriving our other shareholders of the opportunity to receive a premium for their shares as part of a sale of our company and may reduce the price of our ADSs. This concentrated control will limit your ability to influence corporate matters and could discourage others from pursuing any potential merger, takeover or other change of control transactions that holders of Class B ordinary shares and ADSs may view as beneficial.

Our dual-class voting structure may render the ADSs representing our Class A ordinary shares ineligible for inclusion in certain stock market indices, and thus adversely affect the trading price and liquidity of the ADSs.

We cannot predict whether our dual-class share structure with different voting rights will result in a lower or more volatile market price of the ADSs, adverse publicity, or other adverse consequences. Certain index providers have announced restrictions on including companies with multi-class share structures in certain of their indices. For example, S&P Dow Jones and FTSE Russell have changed their eligibility criteria for inclusion of shares of public companies on certain indices, including the S&P 500, to exclude companies with multiple classes of shares and companies whose public shareholders hold no more than 5% of total voting power from being added to such indices. As a result, our dual-class voting structure may prevent the inclusion of the ADSs representing our Class B ordinary shares in such indices, which could adversely affect the trading price and liquidity of the ADSs representing our Class B ordinary shares. In addition, several shareholder advisory firms have announced their opposition to the use of multiple class structure and our dual-class structure may cause shareholder advisory firms to publish negative commentary about our corporate governance, in which case the market price and liquidity of the ADSs could be adversely affected.

If securities or industry analysts cease to publish research or reports about our business, or if they adversely change their recommendations regarding the ADSs, the market price for the ADSs and trading volume could decline.

The trading market for the ADSs will be influenced by research or reports that industry or securities analysts publish about our business. If one or more analysts who cover us downgrade the ADSs, the market

price for the ADSs would likely decline. If one or more of these analysts cease to cover us or fail to regularly publish reports on us, we could lose visibility in the financial markets, which, in turn, could cause the market price or trading volume for the ADSs to decline.

We currently do not expect to pay dividends in the foreseeable future after this offering and you must rely on price appreciation of our ADSs for return on your investment.

We currently intend to retain most, if not all, of our available funds and any future earnings after this offering to fund the development and growth of our business. As a result, we do not expect to pay any cash dividends in the foreseeable future. Therefore, you should not rely on an investment in our ADSs as a source for any future dividend income.

Our board of directors has complete discretion as to whether to declare dividends, subject to certain requirements of Cayman Islands law. In addition, our shareholders may by ordinary resolution declare a dividend, but no dividend may exceed the amount recommended by our directors. Our post-offering amended and restated articles of association provide that dividends may be declared and paid out of the profits of our company, realized or unrealized, or from any reserve set aside from profits which the directors determine is no longer needed. Dividends may also be declared and paid out of share premium account or any other fund or account which can be authorized for this purpose in accordance with the Companies Act. Under the Companies Act, no distribution or dividend may be paid out of the share premium account unless, immediately following the date on which the distribution or dividend is proposed to be paid, the company shall be able to pay its debts as they fall due in the ordinary course of business. Even if our board of directors decides to declare and pay dividends, the timing, amount and form of future dividends, if any, will depend on our future results of operations and cash flows, our capital requirements and surplus, the amount of distributions, if any, received by us from our subsidiaries, our financial condition, contractual restrictions and other factors deemed relevant by our board of directors. Accordingly, the return on your investment in our ADSs will likely depend entirely upon any future price appreciation of our ADSs. There is no guarantee that our ADSs will appreciate in value after this offering or even maintain the price at which you purchased the ADSs. You may not realize a return on your investment in our ADSs and you may even lose your entire investment in our ADSs.

Because our initial public offering price is substantially higher than our net tangible book value per share, you will experience immediate and substantial dilution.

If you purchase ADSs in this offering, you will pay more for your ADSs than the amount paid by our existing shareholders for their ordinary shares on a per ADS basis. As a result, you will experience immediate and substantial dilution, representing the difference between the initial public offering price per ADS, and our net tangible book value per ADS, after giving effect to the net proceeds to us from this offering. In addition, you may experience further dilution in connection with the issuance of ordinary shares upon the exercise or vesting, as the case may be, of our share incentive awards. See “Dilution” for a more complete description of how the value of your investment in our ADSs will be diluted upon completion of this offering.

We have not determined a specific use for a portion of the net proceeds from this offering and we may use these proceeds in ways with which you may not agree.

We have not determined a specific use for a portion of the net proceeds of this offering, and our management will have considerable discretion in deciding how to apply these proceeds. You will not have the opportunity to assess whether the proceeds are being used appropriately before you make your investment decision. You must rely on the judgment of our management regarding the application of the net proceeds of this offering. We cannot assure you that the net proceeds will be used in a manner that would improve our results of operations or increase the ADS price, nor that these net proceeds will be placed only in investments that generate income or appreciate in value.

Substantial future sales or perceived potential sales of our ADSs in the public market could cause the price of our ADSs to decline.

Sales of our ADSs in the public market after this offering, or the perception that these sales could occur, could cause the market price of our ADSs to decline. All ADSs sold in this offering will be freely

transferable without restriction or additional registration under the Securities Act. The remaining ordinary shares outstanding after this offering will be available for sale, upon the expiration of the 180-day lock-up period beginning from the date of this prospectus, subject to volume and other restrictions as applicable under Rules 144 and 701 under the Securities Act. Any or all of these shares may be released prior to the expiration of the lock-up period at the discretion of the representatives of the underwriters of this offering. To the extent shares are released before the expiration of the lock-up period and sold into the market, the market price of our ADSs could decline.

[Our post-offering memorandum and articles of association contain anti-takeover provisions that could have a material adverse effect on the rights of holders of our ordinary shares and the ADSs.]

We will adopt an amended and restated memorandum and articles of association that will become effective immediately prior to the completion of this offering. Our post-offering memorandum and articles of association contain provisions to limit the ability of others to acquire control of our company or cause us to engage in change-of-control transactions. These provisions could have the effect of depriving our shareholders of an opportunity to sell their shares at a premium over prevailing market prices by discouraging third parties from seeking to obtain control of our company in a tender offer or similar transaction. Our board of directors has the authority, without further action by our shareholders, to issue preferred shares in one or more series and to fix their designations, powers, preferences, privileges and relative participating, optional or special rights and the qualifications, limitations or restrictions, including dividend rights, conversion rights, voting rights, terms of redemption and liquidation preferences, any or all of which may be greater than the rights associated with our ordinary shares, including ordinary shares represented by ADSs. Preferred shares could be issued quickly with terms calculated to delay or prevent a change in control of our company or make removal of management more difficult. If our board of directors decides to issue preferred shares, the price of the ADSs may fall and the voting and other rights of the holders of our ordinary shares and the ADSs may be materially and adversely affected.]

[Our post-offering memorandum and articles of association and the deposit agreement provide that the United States District Court for the Southern District of New York (or, if the United States District Court for the Southern District of New York lacks subject matter jurisdiction over a particular dispute, the state courts in New York County, New York) is the exclusive judicial forum within the U.S. for the resolution of any complaint asserting a cause of action arising out of or relating in any way to the federal securities laws of the United States, and any suit, action or proceeding arising out of or relating in any way to the ADSs or the deposit agreement, which could limit the ability of holders of our ordinary shares, the ADSs or other securities to obtain a favorable judicial forum for disputes with us, our directors and officers, the depositary, and potentially others.]

Our post-offering memorandum and articles of association provide that the United States District Court for the Southern District of New York (or, if the United States District Court for the Southern District of New York lacks subject matter jurisdiction over a particular dispute, the state courts in New York County, New York) is the exclusive forum within the United States for the resolution of any complaint asserting a cause of action arising out of or relating in any way to the federal securities laws of the United States, regardless of whether such legal suit, action, or proceeding also involves parties other than our company. The deposit agreement provides that the United States District Court for the Southern District of New York (or, if the United States District Court for the Southern District of New York lacks subject matter jurisdiction over a particular dispute, the state courts in New York County, New York) shall have exclusive jurisdiction over any suit, action or proceeding against or involving us or the depositary, arising out of or relating in any way to the deposit agreement or the transactions contemplated thereby or by virtue of owning the ADSs. The enforceability of similar federal court choice of forum provisions in other companies' organizational documents has been challenged in legal proceedings in the United States, and it is possible that a court could find this type of provision to be inapplicable or unenforceable. If a court were to find the federal choice of forum provision contained in our post-offering memorandum and articles of association or the deposit agreement to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions. If upheld, the forum selection clause in our post-offering memorandum and articles of association, as well as the forum selection provision in the deposit agreement, may limit a security-holder's ability to bring a claim against us, our directors and officers, the depositary, and potentially others in his or her preferred judicial forum, and this limitation may discourage such lawsuits. Holders of our shares or the ADSs will not be deemed to have waived our compliance with the

federal securities laws and the regulations promulgated thereunder pursuant to the exclusive forum provision in the post-offering memorandum and articles of association and deposit agreement. In addition, the forum selection provision of the deposit agreement does not affect the right of an ADS holder or the depositary to require any claim against us, including a federal securities law claim, to be submitted to arbitration or to commence an action in any court in aid of that arbitration provision or to enter judgment upon or enforce any arbitration award.]

The voting rights of holders of ADSs are limited by the terms of the deposit agreement, and you may not be able to exercise your right to direct the voting of the underlying ordinary shares represented by your ADSs.

Holders of ADSs do not have the same rights as our registered shareholders. As a holder of ADSs, you will not have any direct right to attend general meetings of our shareholders or to cast any votes at such meetings. You will only be able to exercise the voting rights attached to the ordinary shares underlying your ADSs indirectly by giving voting instructions to the depositary in accordance with the provisions of the deposit agreement. Where any matter is to be put to a vote at a general meeting, then upon receipt of your voting instructions, the depositary will try, as far as is practicable, to vote the underlying ordinary shares represented by your ADSs as follows:

- In the event of voting by show of hands, the depositary bank will vote (or cause the custodian to vote) all ordinary shares held on deposit at that time in accordance with the voting instructions received from a majority of holders of ADSs who provide timely voting instructions.
- In the event of voting by poll, the depositary bank will vote (or cause the custodian to vote) the ordinary shares held on deposit in accordance with the voting instructions received from the holders of ADSs.

You will not be able to directly exercise your right to vote with respect to the underlying ordinary shares unless you withdraw the shares represented by the ADSs and become the registered holder of such shares prior to the record date for the general meeting.

When a general meeting is convened, you may not receive sufficient advance notice of the meeting to withdraw the ordinary shares represented by your ADSs and become the registered holder of such shares to allow you to attend the general meeting and to vote directly with respect to any specific matter or resolution to be considered and voted upon at the general meeting. [In addition, under our post-offering memorandum and articles of association that will become effective immediately prior to completion of this offering, for the purposes of determining those shareholders who are entitled to attend and vote at any general meeting, our directors may close our register of members and/or fix in advance a record date for such meeting, and such closure of our register of members or the setting of such a record date may prevent you from withdrawing the underlying ordinary shares represented by your ADSs and from becoming the registered holder of such shares prior to the record date, so that you would not be able to attend the general meeting or to vote directly.] Where any matter is to be put to a vote at a general meeting, upon our instruction the depositary will notify you of the upcoming vote and will arrange to deliver our voting materials to you. We cannot assure you that you will receive the voting materials in time to ensure that you can instruct the depositary to vote the underlying ordinary shares represented by your ADSs.

In addition, the depositary and its agents are not responsible for failing to carry out voting instructions or for their manner of carrying out your voting instructions. This means that you may not be able to exercise your right to direct how the underlying ordinary shares represented by your ADSs are voted and you may have no legal remedy if the underlying ordinary shares represented by your ADSs are not voted as you requested. In addition, in your capacity as an ADS holder, you will not be able to call a shareholders' meeting.

Under the deposit agreement, if voting is by poll and the depositary does not timely receive voting instructions from you, the depositary may give us a discretionary proxy to vote the ordinary shares underlying the ADSs at shareholders' meetings if we have timely provided the depositary with notice of meeting and related voting materials and (i) we have instructed the depositary that we wish a discretionary proxy to be given, (ii) we have informed the depositary that there is no substantial opposition as to a matter to be voted on at the meeting, and (iii) a matter to be voted on at the meeting would not have a material adverse impact on shareholders.

The effect of this discretionary proxy is that you cannot prevent the underlying ordinary shares represented by the ADSs from being voted, except under the circumstances described above. This may make it more difficult for ADS holders to influence the management of the company. Holders of ordinary shares are not subject to this discretionary proxy.

An ADS holder's right to pursue claims against the depository is limited by the terms of the deposit agreement.

Under the deposit agreement, any legal suit, action or proceeding against or involving us or the depository, arising out of or relating in any way to the deposit agreement or the transactions contemplated thereby or by virtue of owning the ADSs may only be instituted in the United States District Court for the Southern District of New York (or, if the United States District Court for the Southern District of New York lacks subject matter jurisdiction over a particular dispute, in the state courts in New York County, New York), and a holder of our ADSs, will have irrevocably waived any objection which such holder may have to the laying of venue of any such proceeding, and irrevocably submitted to the exclusive jurisdiction of such courts in any such action or proceeding. However, the enforceability of similar federal court choice of forum provisions in other companies' organizational documents has been challenged in legal proceedings in the United States, and it is possible that a court could find this type of provision to be inapplicable or unenforceable. Accepting or consenting to this forum selection provision does not represent you are waiving compliance with the U.S. federal securities laws and the rules and regulations promulgated thereunder. Furthermore, investors cannot waive compliance with the U.S. federal securities laws and rules and regulations promulgated thereunder.

The deposit agreement provides that the depository or an ADS holder may require any claim asserted by it against us arising out of or relating to our ordinary shares, the ADSs or the deposit agreement be referred to and finally settled by an arbitration conducted under the terms described in the deposit agreement, although the arbitration provisions do not preclude you from pursuing any claim, including claims under the Securities Act or the Exchange Act, in the United States District Court for the Southern District of New York (or such state courts if the United States District Court for the Southern District of New York lacks subject matter jurisdiction). The exclusive forum selection provisions in the deposit agreement also do not affect the right of any party to the deposit agreement to elect to submit a claim against us to arbitration, or our duty to submit that claim to arbitration, as provided in the deposit agreement, or the right of any party to an arbitration under the deposit agreement, to commence an action to compel that arbitration, or to enter judgment upon or to enforce an award by the arbitrators, in any court having jurisdiction over an action of that kind. See "Description of American Depositary Shares" for more information.

We are entitled to amend the deposit agreement and to change the rights of ADS holders under the terms of such agreement, or to terminate the deposit agreement, without the prior consent of the ADS holders.

We are entitled to amend the deposit agreement and to change the rights of the ADS holders under the terms of such agreement, without the prior consent of the ADS holders. We and the depository may agree to amend the deposit agreement in any way we decide is necessary or advantageous to us. Amendments may reflect, among other things, operational changes in the ADS program, legal developments affecting ADSs or changes in the terms of our business relationship with the depository. In the event that the terms of an amendment impose or increase fees or charges (other than taxes and other governmental charges, registration fees, cable (including SWIFT) or facsimile transmission costs, delivery costs or other such expenses) or that would otherwise prejudice any substantial existing right of the ADS holders, such amendment will not become effective as to outstanding ADSs until the expiration of 30 days after notice of that amendment has been disseminated to the ADS holders, but no prior consent of the ADS holders is required under the deposit agreement. Furthermore, we may decide to terminate the ADS facility at any time for any reason. For example, terminations may occur when the ADSs are delisted from the stock exchange in the United States on which the ADSs are listed and we do not list the ADSs on another stock exchange in the United States, nor is there a symbol available for over-the-counter trading of the ADSs in the United States. If the ADS facility will terminate, ADS holders will receive at least 90 days' prior notice, but no prior consent is required from them. Under the circumstances that we decide to make an amendment to the deposit agreement that is disadvantageous to ADS holders or terminate the deposit agreement, the ADS holders may choose to sell their ADSs or surrender their ADSs and become direct holders of the underlying ordinary shares, but will have no right to any compensation whatsoever.

You may be subject to limitations on transfer of your ADSs.

Your ADSs are transferable on the books of the depository. However, the depository may close its books at any time or from time to time when it deems expedient in connection with the performance of its duties. The depository may close its books from time to time for a number of reasons, including in connection with corporate events such as a rights offering, during which time the depository needs to maintain an exact number of ADS holders on its books for a specified period. The depository may also close its books in emergencies, and on weekends and public holidays. The depository may refuse to deliver, transfer or register transfers of our ADSs generally when our share register or the books of the depository are closed, or at any time if we or the depository thinks it is advisable to do so because of any requirement of law or of any government or governmental body, or under any provision of the deposit agreement, or for any other reason.

You may experience dilution of your holdings due to inability to participate in rights offerings.

We may, from time to time, distribute rights to our shareholders, including rights to acquire securities. Under the deposit agreement, the depository will not distribute rights to holders of ADSs unless the distribution and sale of rights and the securities to which these rights relate are either exempt from registration under the Securities Act with respect to all holders of ADSs, or are registered under the provisions of the Securities Act. The depository may, but is not required to, attempt to sell these undistributed rights to third parties, and may allow the rights to lapse. We may be unable to establish an exemption from registration under the Securities Act, and we are under no obligation to file a registration statement with respect to these rights or underlying securities or to endeavor to have a registration statement declared effective. Accordingly, holders of ADSs may be unable to participate in our rights offerings and may experience dilution of their holdings as a result.

You may face difficulties in protecting your interests, and your ability to protect your rights through U.S. courts may be limited, because we are incorporated under Cayman Islands law.

We are an exempted company incorporated under the laws of the Cayman Islands. Our corporate affairs are governed by our memorandum and articles of association, the Companies Act, and the common law of the Cayman Islands. The rights of shareholders to take action against our directors, actions by our minority shareholders and the fiduciary duties of our directors to us under Cayman Islands law are to a large extent governed by the common law of the Cayman Islands. The common law of the Cayman Islands is derived in part from comparatively limited judicial precedent in the Cayman Islands as well as from the common law of England, the decisions of whose courts are of persuasive authority, but are not binding, on a court in the Cayman Islands. The rights of our shareholders and the fiduciary duties of our directors under Cayman Islands law are not as clearly established as they would be under statutes or judicial precedent in some jurisdictions in the United States. In particular, the Cayman Islands has a less developed body of securities laws than the United States. Some U.S. states, such as Delaware, have more fully developed and judicially interpreted bodies of corporate law than the Cayman Islands. In addition, Cayman Islands companies may not have standing to initiate a shareholder derivative action in a federal court of the United States.

Under Cayman Islands law, the address of a Cayman company's registered office in the Cayman Islands, and the name of its registered office provider, are matters of public record. A list of the names of the current directors and alternate directors (if applicable) are made available by the Registrar of Companies in the Cayman Islands for inspection by any person on payment of a fee. The register of mortgages is open to inspection by creditors and members. Shareholders of Cayman Islands exempted companies like us have no general rights under Cayman Islands law to inspect corporate records (other than the company's memorandum and articles of association, and any special resolutions subsequently passed by the shareholders of the company). Our directors have discretion under our post-offering amended and restated articles of association to determine whether or not, and under what conditions, our corporate records may be inspected by our shareholders, but are not obliged to make them available to our shareholders. This may make it more difficult for you to obtain the information needed to establish any facts necessary for a shareholder motion or to solicit proxies from other shareholders in connection with a proxy contest.

As a result of all of the above, our public shareholders may have more difficulty in protecting their interests in the face of actions taken by our management, members of our board of directors or our

controlling shareholders than they would as public shareholders of a company incorporated in the United States. For a discussion of significant differences between the provisions of the Companies Law of the Cayman Islands and the laws applicable to companies incorporated in the United States and their shareholders, see the section of this prospectus captioned “Description of Share Capital — Differences in Corporate Law.”

Certain judgments obtained against us by our shareholders may not be enforceable.

We are a Cayman Islands company and all of our assets are located outside of the United States. Substantially all of our current operations are conducted in China. In addition, a majority of our current directors and officers are nationals and residents of countries other than the United States. Substantially all of the assets of these persons are located outside the United States. As a result, it may be difficult or impossible for you to bring an action against us or against these individuals in the United States in the event that you believe that your rights have been infringed under the U.S. federal securities laws or otherwise. Even if you are successful in bringing an action of this kind, the laws of the Cayman Islands and of China may render you unable to enforce a judgment against our assets or the assets of our directors and officers. For more information regarding the relevant laws of the Cayman Islands and China, see “Enforceability of Civil Liabilities.”

ADS holders may not be entitled to a jury trial with respect to claims arising under the deposit agreement, which could result in less favorable outcomes to the plaintiff(s) in any such action.

The deposit agreement governing the ADSs representing our ordinary shares provides that, to the fullest extent permitted by law, ADS holders waive the right to a jury trial of any claim they may have against us or the depository arising out of or relating to our shares, the ADSs or the deposit agreement, including any claim under the U.S. federal securities laws.

If we or the depository opposed a jury trial demand based on the waiver, the court would determine whether the waiver was enforceable based on the facts and circumstances of that case in accordance with the applicable state and federal law. To our knowledge, the enforceability of a contractual pre-dispute jury trial waiver in connection with claims arising under the federal securities laws has not been finally adjudicated by the U.S. Supreme Court. However, we believe that a pre-dispute contractual waiver of jury trial is generally enforceable, including under the laws of the State of New York, which govern the deposit agreement, by the United States District Court for the Southern District of New York or a state court in New York County, New York. In determining whether to enforce a pre-dispute contractual waiver of jury trial, courts will generally consider whether a party knowingly, intelligently and voluntarily waived the right to a jury trial. We believe that this is the case with respect to the deposit agreement and the ADSs. It is advisable that you consult legal counsel regarding the jury waiver provision before entering into the deposit agreement.

If you or any other holders or beneficial owners of ADSs bring a claim against us or the depository in connection with matters arising under the deposit agreement or the ADSs, including claims under federal securities laws, you or such other holder or beneficial owner may not be entitled to a jury trial with respect to such claims, which may have the effect of limiting and discouraging lawsuits against us and the depository. If a lawsuit is brought against either or both of us and the depository under the deposit agreement, it may be heard only by a judge or justice of the applicable trial court, which would be conducted according to different civil procedures and may result in different outcomes than a trial by jury would have, including results that could be less favorable to the plaintiffs in any such action.

Nevertheless, if this jury trial waiver provision is not permitted by applicable law, an action could proceed under the terms of the deposit agreement with a jury trial. No condition, stipulation or provision of the deposit agreement or ADSs serves as a waiver by any holder or beneficial owner of ADSs or by us or the depository of compliance with any substantive provision of the U.S. federal securities laws and the rules and regulations promulgated thereunder.

As a company incorporated in the Cayman Islands, we are permitted to adopt certain home country practices in relation to corporate governance matters that differ significantly from the [NYSE/Nasdaq Stock Market] listing standards.

As a Cayman Islands company listed on the [NYSE/Nasdaq Stock Market], we are subject to the [NYSE/Nasdaq Stock Market] listing standards, which requires listed companies to have, among other things, a

majority of their board members to be independent and independent director oversight of executive compensation and nomination of directors. However, [NYSE/Nasdaq Stock Market] rules permit a foreign private issuer like us to follow the corporate governance practices of its home country. Certain corporate governance practices in the Cayman Islands, which is our home country, may differ significantly from the [NYSE/Nasdaq Stock Market] listing standards.

We are permitted to elect to rely on home country practice to be exempted from the corporate governance requirements. If we choose to follow home country practice in the future, our shareholders may be afforded less protection than they would otherwise enjoy if we complied fully with the [NYSE/Nasdaq Stock Market] listing standards.

We are a foreign private issuer within the meaning of the rules under the Exchange Act, and as such we are exempt from certain provisions applicable to U.S. domestic public companies.

Because we are a foreign private issuer under the Exchange Act, we are exempt from certain provisions of the securities rules and regulations in the United States that are applicable to U.S. domestic issuers, including:

- the rules under the Exchange Act requiring the filing of quarterly reports on Form 10-Q or current reports on Form 8-K with the SEC;
- the sections of the Exchange Act regulating the solicitation of proxies, consents, or authorizations in respect of a security registered under the Exchange Act;
- the sections of the Exchange Act requiring insiders to file public reports of their stock ownership and trading activities and liability for insiders who profit from trades made in a short period of time;
- the selective disclosure rules by issuers of material nonpublic information under Regulation FD; and
- certain audit committee independence requirements in Rule 10A-3 of the Exchange Act

We will, however, be required to file an annual report on Form 20-F within four months of the end of each fiscal year. In addition, we intend to publish our results on a quarterly basis through press releases, distributed pursuant to the rules and regulations of the [NYSE/Nasdaq Stock Market]. Press releases relating to financial results and material events will also be furnished to the SEC on Form 6-K. However, the information we are required to file with or furnish to the SEC will be less extensive and less timely compared to that required to be filed with the SEC by U.S. domestic issuers. As a result, you may not be afforded the same protections or information which would be made available to you were you investing in a U.S. domestic issuer.

In addition, a foreign private issuer whose securities are listed on the [NYSE/Nasdaq Global Market], is permitted to follow certain home country corporate governance practices in lieu of the requirements of the [NYSE Listed Company Manual/Nasdaq Rules]. If we rely on exemptions available to foreign private issuers, our shareholders may be afforded less protection than they otherwise would under the [NYSE/Nasdaq] corporate governance listing standards applicable to U.S. domestic issuers.

There can be no assurance that we will not be classified as a passive foreign investment company for U.S. federal income tax purposes, which could result in adverse U.S. federal income tax consequences to U.S. Holders of our ADSs or ordinary shares.

A non-U.S. corporation, such as our company, will generally be classified as a “passive foreign investment company,” or “PFIC,” for U.S. federal income tax purposes, for any taxable year, if either (i) 75% or more of its gross income for such year consists of certain types of “passive” income or (ii) 50% or more of the value of its assets (generally determined on the basis of a quarterly average) during such year is attributable to assets that produce or are held for the production of passive income. Passive income generally includes dividends, interest, royalties, rents, annuities, net gains from the sale or exchange of property producing such income and net foreign currency gains. For this purpose, cash and assets readily convertible into cash are categorized as passive assets and the company’s goodwill and other unbooked intangibles are generally taken into account when determining the value of its assets.

Based upon our current and projected income and assets, including the proceeds from this offering, and projections as to the value of our assets immediately following this offering, we do not expect to be a PFIC for the current taxable year or the foreseeable future. However, no assurance can be given in this regard because the determination of whether we will be or become a PFIC is a factual determination made annually that will depend, in part, upon the composition of our income and assets and the value of our assets. Fluctuations in the market price of the ADSs may cause us to be or become a PFIC for the current or future taxable years because the value of our assets for purposes of the asset test, including the value of our goodwill and unbooked intangibles, may be determined by reference to the market price of the ADSs from time to time (which may be volatile). If our market capitalization is less than anticipated or subsequently declines, we may be or become a PFIC for the current taxable year or future taxable years. Furthermore, the composition of our income and assets may also be affected by how, and how quickly, we use our liquid assets and the cash raised in this offering. Under circumstances where our revenue from activities that produce passive income significantly increases relative to our revenue from activities that produce non-passive income, or where we determine not to deploy significant amounts of cash for active purposes, our risk of becoming a PFIC may substantially increase.

If we are classified as a PFIC for any taxable year during which a U.S. Holder (as defined in “Taxation — United States Federal Income Tax Considerations”) holds our ADSs or ordinary shares, the PFIC tax rules discussed under “Taxation — United States Federal Income Tax Considerations — Passive Foreign Investment Company Rules” will generally apply to such U.S. Holder for such taxable year and, unless the U.S. Holder makes a “mark-to-market” election, will apply in future years even if we cease to be a PFIC. See the discussion under “Taxation — United States Federal Income Tax Considerations — Passive Foreign Investment Company Rules” concerning the U.S. federal income tax considerations of an investment in our ADSs or ordinary shares if we are or become classified as a PFIC and the possibility of making such election.

We will incur increased costs as a result of being a public company.

Upon the completion of this offering, we will become a public company and expect to incur significant legal, accounting and other expenses that we did not incur as a private company. The Sarbanes-Oxley Act of 2002, as well as rules subsequently implemented by the SEC and [NYSE/Nasdaq Stock Market], impose various requirements on the corporate governance practices of public companies. We expect these rules and regulations to increase our legal and financial compliance costs and to make some corporate activities more time-consuming and costly.

As a result of becoming a public company, we will need to increase the number of independent directors and adopt policies regarding internal controls and disclosure controls and procedures. We also expect that operating as a public company will make it more difficult and more expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. In addition, we will incur additional costs associated with our public company reporting requirements. It may also be more difficult for us to find qualified persons to serve on our board of directors or as executive officers. We are currently evaluating and monitoring developments with respect to these rules and regulations, and we cannot predict or estimate with any degree of certainty the amount of additional costs we may incur or the timing of such costs.

In the past, shareholders of a public company often brought securities class action suits against companies following periods of instability in the market price of those companies’ securities. If we were involved in a class action suit, it could divert a significant amount of our management’s attention and other resources from our business and operations, which could harm our results of operations and require us to incur significant expenses to defend the suit. Any such class action suit, whether or not successful, could harm our reputation and restrict our ability to raise capital in the future. In addition, if a claim is successfully made against us, we may be required to pay significant damages, which could have a material adverse effect on our financial condition and results of operations.

In addition, after we are no longer an “emerging growth company,” we expect to incur significant expenses and devote substantial management effort toward ensuring compliance with the requirements of Section 404 of the Sarbanes-Oxley Act of 2002 and the other rules and regulations of the SEC.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements that reflect our current expectations and views of future events. The forward-looking statements are contained principally in the sections entitled “Prospectus Summary,” “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Business.” Known and unknown risks, uncertainties and other factors, including those listed under “Risk Factors,” may cause our actual results, performance or achievements to be materially different from those expressed or implied by the forward-looking statements.

You can identify some of these forward-looking statements by words or phrases such as “may,” “will,” “expect,” “anticipate,” “aim,” “estimate,” “intend,” “plan,” “believe,” “is/are likely to,” “potential,” “continue” or other similar expressions. We have based these forward-looking statements largely on our current expectations and projections about future events that we believe may affect our financial condition, results of operations, business strategy and financial needs. These forward-looking statements include statements relating to:

- our goals and strategies;
- our future business development, financial condition and results of operations;
- expected changes in our revenues, costs or expenditures;
- the trends in, expected growth and the market size of the Autonomous Mobility, ADAS and Robotics industries;
- the market for and adoption of LiDAR and related technology;
- our ability to produce high-quality products with wide market acceptance;
- the success of our customers in developing and commercializing products using our solutions, and the market acceptance of those products;
- our ability to introduce new products that meet our customers’ requirement;
- our expectation regarding the use of proceeds from this offering;
- our expectations regarding the effectiveness of our marketing initiatives and the relationship with our third-party partners;
- competition in our industry;
- our ability to recruit and retain qualified personnel;
- relevant government policies and regulations relating to our industry;
- our ability to protect our systems and infrastructures from cyber-attacks;
- general economic and business conditions globally and in China; and
- assumptions underlying or related to any of the foregoing.

These forward-looking statements involve various risks and uncertainties. Although we believe that our expectations expressed in these forward-looking statements are reasonable, our expectations may later be found to be incorrect. Our actual results could be materially different from our expectations. Important risks and factors that could cause our actual results to be materially different from our expectations are generally set forth in “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” “Business,” “Regulation” and other sections in this prospectus. You should read thoroughly this prospectus and the documents that we refer to with the understanding that our actual future results may be materially different from and worse than what we expect. We qualify all of our forward-looking statements by these cautionary statements.

This prospectus contains certain data and information that we obtained from various government and private publications. Statistical data in these publications also include projections based on a number of assumptions. Our industry may not grow at the rate projected by market data, or at all. Failure of this market to grow at the projected rate may have a material and adverse effect on our business and the market price

of the ADSs. In addition, the rapidly evolving nature of this industry results in significant uncertainties for any projections or estimates relating to the growth prospects or future condition of our market. Furthermore, if any one or more of the assumptions underlying the market data are later found to be incorrect, actual results may differ from the projections based on these assumptions. You should not place undue reliance on these forward-looking statements.

The forward-looking statements made in this prospectus relate only to events or information as of the date on which the statements are made in this prospectus. Except as required by law, we undertake no obligation to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise, after the date on which the statements are made or to reflect the occurrence of unanticipated events. You should read this prospectus and the documents that we refer to in this prospectus and have filed as exhibits to the registration statement, of which this prospectus is a part, completely and with the understanding that our actual future results may be materially different from what we expect.

USE OF PROCEEDS

We estimate that we will receive net proceeds from this offering of approximately US\$, or approximately US\$ if the underwriters exercise their option to purchase additional ADSs in full, after deducting underwriting discounts and commissions and the estimated offering expenses payable by us. These estimates are based upon an assumed initial public offering price of US\$ per ADS, which is the midpoint of the price range shown on the front page of this prospectus. A US\$1.00 increase (decrease) in the assumed initial public offering price of US\$ per ADS would increase (decrease) the net proceeds to us from this offering by US\$, assuming the number of ADSs offered by us, as set forth on the front cover of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated expenses payable by us.

The primary purposes of this offering are to create a public market for our shares for the benefit of all shareholders, retain talented employees by providing them with equity incentives, and obtain additional capital. We plan to use the net proceeds of this offering as follows:

- approximately 25% for investment in our manufacturing capabilities, including constructing new manufacturing facilities and purchasing new manufacturing and testing equipment;
- approximately 35% for research and development, including development of our next-generation ASICs and further investment in our software solutions; and
- approximately 40% for general corporate purposes, which may include potential strategic investments and acquisitions, although we have not identified any specific investments or acquisition opportunities at this time.

The foregoing represents our current intentions based upon our present plans and business conditions to use and allocate the net proceeds of this offering. Our management, however, will have significant flexibility and discretion to apply the net proceeds of this offering. If an unforeseen event occurs or business conditions change, we may use the proceeds of this offering differently than as described in this prospectus. See “Risk Factors — General Risks Relating to Our ADSs and This Offering — We have not determined a specific use for a portion of the net proceeds from this offering and we may use these proceeds in ways with which you may not agree.”

Pending any use described above, we plan to invest the net proceeds in short-term, interest-bearing, debt instruments or demand deposits.

[We will not receive any of the proceeds from the sale of ADSs by the selling shareholders.]

DIVIDEND POLICY

Our board of directors has discretion on whether to distribute dividends, subject to certain requirements of Cayman Islands law. In addition, our shareholders may by ordinary resolution declare a dividend, but no dividend may exceed the amount recommended by our board of directors. In either case, all dividends are subject to certain restrictions under Cayman Islands law, namely that our company may only pay dividends out of profits or share premium account, and provided always that in no circumstances may a dividend be paid if this would result in our company being unable to pay its debts as they fall due in the ordinary course of business. Even if we decide to pay dividends, the form, frequency and amount will depend upon our future operations and earnings, capital requirements and surplus, general financial condition, contractual restrictions and other factors that the board of directors may deem relevant.

We do not have any present plan to pay any cash dividends on our ordinary shares in the foreseeable future after this offering. We currently intend to retain most, if not all, of our available funds and any future earnings to operate and expand our business.

We are a holding company incorporated in the Cayman Islands. We may rely on dividends from our subsidiary in China for our cash requirements, including any payment of dividends to our shareholders. PRC regulations may restrict the ability of our PRC subsidiary to pay dividends to us. See “Regulation — Regulations Relating to Dividend Distribution.”

If we pay any dividends on our ordinary shares, we will pay those dividends which are payable in respect of the ordinary shares underlying the ADSs to the depositary, as the registered holder of such ordinary shares, and the depositary then will pay such amounts to the ADS holders in proportion to the ordinary shares underlying the ADSs held by such ADS holders, subject to the terms of the deposit agreement, including the fees and expenses payable thereunder. See “Description of American Depositary Shares.” Cash dividends on our ordinary shares, if any, will be paid in U.S. dollars.

CAPITALIZATION

The following table sets forth our capitalization as of December 31, 2020:

- on an actual basis; and
- on an adjusted basis to reflect the issuance and sale of Class B ordinary shares in the form of ADSs by us in this offering at an assumed initial public offering price of US\$ per ADS, the midpoint of the estimated range of the initial public offering price shown on the front cover of this prospectus, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, assuming the underwriters do not exercise the option to purchase additional ADSs.

You should read this table together with our consolidated financial statements and the related notes included elsewhere in this prospectus and the information under “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

	As of December 31, 2020			
	Actual		As Adjusted ⁽¹⁾	
	RMB	US\$	RMB	US\$
	(in thousands)			
Shareholders’ equity				
Class A ordinary shares (RMB1 par value; 108,120,166 shares authorized, issued and outstanding as of December 31, 2020)	108,120	16,570		
Class B ordinary shares (RMB1 par value; 251,879,834 shares authorized, 241,238,114 issued and outstanding as of December 31, 2020)	241,238	36,971		
Additional paid-in capital ⁽²⁾	872,739	133,752		
Accumulated deficit	(84,286)	(12,917)		
Accumulated other comprehensive loss	(618)	(95)		
Total Shareholders’ equity⁽²⁾	1,137,193	174,281		
Total Capitalization⁽²⁾	1,137,193	174,281		

Notes:

- (1) The as adjusted information discussed above is illustrative only. Our additional paid-in capital, accumulative deficit, accumulative other comprehensive income, total shareholder’s deficit and total capitalization following the completion of this offering are subject to adjustment based on the actual initial public offering price and other terms of this offering determined at pricing.
- (2) A US\$1.00 increase (decrease) in the assumed initial public offering price of US\$ per ADS, which is the midpoint of the estimated range of the initial public offering price shown on the front cover of this prospectus, would increase (decrease) each of additional paid-in capital, total shareholders’ equity, and total capitalization by US\$ million.

DILUTION

If you invest in the ADSs, your interest will be diluted to the extent of the difference between the initial public offering price per ADS and our net tangible book value per ADS after this offering. Dilution results from the fact that the initial public offering price per ordinary share is substantially in excess of the book value per ordinary share attributable to the existing shareholders for our presently outstanding ordinary shares on an as-converted basis.

Our net tangible book value as of December 31, 2020 was approximately US\$171.2 million, or US\$0.49 per ordinary share on an as-converted basis as of that date and US\$ per ADS. Net tangible book value represents the amount of our total consolidated tangible assets, less the amount of our total consolidated liabilities. Dilution is determined by subtracting net tangible book value per ordinary share on an as-converted basis, after giving effect to the additional proceeds we will receive from this offering, from the assumed initial public offering price of US\$ per ordinary share, which is the midpoint of the estimated initial public offering price range set forth on the front cover of this prospectus adjusted to reflect the ADS-to-ordinary share ratio, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

Without taking into account any other changes in net tangible book value after December 31, 2020, other than to give effect to our sale of the ADSs offered in this offering at the assumed initial public offering price of US\$ per ADS, which is the midpoint of the estimated initial public offering price range shown on the front cover of this prospectus, after deduction of the underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of would have been US\$, or US\$ per ordinary share and US\$ per ADS. This represents an immediate increase in net tangible book value of US\$ per ordinary share and US\$ per ADS to the existing shareholders and an immediate dilution in net tangible book value of US\$ per ordinary share and US\$ per ADS to investors purchasing ADSs in this offering. The following table illustrates such dilution:

	Per Ordinary Share	Per ADS
Assumed initial public offering price	US\$	US\$
Net tangible book value as of December 31, 2020	US\$0.49	US\$
As adjusted net tangible book value after giving effect to this offering	US\$	US\$
Amount of dilution in net tangible book value to new investors in this offering	US\$	US\$

A US\$1.00 increase (decrease) in the assumed initial public offering price of US\$ per ADS would increase (decrease) our as adjusted net tangible book value after giving effect to this offering by US\$, the as adjusted net tangible book value per ordinary share and per ADS after giving effect to this offering by US\$ per ordinary share and US\$ per ADS, and the dilution in as adjusted net tangible book value per ordinary share and per ADS to new investors in this offering by US\$ per ordinary share and US\$ per ADS, assuming no change to the number of ADSs offered by us as set forth on the front cover of this prospectus, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

The following table summarizes, on an as adjusted basis as of December 31, 2020, the differences between existing shareholders and the new investors with respect to the number of ordinary shares (in the form of ADSs or shares) purchased from us, the total consideration paid and the average price per ordinary share and per ADS paid before deducting the underwriting discounts and commissions and estimated offering expenses payable by us. The total number of ordinary shares does not include ordinary shares underlying the ADSs issuable upon the exercise of the option to purchase additional ADSs granted to the underwriters.

	Ordinary Shares Purchased		Total Consideration		Average Price Per Ordinary Share	Average Price Per ADS
	Number	Percent	Amount	Percent	US\$	US\$
Existing shareholders			US\$	%	US\$	US\$
New investors			US\$	%	US\$	US\$
Total			US\$	100.0%		

The as adjusted information discussed above is illustrative only. Our net tangible book value following the completion of this offering is subject to adjustment based on the actual initial public offering price of the ADSs and other terms of this offering determined at pricing.

ENFORCEABILITY OF CIVIL LIABILITIES

We are incorporated under the laws of the Cayman Islands as an exempted company with limited liability. We are incorporated in the Cayman Islands to take advantage of certain benefits associated with being a Cayman Islands exempted company, such as:

- political and economic stability;
- an effective judicial system;
- a favorable tax system;
- the absence of exchange control or currency restrictions; and
- the availability of professional and support services.

However, certain disadvantages accompany incorporation in the Cayman Islands. These disadvantages include but are not limited to:

- the Cayman Islands has a less developed body of securities laws as compared to the United States and these securities laws provide significantly less protection to investors as compared to the United States; and
- Cayman Islands companies may not have standing to sue before the federal courts of the United States.

Our constitutional documents do not contain provisions requiring that disputes, including those arising under the securities laws of the United States, between us, our officers, directors and shareholders, be arbitrated.

Substantially all of our operations are conducted in China, and substantially all of our assets are located in China. A majority of our directors and executive officers are nationals or residents of jurisdictions other than the United States and most of their assets are located outside the United States. As a result, it may be difficult for a shareholder to effect service of process within the United States upon these individuals, or to bring an action against us or these individuals in the United States, or to enforce against us or them judgments obtained in United States courts, including judgments predicated upon the civil liability provisions of the securities laws of the United States or any state in the United States.

We have appointed _____, _____, as our agent upon whom process may be served in any action brought against us under the securities laws of the United States.

We have been informed by Maples and Calder (Hong Kong) LLP, our counsel as to Cayman Islands law, that the United States and the Cayman Islands do not have a treaty providing for reciprocal recognition and enforcement of judgments of U.S. courts in civil and commercial matters and that there is uncertainty as to whether the courts of the Cayman Islands would (i) recognize or enforce judgments of U.S. courts obtained against us or our directors or officers, predicated upon the civil liability provisions of the securities laws of the United States or any state in the United States, or (ii) entertain original actions brought in the Cayman Islands against us or our directors or officers, predicated upon the securities laws of the United States or any state in the United States. We have also been advised by Maples and Calder (Hong Kong) LLP that a judgment obtained in any federal or state court in the United States will be recognized and enforced in the courts of the Cayman Islands at common law, without any re-examination of the merits of the underlying dispute, by an action commenced on the foreign judgment debt in the Grand Court of the Cayman Islands, provided such judgment (i) is given by a foreign court of competent jurisdiction, (ii) imposes on the judgment debtor a liability to pay a liquidated sum for which the judgment has been given, (iii) is final, (iv) is not in respect of taxes, a fine or a penalty, and (v) was not obtained by fraud, and is not of a kind the enforcement of which is contrary to natural justice or the public policy of the Cayman Islands.

However, the Cayman Islands courts are unlikely to enforce a judgment obtained from the United States courts under the civil liability provisions of the securities laws if such judgment is determined by the courts of the Cayman Islands to give rise to obligations to make payments that are penal or punitive in nature.

Because the courts of the Cayman Islands have yet to rule on whether such judgments are penal or punitive in nature, it is uncertain whether such civil liability judgments from U.S. courts would be enforceable in the Cayman Islands.

Commerce & Finance Law Offices, our counsel as to PRC law, has advised us that there is uncertainty as to whether the courts of China would:

- recognize or enforce judgments of United States courts obtained against us or our directors or officers predicated upon the civil liability provisions of the securities laws of the United States or any state in the United States; or
- entertain original actions brought in each respective jurisdiction against us or our directors or officers predicated upon the securities laws of the United States or any state in the United States.

Commerce & Finance Law Offices has further advised us that the recognition and enforcement of foreign judgments are provided for under the PRC Civil Procedures Law. Courts in China may recognize and enforce foreign judgments in accordance with the requirements of the PRC Civil Procedures Law and other applicable laws and regulations based either on treaties or similar arrangements between China and the jurisdiction where the judgment is made or on principles of reciprocity between jurisdictions. There are no treaties and only limited reciprocity arrangements between China and the United States or the Cayman Islands that govern the recognition and enforcement of foreign judgments as of the date of this prospectus. In addition, according to the PRC Civil Procedures Law, courts in the PRC will not enforce a foreign judgment against us or our directors and officers if they decide that the judgment violates the basic principles of PRC law or national sovereignty, security or public interest. As a result, it is uncertain whether and on what basis a PRC court would enforce a judgment rendered by a court in the United States or in the Cayman Islands. Under the PRC Civil Procedures Law, foreign shareholders may originate actions based on PRC law against a company in China for disputes if they can establish sufficient nexus to the PRC for a PRC court to have jurisdiction, and meet other procedural requirements. It will be, however, difficult for U.S. shareholders to originate actions against us in the PRC in accordance with PRC laws because we are incorporated under the laws of the Cayman Islands and it will be difficult for U.S. shareholders, by virtue only of holding the ADSs or ordinary shares, to establish a connection to the PRC for a PRC court to have jurisdiction as required under the PRC Civil Procedures Law.

CORPORATE HISTORY AND STRUCTURE

Corporate History

We commenced our operations in October 2014 through Hesai Photonics Technology Co., Ltd., now known as Hesai Technology Co., Ltd., or Shanghai Hesai, a limited liability company incorporated under the laws of the PRC. Our initial focus was on high-performance laser sensors used in natural gas and other industries, but we shifted our primary business to the development, manufacturing and sales of LiDAR products in 2016. Since then, we have developed and produced a full range of LiDAR solutions and products for various applications in Autonomous Mobility, ADAS and Robotics.

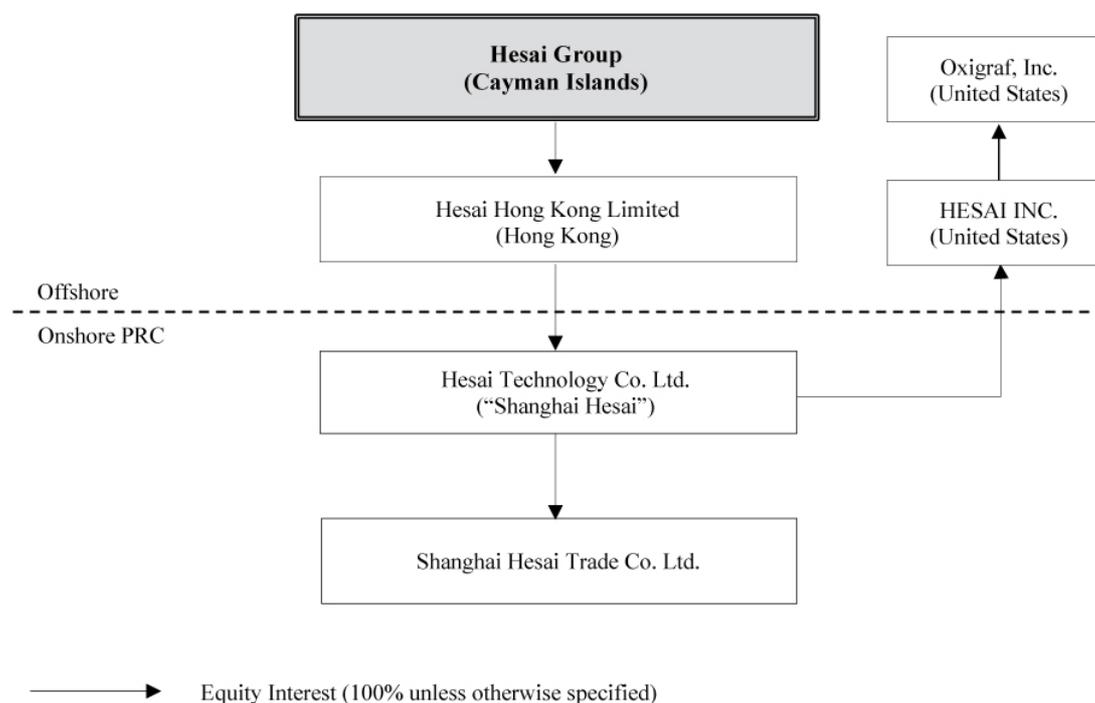
Through Shanghai Hesai, we established HESAI INC., a California corporation, and Shanghai Hesai Trade Co., Ltd., a PRC limited liability company, in October 2017 and May 2019, respectively. HESAI INC. and Shanghai Hesai Trade Co., Ltd. serve as our primary sales platforms in the U.S. and China, respectively.

To facilitate our offshore financing, we established Hesai Group, our offshore holding company incorporated under the laws of the Cayman Islands, in April 2021. Shortly following its incorporation, Hesai Group established a wholly owned subsidiary in Hong Kong, Hesai Hong Kong Limited, which now holds 100% interest in Shanghai Hesai.

In May and June 2021, as part of our reorganization, the shareholders of Shanghai Hesai transferred their equity interests in Shanghai Hesai to Hesai Hong Kong Limited, and they or their affiliates subscribed for ordinary shares of Hesai Group in proportion to their respective interests in Shanghai Hesai prior to the reorganization, where entities owned by the three founders subscribed for Class A ordinary shares and other shareholders of Shanghai Hesai subscribed for Class B ordinary shares. Around the same time, we completed a new round of financing, issuing Class B ordinary shares of Hesai Group to a number of new investors.

Corporate Structure

The following diagram illustrates our corporate structure, including our principal subsidiaries, as of the date of this prospectus:



SELECTED CONSOLIDATED FINANCIAL DATA

The following selected consolidated statements of operations for the years ended December 31, 2019 and 2020, summary consolidated balance sheets data as of December 31, 2019 and 2020, and summary consolidated cash flow data for the years ended December 31, 2019 and 2020 have been derived from our audited consolidated financial statements included elsewhere in this prospectus. Since Hesai Group had not been established for the years presented, the audited consolidated financial statements belong to Shanghai Hesai, which became a wholly owned subsidiary of Hesai Group upon the completion of our reorganization in June 2021. See “Corporate History and Structure — Corporate History.”

The consolidated financial statements of Shanghai Hesai are prepared and presented in accordance with accounting principles generally accepted in the United States of America, or U.S. GAAP. Our historical results are not necessarily indicative of results expected for future periods. You should read this Selected Consolidated Financial Data section together with our consolidated financial statements and the related notes and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” included elsewhere in this prospectus.

The following table presents selected consolidated statements of operations and comprehensive loss data for the years ended December 31, 2019 and 2020:

	For the Year Ended December 31,		
	2019	2020	
	RMB	RMB	US\$
(in thousands, except for share amount and per share data)			
Selected Consolidated Statement of Comprehensive Loss:			
Net revenues	348,084	415,514	63,680
Cost of revenues	103,377	176,600	27,065
Gross profit	244,707	238,914	36,615
Operating expenses:			
Research and development expenses	149,817	229,653	35,196
General and administrative expenses	55,112	76,553	11,732
Sales and marketing expenses	38,740	49,904	7,648
Other operating expenses/(income), net	149,089	(15,384)	(2,358)
Total operating expenses	392,758	340,726	52,218
Loss from operations	(148,051)	(101,812)	(15,603)
Interest income	19,107	20,925	3,207
Foreign exchange gain/(loss)	9,619	(25,696)	(3,938)
Other income/(loss), net	31	(832)	(128)
Net loss before income tax	(119,294)	(107,415)	(16,462)
Income tax expenses	930	(199)	(30)
Net loss	(120,224)	(107,216)	(16,432)
Change in redemption value of preferred equity	(55,247)	—	—
Net loss attributable to ordinary shareholders	(175,471)	(107,216)	(16,432)
Net loss per share attributable to ordinary shareholders:			
Basic and diluted	(0.58)	(0.31)	(0.05)
Weighted average shares used in calculating net loss per ordinary share:			
Basic and diluted	301,671,134	349,299,147	349,299,147

The following table presents selected consolidated balance sheets data as of December 31, 2019 and 2020:

	As of December 31,		
	2019	2020	
	RMB	RMB	US\$
	(in thousands)		
Selected Consolidated Balance Sheet Data:			
Cash and cash equivalents	112,737	256,688	39,339
Short-term investments	910,972	638,981	97,928
Accounts receivable (net of allowance for doubtful accounts of RMB2,257 and RMB5,270 as of December 31, 2019 and 2020, respectively)	36,511	56,319	8,631
Inventories	70,243	149,925	22,977
Prepayments and other current assets	31,835	40,658	6,232
Total current assets	1,170,260	1,209,239	185,324
Total assets	1,242,362	1,312,125	201,091
Accounts payable	18,608	55,437	8,496
Accrued expenses and other current liabilities	229,091	91,895	14,084
Total current liabilities	271,168	166,740	25,554
Total liabilities	313,150	174,932	26,810
Redeemable preferred equity	1,098,639	—	—
Total shareholders' (deficit)/equity	(169,427)	1,137,193	174,281
Total liabilities, redeemable preferred equity and shareholders' (deficit)/equity	1,242,362	1,312,125	201,091

The following table presents selected consolidated statements of cash flows data for the years ended December 31, 2019 and 2020:

	For the Year Ended December 31,		
	2019	2020	
	RMB	RMB	US\$
	(in thousands)		
Selected Consolidated Cash Flow Data:			
Net cash provided by/(used in) operating activities	46,166	(352,015)	(53,951)
Net cash (used in)/provided by investing activities	(779,497)	179,027	27,437
Net cash provided by financing activities	739,741	323,437	49,570
Net increase in cash and cash equivalents	6,410	150,449	23,056
Cash and cash equivalents at the beginning of the year	104,336	112,737	17,278
Effect of foreign currency exchange rate changes on cash and cash equivalents	1,991	(6,498)	(995)
Cash and cash equivalents at the end of the year	112,737	256,688	39,339

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion and analysis of our financial condition and results of operations in conjunction with our consolidated financial statements and related notes included elsewhere in this prospectus. Our actual results may differ materially from those we currently anticipate as a result of many factors, including those we describe under "Risk Factors" and elsewhere in this prospectus. See "Special Note Regarding Forward-Looking Statements."

Overview

We are the global leader in three-dimensional light detection and ranging (LiDAR) solutions. Our LiDAR products enable a broad spectrum of applications across (i) autonomous vehicle fleets providing passenger and freight mobility services, or Autonomous Mobility, (ii) passenger or commercial vehicles with advanced driver assistance systems, or ADAS, and (iii) other applications such as last-mile delivery robots, street sweeping robots, and logistics robots in restricted areas, or Robotics. According to the Frost & Sullivan Report, we are the global leader for LiDARs in the Autonomous Mobility market in 2020 in terms of revenue, having an approximately 40% share of the global market. Since our inception, we have sold and shipped over 10,000 LiDAR units, over 90% of which are high-end LiDAR units with 32 or more laser channels. As of December 31, 2020, 12 out of the 15 top global autonomous driving companies used our LiDARs as their primary LiDAR solution, meaning that we had the largest share by purchase dollar amount for the current fleet of each of the 12 companies, according to the Frost & Sullivan Report. These top 15 companies are defined in terms of testing miles traveled as reported by the California Department of Motor Vehicles in 2020.

We have already started commercializing our technology and have begun shipping our LiDAR units in increasing volumes. We recognized revenue on over 3,500 shipped LiDAR units in the first half of 2021 as compared to approximately 700 shipped units in the first half of 2020. We have been growing rapidly while maintaining industry-leading gross margins as compared to major publicly listed LiDAR companies, according to the Frost & Sullivan Report. Our net revenues increased by 19.4% from RMB348.1 million in 2019 to RMB415.5 million (US\$63.7 million) in 2020. Our gross margin for 2019 and 2020 was 70.3% and 57.5%, respectively, and our net loss for the same periods was RMB120.2 million and RMB107.2 million (US\$16.4 million), respectively. Our EBITDA, a non-GAAP financial measure, was negative RMB128.7 million and negative RMB109.1 million (US\$16.7 million) in 2019 and 2020, respectively. See "— Non-GAAP Financial Measure."

Key Factors Affecting Our Results of Operations

Our business and operating results are affected by the general factors that impact our total addressable market, including, among others, overall economic growth in China and globally, the widespread adoption of LiDAR technologies in the Autonomous Mobility, ADAS, and Robotics industries, raw material costs, regulatory, tax and geopolitical environments, the level of cross-border investment, and the competitive landscape for LiDARs. Changes in any of these general factors could affect the demand for our products and solutions and our results of operations.

Despite the general factors mentioned above, we believe our results of operations are more directly affected by the following specific factors:

Our ability to increase sales volume and maintain relationships with customers

Our customers operate across a wide variety of applications for our products. As of December 31, 2020, 12 out of the 15 top global autonomous driving companies used our LiDARs as their primary LiDAR solution, according to the Frost & Sullivan Report. Our top customers in terms of net revenues in 2020 for LiDAR products in the Autonomous Mobility industry include, among others, a leading global OEM headquartered in the United States, Baidu, Inc., Aurora, Pony.ai, and Uber. Our top five customers by contract amount in the three months ended March 31, 2021 were a leading global OEM headquartered in the United States, a leading global OEM headquartered in Germany, Zoox, WeRide, and Baidu. In particular, we had also established relationships with Autonomous Mobility companies for freight and

logistics services, such as Aurora and TuSimple. In the ADAS market, we have entered into strategic cooperation with Li Auto and Lotus. For LiDAR products in the Robotics market, we have entered into framework agreements with a leading last-mile delivery robotics company headquartered in the United States, Meituan, and Neolix for deployments of last-mile delivery services in this market.

We recognized revenues from approximately 2,900 and 4,200 LiDAR units sold in 2019 and 2020, respectively. The range of sales volume per customer depends on the end market demand for our customers' products and services, as well as our customers' individual needs. This range can depend on several factors, including the size of the end market that the product addresses, market penetration, product functionality, our customers' ability to sell their products and the financial stability and reputation of the customer. In addition to end market demand, sales volume further depends on our customers' progression through their evaluation, integration and production processes. Our ability to ultimately achieve profitability is dependent upon progression of existing customers' end-market production and program deployment, and our ability to meet required volumes and required cost targets. Delays of our current and future customers' programs could result in us being unable to achieve our revenue targets and profitability in the time frame we anticipate.

Our ability to expand in domestic and international markets

We view international expansion as an important element of our strategy to increase net revenues and achieve profitability. We continue to position ourselves in geographic markets that we expect to serve as important sources of future growth. We have an existing presence in China, the United States and Europe. We intend to expand our presence in these markets over time. Accordingly, expanded global reach will require continued investment and may expose us to additional foreign currency risk, international taxes and tariffs, legal obligations and additional operational costs, risks and challenges that may impact our ability to meet our projected sales volumes, net revenues and gross margins.

Our ability to optimize the pricing and mix of our LiDAR products

Our LiDAR products for the Autonomous Mobility market include the Pandar series for long-range detection and the QT series for blind-spot detection. The XT series is our ASIC-based LiDAR product line for the Robotics market, and the AT series is our LiDAR product line for the ADAS market, which is expected to ship in volume in 2022. As we offer a diverse set of LiDAR products, our gross margin is affected by the pricing and mix of our products. In 2019 and 2020, the average selling price of our LiDAR units was approximately US\$17,400 and US\$12,700, respectively. During the same periods, the percentage of revenues generated from the Pandar series was 94.1% and 75.2%, respectively. Our gross margin decreased from 70.3% in 2019 to 57.5% in 2020. We expect the average selling price for our LiDAR units and our gross margin to decrease as our shipment volume increases, especially with the increasing shipment of LiDAR units for the ADAS market and LiDAR units shipped to the United States that incur higher tariffs. See "Risk Factors — Risks Related to Our Business and Industry — Continued pricing pressures may result in lower than anticipated margins, or losses, which may adversely affect our business."

Our ability to increase volume production in a cost-efficient manner

We believe that we have the opportunity to establish high margin unit economics when operating at scale. Our future performance will depend on our ability to deliver on these economies of scale with lower product costs to enable widespread industry adoption. We believe that our business model is positioned for scalability due to our proprietary ASICs architecture, and the ability to leverage the same components across our LiDAR products.

For the years ended December 31, 2019 and 2020, material and component, manufacturing, and labor costs of our products accounted for 77.8% and 66.3% of our total cost of revenues, respectively. Our ability to effectively control material and components, manufacturing and labor costs as we continue to ramp up our production volume has affected and will continue to affect our financial results significantly. Our current manufacturing facility in Jiading, Shanghai commenced production in August 2018 and has an annual production capacity of 35,000 units, and we plan to grow this capacity to 66,000 units by the end of 2021. Our new manufacturing facility in Jiading, Shanghai is under construction and is expected to commence manufacturing in 2022. It is expected to eventually increase our annual production capacity up to

approximately 1.2 million units. We expect that as our sales volume increases over time, we will be able to reduce our volume-driven product costs and improve our gross margin.

Our ability to effectively leverage our research and development efforts to maintain our leadership in product performance and quality

We invest significantly in the research and development of LiDAR technology. Our research and development expenses were RMB149.8 million and RMB229.7 million (US\$35.2 million) in 2019 and 2020, respectively, accounting for 43.0% and 55.3% of the net revenues for these periods, respectively. Based on the resulting LiDAR technology, we have developed and produced a full range of LiDAR solutions and products to suit the various needs of our customers. Our LiDAR products have been thoroughly tested and validated by our customers' deployments in large volumes. We have shipped over 10,000 units of LiDAR since inception, which facilitated tens of millions of kilometers of real-world autonomous driving cumulatively, according to the Frost & Sullivan Report. In addition, our proprietary ASICs are able to integrate hundreds of components into very few chips, greatly simplifying and optimizing the traditional TX/RX architecture and lowering the cost. We currently apply our v1.0 and v1.5 ASICs to our LiDAR products, and are in the process of developing v2.0 and v3.0 ASICs.

According to the Frost & Sullivan Report, we are the global leader in LiDARs for the Autonomous Mobility market in 2020 in terms of revenue, and our revenue generated from the Autonomous Mobility market accounted for approximately 40% of the global market share. Our financial performance is significantly dependent on our ability to maintain our leading position which is further dependent on our continuous investments in research and development. We believe it is essential that we continue to upgrade our LiDAR products as we successfully implement our research and development roadmap, especially on our proprietary ASICs. If we fail to continue our innovation, our market position and net revenues may be adversely affected, and our investments in that area will not be recovered.

Our ability to maintain and improve operating efficiency

Our results of operations are further affected by our ability to maintain and improve our operating efficiency, as measured by our total operating expenses as a percentage of our net revenues. This is important to the success of our business and our prospect of gradually achieving profitability. As our business grows, we expect to further improve our operating efficiency and achieve economies of scale.

Impact of the COVID-19 Pandemic

Our business has been affected by the COVID-19 outbreak. For example, the COVID-19 pandemic caused disruptions in supply chains and logistics, which in turn impacted the production and supply of semiconductor chips around the globe and resulted in the continued global chip shortage that has negatively impacted our business operation and financial performance, mainly in the first half of 2020. The growth of revenue from LiDAR products in the first half of 2020 was also negatively affected by the COVID-19 pandemic as our Autonomous Mobility customers slowed down their purchase plans as they delayed their robotaxi deployments and operations. In addition, the COVID-19 outbreak has caused companies in China and elsewhere, including us and our suppliers and customers, to implement temporary adjustments to work schedules and travel plans, mandating employees to work from home and collaborate remotely. As a result, we have experienced lower efficiency and productivity, internally and externally, which adversely affected our business operation in the first half of 2020. The ongoing COVID-19 pandemic could continue to have a material adverse impact on our or our customers' business operations including reduced or suspended operations in China, the United States or certain parts of the world. The extent to which the COVID-19 pandemic may continue to affect our operations and financial performance will depend on future developments, which are highly uncertain and cannot be predicted. See "Risk Factors — Risks Related to Our Business and Industry — Our business has been and may continue to be adversely affected by the ongoing global COVID-19 pandemic or other health epidemics and outbreaks."

Seasonality

Our results of operations are subject to seasonal fluctuations. For example, the revenues in the first two quarters of the year are generally lower than the revenue in the third and fourth quarters of the year, as our

customers usually make purchasing plans in the beginning of the year and place orders in the second quarter, with the delivery of shipments mainly happening in the third and fourth quarters. Overall, the historical seasonality of our business has been relatively predictable, but the seasonal trends that we have experienced in the past may not be indicative of our future operating results. See also “Risk Factors — Risks Related to Our Business — Our results of operations are subject to quarterly fluctuations due to seasonality.”

Key Components of Results of Operations

Net revenues

We primarily generate net revenues from the sales of LiDAR products, and to a lesser extent, gas detection products. Other revenues represent sales of accessories to our LiDAR products. The following table breaks down our net revenue by amounts and as percentages of our net revenues for the periods presented:

	For the Year Ended December 31,				
	2019		2020		
	RMB	%	RMB	US\$	%
	(in thousands, except for percentages)				
Product revenues:					
Revenue from LiDAR products	328,064	94.2	346,068	53,037	83.3
Revenue from gas detection products	19,532	5.6	68,599	10,513	16.5
Other revenue	488	0.2	847	130	0.2
Net revenues	348,084	100.0	415,514	63,680	100.0

Cost of revenues

Our cost of revenues includes the manufacturing cost of LiDAR products and gas detection products, which primarily consists of material and component costs, manufacturing cost, labor costs, and other costs mainly including shipping costs and tariff, licensing fees, warranty costs, and write-downs of inventories excess and obsolete inventories.

The following table breaks down our cost of revenues by amounts and as percentages of our net revenues for the periods presented:

	For the Year Ended December 31,				
	2019		2020		
	RMB	%	RMB	US\$	%
	(in thousands, except for percentages)				
Cost of revenues:					
Material and component cost	46,115	13.2	64,838	9,937	15.6
Manufacturing cost	16,003	4.6	31,981	4,901	7.7
Labor cost	18,321	5.3	20,302	3,111	4.9
Other cost	22,938	6.6	59,479	9,116	14.3
Total cost of revenues	103,377	29.7	176,600	27,065	42.5

Operating expenses

The following table sets forth our operating expenses and as percentages of our net revenues for the periods presented:

	For the Year Ended December 31,				
	2019		2020		
	RMB	%	RMB	US\$	%
	(in thousands, except for percentages)				
Operating expenses:					
Research and development expenses	149,817	43.0	229,653	35,196	55.3
General and administrative expenses	55,112	15.8	76,553	11,732	18.4
Sales and marketing expenses	38,740	11.1	49,904	7,648	12.0
Other operating expenses (income), net	149,089	42.9	(15,384)	(2,358)	(3.7)
Total operating expenses	392,758	112.8	340,726	52,218	82.0

Research and development expenses. Our research and development expenses primarily consist of personnel-related costs directly associated with research and development, including salaries, bonuses and other benefits, material expenses for research and development, and other expenses such as third-party engineering and contractor costs, an allocated portion of facility and information technology costs, and depreciation. We expect our research and development expenses to increase in absolute amount as we continue to improve our technology and develop new LiDAR products.

The following table breaks down our research and development expenses by amounts and as percentages of our net revenues for the periods presented:

	For the Year Ended December 31,				
	2019		2020		
	RMB	%	RMB	US\$	%
	(in thousands, except for percentages)				
Research and development expenses:					
Payroll expenses	68,585	19.7	113,014	17,320	27.2
Material expenses	45,759	13.1	46,383	7,109	11.2
Others	35,473	10.2	70,256	10,767	16.9
Total	149,817	43.0	229,653	35,196	55.3

General and administrative expenses. Our general and administrative expenses primarily consist of (i) professional services fee, (ii) payroll and related expenses for employees involved in general corporate functions, (iii) costs associated with these functions including facilities and equipment depreciation expenses, rental and other general corporate related expenses, and (iv) allowance for doubtful accounts. We expect our general and administrative expenses to increase in the near future as we will incur additional expenses related to the anticipated growth of our business as well as accounting, insurance, investor relations and other costs related to our operations as a public company.

Sales and marketing expenses. Our sales and marketing expenses primarily consist of (i) payroll and related expenses for employees involved in selling and marketing functions, (ii) advertising expenses, and (iii) amortization of sample products. We expect our sales and marketing expenses to increase in absolute amount as we seek to continue to expand our customer base and increase our marketing efforts.

Other operating expenses (income), net. Our other operating expenses (income), net, primarily consist of litigation provision and government subsidies.

Taxation

Cayman Islands

The Cayman Islands currently levies no taxes on individuals or corporations based upon profits, income, gains, or appreciation, and there is no taxation in the nature of inheritance tax or estate duty. There are no other taxes likely to be material to us levied by the government of the Cayman Islands except for

stamp duties, which may be applicable on instruments executed in, or brought within the jurisdiction of, the Cayman Islands. In addition, the Cayman Islands does not impose withholding tax on dividend payments.

Hong Kong

Our subsidiary in Hong Kong is subject to an income tax rate of 16.5% on any part of assessable profits over HKD2,000,000 and 8.25% for assessable profits below HKD2,000,000. Additionally, payments of dividends by our subsidiary in Hong Kong to our company are not subject to any Hong Kong withholding tax.

China

Under the PRC Enterprise Income Tax Law effective from January 1, 2008, which was most recently amended on December 29, 2018, our PRC subsidiaries are subject to the statutory rate of 25%, subject to preferential tax treatments available to qualified enterprises in certain encouraged sectors of the economy.

Enterprises that qualify as “high and new technology enterprises” are entitled to a preferential rate of 15% subject to renewal every three years. Shanghai Hesai, one of our subsidiaries, was certified as a “high and new technology enterprise” and, therefore, enjoyed a preferential tax rate of 15% rather than the statutory enterprise income tax rate of 25% for each of 2019 and 2020. Our remaining PRC entities were subject to enterprise income tax at a rate of 25% in 2019 and 2020. Pursuant to the PRC Enterprise Income Tax Law, a 10% withholding tax is levied on dividends declared to foreign investors from China effective from January 1, 2008, unless any such foreign investor's jurisdiction of incorporation has a tax treaty or similar agreement with China that provides for a different withholding arrangement.

If our holding company in the Cayman Islands or any of our subsidiaries outside of China were deemed to be a “resident enterprise” under the PRC Enterprise Income Tax Law, it would be subject to enterprise income tax on its worldwide income at a rate of 25%. See “Risk Factors — Risks Related to Doing Business in China — If we are classified as a PRC resident enterprise for PRC enterprise income tax purposes, such classification could result in unfavorable tax consequences to us and our non-PRC shareholders and ADS holders.”

United States

The applicable income tax rate of United States where our subsidiaries having significant operations for the years ended December 31, 2019 and 2020 is 27.98%, which is a blended state and federal rate.

Results of Operations

The following table sets forth a summary of our consolidated results of operations for the periods presented, both in absolute amount and as percentages of our net revenues. This information should be read together with our consolidated financial statements and related notes included elsewhere in this prospectus. The results of operations in any particular period are not necessarily indicative of our future trends.

	For the Year Ended December 31,				
	2019		2020		
	RMB	%	RMB	US\$	%
	(in thousands, except for percentage data)				
Net revenues	348,084	100.0	415,514	63,680	100.0
Cost of revenues	(103,377)	(29.7)	(176,600)	(27,065)	(42.5)
Gross profit	244,707	70.3	238,914	36,615	57.5
Operating expenses:					
Research and development expenses	(149,817)	(43.0)	(229,653)	(35,196)	(55.3)
General and administrative expenses	(55,112)	(15.8)	(76,553)	(11,732)	(18.4)

	For the Year Ended December 31,				
	2019		2020		
	RMB	%	RMB	US\$	%
	(in thousands, except for percentage data)				
Sales and marketing expenses	(38,740)	(11.1)	(49,904)	(7,648)	(12.0)
Other operating expenses (income), net	(149,089)	(42.9)	15,384	2,358	3.7
Total operating expenses	(392,758)	(112.8)	(340,726)	(52,218)	(82.0)
Loss from operations	(148,051)	(42.5)	(101,812)	(15,603)	(24.5)
Interest income	19,107	5.5	20,925	3,207	5.0
Foreign exchange gain (loss)	9,619	2.8	(25,696)	(3,938)	(6.2)
Other income (loss), net	31	0.0	(832)	(128)	(0.2)
Net loss before income tax	(119,294)	(34.2)	(107,415)	(16,462)	(25.9)
Income tax expenses	930	0.3	(199)	(30)	(0.0)
Net loss	(120,224)	(34.5)	(107,216)	(16,432)	(25.9)

Year Ended December 31, 2020 Compared to Year Ended December 31, 2019

Net revenues

Our net revenues, which mainly consisted of revenue from LiDAR products and gas detection products, increased by 19.4% from RMB348.1 million in 2019 to RMB415.5 million (US\$63.7 million) in 2020. Our revenue from LiDAR products increased by 5.5% from RMB328.1 million in 2019 to RMB346.1 million (US\$53.0 million) in 2020, primarily attributable to the increased LiDAR units sold. We recognized revenue from approximately 2,900 and 4,200 LiDAR units sold with an average selling price of approximately US\$17,400 and US\$12,700 per unit in 2019 and 2020, respectively. Our revenue from gas detection products increased by 251.2% from RMB19.5 million in 2019 to RMB68.6 million (US\$10.5 million) in 2020, which was mainly attributable to the increased sales of laser-based oxygen sensors for ventilators to hospitals as a result of the COVID-19 pandemic.

Cost of revenues

Our cost of revenues increased by 70.8% from RMB103.4 million in 2019 to RMB176.6 million (US\$27.1 million) in 2020. The increase was primarily attributable to (i) an increase of RMB18.7 million (US\$2.9 million) in materials and components cost associated with the increased sales, (ii) an increase of RMB16.0 million (US\$2.4 million) in manufacturing cost due to increased sales, and (iii) an increase of RMB36.5 million (US\$5.6 million) in other costs, including increased tariff and royalty expense.

Gross profit and gross margin

As a result of the foregoing, our gross profit decreased by 2.4% from RMB244.7 million in 2019 to RMB238.9 million (US\$36.6 million) in 2020. Our gross margin decreased from 70.3% in 2019 to 57.5% in 2020 primarily due to increased tariff and royalty expense.

Operating expenses

Research and development expenses. Our research and development expenses increased by 53.3% from RMB149.8 million in 2019 to RMB229.7 million (US\$35.2 million) in 2020, which was primarily attributable to (i) an increase of RMB44.4 million (US\$6.8 million) in payroll expenses as average headcount for research and development increased from 146 in 2019 to 223 in 2020, and (ii) an increase of RMB34.8 million (US\$5.3 million) in other research and development expenses, mainly including third-party engineering and contractor costs due to our increased investment in ASICs.

General and administrative expenses. Our general and administrative expenses increased by 38.9% from RMB55.1 million in 2019 to RMB76.6 million (US\$11.7 million) in 2020, which was primarily due to

(i) the increase of RMB7.9 million (US\$1.2 million) in payroll expenses for general and administrative personnel, as average headcount for general and administrative increased from 32 in 2019 to 61 in 2020, and (ii) an increase of RMB4.4 million (US\$675.0 thousand) in credit impairment loss due to the increase in accounts receivables in line with the increased revenue in the fourth quarter of 2020.

Sales and marketing expenses. Our sales and marketing expenses increased by 28.8% from RMB38.7 million in 2019 to 49.9 million (US\$7.6 million) in 2020, which was primarily due to the increase of RMB10.2 million (US\$1.6 million) in payroll expenses for sales and marketing personnel.

Other operating expenses (income), net. Our other net operating expenses was RMB149.1 million in 2019, compared to net operating income of RMB15.4 million (US\$2.4 million) in 2020, which was primarily because of the litigation settlement accrual in 2019.

Loss from operations

As a result of the foregoing, our loss of operations decreased by 31.2% from RMB148.1 million in 2019 to RMB101.8 million (US\$15.6 million) in 2020.

Interest income

Interest income represents interest earned on our cash and cash equivalents, as well as our short-term investments. Our interest income remained stable at RMB19.1 million in 2019 and RMB20.9 million (US\$3.2 million) in 2020.

Foreign exchange gain (loss)

We had foreign exchange gains of RMB9.6 million in 2019, in comparison with foreign exchange losses of RMB25.7 million (US\$3.9 million) in 2020, as a result of fluctuations of the exchange rates of Renminbi against U.S. dollars.

Net loss

As a result of the foregoing, our net loss decreased by 10.8% from RMB120.2 million in 2019 to RMB107.2 million (US\$16.4 million) in 2020.

Non-GAAP Financial Measure

We use EBITDA in evaluating our operating results and for financial and operational decision-making purposes. We define EBITDA as net income excluding interest income, income tax expenses, depreciation of property and equipment, and amortization of intangible assets.

We present the non-GAAP financial measure because it is used by our management to evaluate our operating performance and formulate business plans. We believe that EBITDA helps identify underlying trends in our business that could otherwise be distorted by the effect of certain expenses that are included in net loss. We also believe that the use of the non-GAAP measure facilitates investors' assessment of our operating performance. We believe that EBITDA provides useful information about our operating results, enhances the overall understanding of our past performance and future prospects and allows for greater visibility with respect to key metrics used by our management in its financial and operational decision making.

EBITDA should not be considered in isolation or construed as alternatives to net loss or any other measures of performance or as indicators of our operating performance. Investors are encouraged to compare our historical EBITDA to the most directly comparable GAAP measure, net loss. EBITDA presented here may not be comparable to similarly titled measures presented by other companies. Other companies may calculate similarly titled measures differently, limiting their usefulness as comparative measures to our data. We encourage investors and others to review our financial information in its entirety and not rely on a single financial measure.

The table below sets forth a reconciliation of our EBITDA for the periods indicated:

	For the Year Ended December 31,		
	2019	2020	
	RMB	RMB	US\$
	(in thousands)		
Net loss	(120,224)	(107,216)	(16,432)
Add (less):			
Interest income	(19,107)	(20,925)	(3,207)
Income tax expenses	930	(199)	(30)
Depreciation of property and equipment	8,611	15,435	2,366
Amortization of intangible assets	1,113	3,780	579
EBITDA	(128,677)	(109,125)	(16,724)

Liquidity and Capital Resources

The following table sets forth a summary of our cash flows for the periods presented:

	For the Year Ended December 31,		
	2019	2020	
	RMB	RMB	US\$
	(in thousands)		
Selected Consolidated Cash Flow Data:			
Net cash provided by/ (used in) operating activities	46,166	(352,015)	(53,951)
Net cash (used in)/ provided by investing activities	(779,497)	179,027	27,437
Net cash provided by financing activities	739,741	323,437	49,570
Net increase in cash and cash equivalents	6,410	150,449	23,056
Effect of foreign currency exchange rate changes on cash and cash equivalents	1,991	(6,498)	(995)
Cash and cash equivalents at the beginning of the year	104,336	112,737	17,278
Cash and cash equivalents at the end of the year	112,737	256,688	39,339

Our principal source of liquidity has been cash generated by historical equity financing activities. As of December 31, 2019 and 2020, our cash and cash equivalents, and short-term investments were RMB1.0 billion and RMB895.7 million (US\$137.3 million), respectively. Our cash and cash equivalents primarily consist of cash on hand and time deposits with banks with original maturities of less than three months. Our short-term investments primarily consist of time deposits, and structured financial products issued by commercial banks with guaranteed principal and variable rates of return indexed to interest rates, exchange rates, commodities, broad-based index of stock market, and other financial or non-financial underlying assets, all with original maturities less than one year.

We believe that our current cash and cash equivalents, short-term investments and expected cash provided by this offering will be sufficient to meet our current and anticipated working capital requirements and capital expenditures for at least the next 12 months. We may, however, need additional cash resources in the future if we experience changes in business conditions or other developments. We may also need additional cash resources in the future if we identify and wish to pursue opportunities for investment, acquisition, capital expenditure or similar actions.

As of December 31, 2020, 91.1% and 8.9% of our cash and cash equivalents were held in China and in the United States, respectively, and 56.6% and 43.4% were denominated in Renminbi and U.S. dollars, respectively. As of December 31, 2020, substantially all of our short-term investments were held in China and denominated in U.S. dollars. For restrictions and limitations on liquidity and capital resources as a result of our corporate structure, see “— Holding Company Structure.”

We have a standby credit facility of RMB100 million from a commercial bank in China from May 2020 to May 2021. As of December 31, 2020, we did not draw down any amount under the letter of credit.

Our accounts receivable, our contract assets, and amounts due from related parties represent primarily amounts due from our customers and advances from our customers, which are recorded net of allowance for credit loss. As of December 31, 2019 and 2020, our accounts receivable, net of allowance for doubtful accounts, was RMB36.5 million and RMB56.3 million (US\$8.6 million), respectively, our contract assets were nil and RMB38.3 million (US\$5.9 million), respectively, and the amounts due from related parties, net of allowance for doubtful accounts, were RMB8.0 million and RMB28.3 million (US\$4.3 million), respectively. The increase was primarily due to the expansion of our customer base. Our accounts receivable, contract assets, and amounts due from related parties turnover days increased from 50 days in 2019 to 76 days in 2020, which was primarily due to the expansion of our customer base, which includes larger customers that prefer longer payment cycles. Accounts receivable, contract assets, and amounts due from related parties turnover days for a given period are equal to the sum of the average balances of accounts receivable and contract assets at the beginning and the end of the period divided by net revenues during the period and multiplied by the number of days during the period.

Our inventories primarily include raw materials, work-in-process, and finished goods and are stated at lower of cost or net realizable value. Our inventories increased from RMB70.2 million as of December 31, 2019 to RMB149.9 million (US\$23.0 million) as of December 31, 2020, mainly due to the increase in raw materials and work-in-process. Our inventory turnover days increased from 192 days in 2019 to 244 days in 2020, primarily because we strategically stocked many electronic components in 2020 to soften the impact of the general shortage facing by other companies over the world. Inventory turnover days for a given period equal to average inventory balances at the beginning and the end of the period divided by cost of revenues during the period and then multiplied by the number of days during the period. Valuation of inventories is based on currently available information about expected recoverable value, dependent upon factors such as market trends, inventory ageing, and historical and forecasted customer demands. Inventory write-down is recorded as cost of revenues, and we recorded RMB4.2 million and RMB7.1 million (US\$1.1 million) inventory write-offs in 2019 and 2020, respectively.

Our accounts payable represents primarily accounts payable to our suppliers of raw materials and our outsourcing labor force. As of December 31, 2019 and 2020, our accounts payable was RMB18.6 million and RMB55.4 million (US\$8.5 million), respectively. The increase was primarily due to the increase of raw material and component procurement resulting from greater product demands. Our accounts payable turnover days were 80 days in 2019 and 77 days in 2020. Accounts payable turnover days for a given period are equal to average accounts payable balances at the beginning and the end of the period divided by total cost of revenues during the period and multiplied by the number of days during the period.

In utilizing the proceeds we expect to receive from this offering, we may make additional capital contributions to our PRC subsidiaries, establish new PRC subsidiaries and make capital contributions to these new PRC subsidiaries, make loans to our PRC subsidiaries, or acquire offshore entities with operations in China in offshore transactions. However, most of these uses are subject to PRC regulations. See “Risk Factors — Risks Related to Doing Business in China — PRC regulation of loans to and direct investment in PRC entities by offshore holding companies may delay us from using the proceeds of this offering to make loans or additional capital contributions to our PRC subsidiaries, which could materially and adversely affect our liquidity and our ability to fund and expand our business” and “Use of Proceeds.”

Approximately half of our revenue has been, and we expect will likely to continue to be, denominated in Renminbi. Under existing PRC foreign exchange regulations, payments of current account items, including profit distributions, interest payments and trade and service-related foreign exchange transactions, can be made in foreign currencies without prior SAFE approval as long as certain routine procedural requirements are fulfilled. Therefore, our PRC subsidiaries are allowed to pay dividends in foreign currencies to us without prior SAFE approval by following certain routine procedural requirements. However, approval from or registration with competent government authorities is required where the Renminbi is to be converted into foreign currency and remitted out of China to pay capital expenses such as the repayment of loans denominated in foreign currencies. The PRC government may at its discretion restrict access to foreign currencies for current account transactions in the future. If the foreign exchange control system prevents us

from obtaining sufficient foreign currencies to satisfy our foreign currency demands, we may not be able to pay dividends in foreign currencies to our shareholders, including holders of our ADSs.

Operating activities

Net cash used in operating activities in 2020 was RMB352.0 million (US\$54.0 million). The difference between the net loss of RMB107.2 million (US\$16.4 million) and operating cash flow was primarily due to (i) a decrease of RMB143.5 million (US\$22.0 million) in accrued expenses and other current liabilities mainly as a result of settlement of the litigation, (ii) an increase of RMB83.6 million (US\$12.8 million) in inventories as we strategically stocked many electronic components in 2020 to prevent the general shortage facing by other companies over the world, (iii) an increase of RMB39.0 million (US\$6.0 million) in contract assets as a result of increased unbilled sales, partially offset by an increase of RMB36.3 million (US\$5.6 million) in accounts payable as a result of the increase of raw material and component procurement resulting from greater product demands, and depreciation and amortization of RMB22.6 million (US\$3.5 million).

Net cash provided by operating activities in 2019 was RMB46.2 million. The difference between the net loss of RMB120.2 million and operating cash flow was primarily due to an increase of RMB205.6 million in accrued expenses and other current liabilities as a result of provision of litigation settlement costs, partially offset by an increase of RMB32.4 million in inventories as a result of increased demand from customers.

Investing activities

Net cash provided by investing activities in 2020 was RMB179.0 million (US\$27.4 million), which was primarily due to the maturity of short-term investment of RMB2.3 billion (US\$345.9 million), partially offset by the purchases of short-term investment of RMB2.0 billion (US\$306.7 million) and the purchase of property and equipment of RMB66.0 million (US\$10.1 million).

Net cash used in investing activities in 2019 was RMB779.5 million, which was primarily due to the purchases of short-term investment of RMB1.8 billion and the purchase of property and equipment of RMB32.4 million, partially offset by the maturity of short-term investment of RMB1.1 billion.

Financing activities

Net cash provided by financing activities in 2020 was RMB323.4 million (US\$49.6 million), which represent the proceeds from the issuance of ordinary shares.

Net cash provided by financing activities in 2019 was RMB739.7 million, which represent the proceeds from the issuance of redeemable preferred equity.

Capital Expenditures

We incurred capital expenditures of RMB39.6 million and RMB76.6 million (US\$11.7 million) in 2019 and 2020, respectively. Capital expenditures primarily represent electronic equipment, leasehold improvement, machinery and equipment, and sample products. Our current manufacturing facility in Jiading, Shanghai commenced production in August 2018 and has an annual production capacity of 35,000 units. Our annual production capacity is expected to eventually reach up to approximately 1.2 million units. We have incurred RMB5.1 million (US\$0.8 million) as of December 31, 2020 and plan to additionally invest approximately RMB1.2 billion (US\$181.6 million) in purchasing land, building our new manufacturing facilities, and purchasing equipment, hardware and software to increase the production capacity for our LiDAR products. There are, however, risks or other difficulties associated with the expansion of our manufacturing facilities, such as failure to complete the expansion on schedule and within budget. See “Risk Factors — Risks Related to Our Business and Industry — The expansion of our manufacturing facilities may be subject to delays, disruptions, cost overruns, or may not produce expected benefits.” We will continue to make capital expenditures to meet the expected growth of our business. We intend to fund our future capital expenditures with our existing cash balance and proceeds from this offering.

Contractual Obligations

The following table sets forth our contractual obligations as of December 31, 2020:

	Payment due by December 31,					
	Total	2021	2022	2023	2024	After
	(RMB in thousands)					
Operating lease commitments	18,070	18,070	—	—	—	—

In addition, we are obligated to make royalty payments to a third party through 2030.

Except for those disclosed above, we did not have any significant capital or other commitments, long-term obligations, or guarantees as of December 31, 2020.

Off-Balance Sheet Commitments and Arrangements

We have not entered into any financial guarantees or other commitments to guarantee the payment obligations of any unconsolidated third parties. In addition, we have not entered into any derivative contracts that are indexed to our shares and classified as shareholders' equity or that are not reflected in our consolidated financial statements. Furthermore, we do not have any retained or contingent interest in assets transferred to an unconsolidated entity that serves as credit, liquidity or market risk support to such entity. Moreover, we do not have any variable interest in any unconsolidated entity that provides financing, liquidity, market risk or credit support to us or engages in leasing, hedging or product development services with us.

Critical Accounting Policies

An accounting policy is considered critical if it requires an accounting estimate to be made based on assumptions about matters that are highly uncertain at the time such estimate is made, and if different accounting estimates that reasonably could have been used, or changes in the accounting estimates that are reasonably likely to occur periodically, could materially impact the consolidated financial statements.

We prepare our financial statements in conformity with U.S. GAAP, which requires us to make judgments, estimates and assumptions. We continually evaluate these estimates and assumptions based on the most recently available information, our own historical experience and various other assumptions that we believe to be reasonable under the circumstances. Since the use of estimates is an integral component of the financial reporting process, actual results could differ from our expectations as a result of changes in our estimates. Some of our accounting policies require a higher degree of judgment than others in their application and require us to make significant accounting estimates.

The following descriptions of critical accounting policies, judgments and estimates should be read in conjunction with our consolidated financial statements and accompanying notes and other disclosures included in this prospectus. When reviewing our financial statements, you should consider (i) our selection of critical accounting policies, (ii) the judgments and other uncertainties affecting the application of such policies and (iii) the sensitivity of reported results to changes in conditions and assumptions.

Revenue recognition

Our revenue mainly derives from sales of LiDAR products and gas detection products. We apply the ASU 2014-09 *Revenue from Contracts with Customers — Topic 606* for our revenue recognition for all periods presented.

We recognize revenue at a point in time when controls of the products are transferred to customers, and generally occur upon delivery according to the terms of the underlying contracts. Product sales to certain customers may require customer acceptance due to performance acceptance criteria that is considered more than a formality. For these product sales, revenue is recognized upon the expiration of the customer acceptance period. Our standalone selling prices are based on the prices charged to customers for the single performance obligation which is transfer of control of products upon delivery to the customers or upon expiration of the customer acceptance period. Our general terms and conditions for our contracts do not

contain a right of return that allows the customer to return products and receive a credit. Therefore we do not estimate returns. Amounts billed to customers for shipping and handling are included in revenue. Taxes collected from customers and remitted to governmental authorities are excluded from revenue on the net basis of accounting. Accounts receivable are due under normal trade terms, typically within 30 to 90 days.

We typically provide one-year standard product warranties on our products. Standard warranties are considered to be assurance type warranties and are not accounted for as separate performance obligations. We accrue estimated future warranty costs and charge to cost of revenues in the period that the related revenue is recognized. These estimates are based on historical warranty experience and any known or expected changes in warranty exposure, such as trends of product reliability and costs of repairing and replacing defective products.

A contract asset is recorded when we have transferred products to the customer before payment is received or is due, and our right to consideration is conditional on future performance or other factors in the contract. We record contract asset for unbilled receivables for certain customers where the control of the goods has been transferred. A contract liability exists when we have received consideration but have not transferred the related goods or services to the customer. Our contract liabilities mainly consist of payments received from customers before they received the products.

Business combination

In March 2019, in order to expand into the gas detection market in the United States, we acquired 100% equity interests of Oxigraf, Inc. (“Oxigraf”), which is a manufacturer of laser absorption spectroscopy sensors for oxygen gas measurement and analysis located in the United States, for aggregate cash consideration of US\$2.0 million, equivalent to RMB13.5 million.

We determined the fair value of identifiable assets and liabilities resulting from the acquisition with the assistance from a third-party valuation specialist.

The identifiable assets acquired are required to be recognized and measured at fair value as of the acquisition date. An intangible asset is identified if it meets either the separability criterion or the contractual-legal criteria in accordance with ASC 805, Business Combination. The assembled workforce did not meet the separation criteria or the contractual-legal criteria, and, therefore are not identifiable and not recognized apart from goodwill. Acquired identifiable intangible assets include identifiable technology and sales backlog. The technology is amortized over estimated useful life of five years, and the sales backlog was completed in 2019.

Goodwill is recognized as a result of expected synergies from combining operations of Oxigraf, and ours as well as other intangible assets that do not qualify for separate recognition. Goodwill is not amortized and is not deductible for tax purposes. The acquisition cost incurred and expensed for the business combination was immaterial.

Goodwill

Goodwill represents the excess of the purchase price over the fair value of assets and liabilities acquired in a business combination in connection with acquisition of 100% equity interests of Oxigraf, Inc., with consideration denominated in U.S. dollars, in 2019. Goodwill is tested for impairment annually or more frequently if events or changes in circumstances indicate that it might be impaired. We elected to early adopt ASU No. 2017-14, simplifying the Test for Goodwill Impairment on January 1, 2019. Under this guidance, we have the option to choose whether to apply the qualitative assessment first and then the quantitative assessment, if necessary, or to apply the quantitative assessment directly. If we choose to apply a qualitative assessment first, we start the goodwill impairment test by assessing qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If we determine that it is more likely not the fair value of a reporting unit is less than its carrying amount, the quantitative impairment test is mandatory. Otherwise, no further testing is required. The quantitative impairment test consists of comparison of the fair value of a reporting unit to its carrying amount.

Application of a goodwill impairment test requires significant management judgments, including the identification of reporting units, assigning assets and liabilities to reporting units, assigning goodwill to

reporting units, and determining the fair value of each reporting unit. The judgment in estimating the fair value of reporting units includes estimating future cash flows, determining appropriate discount rates and making other assumptions. Changes in these estimates and assumptions could materially affect the determination of fair value for each reporting unit.

We recorded nil in goodwill impairment for the years ended December 31, 2019 and 2020.

Share-based compensation

We grant share options to eligible employees and accounts for these share-based awards in accordance with ASC 718 Compensation-Stock Compensation.

Share-based awards that are subject to both the service period and the occurrence of a qualified initial public offering (“Qualified IPO”) as performance condition are measured at the grant date fair value and share-based compensation expenses are recognized for the cumulatively vested amount upon the completion of the Qualified IPO first and then over the remaining requisite service period, net of actual forfeitures, if any.

The fair value of the share options granted to employees is determined with the assistance of an independent third-party valuation firm. The binomial option pricing model was applied in determining the estimated fair value of the options granted to employees.

The accounting for the modification of a share-based compensation’s requisite service period is based on whether the modified requisite service period is shorter or longer than the original requisite service period. If we modify the requisite service period of a share-based payment award and the modified award’s requisite service period is shorter than the original award’s requisite service period, we recognize compensation cost over the remaining portion of the modified award’s requisite service period.

Fair value of options

We account for share options granted to employees and directors as an equity award in accordance with ASC 718, Stock Compensation.

The fair value of each option that is subject to valuation during the years ended December 31, 2019 and 2020 was estimated using the binomial option pricing model with the assumptions (or ranges thereof) in the following table:

	For the Year Ended December 31, 2019
Expected volatility	51.00% – 53.00%
Risk-free interest rate (per annum)	2.73% – 2.94%
Expected dividend yield	0.00%
Employee forfeiture rate (per annum)	3.80%
Exercise multiples	2.50
Contractual life	3.00
Fair value of underlying ordinary share	RMB5.41 – 6.71
Fair value of option to subscribe 1 underlying ordinary share	RMB4.88 – 5.95
	For the Year Ended December 31, 2020
Expected volatility	49.00% – 52.00%
Risk-free interest rate (per annum)	2.70% – 2.88%
Expected dividend yield	0.00%
Employee forfeiture rate (per annum)	3.80%
Exercise multiples	2.50
Contractual life	1.93 – 3.93
Fair value per ordinary share	RMB20.33
Fair value of option to subscribe 1 ordinary share	RMB17.16 – 17.41

We estimate volatility based on annualized standard deviation of daily stock price return of comparable companies for the period before valuation date and with similar span as time to expiration. We estimated the risk-free interest rate based on the yield curve of China sovereign bond as at each valuation date. The dividend yield was estimated as zero based on the plan to retain profit for corporate expansion and no dividend will be distributed in the near future. Employee forfeiture rate was estimated by the management using employee resignation statistics. Assumption on exercise multiple is made with reference to academic research. Vesting beginning date is assumed to be the initial public offering date. We determined the fair value of ordinary share based on estimated equity value and allocation of it to each element of its capital structure. The assumptions used in share-based compensation expenses recognition represent our best estimates, but these estimates involve inherent uncertainties and the application of judgment. If factors change or different assumptions are used, the share-based compensation expenses could be materially different for any period.

Fair value of ordinary shares

Prior to this offering, we have been a private company with no quoted market prices for our ordinary shares. We therefore needed to make estimates of the fair value of our ordinary shares at various dates for the purpose of determining the fair value of our ordinary shares at the date of the grant of share-based compensation award to our employees as one of the inputs. Valuations of our ordinary shares were determined in accordance with the guidelines outlined in the American Institute of Certified Public Accountants' Practice Aid, Valuation of Privately Held Company Equity Securities Issued as Compensation, and with the assistance of an independent valuation firm from time to time. The assumptions we use in the valuation model are based on future expectations combined with management judgment, with inputs of numerous objective and subjective factors, to determine the fair value of our ordinary shares, including the following factors:

- conditions in the industry and economy in general;
- stage of development;
- the prices, rights, preferences and privileges of our redeemable preferred shares relative to our ordinary shares;
- the likelihood of occurrence of a liquidity event and redemption event;
- the results of independent third party valuations.

For our valuations performed prior to August 2020, we used the Back-solve method to estimate the fair value of our ordinary shares. The Back-solve method for inferring the equity value implied by a recent financing transaction involves making assumptions for the expected time to liquidity, volatility and risk-free rate and then solving for the value of equity such that value for the most recent financing equals the amount paid by the investor. After August, 2020, the fair value of ordinary shares was determined by valuation at which the latest round of financing was transacted. The determination of the fair value of our ordinary shares requires complex and subjective judgments to be made, which will not be necessary once these ordinary shares begin trading.

Redeemable preferred equity

We classify the redeemable preferred equity as mezzanine equity as this preferred equity is redeemable upon the occurrence of an event not solely within the our control.

We recognize changes in the redemption value immediately as they occur and adjust the carrying amount of the preferred equity to equal the redemption value at the end of each reporting period as if it were the redemption date for the redeemable preferred equity. The change in redemption value is recorded against retained earnings, or in the absence of retained earnings, by charging against additional paid-in capital. Once additional paid-in capital has been exhausted, additional charges are recorded by increasing the accumulated deficit.

On August 1, 2020, in conjunction with our conversion into a joint stock company under PRC law, and changed name to Hesai Technology Co., Ltd., all then shareholders agreed to convert all the outstanding

redeemable preferred equity into ordinary shares of us at no consideration, all in the same proportion as the percentage of equity interest they held in us.

Holding Company Structure

Hesai Group is a holding company with no material operations of its own. We conduct our operations primarily through our PRC subsidiaries. As a result, Hesai Group's ability to pay dividends depends upon dividends paid by our PRC subsidiaries. If our existing PRC subsidiaries, or any newly formed ones, incur debt on their own behalf in the future, the instruments governing their debt may restrict their ability to pay dividends to us. In addition, our wholly foreign-owned subsidiaries in China are permitted to pay dividends to us only out of their retained earnings, if any, as determined in accordance with PRC accounting standards and regulations. Under PRC law, each of our subsidiaries in China is required to set aside at least 10% of its after-tax profits each year, if any, to fund certain statutory reserve funds until such reserve funds reach 50% of their registered capital. In addition, our wholly foreign-owned subsidiaries in China may allocate a portion of their after-tax profits, based on PRC accounting standards, to enterprise expansion funds and staff bonus and welfare funds at their discretion. The statutory reserve funds and the discretionary funds are not distributable as cash dividends. Remittance of dividends by a wholly foreign-owned company out of China is subject to examination by the banks designated by SAFE. Our PRC subsidiaries have not paid dividends and will not be able to pay dividends until they generate accumulated profits and meet the requirements for statutory reserve funds.

Inflation

To date, inflation in China has not materially affected our results of operations. According to the National Bureau of Statistics of China, the year-over-year percent changes in the consumer price index for 2019 and 2020 were increases of 2.9% and 2.5%, respectively. Although we have not been materially affected by inflation in the past, we may be affected if China experiences higher rates of inflation in the future.

Quantitative and Qualitative Disclosures about Market Risk

Foreign exchange risk

The revenue and expenses of our entities in the PRC are generally denominated in Renminbi and their assets and liabilities are denominated in Renminbi. Our international revenues are denominated in foreign currencies and expose us to the risk of fluctuations in foreign currency exchange rates against the Renminbi. A significant portion of our cash and cash equivalents and short-term investments are denominated in U.S. dollars, and fluctuations in exchange rates between U.S. dollars and Renminbi may result in foreign exchange gains or losses. We have not used any derivative financial instruments to hedge exposure to such risk. In addition, the value of your investment in our ADSs will be affected by the exchange rate between the U.S. dollar and Renminbi because the value of our business is effectively denominated in Renminbi, while our ADSs will be traded in U.S. dollars.

Renminbi is not freely convertible into foreign currencies. Remittances of foreign currencies into the PRC or remittances of Renminbi out of the PRC, as well as exchange between Renminbi and foreign currencies, require approval by foreign exchange administrative authorities with certain supporting documentation. The State Administration for Foreign Exchange, under the authority of the People's Bank of China, controls the conversion of Renminbi into other currencies.

To the extent that we need to convert U.S. dollars into Renminbi for our operations, appreciation of the Renminbi against the U.S. dollar would have an adverse effect on the Renminbi amount we receive from the conversion. Conversely, if we decide to convert Renminbi into U.S. dollars for the purpose of making payments for dividends on our ordinary shares or ADSs or for other business purposes, appreciation of the U.S. dollars against the Renminbi would have a negative effect on the U.S. dollar amounts available to us.

As of December 31, 2020, we had Renminbi-denominated cash and cash equivalents of RMB145.3 million. A 10% depreciation of Renminbi against the U.S. dollar based on the foreign exchange rate on December 31, 2020 would result in a decrease of US\$2.2 million in cash and cash equivalents. A 10% appreciation of Renminbi

against the U.S. dollar based on the foreign exchange rate on December 31, 2020 would result in an increase of US\$2.2 million in cash and cash equivalents.

Interest rate risk

Our exposure to interest rate risk primarily relates to the interest income generated by excess cash, which is mostly held in interest-bearing bank deposits. Interest-earning instruments carry a degree of interest rate risk. We have not been exposed to material risks due to changes in market interest rates, and we have not used any derivative financial instruments to manage our interest risk exposure.

After completion of this offering, we may invest the net proceeds that we receive from this offering in interest-earning instruments. Investments in both fixed-rate and floating rate interest-earning instruments carry a degree of interest rate risk. Fixed-rate securities may have their fair market value adversely impacted due to a rise in interest rates, while floating-rate securities may produce less income than expected if interest rates fall.

Recently Issued Accounting Pronouncements

A list of recently issued accounting pronouncements that are relevant to us is included in note 2 of our audited consolidated financial statements included elsewhere in this prospectus.

Internal Control Over Financial Reporting

Prior to this offering, we have been a private company with limited accounting personnel and other resources with which to address our internal control over financial reporting. In connection with the audits of our consolidated financial statements included in this prospectus, we and our independent registered public accounting firm identified one material weakness in our internal control over financial reporting. As defined in the standards established by the U.S. Public Company Accounting Oversight Board, a “material weakness” is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis.

The material weakness that has been identified relates to lack of sufficient skilled staff with U.S. GAAP knowledge for the purpose of financial reporting, to ensure proper financial reporting to comply with U.S. GAAP and SEC requirements. Neither we nor our independent registered public accounting firm undertook a comprehensive assessment of our internal control for purposes of identifying and reporting material weaknesses and other deficiencies in our internal control over financial reporting. Had we performed a formal assessment of our internal control over financial reporting or had our independent registered public accounting firm performed an audit of our internal control over financial reporting, additional deficiencies may have been identified.

We have implemented and plan to implement a number of measures to address the material weaknesses that have been identified in connection with the audit of our consolidated financial statements as of and for the years ended December 31, 2020. We have taken measures and plan to continue to take measures to remediate these deficiencies. We have hired a chief financial officer with extensive U.S. capital markets experience. We plan to hire more accounting personnel with appropriate experience in U.S. GAAP, financial reporting and internal control, and provide annual training for accounting personnel regarding U.S. GAAP and SEC financial reporting requirements. However, we cannot assure you that all these measures will be sufficient to remediate our material weakness in time, or at all. See “Risk Factors — Risks Related to Our Business and Industry — We have identified one material weakness in our internal controls. If we are unable to develop and maintain an effective system of internal control over financial reporting, we may not be able to accurately report our financial results in a timely manner, which may adversely affect investor confidence in us and materially and adversely affect our business and operating results.”

As a company with less than US\$1.07 billion in revenue for fiscal year of 2020, we qualify as an “emerging growth company” pursuant to the JOBS Act. An emerging growth company may take advantage of specified reduced reporting and other requirements that are otherwise applicable generally to public companies. These provisions include exemption from the auditor attestation requirement under Section 404 of the Sarbanes-Oxley Act of 2002 in the assessment of the emerging growth company’s internal control over financial reporting.

INDUSTRY

The following summary is qualified in its entirety by, and should be read in conjunction with, the more detailed information and financial statements appearing elsewhere in this prospectus. In addition to this summary, we urge you to read the entire prospectus carefully, especially the risks of investing in our ADSs discussed under “Risk Factors,” before deciding whether to invest in our ADSs. The information presented in this section has been derived from an industry report commissioned by us and prepared by Frost & Sullivan, an independent research firm, to provide information regarding our industry and our market position in China and globally. We refer to this report as the “Frost & Sullivan Report.”

Industry Background

The Autonomous Revolution

Automated solutions are increasingly adopted to assist and substitute manual labor in many situations. In particular, the mobility industry is undergoing profound changes as a result of advancements in artificial intelligence, or AI, the availability of hardware options with high performance at low-cost, and the development of electric vehicles. Dozens of companies globally are developing fully autonomous driving technology to enable vehicles to drive on their own, and automobiles are becoming smarter as automotive companies gradually work on advanced driver-assistance systems, or ADAS. In the meantime, the logistics and industrial industries are embracing more automation, such as automated guided vehicles on factory floors and autonomous vehicles for delivery.

Autonomous driving and ADAS are promising as they:

- *Enhance safety.* According to the World Health Organization, over 1.3 million people are killed in motor vehicle crashes globally each year, or one death per 2.5 minutes. Approximately 90% of the crashes are related to human error. Higher levels of autonomy may potentially save lives and reduce injuries.
- *Increase productivity.* An average person spends approximately 38 minutes on daily commuting, according to the Frost & Sullivan Report. With autonomous driving vehicles, occupants can safely pursue other activities while commuting.
- *Increase efficiency.* The freight and delivery sector has fulfilled over 103 billion deliveries in 2020, of which less than 1 million were fulfilled through trial robot operation, according to the Frost & Sullivan Report. Automated transportation in freight and delivery is expected to reduce operating costs significantly and allows scarce human resources to be redeployed in other areas.

LiDAR as a Key to Enable Autonomy

The core of autonomous driving includes three major components: perception, planning, and control. In particular, perception refers to the ability to detect, identify and classify objects on the road, develop a contextual understanding of the environment, and determine the vehicle’s position with respect to the environment. Planning refers to the process of using the data generated by perception to generate the sequence of steps for the vehicle to follow in order to reach the destination. Control refers to the execution of the planned actions. Perception is exceptionally important as it is the foundation of planning, and control can only be made possible with precise and accurate perception data.

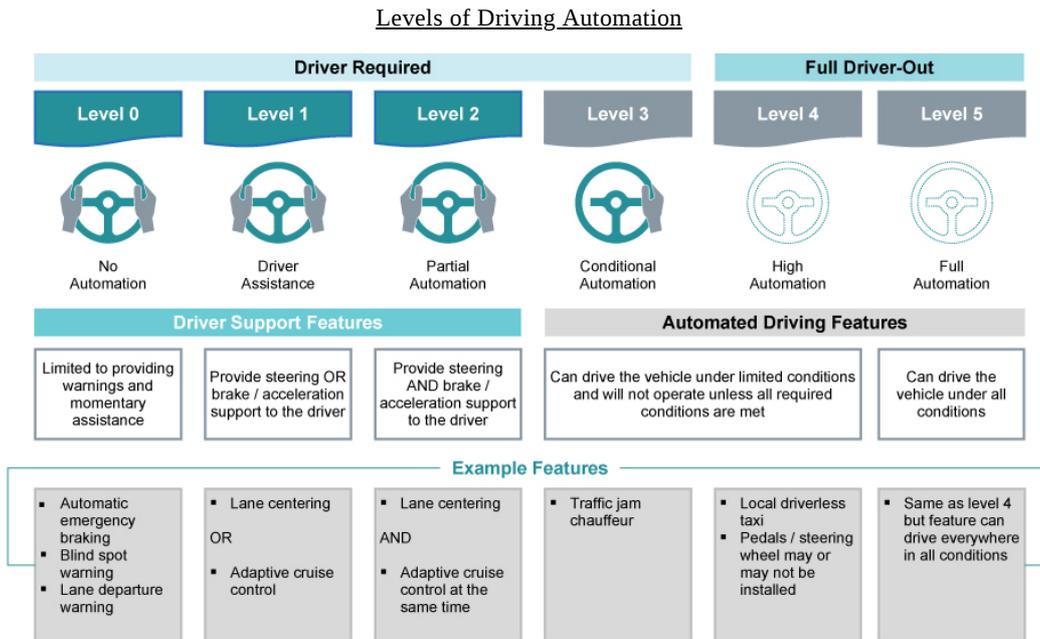
Perception data is collected by a variety of sensing devices, including radar, ultrasonic sensors, and cameras, as well as LiDAR. Traditional perception solutions, such as radar, ultrasonic sensors, and cameras, have inherent drawbacks, which make them insufficient to achieve the level of perception required by autonomous driving. As an emerging technology, LiDAR enhances the accuracy and resolution of the perception results and is an answer to the drawbacks of other sensor devices.

- *Radar and ultrasonic sensors* are relatively inexpensive and perform well in most weather conditions, but the resolution is not high enough for autonomous driving applications. Ultrasonic sensors also lack the required range for long distance detection.

- *Cameras* serve an inexpensive alternative to achieving higher resolution, but lack depth perception and do not perform well in the dark or in extreme weather conditions.
- *LiDARs* generate accurate data with resolution much higher than radar and ultrasonic sensors. In contrast to cameras that can only infer depth information through deep learning algorithms, LiDARs enable direct moment of distance and real-time reconstruction of the surrounding environment, offering a much more reliable means of object recognition and classification.

Rapid Development of Autonomous Driving Technology

The Society of Automotive Engineers (SAE) International, a global association of more than 128,000 engineers and technical experts for the mobility industry, divides driving automation into six levels based on the level of human intervention and the extent of driving assistance features, as illustrated in the picture below.



Source: *The Frost & Sullivan Report.*

There are broadly two different approaches in the development of autonomous driving. A number of emerging mobility and technology players, such as Waymo and Baidu, entered into the market with the goal of developing fully autonomous vehicles that are capable of performing driving functions without any human driver intervention. They develop vehicles with Level 4 capabilities from the start, and aim to expand the scenarios where their vehicles can be deployed.

On the other hand, traditional OEMs and emerging smart electric vehicle players choose to initially develop and commercialize ADAS with a lower level of autonomy. For example, they focus primarily on safety alerts, such as parking sensors, surrounding view, lane departure warning, blind spot detection, rear-cross traffic alert, forward-collision warning, among others. Over the years, ADAS has evolved and improved, and gradually includes features such as adaptive cruise control, emergency brake assist, automatic emergency brake assist, lane-keeping, and lane centering. As the technologies in ADAS continue to advance, it is expected that higher level of autonomy (*i.e.*, Level 3 or above) will be increasingly adopted in new vehicle models.

LiDAR is critical across many levels of autonomous driving, especially Level 3 and above, where LiDAR is an indispensable component of the perception hardware stack, which provides the required detection range and centimeter-level precision for object recognition. For lower autonomy levels below

Level 3, LiDAR can improve vehicle's environmental perception capabilities significantly to enhance the ADAS performance and features. In addition, according to the Frost & Sullivan Report, LiDAR cost for the Autonomous Mobility industry is expected to decrease by approximately 24% annually between 2020 and 2030, and the LiDAR unit cost for the Autonomous Mobility industry in 2030 is expected to be approximately one fifteenth of that in 2020. The trend of reducing LiDAR cost in general is expected to drive the adoption of LiDAR in the ADAS industry.

The Advantages of ASIC-based LiDAR

LiDAR companies take different approaches in their solutions, and the architecture of LiDARs differentiates their products from one another, leading to differences in size, form, performance, and cost. LiDARs using the legacy approach require assembling hundreds of discrete parts, which are complex in design and production with inconsistency and poor reliability in the end products. Any enhancement in performance inevitably increases the number of components in the system, which in turn increases the mechanical complexity and costs. An increasing number of LiDAR companies are taking the ASIC-based architecture as an alternative to the architecture based on discrete components. Therefore, developing an integrated architecture based on application specific integrated circuits, or ASICs is imperative for the LiDAR industry.

LiDARs based on ASICs generally have several key advantages: (i) maximized performance since ASICs allow for application customization, reduced power consumption, and optimized signal processing tuning; (ii) enhanced quality as the high level of integration of components and simplified manufacturing process of ASICs can improve consistency; and (iii) optimized cost as ASICs replace hundreds of discrete off-the-shelf components for manufacturing efficiency and leverage the semiconductor supply chain to enhance price-to-performance.

Key Factors of Superior LiDAR Solutions

LiDAR design includes analog versus semiconductor architecture, number of channels, beam steering system, distance measurement method, wavelength, types of emitters and receivers, among others. Depending on the application and customer needs, LiDAR companies offer a combination of specifications to meet varying requirements. There is no one-size-fits-all solution, with the typical optimal solution for each case possessing a combination of the following characteristics:

- ***Performance.*** The requirements of performance vary across different applications. The Autonomous Mobility industry generally has the highest performance requirements in terms of detection range, distance accuracy and precision, reflectivity accuracy, and interference rejection, among others. In addition, higher power consumption increases the packaging and form factor of LiDAR, which may be a concern for passenger vehicles. The performance of a LiDAR unit depends not only on the functionality of each component, but also the overall architecture. For instance, long detection range can be achieved either by laser with higher power, or by a more sensitive receiver, yet the latter approach is generally more practical, costly effective, and power efficient.
- ***Quality.*** Automotive-grade quality is a key factor for LiDAR to be adopted in series production programs. Specifically, a LiDAR unit should be able to consistently perform under all circumstances over time, including robustness under extreme operating temperatures, different levels of humidity, waterproof levels, and mechanical shocks and stresses. In addition, the maturity of the technology, sustainability of the supply chain, manufacturability, and product consistency, as well as volume of actual deliveries are all important criteria to evaluating the quality of LiDAR. Ultimately, the track record of a particular LiDAR architecture being adopted by leading Autonomous Mobility companies or major ADAS programs is an important validation of its performance and quality. The feedback received from millions of actual mileages facilitated by LiDAR enables the LiDAR providers to continue to refine their technology and solutions.
- ***Cost.*** The LiDAR production should be scalable for volume manufacturing, with the potential for future cost reduction. There should also be an established supply chain for the core components of LiDAR to achieve economies of scale. For example, the receiver components for 905nm LiDAR are silicon-based, which has a more mature supply chain and are well proven in consumer electronics,

bringing a significant cost advantage over the more costly 1,550nm components. Customers' sensitivity to cost varies across applications. The ADAS market generally has the highest cost sensitivity compared to the Autonomous Mobility and Robotics industries, given that the cost of the ADAS directly impacts the selling price of the passenger vehicles, whose end-customers are generally more cost-conscious consumers.

Our Market Opportunities

We define our total addressable market, or TAM, as perception applications in the Autonomous Mobility, ADAS and Robotics markets. Our TAM in terms of revenue is estimated to be US\$12.9 billion in 2025, which is expected to further increase to US\$104.4 billion in 2030, according to the Frost & Sullivan Report.

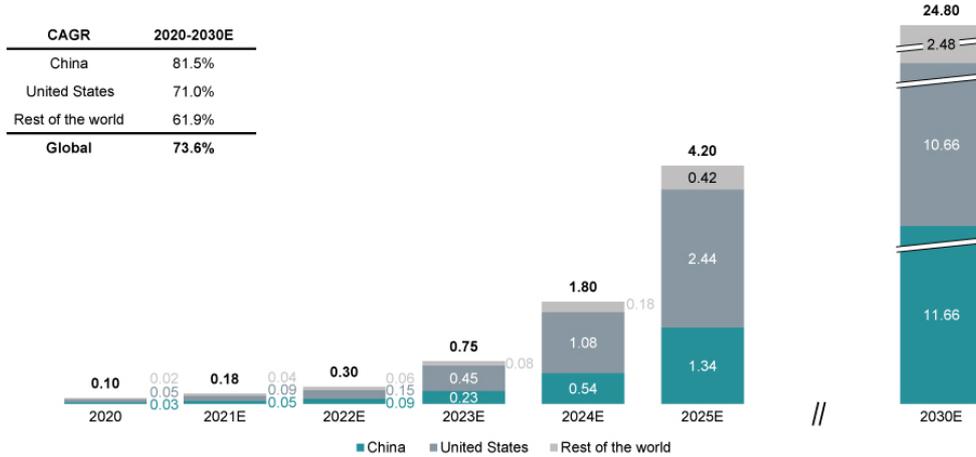
Autonomous Mobility

We define our TAM in the Autonomous Mobility industry as vehicles with levels of automation above Level 3, which include robotaxis and robotrucks.

- Robotaxis represent one of the largest monetization opportunities for autonomous driving, with the United States and China leading the market in terms of accumulated test mileage, according to the Frost & Sullivan Report. While we have not achieved fully commercialized robotaxis, and expect related technologies to continue to evolve and applicable regulations to be introduced, the market has demonstrated significant growth potential. In the United States, leading robotaxi companies, such as Cruise and Waymo, have completed millions of kilometers of autonomous vehicle testing, and have launched or plan to launch autonomous ride hailing services within and outside the United States. In China, the development of robotaxis has been progressing rapidly recently, thanks to technological advancement and favorable policies.
- Robotrucks represent a unique and fast-growing opportunity. Robotrucks generally follow fixed routes and spend most of the time on highways, which make them more manageable and easier to navigate, compared to vehicles driving on urban streets. Robotrucks significantly reduce operating costs by reducing or eliminating driver costs and increasing truck utilization, creating huge potential of commercialization. Leading robotruck companies, including TuSimple and Plus, have made significant progress in pilot testing in the United States and China, and are developing partnerships to accelerate commercialization.

According to the Frost & Sullivan Report, the number of Autonomous Mobility vehicles globally is expected to reach 6.2 million by 2030, representing a market opportunity of 24.8 million LiDAR units and TAM of US\$24.8 billion. China is expected to be the largest Autonomous Mobility application market with an expected TAM of US\$11.7 billion, or 47.0% of the global market, by 2030.

**Global TAM of LiDAR in the Autonomous Mobility Market by Revenue
Breakdown by Regions, 2020-2030E (US\$ in billions)**



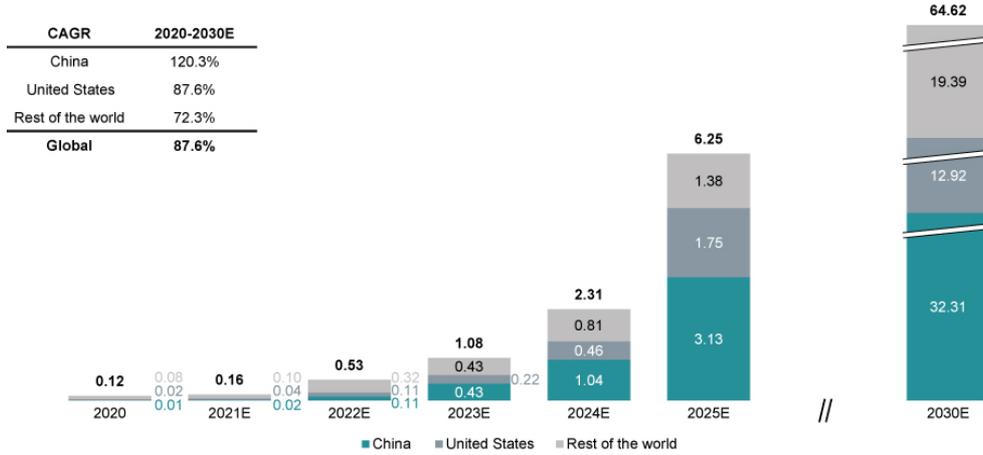
Source: The Frost & Sullivan Report.

ADAS

The ADAS market is represented by a significant number of passenger vehicles globally. Recently, with the rise of smart electric vehicles, particularly in China, the capability and quality of driving assistance provided by ADAS has increased substantially and is becoming a key differentiating factor for OEMs. As LiDAR is capable to significantly enhance the ADAS features and safety, a growing number of OEMs have announced the adoption of LiDAR in their products. Several leading smart electric vehicle companies in China, including Li Auto, NIO, and Xpeng, have all announced their next vehicles will be equipped with LiDARs. With LiDARs, these companies intend to provide a new level of ADAS experience that was previously not available due to insufficient sensor data.

As LiDAR cost continues to go down, ADAS supporting Level 3 autonomy is expected to be more widely adopted in premium-priced and mass market vehicles. It is also expected that ADAS of lower autonomy level below Level 3 will be increasingly equipped with LiDAR to improve the reliability and performance of the ADAS system. According to the Frost & Sullivan Report, 53% of the approximately 110 million vehicles in 2030, or 58 million vehicles, are expected to have certain level of ADAS features and 80% of which are expected to be equipped with LiDAR in 2030, representing market opportunities of 184.6 million LiDAR units and TAM of US\$64.6 billion. China is expected to be the largest ADAS market with TAM of US\$32.3 billion, or 50.0% of global TAM, by 2030, more than doubling that of the United States.

Global TAM of LiDAR in the ADAS Market by Revenue
Breakdown by Regions, 2020-2030E (US\$ in billions)

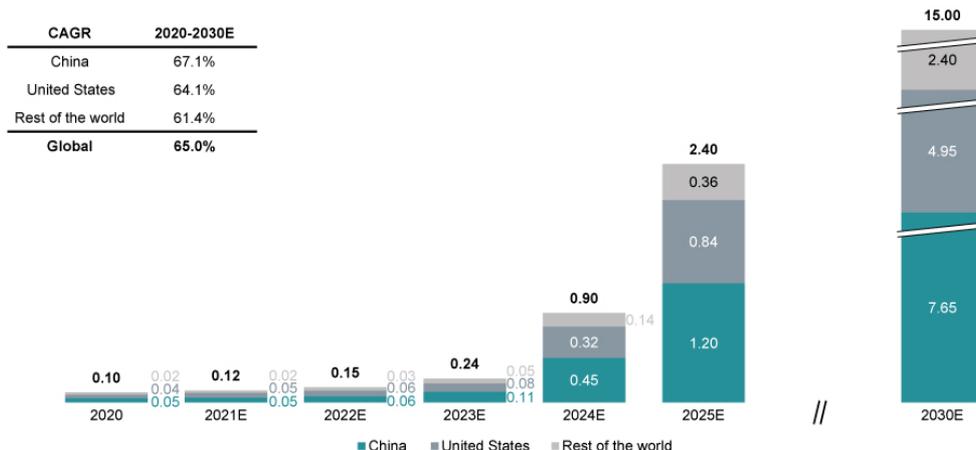


Source: The Frost & Sullivan Report.

Robotics

We define robotic devices as fully unmanned machines, which include last-mile delivery robot, street sweeping robot, and logistics robot in restricted areas. With the changing lifestyle globally, delivery service, especially last-mile delivery, provides a convenient and safe experience with abundant choices and optimization of speed. According to the Frost & Sullivan Report, the number of deliveries performed globally has reached 103 billion in 2020. In addition, according to the Frost & Sullivan Report, the number of robotic devices globally is forecasted to reach 10.0 million units by 2030, representing a market of over 30.0 million LiDAR units and TAM of US\$15.0 billion.

Global TAM of LiDAR in the Robotics Market by Revenue
Breakdown by Regions, 2020-2030E (US\$ in billions)



Source: The Frost & Sullivan Report.

Competitive Landscape

As autonomous applications are moving from testing phase to real-world adoption, the requirements of LiDAR products continue to evolve. Other than high performance, which is generally the focus at the pilot stage, LiDAR customers at the commercialization stage also require that LiDARs are reliable and can be sourced in large scale at low cost. The ability to meet these requirements on a consistent basis depends on the LiDAR architecture, the technological approach, and the track record in real-world applications.

Hesai has adopted an ASIC-based approach, featuring in-house ASICs to integrate a large number of channels, and a simple and robust beam steering system. Hesai’s LiDAR products, for example, the AT series,

have outperformed other competitors in terms of performance, quality, and cost, creating a unique value proposition for its customers across the Autonomous Mobility, ADAS, and Robotics sectors.

Below is a comparison among different LiDAR approaches:

	Legacy Approach	Minimum Channel Approach	Line-flash ASIC Approach	Hesai's Approach (AT series as an example)
LiDAR architecture	<ul style="list-style-type: none"> Discrete architecture — large number of channels using discrete components 	<ul style="list-style-type: none"> Integrated architecture — small number of channels High speed mechanical or MEMS beam scanning system 	<ul style="list-style-type: none"> ASIC-based Integrated architecture — large number of channels integrated at a single circuit board Firing all lasers at the same time to form a line flash in vertical direction Using a low-speed scanner in horizontal direction 	<ul style="list-style-type: none"> ASIC-based Integrated architecture — large number of channels integrated at a single circuit board Firing lasers at each channel sequentially to form a solid-state electronic scanning in vertical direction Using a low-speed scanning mirror horizontal direction
Performance	<ul style="list-style-type: none"> Difficult to enhance performance given complexity increases exponentially 	<ul style="list-style-type: none"> Limited range performance for MEMS due to small apertures Limited field of view unless using multiple TX/RX systems 	<ul style="list-style-type: none"> Low performance in range and point cloud quality since power at each channel is limited High power consumption Severe channel crosstalk 	<ul style="list-style-type: none"> High performance in range and point cloud quality Low power consumption
Quality	<ul style="list-style-type: none"> Low product consistency due to large number of discrete components 	<ul style="list-style-type: none"> Concerns on reliability as the high-speed mechanical beam steering system has not been automotive grade proven 	<ul style="list-style-type: none"> High product consistency as components are integrated on a single circuit board Automotive grade proven scanning system 	<ul style="list-style-type: none"> High product consistency as components are integrated on a single circuit board Automotive grade proven scanning system
Cost	<ul style="list-style-type: none"> Complex manufacturing process High cost 	<ul style="list-style-type: none"> Multiple TX/RX systems increase manufacturing complexity and cost 	<ul style="list-style-type: none"> Low manufacturing complexity Low-cost silicon-based components 	<ul style="list-style-type: none"> Low manufacturing complexity Low-cost silicon-based components

Source: *The Frost & Sullivan Report.*

Regulatory Environment of the Autonomous Mobility Market

The regulatory framework for the Autonomous Mobility market varies across different countries and cities. Over the past several years, governments around the globe, especially in the United States and China, have been providing strong policy support to facilitate the development of autonomous vehicles. We believe the current regulatory framework has exhibited a clear path for autonomous vehicles to be deployed at large scale globally.

- *United States.* As early as 2013, California started to enact laws to govern the testing and deployment of autonomous vehicles. Since then, California has been the hub for autonomous vehicle testing. In 2020, California regulators approved programs in the state that would allow companies to charge fares for autonomous vehicle rides, paving the way for the commercialization of autonomous driving technology. Other than robotaxi, the development of regulatory framework for robotruck is also progressing, with 43 states in the United States currently allowing autonomous semi-truck testing, of which 24 states allow autonomous semi-truck commercial deployment.
- *China.* The Chinese government has been supporting the Autonomous Mobility sector since 2018, when Beijing, Shanghai, Guangzhou, and Shenzhen became the first group of Chinese cities to grant permits for robotaxi on open roads. Currently, 26 Chinese cities and provinces, including Shanghai, Beijing, Guangzhou, Shenzhen Chongqing, Wuhan, Hangzhou, Zhengzhou, Yinchuan, Changchun, Changsha, Tianjin, Jinan, Zhaoqing, Deqing, Wuhu, Anqing, Suzhou, Baoding, Cangzhou, Xiong'an, Xi'an, Hefei, Pingtan, Yangquan, and Xiamen, have published detailed rules for road tests of autonomous vehicles. In 2020, the Chinese government issued a blueprint for the development of intelligent vehicles over the next 30 years, including the nearer-term goal to have conditional autonomous vehicles (*i.e.*, Level 3) in large-scale production, and higher-level autonomous vehicles (*i.e.*, Level 4 or above) commercialized for specified environments by 2025.

BUSINESS

Overview

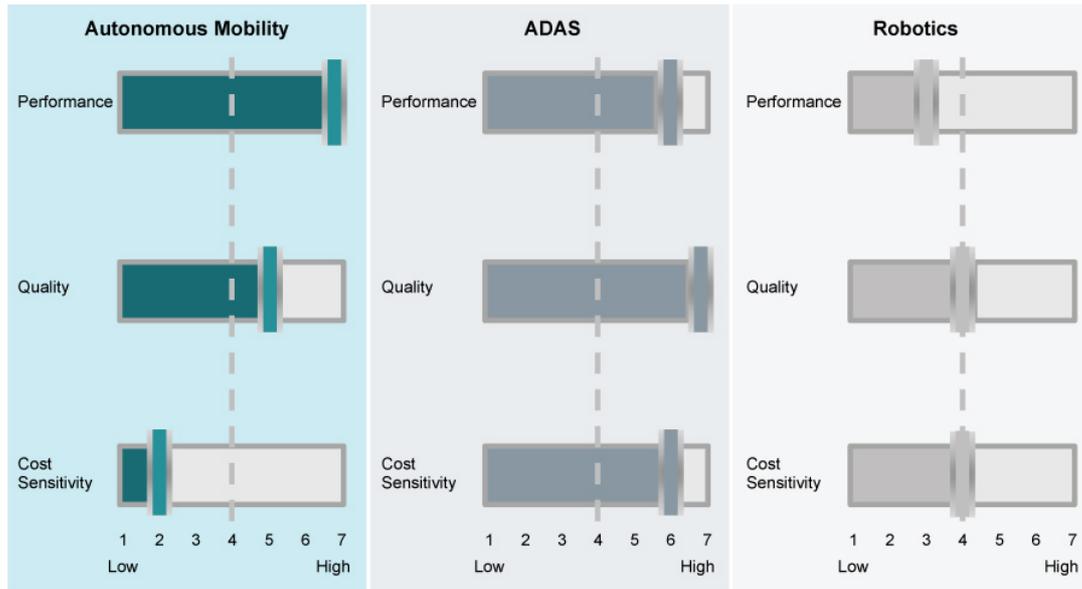
We are the global leader in three-dimensional light detection and ranging (LiDAR) solutions. Our LiDAR products enable a broad spectrum of applications across (i) autonomous vehicle fleets providing passenger and freight mobility services, or Autonomous Mobility, (ii) passenger or commercial vehicles with advanced driver assistance systems, or ADAS, and (iii) other applications such as last-mile delivery robots, street sweeping robots, and logistics robots in restricted areas, or Robotics. According to the Frost & Sullivan Report, we are the global leader for LiDARs in the Autonomous Mobility market in 2020 in terms of revenue, having an approximately 40% share of the global market. Since our inception, we have sold and shipped over 10,000 LiDAR units, over 90% of which are high-end LiDAR units with 32 or more laser channels. As of December 31, 2020, 12 out of the 15 top global autonomous driving companies used our LiDARs as their primary LiDAR solution, meaning that we had the largest share by purchase dollar amount for the current fleet of each of the 12 companies, according to the Frost & Sullivan Report. These top 15 companies are defined in terms of testing miles traveled as reported by the California Department of Motor Vehicles in 2020.

We believe there are three critical elements in designing and manufacturing LiDARs: Performance, Quality, and Cost. These qualities are defined as follows.

Elements of LiDAR	Definition
Performance	The explicit specifications of a LiDAR unit that directly reflect its performance, including detection range (for example, 200 meters or longer at 10% reflectivity), point density (number of points generated per second, which is horizontal resolution times vertical resolution, multiplied by frame rate), distance accuracy and precision, reflectivity accuracy, and interference rejection, among others.
Quality	The implicit aspects of a LiDAR unit that represent its ability to perform consistently under a variety of circumstances over time, including robustness under extreme operating temperatures, different levels of humidity, waterproof levels, and mechanical shocks and stresses. Quality also represents a product's manufacturing consistency, functional safety (typically ASIL-B), and viability as an automotive-grade component.
Cost	The per unit price for each LiDAR unit. Customers of LiDAR units for different applications and industries have varying levels of cost sensitivity, which is usually influenced by factors such as timeline for mass adoption, operating scale, and the business models of the target application, among others.

We design our LiDARs to push the limits across each of the three elements, while striking the optimal balance for different applications and industries. In principle, LiDARs for Autonomous Mobility require higher performance and quality, as they are critical to the successful development and safe operation of cutting-edge autonomous driving solutions, with cost tending to be a secondary consideration. For Robotics, our customers have demonstrated varying levels of cost sensitivity depending on the application, which range from last-mile delivery robots to street sweeping robots. The emerging ADAS market for LiDAR imposes stricter demands on all three aspects, especially in terms of lower cost, as compared to other markets.

The graphic below illustrates the different requirements on Performance, Quality, and Cost for the markets we serve.



LiDARs are highly sophisticated instruments, consisting of the following key components.

- *TX/RX system*, or the laser transmitter (TX) and receiver (RX) system, which holds the electronic and photonic components that send and receive laser light and process the signals into distance measurements. The TX/RX system is critical to ensuring a LiDAR's high performance and its design is one of the key areas where we excel compared to other LiDAR providers.
- *Beam steering system*, which steers the laser light for the TX/RX system. See “ — Our LiDAR Technology — Beam Steering System.”
- *Other supporting infrastructure*, including optics, mechanical structures, circuits, and firmware, among others.

To address the needs of our customers in different industries, we combine different TX/RX systems with different beam steering systems to define various LiDAR configurations, delivering numerous permutations of Performance, Quality and Cost characteristics. No matter what kind of beam steering system is used, the TX/RX system is the key in the entire LiDAR.

Our TX/RX system design, which is semiconductor-based, uses application-specific integrated circuits, or ASICs, and offers significant advantages over the architectures based on discrete components. Our XT series, for example, is based on our proprietary ASICs and is able to deliver superior performance at high precision, lower power consumption per channel, in a smaller form factor and at a lower cost compared to architectures based on discrete components. ASICs allow us to maximize the performance of LiDARs via fully customizing the signal processing while concurrently reducing power consumption. In addition, the legacy LiDAR involves assembling hundreds of discrete components, which leads to a higher likelihood of quality issues and inconsistency, whereas the ASIC-based LiDARs integrate multiple functions into a few chips, which reduces system complexity. The resulting LiDARs come at a lower cost thanks to a simplified manufacturing process. We will continue to upgrade our ASICs and leverage the existing advanced manufacturing processes in the semiconductor supply chain to deliver better price-to-performance.

Our proprietary manufacturing process constitutes another of our major advantages and has contributed to our success to date. As the LiDAR industry continues to evolve quickly, our in-house manufacturing capabilities enable us to effectively meet the needs of rapid product development and short iteration cycles. Moreover, given the complexity and high level of expertise required to manufacture our products, we believe

in-house manufacturing allows us to better control product quality, improve manufacturing efficiency, and safeguard manufacturing process know-how. We have strategically built our current manufacturing facility, which covers approximately 270,000 square feet and is certified under IATF 16949 and ISO 9001, in Jiading, Shanghai, the hub for automotive OEMs and Tier 1 suppliers of automotive components in China. Our current manufacturing facility has an annual production capacity of 35,000 units, and we plan to grow this capacity to 66,000 units by the end of 2021. We are also building a new facility of approximately 740,000 square feet, which is expected to commence operation in 2022 and is expected to eventually increase our annual production capacity up to approximately 1.2 million units.

We provide LiDAR solutions to the Autonomous Mobility, ADAS and Robotics markets.

- *Autonomous Mobility.* We believe customers with operations in real-world applications are the best judges for evaluating the Performance and Quality of existing LiDAR products in the market. According to the Frost & Sullivan Report, we are the global No. 1 LiDAR solution provider in terms of revenue in the Autonomous Mobility application market in 2020. Our top customers in terms of revenues in 2020 for LiDAR solutions in the Autonomous Mobility industry include, among others, a leading global OEM headquartered in the United States, Baidu, Inc., Aurora, Pony.ai, and Uber. Our top five customers by contract amount in the three months ended March 31, 2021 were a leading global OEM headquartered in the United States, a leading global OEM headquartered in Germany, Zoox, WeRide, and Baidu. In particular, we had also established relationships with Autonomous Mobility companies for freight and logistics services, such as Aurora and TuSimple. According to the Frost & Sullivan Report, the LiDAR solution market for Autonomous Mobility in terms of revenue was US\$0.1 billion in 2020, and is expected to reach US\$24.8 billion in 2030, representing a compound annual growth rate, or CAGR, of 73.6%.
- *ADAS.* In addition to the stringent Performance and Quality requirements in Autonomous Mobility applications, the ADAS market also requires automotive-grade production Quality and affordability for scaled deployments in passenger vehicles. We believe our LiDARs, utilizing our ASIC-based architecture and developed through deep collaboration with established OEM partners, are uniquely positioned to meet the Performance, Quality, and Cost requirements and will drive our success, both technologically and commercially, in the ADAS market. While the market for LiDAR-incorporated ADAS is still nascent, we have entered into strategic cooperation with Li Auto, one of the top electric vehicle OEMs in China, and Lotus, a British sports car OEM. According to the Frost & Sullivan Report, the global LiDAR solution market for ADAS in terms of revenue was US\$0.1 billion in 2020, and is expected to reach US\$64.6 billion in 2030, representing a CAGR of 87.6%.
- *Robotics.* In addition to the Autonomous Mobility and ADAS markets that we strategically focus on, we also leverage our proprietary TX/RX system with embedded ASICs to develop LiDAR products for the Robotics market. We have entered into multi-year agreements with a leading last-mile delivery robotics company headquartered in the United States, Meituan, and Neolix for deployments of last-mile delivery services in this market. According to the Frost & Sullivan Report, the global LiDAR solution market for Robotics in terms of revenue was US\$0.1 billion in 2020, and is expected to reach US\$15.0 billion in 2030, representing a CAGR of 65.0%.

We have already started commercializing our technology and have begun shipping our LiDAR units in increasing volumes. We recognized revenue on over 3,500 shipped LiDAR units in the first half of 2021 as compared to approximately 700 shipped units in the first half of 2020. We have been growing rapidly while maintaining industry-leading gross margins as compared to major publicly listed LiDAR companies, according to the Frost & Sullivan Report. Our net revenues increased by 19.4% from RMB348.1 million in 2019 to RMB415.5 million (US\$63.7 million) in 2020. Our gross margin for 2019 and 2020 was 70.3% and 57.5%, respectively, and our net loss for the same periods was RMB120.2 million and RMB107.2 million (US\$16.4 million), respectively. Our EBITDA, a non-GAAP financial measure, was negative RMB128.7 million and negative RMB109.1 million (US\$16.7 million) in 2019 and 2020, respectively. See “Management’s Discussion and Analysis of Financial Condition and Results of Operations — Non-GAAP Financial Measure.”

Industry Approaches and Their Limitations

According to the Frost & Sullivan Report, the global market for LiDAR solutions is expected to grow from US\$0.3 billion in 2020, to US\$12.9 billion in 2025, and further to US\$104.4 billion in 2030, supported by an expanding set of applications across multiple end markets, including Autonomous Mobility, ADAS and Robotics.

Existing approaches for LiDAR products today can be categorized as follows.

- *Legacy Approach.* In this approach, hundreds of discrete off-the-shelf components are assembled to form a large number of TX/RX channels in the vertical direction, combined with a low-speed, fully rotational, one-dimensional beam steering system in the horizontal direction. The approach suffers from high cost, complex manufacturing process resulting in inconsistent products, and poor product reliability.
- *Minimum Channel Approach.* In addressing the shortcomings of the legacy approach, some companies have taken a seemingly intuitive approach by minimizing the number of TX/RX channels, and compensating for lower channel number with various novel beam steering systems. While this approach solves for the problems of inconsistency, quality, and high cost associated with the high number of TX/RX channels in the legacy approach, it introduces a new set of challenges by relying on novel, non-conventional beam steering systems. These high-speed beam steering systems have not been proven to meet the stringent requirements of the automotive industry. The point cloud data produced by such LiDARs are less compatible with established perception algorithms due to the unconventional scanning pattern.
- *Line-flash ASIC Approach.* A third approach uses an ASIC-based TX/RX system with both a high number of channels that are fired at the same time and a low-speed, one-dimensional beam steering system. This approach introduces severe crosstalk that becomes even more pronounced on highly reflective targets. In addition, the approach fires in all vertical directions concurrently, resulting in a lower power density on each laser (due to eye safety limits) and consequently reducing detection range.

In summary, customers across the Autonomous Mobility, ADAS, and Robotics markets have been limited to compromises between Performance, Quality, and Cost. LiDAR products on the market today that meet baseline requirements on Performance and Quality are expensive and are not suitable for the mass adoption of LiDAR technology in the scaled deployments of future applications.

Our Innovative Approach to TX/RX Design

We have built an innovative approach to solve the dilemma. Our ASIC-based approach features a large number of channels driven by ASICs, combined with a simple but robust beam steering system. In this way, we are able to deliver a system that offers far greater performance and higher quality and consistency at scanning lower cost. In particular, our proprietary ASICs drive a large number (currently up to 128) of individually addressable laser channels with dynamic exposure functions in the TX/RX system. Our TX features one-dimensional solid-state electronic scanning that shoots lasers in sequence in the vertical direction and a low-speed rotating mechanism in the horizontal direction, which is a proven design in the automotive industry. The combination of a large number of laser channels driven by ASICs and a low-speed rotating mechanism enables three-dimensional scanning of the environment. As of May 31, 2021, we had recognized revenue from over 1,000 units of the XT series sold that feature this ASIC approach of one-dimensional solid-state electronic scanning.

Our current TX/RX system integrates laser emitters, receivers, and ASICs. The TX includes dense vertical cavity surface emitting lasers (VCSEL) arrays as emitters and ASICs that drive these laser emitters. The RX includes silicon photomultiplier (SiPM, a receiver combining signals from multiple single photon avalanche diodes, or SPADs) arrays and ASICs that perform as the switch and processor for all the laser receivers. The picture below shows our TX/RX system with laser emitters, receivers, and ASICs on our 128-channel LiDAR.

Hesai's 128-channel TX/RX System



LiDARs based on ASICs generally have several key advantages: (i) maximized performance since ASICs allow for application customization, reduced power consumption, and optimized signal processing tuning; (ii) enhanced quality as the high level of integration of components and simplified manufacturing process of ASICs can improve consistency; and (iii) optimized cost as ASICs replace hundreds of discrete off-the-shelf components for manufacturing efficiency and leverage the semiconductor supply chain to enhance price-to-performance. Comparing our 32-channel XT series product embedded with proprietary ASICs with a comparable 16-channel LiDAR following the legacy approach at similar size, our solution features twice the number of laser channels, 60% longer detection range on a low reflectivity target, double the point density, lower the power consumption per channel, and comes at half the cost.

In addition to the aforementioned inherent advantages of using ASICs in the TX/RX system, our approach further differentiates itself in the following ways.

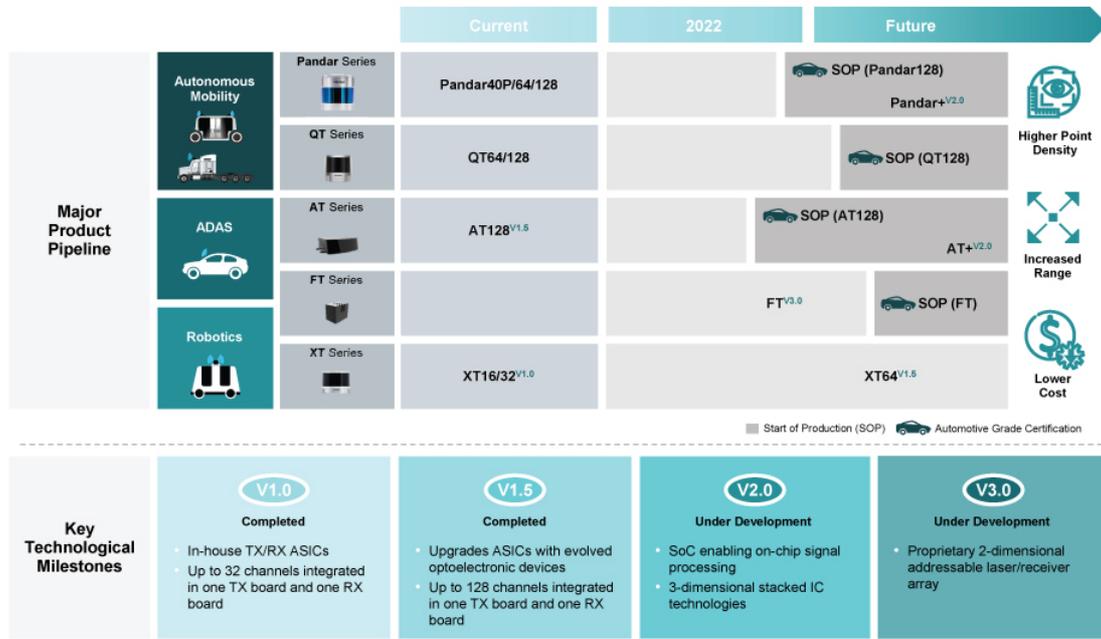
- *Continuation of a Proven Design.* Our proprietary ASICs reflect our LiDAR design know-how that has been validated in real-world applications through the over 10,000 units of LiDAR we have shipped. These LiDARs cumulatively facilitated tens of millions of kilometers of real-world autonomous driving, according to the Frost & Sullivan Report.
- *ASICs Validated Through Volume Shipment.* We have recognized revenue from over 1,000 units of XT32 sold, our ASIC-based LiDAR product, and have entered into framework agreements for over 14,400 units of XT32 as of the date of this prospectus.
- *CMOS Image Sensor (CIS)-like Approach.* We have taken the approach of adopting a large number of TX/RX channels through an ASIC architecture, and we expect the cost per channel to decline exponentially over time following the progression of the semiconductor industry. Our approach is analogous to the evolution of the CIS in the camera industry, where the number of pixels has grown exponentially over the years and the performance of the integrated sensor has kept advancing while the cost of each pixel has kept declining. Silicon-based semiconductor technology has enabled similar progression in many sectors, especially in consumer electronics, over the past few decades.
- *Individually Addressable versus Line Flash.* Our proprietary ASIC design enables each of the TX/RX channels to individually shoot and receive laser signals with channel-level dynamic exposure functions. This design can effectively avoid channel crosstalk and the dilution of power density per channel compared to line flash design.

Our LiDAR approach also features the following.

- *905nm/940nm versus 1550nm Wavelengths.* Our LiDAR approach features 905nm and 940nm wavelengths using GaAs-based VCSELS, which are well proven for three-dimensional sensing used in consumer electronics such as smartphones. We believe the laser and receiver components for 1550nm wavelength generally suffer from high power consumption, higher cost of fiber laser, and low sensitivity of InGaAs-based receivers. Accordingly, a LiDAR with 1550nm wavelengths requires many non-automotive-grade components to support a marginally longer detection range at a much higher cost with limited point density as a result of the massive power consumption of 1550nm system. As a result, we strategically adopt mature GaAs-based VCSELS at 905nm/940nm wavelengths. We also see a high possibility that we can further optimize LiDARs at 905nm/940nm wavelengths to exceed the 1550nm wavelength approach in terms of detection range by upgrading the laser receivers and the ASICs processing them.

- **Software and Algorithms.** Our proprietary software is key to providing our customers with a complete solution. Our perception software based on edge-computing allows customers to receive processed data in a structured package, identifying vehicles, pedestrians, and others. The perception results from the algorithms become intermediate data for central computing. The algorithms are specifically trained based on our LiDAR point cloud pattern features under different applications to fully capture the intricacies of different objects. For example, we work closely with Li Auto in enhancing their perception accuracy by transferring know-how from perception algorithms based on our LiDARs to their central computing algorithms.

We plan to adopt ASICs across a majority of our product lines. The following picture illustrates our ASIC development roadmap along with our major product pipeline.



Our Strengths

We believe the following strengths position us well to capitalize on the opportunities in providing LiDAR solutions for the Autonomous Mobility, ADAS, and Robotics markets.

Recognized global leadership

According to the Frost & Sullivan Report, we are the global leader for LiDARs in the Autonomous Mobility market in 2020 in terms of revenue, representing approximately 40% of the global market share. As of December 31, 2020, 12 out of the 15 top global autonomous driving companies used our LiDARs as their primary LiDAR solution, according to the Frost & Sullivan Report. Our top customers in terms of revenues in 2020 for LiDAR units in the Autonomous Mobility industry included, among others, a leading global OEM headquartered in the United States, Baidu, Inc., Aurora, Pony.ai, and Uber. Our top five customers by contract amount in the three months ended March 31, 2021 were a leading global OEM headquartered in the United States, a leading global OEM headquartered in Germany, Zoox, WeRide, and Baidu. In particular, we had also established relationships with Autonomous Mobility companies for freight and logistics services, such as Aurora and TuSimple. Our leadership is also demonstrated through our customers’ stickiness. The vast majority of our customers have continued to use our products or upgraded to newer generations of our products as they expanded in size or entered into new applications. For example, nine of our top 10 customers in 2018 and nine in 2019 were also our customers in 2020.

Strong partnerships with industry-leading players

Over the last several years, we have developed strong relationships with leading companies in the Autonomous Mobility market such as a leading global OEM headquartered in the United States and Zoox. We are leveraging our strong established relationships in the Autonomous Mobility market, combined with our technical expertise and manufacturing capabilities, to further expand in the ADAS market. The ADAS market shares many similar Performance and Quality requirements with these OEMs in the Autonomous Mobility market. While the market for LiDAR-incorporated ADAS is still relatively nascent, we have entered into strategic cooperation with Li Auto, one of China's top new energy vehicle OEMs, and Lotus, a British sports car OEM. In the Robotics market, we have won contracts from global leaders in different sectors, and have entered into framework agreements with a leading last-mile delivery robotics company headquartered in the United States, Meituan, and Neolix for deployments of last-mile delivery services in this market.

Commercially validated solutions backed by superior research and development on LiDAR technologies and ASICs

Our LiDAR products and technology have been thoroughly tested and validated by our customers' deployments in large volumes. We have shipped over 10,000 units of LiDAR since inception, which facilitated tens of millions of kilometers of real-world autonomous driving cumulatively, according to the Frost & Sullivan Report. We set up a dedicated ASIC department in 2017, which designs, develops, and validates our ASICs, and coordinates with our suppliers for the mass production process. As of May 31, 2021, we had over 350 experienced engineers, mostly in our research and development department, of which 63% had a master's degree or above. As of May 31, 2021, we had 224 patents granted and over 300 pending patent applications in China, and 15 patents granted and 108 pending patent applications in other jurisdictions, such as the United States and Europe. We possess a leading number of granted patents and pending patent applications among companies in the LiDAR industry, according to the Frost & Sullivan Report. We have been a pioneer in introducing new technologies to the LiDAR industry. For example, we are one of the first companies to develop interference rejection technology that encrypts every laser pulse to reduce interference across different LiDAR units, according to the Frost & Sullivan Report, and made it a standard feature for all the LiDARs we ship.

Strong in-house manufacturing enabling rapid development and high Quality

Our in-house manufacturing capability enables us to have rapid development and short iteration cycles. At the current development stage of the LiDAR market, it is important to have in-house manufacturing capabilities to ensure we can effectively meet the Performance, Quality, and Cost requirements of our customers. Our current manufacturing facility in Jiading, Shanghai, is ISO/TS 16949 certified. The current manufacturing facility commenced production in August 2018 and currently has an annual production capacity of 35,000 units. We plan to grow our annual production capacity to 66,000 units by the end of 2021. In addition, our LiDAR products undergo stringent reliability tests, including mechanical shock, high temperature degradation, thermal shock, power temperature cycle, and salt spray, among others, which help ensure excellent and stable performance of our LiDAR products in harsh environments. As a result, our in-house manufacturing helps ensure high Quality, which contributes to our customer sourcing and retention. 12 out of the 15 top global autonomous driving companies, ranked by test miles traveled as reported by the California Department of Motor Vehicles in 2020, were our customers in 2020, and continue to procure from us in 2021.

Visionary management team with a proven track record of innovation and commercialization

Our founders, Dr. Yifan Li, Dr. Kai Sun, and Mr. Shaoqing Xiang, possess deep expertise in the fields of robotics, photonics, and physics. They have successfully commercialized their expertise through building products and solutions that have received validations from customers with some of the highest requirements in the world. They have also demonstrated a track record in building a global research and development team consisting of experts across a broad range of industry backgrounds, including ASIC, optical engineering, mechanical engineering, thermal engineering, automotive engineering, electromagnetic compatibility, manufacturing, and software, among others. The global exposure across China and the United States and

the well-rounded commercial sensitivity of our experts offer us the rare ability to serve the largest markets in the world across the Autonomous Mobility, ADAS and Robotics markets.

Our Growth Strategies

Our aim is to solidify our dominant position in providing LiDAR solutions to the Autonomous Mobility market and extend that leadership to the emerging ADAS and Robotics markets. Key elements of our strategies include:

Leveraging our proprietary ASICs and leadership in the Autonomous Mobility market to penetrate the ADAS market

We believe that LiDARs are indispensable for ADAS of Level 3 and higher autonomous driving, and will become a standard safety configuration for most passenger vehicles in the coming years. According to the Frost & Sullivan Report, the global LiDAR solution market for ADAS in terms of revenue was US\$0.1 billion in 2020, and is expected to reach US\$64.6 billion in 2030, representing a CAGR of 87.6%. The strength and capabilities we have built from LiDAR products for the Autonomous Mobility market, especially those on LiDAR Performance and Quality, are highly transferrable to the ADAS market. Combining these capabilities with our proprietary ASICs and advanced in-house manufacturing facilities, we are uniquely positioned to deliver automotive grade ADAS products to meet the stringent requirements on Performance, Quality and Cost. The accumulation of technology and our commercial success creates a virtuous cycle for our business growth, which enables us to develop more advanced products at a more competitive price.

Extending and enhancing partnerships with industry-leading companies

Our partnership strategy has been to team up with the best players in each industry. Over the past years, we have built close collaborations with global Tier 1 suppliers on the research and development of LiDAR for both the Autonomous Mobility and ADAS industries. We have also collaborated with leaders in Robotics and logistics on multiple promising and fast-paced development projects to ensure that LiDARs tailor-made for each of these industries are equipped with the necessary functions. In addition to expanding our customer base, we plan to strengthen existing partnerships by collaborating closely with them on the next generation of LiDAR products for the Autonomous Mobility and ADAS markets. We also plan to deepen our partnerships by renewing multi-year contracts with our top customers and build close relationships with our suppliers to better address our customization needs and forward-looking research and development process.

Investing in manufacturing capabilities that enable us to continue to deliver products with high performance and reliability at an attractive price to our customers

We plan to continue to expand our manufacturing capabilities. Our new manufacturing facility in Jiading, Shanghai is under construction and is expected to commence manufacturing in 2022. The new manufacturing facility is expected to occupy a working area of over 740,000 square feet and feature an over 800-feet long in-door testing area. Our annual production capacity is expected to eventually reach up to approximately 1.2 million units. We also plan to continue to enhance the level of automation in the assembly, calibration, and testing processes to reduce inconsistency, enhance manufacturing efficiency, and reduce manufacturing cost of each LiDAR.

Optimizing our cost structure to make LiDAR more affordable for widespread adoption

We plan to further optimize the architecture of our next generation of ASICs to integrate multiple capabilities onto a single chip, thereby providing better detection range and resolution while achieving a more compact form factor. Furthermore, leveraging our highly automated in-house manufacturing capabilities, we expect to be able to achieve economies of scale to reduce our cost. As our LiDAR products become more cost-effective, a wider range of end markets are expected to adopt LiDAR as an indispensable sensor to build a full stack sensing solution, creating more opportunities for us.

Expanding into the Robotics market to serve more industries

Since we rolled out the XT series in 2020, we have formed a clear roadmap to expand our LiDAR products to the Robotics market to empower automation in many more industries. We have built strong partnerships with a leading last-mile delivery robotics company headquartered in the United States, Meituan and Neolix in the last-mile delivery vehicle industry. By continuing to drive down cost and expand the product lines of LiDARs for Robotics, we expect to extend our presence in robotics applications beyond last-mile delivery, such as street-sweeping robots and warehouse robots. We believe that LiDARs, as the “eyes” of robots, will play an important role in empowering a growing number of robotics applications by making them faster, safer, and more efficient. According to the Frost & Sullivan Report, the global LiDAR solution market for Robotics in terms of revenue was US\$0.1 billion in 2020, and is expected to reach US\$15.0 billion in 2030, with a CAGR of 65%.

Developing software suites to provide comprehensive LiDAR solutions with flexibility

We plan to further upgrade our perception software based on edge-computing and enhance our algorithms to capture the fine details of three-dimensional environments. We believe that software and algorithms will create an avenue for software-based enhancements of performance and customization of our products to address a myriad of end-market customers’ specific technical requirements.

Our Solutions and Products

Based on our LiDAR technology, we have developed and produced a full range of LiDAR products to suit the various needs of our customers. Our LiDAR products cater to short-, medium-, and long-range applications, with industry-leading detection range, resolution, interference rejection technology, and reliability. Certain specifications of our flagship models of LiDAR products are presented in the table below:

	Pandar128	QT128	XT32	AT128⁽¹⁾
				
Application	Autonomous Mobility – long-range detection	Autonomous Mobility – blind-spot detection	Robotics	ADAS
Operating principle	Time of Flight (ToF)	ToF	ToF	ToF
Scanning method (vertical)	Electronic scanning	Electronic scanning	Electronic scanning	Electronic scanning
Scanning method (horizontal)	Mechanical rotation	Mechanical rotation	Mechanical rotation	Scanning mirror
Channel	128	128	32	128
Range	up to 200 m at 10% reflectivity ⁽²⁾	up to 20 m at 10% reflectivity	up to 80 m at 10% reflectivity	up to 200 m at 10% reflectivity
FOV (vertical)	40°	105.2°	31°	25.4°
FOV (horizontal)	360°	360°	360°	120°
Resolution (vertical)	0.125° finest	0.4° finest	1°	0.2°
Resolution (horizontal)	0.1° finest (10 Hz frame rate)	0.4° finest (10 Hz frame rate)	0.18° (10 Hz frame rate)	0.1° (10 Hz frame rate)
Interference rejection	Yes	Yes	Yes	Yes
Power consumption	27 W	10 W	10 W	18 W

Notes:

(1) Specifications of AT128 are subject to changes.

(2) Reflectivity refers to the ratio of the energy of the light reflected from a surface to the energy possessed by the light striking the surface.

Autonomous Mobility

LiDAR is essential to self-driving cars in the Autonomous Mobility industry, as it is one of the most reliable ways of identifying distances and shapes of objects. In contrast to cameras that require deep learning

algorithms to detect objects and determine their distances to vehicles, which may be unreliable, LiDAR can measure distances to objects directly by sending and receiving laser pulses. LiDARs sense and construct a three-dimensional virtual environment in real time with the output as millions of points, or point clouds. Self-driving cars analyze the point clouds to accurately perceive the surroundings and safely navigate around. The ability to identify objects and gauge their distance is a key benefit of using LiDAR, and LiDAR products with a high level of accuracy and reliability can greatly improve safety.

We are a leading innovator for LiDAR products in the Autonomous Mobility industry. For example, Pandar40, our mid- to long-range mechanical LiDAR launched in April 2017, featured uneven channel distribution that optimized channel density to enable higher resolution at core viewing areas. According to the Frost & Sullivan Report, we were one of the first to introduce an interference rejection feature to LiDAR products when we launched Pandar40P in April 2018. Launched in January 2019, Pandar64 has been our most popular LiDAR product with its higher resolution and extended detection range. In a study conducted by institutes under the Japan Science and Technology Agency in 2020 comparing 10 LiDAR products in the market, Pandar64 demonstrated higher performance in terms of actual detection range, point cloud accuracy and precision, consistent detection of reflective targets, and well-defined and stable intensity distribution. Pandar64 was one of the most popular LiDAR products in the global Autonomous Mobility industry according to the Frost & Sullivan Report, and generated US\$37.1 million and US\$39.6 million of revenues for the years ended December 31, 2019 and 2020, respectively.

Our LiDAR product lines for the Autonomous Mobility industry primarily include the Pandar series and the QT series. Our customers generally purchase both LiDAR products for their Autonomous Mobility applications.

- *Pandar128*. Designed for automotive volume production, Pandar128 is one of the most advanced mechanical LiDAR products available in the world, according to the Frost & Sullivan Report, and offers an ideal solution for Autonomous Mobility applications. The 128-channel 360-degree surrounding view LiDAR features unrivaled detection range and point density, which enable superb perception over an extended range and provide Autonomous Mobility systems with longer reaction times that is critical for safe operation at medium-to-high driving speeds. Pandar128 also offers a higher level of ingress protection, helping ensure reliability in all weather conditions. Despite doubling the number of channels in Pandar64, Pandar128 retains a similar compact form factor, enabling seamless integration into a vehicle's exterior for a more aesthetic configuration.
- *QT128*. Our short-range QT128, an upgraded model of QT64, is a cutting-edge answer to blind spot detection. It features a wide vertical field of view at 105.2°, which is ideal for covering vehicle blind spots, superior short-range performance to detect objects as near as 0.1 meters at 10% reflectivity, and an optimized 0.4° finest vertical resolution, as well as our interference rejection technology.

Advanced Driver-Assistance Systems (ADAS)

Today, automobile manufacturers have begun to integrate LiDAR into ADAS to better visualize the changing environments their vehicles are placed in. LiDARs for ADAS share certain requirements with LiDARs for the Autonomous Mobility market, such as detection range and resolution. At the same time, LiDARs for ADAS normally prefer forward-facing configurations for adaptive cruising and traffic assist functions. In addition, automobile manufacturers and Tier 1 suppliers require LiDARs with proper form factors to be embedded into their vehicles, in addition to automotive grade reliability and robustness.

The AT series is our planned product line for the ADAS market. We have entered into cooperation with OEMs for the AT series and expect to ship the AT series in volume in 2022. In particular, AT128 is expected to feature 128 channels, great detection range from 0.5 meters to 200 meters, a robust scanning mirror beam steering system providing a horizontal field of view of 120°, and interference rejection technology.

Robotics

Our customers in the Robotics market install LiDARs on small unmanned vehicles for autonomous navigation, collision avoidance, and mapping to provide services such as last-mile delivery and street sweeping. Our LiDAR products empower participants in the Robotics market by providing superior perception solutions at competitive costs.

The XT series is our product line for the Robotics market. Launched in October 2020, the 32-channel mid-range XT32 is our first product integrating our proprietary LiDAR ASICs. The XT series is a cost-effective and power-efficient solution designed for multiple applications, including automated warehousing, logistics, robotics, surveying, mapping, and low-to-medium-speed autonomous driving. For these scenarios, sensors do not require ultra-high resolution and ultra-long range; rather, they demand a careful balance between Performance, Quality, and Cost. The XT series was developed to address these specific industrial requirements.

Product Roadmap

Our ASICs are core to the evolution of our products, and we expect ASIC upgrades to drive the majority of the technological advancement for our four current product lines. For example, for the Autonomous Mobility market, we are seeking to pack more laser channels in the Pandar and QT series at lower cost. We also plan to upgrade our AT series product line by maintaining similar Quality as the Pandar series while achieving automotive grade production and optimizing on Cost. We will also improve the Performance of the XT series product line as we improve our ASICs. There are, however, risks associated with developing and producing these new products. See “Risk Factors — Risks Related to Our Business and Industry — Our ability to develop, manufacture, and deliver LiDAR products of high quality and appeal to customers, on schedule, and on a large scale is still evolving.”

Gas Sensors

In addition to LiDAR products, we offer gas sensors to remotely detect methane leaks. These feature high gas detection sensitivity with configurable detection frequency and support real-time data and visual reports through the corresponding mobile app. We also offer oxygen sensors for high-end medical ventilators using similar technologies.

Our LiDAR Technology

Our core LiDAR technologies include the laser transmitter (TX) and receiver (RX) system that incorporates our ASICs, the beam steering system, system-level know-how, and automotive grade productization.

TX/RX System and ASICs

The TX/RX system is the foundation for our LiDAR products as they determine the key LiDAR specifications such as detection range, precision, and point cloud density, among others. The TX emits laser light and RX receives reflected light and outputs range information using the time-of-flight measurement (ToF) principle. Our TX/RX system features an architecture similar to the CIS in cameras, consisting of the pixel layer to emit (TX) or receive (RX) laser light and ASICs at the bottom layer to control and drive the lasers (TX) or process the received light (RX). We have designed our proprietary ASICs to integrate the functionality of hundreds of discrete components into a small market at chips, greatly simplifying and optimizing the traditional TX/RX architecture and lowering the cost.

We have completed the independent development of our v1.0 ASICs (including multi-channel laser driver ASIC and multi-channel analog front-end ASIC), which have been produced in volume. We are currently at v1.0 and v1.5 of our ASIC development roadmap, and are in the process of developing v2.0 and v3.0 ASICs. See also “— Research and Development.” In particular, our QT and AT series, and most of our future products will use VCSEL and SiPM that work with 905nm and 940nm wavelength lasers for our TX/RX system. These laser and receiver components are more mature and cost-effective as a result of already wide adoption for three-dimensional sensing applications in consumer electronics, such as for face detection and in short-range LiDARs in mobile phones. Integrating hundreds of discrete components into our ASICs enables our LiDARs to be compact with low power consumption and manufacturing cost.

In addition, our laser and receiver pairs are individually addressable with channel-level dynamic exposure functions. Through not shooting all lasers and opening all receivers at the same time, our LiDARs can avoid significant crosstalk problems across different channels and unnecessary power consumption. Due to eye safety constraints, shooting all lasers together also drastically decreases detection range. As a result, our

individually addressable channels enable longer detection range, lower power consumption, and better performance on reflective targets.

Beam Steering System

In general, current beam steering systems in the market include the following:

Field of View	Mechanical vs. Solid-State	Beam Steering Mechanisms
Surrounding View (360 degrees)	Mechanical — TX/RX is physically rotated by a motor	<ul style="list-style-type: none"> • Full rotation of TX/RX
Directional View (less than 180 degrees)	Hybrid Solid-State — TX/RX is static, but is complemented by one or more moving scanners in the LiDAR	<ul style="list-style-type: none"> • Two-dimensional scanning MEMS mirror • One-dimensional scanning polygon mirror • One-dimensional scanning galvo mirror
	Full Solid-State — no moving parts	<ul style="list-style-type: none"> • Optical phased array (OPA) • Electronic scanning (one-dimensional or two-dimensional)

Leveraging our strength in designing TX/RX systems that can integrate hundreds of addressable channels. Our LiDAR fires lasers from each channel sequentially to form a one-dimensional solid-state electronic scanning in the vertical direction. Units electronic scanning mechanism that does not have any moving parts are used for scanning in vertical direction in our LiDARs and can reach a frequency of tens of thousands of hertz, offering superior reliabilities at high scanning frequency. We combine different electronic system with our different steering systems for different LiDARs to satisfy different applications. As self-driving cars generally operate in complicated environments with stringent sensing requirements in all horizontal directions, we mainly use 360-degree surrounding rotation systems in our LiDAR products designed for the Autonomous Mobility market (the Pandar and the QT series). For our directional LiDAR (the AT series), we keep the TX/RX system static and use a scanning polygon to scan the beam in the horizontal direction. Unlike other approaches using two-dimensional MEMS mirrors (typically up to several millimeters in diameter) or a combination of one-dimensional scanning polygon and one-dimensional galvo mirror where one of the two axes is operated at hundreds of hertz, the rotating speed of our motor or polygon mirror is under 20 hertz, which provides superior reliability under automotive operating conditions.

System-level Know-how

A LiDAR is a complex system that incorporates many disciplines, such as optics, electronics, mechanical structure, and software, among others. Our interdisciplinary team of engineers consists of experts in various areas that are critical to LiDAR design and development. Through fundamental level analysis and extensive experiments, our engineers have designed and optimized our LiDAR products toward their physical limit. During our years of development of LiDAR products, we have over come many challenges and have accumulated a broad spectrum of know-how for LiDARs, including laser channel crosstalk reduction, point cloud interference rejection, and LiDAR performance consistency across the full LiDAR operating environment, among others.

Our rich product mix also supports the development of our next generation LiDARs. We summarize the know-how that we accumulate from each LiDAR development project, such as Pandar40P, Pandar64, Pandar128, the QT series, and the XT series, into design rules and apply them to other projects. We have also created common design and simulation platforms across different LiDAR design projects, such as ranging capability design model with different transmission and receiving system parameters, and common software and field-programmable gate array (FPGA) programs across different LiDAR designs, among others. This accumulation helps of know-how maximize the efficiency in designing our next generation products.

Automotive Grade Productization

Since 2017, we have been working with global OEMs on LiDAR designs that can meet automotive grade requirements, including, but not limited to, viability under a wide range of working conditions, high

reliability, long service life, electromagnetic compatibility (EMC), functional safety, and cybersecurity. Our LiDAR products have been running in volume on customers' vehicle fleets across the globe. As the foundation of our automotive design, we make sure that our LiDAR components fulfill automotive grade requirements. We design and test our proprietary ASICs under automotive standards. For other components that we source from our suppliers, we choose automotive grade counterparts as long as they are available. During the product and process design phase, we use tools such as design failure mode and effect analysis (DFMEA) and process failure mode and effect analysis (PFMEA) to ensure our design is robust. Throughout the years of collaboration with global OEMs, we have established a comprehensive set of automotive grade design verification tests, whose parameters and standards are approved by our OEM customers as sufficient to ensure the reliability of our LiDARs during automotive usage. These tests include, for example, vibration with thermal cycling, mechanical shock, high temperature degradation, humid heat cyclic, salt spray and ultraviolet resistance tests. We also established a test center with specialized equipment to conduct these tests in-house. The rigorous test standards, along with our testing capabilities, ensure that every LiDAR we design and manufacture can be verified against the high standards. We have also obtained various certifications that are important for automotive grade design, such as ISO 9001, ISO 14001, and IATF 16949. For functional safety and cybersecurity, we also work closely with our OEM customers to ensure our delivery meets their requirements. Our automotive LiDARs are designed according to ISO 26262 for functional safety, and according to ISO 21434 for cybersecurity.

Our Customers

Our current and target customers span the Autonomous Mobility, the ADAS and the Robotics markets. Leveraging our proprietary LiDAR technology, strong product development capabilities and our in-house manufacturing and testing capabilities, we are able to provide our customers with LiDAR products with high performance, reliability and consistency at an attractive price.

Autonomous Mobility

As of December 31, 2020, 12 out of the 15 top global autonomous driving companies used our LiDARs as their primary LiDAR solution, according to the Frost & Sullivan Report. Our top customers in terms of revenues in 2020 for LiDAR units in the Autonomous Mobility industry include, among others, a leading global OEM headquartered in the United States, Baidu, Inc., Aurora, Pony.ai, and Uber. Our top five customers by contract amount in the three months ended March 31, 2021 were a leading global OEM headquartered in the United States, a leading global OEM headquartered in Germany, Zoox, WeRide, and Baidu. In particular, we had also established relationships with Autonomous Mobility companies for freight and logistics services, such as Aurora and TuSimple. We generally enter into framework agreements with or directly receive purchase orders from our Autonomous Mobility customers. The framework agreements generally outline the services to be performed by us and the deliverables to be provided to our customers and have terms ranging from one to seven years, subject in each case to renewal as agreed by the parties or mutual termination rights triggered by events such as material breach, insolvency, or bankruptcy. Pursuant to the framework agreements, we provide a series of our LiDAR products, including our current LiDAR products and upcoming products, to our customers in accordance with the key performance parameters and reference targets set forth therein and the terms and conditions of sale that are negotiated based on price and volume commitment. These agreements also generally provide for short-term demand forecasts, and we can evaluate forecasts for future periods with our customers depending on their needs. The purchase orders generally provide volumes and prices of the LiDAR products, packaging and delivery arrangements, inspection requirements and warranty period. We are actively developing strategic alliances with potential customers in the Autonomous Mobility market.

ADAS

We are actively engaged with top automotive players in the ADAS market. We have entered into strategic cooperation with Li Auto and Lotus. We believe there is significant near-term opportunity for us in the ADAS markets, and we work closely with our automotive customers to achieve mass adoption of our LiDAR products in the automotive vertical. We believe we are uniquely positioned to accelerate our momentum and the scale of our production through our existing strategic relationships in the Autonomous Mobility markets to provide and scale our products to our customers and other OEM customers globally.

Robotics

We believe our LiDAR technology also allows for the next generation applications in Robotics. We believe the same fundamental technological differentiators of our LiDAR, including high reliability, immunity from signal interference and compact integration of ASICs, can enable participants in the Robotics markets to enjoy superior perception solutions at competitive prices. We have entered into framework agreements with a leading last-mile delivery robotics company headquartered in the United States, Meituan, and Neolix for deployments of last-mile delivery services in this market. Pursuant to the framework agreements with a term generally ranging from one to five years, we provide our LiDAR products to our customers in accordance to the product specifications set forth therein and the terms and conditions of sale that are negotiated based on price and volume commitments.

Partnership and Collaboration

We are currently working in close collaboration with key customers on their development and commercialization of LiDAR-enabled solutions.

Case Study: A Leading Global OEM Headquartered in the United States (Autonomous Mobility for Robotaxis)

In 2017, we started to collaborate with a leading OEM, which is one of the world's largest automobile manufacturers headquartered in the United States. This OEM was the first major global OEM that established a long-term collaboration with Hesai for the supply of LiDAR products and the in-depth joint development and manufacturing of LiDAR products to meet its high performance and quality requirements. Two of the customer's robotaxi programs use our flagship products as their primary long-range LiDARs, which have given them an advantage in the commercialization of its autonomous ride-hailing services. We plan to further extend our cooperation to a wider range of Autonomous Mobility applications with more advanced and cost-effective LiDAR products. As of December 31, 2020, we have recognized revenue from over 1,000 LiDAR units shipped to this OEM.

Case Study: Baidu (Autonomous Mobility for Robotaxis)

Our deep cooperation with Baidu, Inc. mainly centers on the research and development of autonomous driving technologies. We develop customized LiDAR products for the new generation of Baidu's Apollo robotaxi model. Benefitting from our development experience in LiDAR products and Baidu's Apollo autonomous driving technologies, our cooperation with Baidu further enhances the performance and market competitiveness of our LiDAR products, reduces operating costs, and improves operating efficiency. Through our cooperation, we aim to provide safer and more efficient autonomous driving services, and realize future market expansion and greater business value for both parties.

Case Study: TuSimple (Autonomous Mobility for Robotrucks)

TuSimple is a global leader in autonomous driving solutions for long-haul funding, and is developing commercially available Level 4 fully autonomous driving solutions for the logistics industry. TuSimple has partnered with relevant industry players to create purpose-built Level 4 autonomous semi-trucks that will be deployed on the TuSimple Autonomous Freight Network (AFN) which will deliver safer, more reliable, efficient, and environmentally friendly freight services to its customers. We have established a strong relationship with TuSimple since 2018, supplying long-range LiDARs for TuSimple's trucking fleet. We have been steadily increasing our supply of long-range LiDARs to TuSimple, as it expands its fleet size and successfully launches commercial logistics operations in the United States and autonomous trucking projects in Europe and China. Recently, we and TuSimple have been working together to extend our collaboration to short-range wide-FOV LiDARs.

Case Study: Li Auto (ADAS)

In January 2021, we entered into a Supplier Letter of Intention with Li Auto Inc., or Li Auto, an innovator in China's new energy vehicle market that designs, develops, manufactures, and sells premium smart electric vehicles. Li Auto is one of the first Chinese automotive companies to announce the equipment

of LiDAR as a standard configuration on its vehicles, according to the Frost & Sullivan Report. Our AT series LiDAR will be equipped on Li Auto's future model. As one of the first customers of the AT series, Li Auto provides an important platform for us to improve the design and manufacturing of the product line. Supported by the AT series, which is expected to be one of the most reliable LiDAR products with superior parameters at launch, Li Auto will be able to offer a novel intelligent and high-quality driving experience to its customers and reach new heights in the autonomous driving market. In addition, our cooperation with Li Auto on LiDAR algorithms has greatly improved our algorithm and engineering capability, and at the same time helped Li Auto explore applications of LiDAR on its future models.

Case Study: Meituan (Robotics)

Meituan has been developing autonomous delivery technology since 2016 to support its business and meet its customers' demand for different delivery scenarios. Our cooperation with Meituan commenced in April 2018. After comprehensive testing and verification of our LiDAR products, Meituan started to purchase our LiDAR products in July 2018 and incorporated these products into its sensing scheme. In April 2021, Meituan launched its new generation of autonomous delivery vehicles in Beijing. Equipped with our Pandar64, Meituan's delivery vehicles can sense obstacles from 150 meters away and meet the demands of Meituan's round-the-clock operations. To date, Meituan's autonomous driving delivery service covers more than 20 residential communities, having fulfilled approximately 35,000 orders and completed approximately 300,000 kilometers of autonomous driving. In June 2021, we completed our series D financing of over US\$300 million with Meituan as one of the investors. We will further strengthen our cooperation with Meituan to accelerate the development and deployment of its autonomous driving technology.

Case Study: Horizon Robotics

Beijing Horizon Robotics Technology Co., Ltd., or Horizon Robotics, is a global leader and one of the first Chinese company engaged in the development of automotive AI computing platforms, according to the Frost & Sullivan Report. Horizon Robotics' AI computing platform combines world-leading algorithms, software and proprietary processors into open, efficient, and automotive-grade AI computing solutions. We entered into a strategic partnership agreement with Horizon Robotics in April 2019 to collaborate on LiDAR perception solutions for Autonomous Mobility and ADAS applications using Horizon's automotive AI solutions and our industry leading LiDARs. Our LiDARs provide enhanced reliability and performance in Horizon Robotics' full-stack development and testing. We expect to grow our long-standing relationship into a more integrated platform and leverage our expertise in our respective fields to address the massive and with Horizon Robotics rapidly expanding LiDAR market for Autonomous Mobility and ADAS.

Scalable Manufacturing Process and Supply Chain

Our LiDAR products are assembled in our own manufacturing facilities from a variety of raw materials and components, some of which, including mechanical parts, optical components, and electrical parts, are procured from trusted third-party suppliers. Our in-house manufacturing and testing capabilities and strict quality control measures enable us to ensure the high performance and reliability of our products.

Our Production Plants

We own and operate our manufacturing facilities to produce and assemble our LiDAR products, and our current manufacturing facility is located in Jiading, Shanghai, the hub of OEMs and Tier-1 suppliers in China. The current manufacturing facility commenced production in August 2018 and has an annual production capacity of 35,000 units. We plan to grow our annual production capacity to 66,000 units by the end of 2021 and expect our production capacity to continue to rise in the next few years.

In order to further improve the performance of our LiDAR products, control the cost of mass production, and further automate the production of components, we set up a dedicated ASIC department in 2017. In addition to the design, development and validation of ASICs, our ASIC department also coordinates with suppliers for the mass production process. We have invested significant time in streamlining and automating our production process. Our manufacturing team, supported by our research and development team and supply chain team, systematically optimizes our production process by designing automated assembly and testing processes. For example, our automated placement machine helps ensure the

alignment accuracy of the laser beams on our LiDAR by placing laser transmitters and receivers on circuit boards with micrometer accuracy. Every LiDAR assembled on our manufacturing line goes through our automated testing stations, which run our own proprietary software to verify the LiDAR's ranging capability, distance measurement accuracy and precision, and reflectivity measurement capability, among others. These automated assembly and testing processes ensure not only good quality control, but also great production efficiency and the ability to scale. We are currently working on a new production line for the AT series to achieve up to 90% automation ratio of the alignment process, which is defined as total automated process time divided by the sum of total automated process time and total manual process time.

We are also dedicated to reducing the environmental impact and ensuring safety throughout the production process. We implement various environmental protection measures, including installation of cotton filters, cartridge dust collectors, and activated carbon adsorption devices to appropriately collect and dispose of manufacturing waste. We work with qualified third-party waste disposal service providers for other waste, including waste glue, waste alcohol, waste filter cotton, waste activated carbon and waste packaging barrels. See "Risk Factors — Risks Related to Our Business and Industry — If we fail to comply with environmental, fire protection, drainage, or health and safety laws and regulations, we could become subject to fines or penalties or incur costs that could have a material adverse effect on the success of our business."

Production Facilities under Development

We are building a new manufacturing facility in Jiading, Shanghai, occupying a working area of over 740,000 square feet, and we expect that the new manufacturing facility to commence operation in 2022, replacing our current manufacturing facility. The new manufacturing facility will be equipped with automated commercial production lines, and is expected to eventually increase our annual production capacity up to approximately 1.2 million units. We are also operating a transitioning manufacturing facility in Jiading, Shanghai, which will be used for production from 2022 to 2024. We expect our cost-efficiency of production to further enhance when the new manufacturing facility commences operation. We also expect to make significant capital expenditures in connection with the establishment of the new manufacturing facility. There are, however, risks or other difficulties associated with the expansion of our manufacturing facility, such as failure to complete the expansion on schedule and within budget. See "Management's Discussion and Analysis of Results of Operations and Financial Condition — Capital Expenditures," and "Risk Factors — Risks Related to Our Business and Industry — The expansion of our manufacturing facilities may be subject to delays, disruptions, cost overruns, or may not produce expected benefits."

Supply of Raw Materials and Components

We generally have two kinds of procurement needs, one is from our product teams based on their respective production planning, and the other is for our strategic reserves in the future. We have a dedicated team to procure components and raw materials to meet specific requirements of our LiDAR products. The main raw materials used in the production of our LiDAR products include mechanical parts, fasteners, packaging materials and consumables, and the key components used in the production of our LiDAR products include lasers, receivers and chips. The raw materials and key components of our LiDAR products are generally available from multiple suppliers in China and overseas with varying costs. Although most raw materials and key components essential to our products are generally available from multiple sources, a few components, such as automotive grade chips, may at times be subject to industry-wide shortage, significant pricing fluctuations and long supply cycles. For example, following the disruptions to semiconductor manufacturers due to the COVID-19 pandemic, there is an ongoing global chip shortage, which may last for years. See "Risk Factors — Risks Related to Our Business and Industry — We have been and may continue to be negatively impacted by the ongoing global chip shortage."

We seek to work with key material and component suppliers directly to foster long-term and in-depth cooperation. We enter into framework agreements with some of our suppliers for our key raw materials and components, such as lasers and receivers, where we may negotiate certain customized needs with such suppliers, and suppliers who have a relatively long production cycle. In general, under the framework agreements, we make separate purchase orders and negotiate the prices and volume of each purchase order. The framework agreements typically have a term of 24 months, which may be extended one year if not terminated in writing by either party.

Logistics and Warehouse

We mainly rely on qualified third-party logistics service providers for the transportation of equipment, supply and our products. We leased our warehouse in Shanghai, China, which is within our leased production plants, to store our LiDAR products after they roll off the product line. Products that have passed quality inspections are delivered to the warehouse, where we implement strict inventory management and control measures, and ultimately ship to locations specified by our customers.

Quality Control

Facing customers with world-class standards, we are committed to providing our customers with high-performance products with consistent quality and reliability. With our long history of pioneering LiDAR products, we have cultivated in-house high-precision manufacturing and testing capabilities to maintain our high quality control standards, optimize manufacturing cost structure, speed up the iteration of our product development cycle, and increase the robustness of our supply chain.

We impose rigorous quality control standards at various stages of our manufacturing process. Materials and components are systematically tested at different stages of our manufacturing process to ensure that they meet our technical specifications. Our commercialized LiDAR products undergo stringent reliability tests following OEM standards, including mechanical shock, high temperature degradation, thermal shock, power temperature cycle, and salt spray, among others. These tests help ensure excellent and stable performance of our LiDAR products in harsh environments. We also set key metrics to control the operation of our production line. Our current manufacturing facility in Jiading is ISO/TS 16949 certified. In terms of suppliers, our supply chain team and research and development team cooperate with each other during the selection process to evaluate the suppliers' capabilities based on factors such as quality, volume delivery, pricing, timeline, and the ability to adapt, among others. With our strict quality control measures, we are able to produce high-quality LiDAR products in-house.

Research and Development

Our deep passion for innovation coupled with our strong research and development capabilities have allowed us to enjoy a significant technological edge over our peers. Our interdisciplinary team of engineers form the foundation for our continued success. As of May 31, 2021, we had over 350 experienced engineers, mostly in our research and development department, amounting to over 60% of our total employees, and 63% of our engineers had a master's degree or above.

Our research and development team consists of three departments: Hesai Research Institute, the ASIC center, and the research and development center. Hesai Research Institute undertakes very early stage research, such as developing proof-of-concept prototypes and exploring the feasibility of new concept LiDARs beyond our current product lines. Hesai Research Institute also develops fundamental components that are crucial for our LiDARs, such as narrow linewidth lasers, integrated optical packaging and scanners. The ASIC center develops customized ASICs for our next generation LiDARs according to our overall product strategies and roadway. Our proprietary ASICs are the main driving force for the continued evolution of our LiDAR architecture. The research and development center is responsible for the design and development of our LiDAR products. It consists of experts in various areas, such as optics, electronics, mechanics, software, and functional safety, among others. The research and development center works with our business development team to understand customers' needs and design the LiDAR products according to the desired specifications, and works with our manufacturing team to ensure the manufacturability of our LiDARs. After the development of each product, we summarize the experience and know-how we accumulate during the process into our core technologies, which then expedites the development of our next LiDAR product.

We recruit our engineers globally and place strong emphasis on the recruitment of technology specialists and senior engineers with extensive experience in the industry. We offer rewards to those who have made scientific and technological innovations and achievements, and provide share incentives to our core engineers. We have established various training programs to keep our engineers abreast of the most advanced technologies in the relevant fields.

Some of our current research and development projects include:

- *Next generation ASICs (SoC).* We are investing heavily in the research and development of system-on-a-chip (SoC) structure for our next-generation ASICs. An SoC refers to a single chip integrating photodetector, front-end circuiting, waveform processing circuiting and other functional modules. The SoC can replace the main control unit of the LiDAR under certain conditions and can significantly reduce system complexity and manufacturing cost.
- *Solid-state LiDAR.* Our solid-state LiDAR is based on the electronic scanning scheme implemented on addressable VCSEL planar array and SPAD planar array driven by our customized ASICs, ultimately and will results in a security mechanism without moving parts.
- *LiDAR Algorithms.* Our proprietary machine learning algorithms and data system can provide our LiDARs with full stack perception capabilities, including obstacle detection and tracking, lane detection, and free space detection, to sense the LiDAR’s surroundings through real-time structured information on edge-computing devices. Furthermore, our multi-sensor fusion technology with channel-level accuracy and simultaneous localization and mapping (SLAM) technology with centimeter-level accuracy enable us to provide customers with a more complete autonomous driving perception solution.

Intellectual Property

We believe that we have significant capabilities in LiDAR design and ASICs. We regard our patents, trademarks, copyrights, know-how, proprietary technologies, domain names, and similar intellectual property as critical to our success. As of May 31, 2021, we had 224 patents granted and over 300 pending patent applications in China, and 15 patents granted and 108 pending patent applications in other jurisdictions, such as the United States and Europe. Our patents cover our key technologies, including LiDAR technologies and applications, ASIC technologies, and laser-based gas sensor technologies. We possess a leading number of granted patents and pending patent applications among companies in the LiDAR industry, according to the Frost & Sullivan Report. As of May 31, 2021, we also own 68 registered

trademarks in China and overseas countries, including “禾赛” and “Hesai,” copyrights to eight software programs developed by us relating to various aspects of our operations, and 40 registered domain names, including *hesaitech.com*.

The following table presents key technologies covered by our patents.

Category	Subjects of Related Patents
TX/RX System	
<i>Proprietary customized ASICs for LiDAR</i>	The key aspects of the laser driver ASICs and receiver front-end ASICs
<i>Proprietary SoC ASICs for LiDAR</i>	The key aspects of the monolithic integrated receiver, front-end circuit, waveform digitization and waveform algorithm processing
<i>Proprietary optoelectronic and micro-optical devices</i>	The key aspects of optoelectronic devices that enables integration of micro-optoelectronic devices into small packages
<i>Hardware system design</i>	The key aspects of the TX/RX architecture
Scanning Mechanisms	
<i>360-degree mechanical rotation solution</i>	The key aspects of the overall structure, integration and working mode of the 360-degree mechanical rotation LiDAR
<i>Scanning mirror solution</i>	The key aspects of the overall structure, integration and working mode of the LiDAR using scanning mirror
<i>Electronic scanning solution</i>	The key aspects of the overall structure, integration and working mode of the electronic scanning technology

Category	Subjects of Related Patents
System-level Know-how	
<i>Interference rejection technique</i>	The key aspects of the technology to mitigate the interference from other LiDARs and the crosstalk of distinct channels of the same LiDAR
<i>Close-range enhancement technology</i>	The key aspects of the technology to enhance the range measurement precision at short ranges of a non-coaxial LiDAR system
<i>Waveform processing algorithms</i>	The key aspects of the waveform processing, digital signal processing for LiDAR
<i>Advanced physical design</i>	The key aspects of the design of dynamic balancing, heat dissipation, microstructure, and shock-proof of the LiDAR system
<i>Non-uniform distribution technology</i>	The key aspects of the resolution improvement of by using non-uniform distribution of laser and receiver channels on the TX and RX board
<i>Functional safety, cybersecurity and vehicle regulation design</i>	The key aspects of the fault diagnosis, reliability, electromagnetic compatibility, environmental adaptability of LiDAR
<i>Detection algorithms and multi-sensor fusion technology</i>	The key aspects of the detection algorithms and multi-sensor fusion algorithms for the combination of LiDARs and cameras
Automated Calibration, Assembly and Mass Production Testing	The key aspects of the calibration method, calibration device, automatic adjustment, test methods, and devices

We seek to protect our technology and associated intellectual property rights through a combination of know-how, patent, copyright, and trademark laws, as well as internal procedures and policies, and other contractual protections. We enter into confidentiality and non-disclosure agreements with our employees, our suppliers, outsourcing partners, and others to protect our proprietary rights. The agreements we enter into with our employees also provide that all patents, software, inventions, developments, works of authorship, and trade secrets created by them during their employment are our properties. We have employed internal policies, confidentiality agreements, encryptions, and data security measures to protect our proprietary rights. However, there can be no assurance that our efforts will be successful. Even if our efforts are successful, we may incur significant costs in defending our rights. From time to time, third parties may initiate litigation against us alleging infringement of their proprietary rights or declaring their non-infringement of our intellectual property rights. See “Risk Factors — Risks Related to Our Business and Industry — We may need to defend ourselves against intellectual property right infringement claims, which may be time-consuming and would cause us to incur substantial costs,” “Risk Factors — Risks Related to Our Business and Industry — We may not be able to prevent others from unauthorized use of our intellectual property, which could harm our business and competitive position,” and “Risk Factors — Risks Related to Our Business and Industry — As our patents may expire and may not be extended, our patent applications may not be granted, and our patent rights may be contested, circumvented, invalidated, or limited in scope, our patent rights may not protect us effectively. In particular, we may not be able to prevent others from developing or exploiting competing technologies, which could materially and adversely affect our business, financial condition, and results of operations.”

Business Development

We have a dedicated business development team in each of the business areas in charge of the marketing of our LiDAR products to prospective customers. As an integral part of our marketing strategy, we attend large technology conference and industry expositions to showcase our products, solutions, and our technology. We also focus our marketing efforts on generating word-of-mouth referrals and creating content for marketing on media platforms with the goal of increasing our product exposure and building our reputation. Our marketing content includes high-quality articles and videos developed in-house, which elaborate on our product specifications and technologies. We believe that the combination of our high-quality content and the optimization of our marketing channels, in addition to the strong word-of-mouth referrals of our customers and our digitalized direct sales system, forms a virtuous cycle from content marketing to sales leads,

and in turn to word-of-mouth referrals, which enables us to achieve continued brand exposure and attract high-quality potential customers at relatively low marketing spending.

We sell our LiDAR products through direct sales, primarily offline, and indirect distribution channels, such as regional distributors and system integrators. Our website showcases our products for potential customers with insightful product descriptions and reaches our customers globally. We have a dedicated team of salespersons, divided by regions including China, Asia Pacific, the Americas, and Europe, the Middle East and Africa, or EMEA, to pursue and maintain relationships with established regional distributors to tap into offline consumer markets. We believe that sales of our products will be enhanced by knowledgeable salespersons who can convey the value of our revolutionary technologies and demonstrate our products' high performance. Many salespersons have previously worked at renowned technology companies and have years of sales experience and a foundation of technological knowledge to support their sales activities. We promote our products together with our regional distributors through promotional and branding activities, such as attending industry trade shows and making speeches at conferences. In addition, we establish our brand recognition to a wider audience by advertising in public areas and large exhibitions and hosting new product launch activities.

Customer Service and Warranty

In our ongoing efforts to maintain customer satisfaction and improve our products and services, we have a high-quality after-sales team to provide comprehensive after-sales service. We have a dedicated team in China and the United States to provide before- and after-sales services to our customers. They can diagnose issues, either at the customers' places or remotely, and to identify the solutions for the customers' problems.

We typically offer a standard product warranty to customers of our products. The basic warranty period for our products is typically one year. During the warranty period, for any product quality issue on either our software or hardware, we will make repair or replacement free of charge under certain conditions. For product damage caused by the customer's own improper operation, we will provide repair services with charge.

Our Environmental, Social and Governance (ESG) Initiatives

We believe our continued growth rests on integrating social values into our business. We endeavor to utilize our LiDAR technology and solutions to offer public welfare resources to everyone. Since the inception of our operations, we have established various environmental, social and governance initiatives to comprehensively improve our corporate governance and benefit society.

Environmental Sustainability Initiatives

We recognize the importance of contributing to sustainable development for the benefit of our society and environment. With this in mind, we encourage our employees and partners to reduce their energy consumption and carbon footprint, and we promote the use of environmentally friendly technology. We strive to minimize the impact of our operations on the environment and promote sustainability and environmental awareness at all levels of our organization. We employ internal environmental protection and procedures to help minimize the use of hazardous materials, energy, and other natural resources, and to minimize the generation of waste. In addition, we implement various environmental protection measures to manage our manufacturing processes, including installation of cotton filter, cartridge dust collector, and activated carbon adsorption devices to appropriately dispose of the manufacturing waste. We also cooperate with qualified third-party waste disposal service providers for other waste, including waste glue, waste alcohol, waste filter cotton, waste activated carbon, and waste packaging barrels. We also urge that our suppliers consider their environmental performance, incorporating environmental considerations as part of our supplier selection process.

Initiatives to Support the COVID-19 Relief Campaign

We make our unique contributions to the COVID-19 relief campaigns globally by empowering the different technologies that served important roles in both bringing goods to people in need and saving lives, for example, through building the core sensor for ventilators at hospitals.

During the COVID-19 pandemic, our customers' unmanned mobile robots equipped with our LiDAR helped transport food, personal protective equipment, clean linens, and other medical supplies to workers and patients to two California field hospitals and a field hospital in Wuhan, China, which minimized the cross-infection risk of person-to-person contact and reduced the workload of the workers at the field hospitals. During the recent outbreak of the COVID-19 pandemic in Guangzhou, China, we also contributed to the prevention and control work led by the Guangzhou government, and worked together with leading Chinese autonomous driving companies to distribute essential daily supplies to the communities subject to travel restrictions.

We also manufactured laser-based oxygen sensors, a critical component of ventilators at intensive care units, for a Canadian hospital system experiencing supply shortages. Leveraging our experience on developing and manufacturing laser-based gas detectors, we were able to quickly ramp up production capacity and delivered over 1,100 units of oxygen sensors by September 2020. As we are one of the few companies that could provide high-quality oxygen sensors to be used in medical devices in a timely manner, we were selected as a manufacturing partner to address the bottlenecks in production of oxygen sensors in California.

Competition

The market for LiDAR solutions for the Autonomous Mobility, ADAS and Robotics sectors is rapidly evolving and competitive, with many potential applications under development. As a result, although we believe that we have the market-leading LiDAR technology, we face competition from a range of companies developing LiDAR products for these applications, some of which may be similar to ours. Our primary competitors include Tier 1 suppliers who also provide LiDAR products and existing LiDAR companies such as Velodyne, Luminar and Ouster.

We believe that we are strategically well-positioned in our market, and we compete with others favorably based on our advanced LiDAR technology that provides superior Performance, Quality, and Cost, automotive grade manufacturing process, and strong research and development capabilities. Additionally, we expect our product costs per unit to continue to decrease over time as production volume expands.

Employees

We had a total of 553 employees as of May 31, 2021. The following table sets forth the numbers of our employees categorized by function as of May 31, 2021.

Function	Number of Employees
Research and development	272
Production and supply chain	114
Management	62
Sales and marketing	43
Others	62
Total	553

As of May 31, 2021, we had 545 employees based in mainland China and, eight employees in the United States and other countries, and we also had 568 contracting workers in our manufacturing facilities in China.

Our success depends on our ability to attract, motivate, train, and retain qualified personnel. We offer our employees competitive salaries, performance-based cash bonuses and equity-based incentives, and create an environment that encourages self-development. We have generally been able to attract and retain qualified personnel and maintain a stable core management team. We also offer comprehensive training and development programs on topics critical to our business operations. Employees from different positions have different training arrangements that cover a wide range of subjects. Through such training, we ensure that our employees' skill sets remain up to date. We are committed to making continued efforts to provide an admirable working environment to our employees.

As required by regulations in China, we participate in various employee social security plans that are organized by municipal and provincial governments, including pension, unemployment insurance, childbirth

insurance, work-related injury insurance, medical insurance and housing insurance. We are required under PRC law to make contributions to employee benefit plans for our PRC-based employees at specified percentages of the salaries, bonuses and certain allowances of our employees, up to a maximum amount specified by the local government from time to time. Bonuses are generally discretionary and based in part on employee performance and in part on the overall performance of our business. We have granted, and plan to continue to grant, share-based incentive awards to our employees in the future to incentivize their contributions to our growth and development.

We enter into standard labor contracts and confidentiality agreements with our employees. To date, we have not experienced any significant labor disputes. None of our employees are represented by labor unions.

Facilities

We are headquartered in Shanghai, China, and have offices in California, the United States. As of May 31, 2021, we leased our production facility in Shanghai, China, and we had leased office space, plants and warehouses as summarized below. We lease our premises under operating lease agreements from independent third parties. We believe that our existing facilities are generally adequate to meet our current needs, but we expect to seek additional space as needed to accommodate future growth.

Location	Space (square feet)	Use	Lease Term
Shanghai, China	382,044	Office space and manufacturing facility	One to three years
Silicon Valley, California the United States	7,327	Office space	Two years to five years

In March 2021, we obtained land usage right and construction license from relevant government authorities to build our new intelligent manufacturing center in Jiading, Shanghai, that supports a working area of over 740,000 square feet.

Insurance

In addition to providing social security insurance for our employees as required by PRC law, we also provide supplemental commercial medical insurance for some of our employees. We maintain a comprehensive general liability insurance covering products liabilities arising from obligations in relation to bodily injury and property damage. In line with general market practice, we do not maintain any business interruption insurance, which is not mandatory under the relevant laws of the mainland China. We do not maintain key-man life insurance or insurance policies covering damages to our IT infrastructure or information technology systems. See “Risk Factors — Risks Related to Our Business and Industry — We have limited insurance coverage, which could expose us to significant costs and business disruption.”

Legal Proceedings

In August 2019, Velodyne Lidar, Inc., or Velodyne, filed lawsuits against us in the United States Federal District Court for the Northern District of California and the United States International Trade Commission for patent infringement. In November 2019, we also filed a lawsuit against Velodyne in the Regional Court of Frankfurt/Main, Germany, and in April and May 2020, we filed several lawsuits against Velodyne in Shanghai Intellectual Property Court for patent infringement. The aforementioned legal proceedings are collectively referred to as the “Hesai-Velodyne Litigations.” On June 24, 2020, we and Velodyne entered into a settlement and patent cross license agreement, or the Hesai-Velodyne Agreement, to settle all matters fully and finally in the Hesai-Velodyne Litigations, and to enter a global cross-licensing relationship based on then existing and all future patents and patent applications of both parties. Under the Hesai-Velodyne Agreement, we agreed to pay Velodyne a one-off settlement fee and an annual royalty fee through 2030. As of the date of this prospectus, all legal proceedings concerning the Hesai-Velodyne Litigations were terminated.

We may from time to time be subject to various legal or administrative claims and proceedings arising in the ordinary course of our business. We are currently not a party to any other material legal or administrative proceedings. However, litigation or any other legal or administrative proceeding, regardless of the outcome,

may result in substantial cost and diversion of our resources, including our management’s time and attention. See “Risk Factors — Risks Related to Our Business and Industry — We may need to defend ourselves against intellectual property right infringement claims, which may be time-consuming and would cause us to incur substantial costs,” and “Risk Factors — Risks Related to Our Business and Industry — We may be subject to legal proceedings in the ordinary course of our business. If the outcomes of these proceedings are adverse to us, it could have a material adverse effect on our business, results of operations, and financial condition.”

REGULATION

This section sets forth a summary of the most significant rules and regulations that affect our business activities in China or the rights of our shareholders to receive dividends and other distributions from us.

Regulations Relating to Foreign Investment

The *Foreign Investment Law of the PRC*, or the Foreign Investment Law, was formally adopted by the National People's Congress on March 15, 2019 and became effective on January 1, 2020. The Foreign Investment Law is formulated to further expand opening-up, vigorously promote foreign investment and protect the legitimate rights and interests of foreign investors. According to the Foreign Investment Law, foreign investment means any foreign investor's direct or indirect investment in China, including: (i) establishing Foreign Investment Enterprises, or the FIEs, in China either individually or jointly with other investors; (ii) obtaining stock shares, stock equity, property shares, other similar interests in Chinese domestic enterprises; (iii) investing in new projects in China either individually or jointly with other investors; and (iv) making investment through other means provided by laws, administrative regulations, or by State Council. Foreign investments are entitled to pre-entry national treatment and are subject to negative list management system. The pre-entry national treatment means that the treatment given to foreign investors and their investments at the stage of investment access is not lower than that of domestic investors and their investments. The negative list management system means that the State implements special administrative procedures for access to foreign investment in specific fields. Foreign investors shall not invest in any forbidden fields stipulated in the negative list and shall meet the conditions stipulated in the negative list before investing in any restricted fields.

Foreign investors' investment, earnings and other legitimate rights and interests within the territory of China shall be protected in accordance with the law, and all national policies on supporting the development of enterprises shall equally apply to foreign-invested enterprises. The state guarantees that foreign-invested enterprises participate in the formulation of standards in an equal manner and in government procurement activities through fair competition in accordance with the law. The State shall not expropriate any foreign investment except under special circumstances. In special circumstances, the State may levy or expropriate the investment of foreign investors in accordance with the law for the needs of the public interest. The expropriation and requisition shall be conducted in accordance with legal procedures and timely and reasonable compensation shall be given. In carrying out business activities, foreign-invested enterprises shall comply with relevant provisions on labor protection, social insurance, tax, accounting, foreign exchange and other matters stipulated in laws and regulations.

From January 1, 2020, the *Wholly Foreign-Owned Enterprises Law of the PRC*, together with the *Law of the People's Republic of China on Sino-Foreign Equity Joint Ventures* and the *Law of the People's Republic of China on Sino-Foreign Cooperative Joint Ventures* were abolished. The organization form, organization and activities of foreign-invested enterprises shall be governed by the *Company Law of the People's Republic of China* and the *Partnership Enterprise Law of the People's Republic of China*. Foreign-invested enterprises established before the implementation of the Foreign Investment Law may retain the original business organization and so on within five years after the implementation of the Foreign Investment Law.

On December 26, 2019, the State Council promulgated the *Implementation Regulations on the Foreign Investment Law*, which came into effect on January 1, 2020, and it further requires that foreign-invested enterprises and domestic enterprises be treated equally with respect to policy making and implementation. Pursuant to the *Implementation Regulations on the Foreign Investment Law*, if an existing foreign-invested enterprise fails to change its original form pursuant to the Foreign Investment Law as of January 1, 2025, the relevant market regulation departments will not process other registration matters for such enterprise, and may disclose its relevant information to the public.

On December 30, 2019, the MOFCOM, and the State Administration for Market Regulation jointly issued the *Measures for Reporting of Foreign Investment Information*, or the Foreign Investment Information Measures, which came into effect on January 1, 2020 and replaced the *Interim Administrative Measures for the Record-filing of the Establishment and Modification of Foreign-invested Enterprises*. Since January 1, 2020, for foreign investors carrying out investment activities directly or indirectly in the PRC, foreign investors or foreign-invested enterprises shall submit investment information through the Enterprise Registration System

and the National Enterprise Credit Information Publicity System operated by the State Administration for Market Regulation. Foreign investors or foreign-invested enterprises shall disclose their investment information by submitting reports for their establishments, modifications and cancellations and their annual reports in accordance with the Foreign Investment Information Measures. If a foreign-invested enterprise investing in the PRC has finished submitting its reports for its establishment, modifications and cancellation and its annual reports, the relevant information will be shared by the competent market regulation department to the competent commercial department, and does not require such foreign-invested enterprise to submit the reports separately. Where a foreign investor or a foreign-invested enterprise fails to submit the investment information as required, and fails to resubmit or correct such information after being notified by the competent commerce authority, the competent commerce authority shall order it to make corrections within 20 business days. Failure to make corrections within the specified period may subject the foreign investor or the foreign-invested enterprise to fines of up to RMB300,000, or a fine up to RMB500,000 if other severe violations exist.

On December 19, 2020, the National Development and Reform Commission, or the NDRC, and the MOFCOM jointly promulgated the Measures on the Security Review of Foreign Investment, effective on January 18, 2021, setting forth provisions concerning the security review mechanism on foreign investment, including the types of investments subject to review, review scopes and procedures, among others. Led by the NDRC and MOFCOM, the Office of the Working Mechanism shall be established under the NDRC to undertake routine work on the security review of foreign investment. Foreign investors or relevant parties in China shall take the initiative to make a declaration on their investments for security review to the Office of the Working Mechanism prior to (i) making investments in the military industry, military industrial support and other fields relating to the security of national defense, and investments in areas surrounding military facilities and military industry facilities; and (ii) obtaining control over enterprises involved in important agricultural products, important energy and resources, important equipment manufacturing, important infrastructure, important transport services, important cultural products and services, important information technologies and internet products and services, important financial services, key technologies and other important fields relating to national security. Control exists when a foreign investor (i) holds 50% or more equity interests in the enterprise, (ii) has voting rights that can materially impact on the resolutions of the board of directors or shareholders meeting of the enterprise even when it holds less than 50% equity interests in the enterprise, or (iii) has material impact on the enterprise's business decisions, human resources, finance and technology.

Foreign Investment Industrial Policy

Investment activities in China by foreign investors are principally governed by the *Catalog of Industries for Encouraging Foreign Investment*, or the Encouraging Catalog, and the *Special Administrative Measures for Access of Foreign Investments*, or the Negative List, which were promulgated and are amended from time to time by the MOFCOM and the NDRC, and together with the Foreign Investment Law and their respective implementation rules and ancillary regulations. The Encouraging Catalog and the Negative List lay out the basic regulatory framework for foreign investment in China, classifying businesses into three categories with regard to foreign investment: "encouraged," "restricted," and "prohibited." On December 27, 2020, the MOFCOM and the NDRC released the *Catalog of Industries for Encouraging Foreign Investment (2020 Version)*, which became effective on January 27, 2021, to replace the previous Encouraging Catalog. On June 23, 2020, the MOFCOM and the NDRC released the *Special Administrative Measures for Access of Foreign Investments (2020 Version)*, or the Negative List 2020, which became effective on July 23, 2020, to replace the previous Negative List.

According to the current regulations, any industry not listed in the Negative List 2020 is a permitted industry and generally open to foreign investment unless specifically prohibited or restricted by PRC laws and regulations.

Regulations Relating to Product Liability

Pursuant to the *PRC Product Quality Law*, which was promulgated on February 22, 1993 and amended on July 8, 2000, August 27, 2009, and December 29, 2018, a manufacturer is prohibited from producing or selling products that do not meet applicable standards and requirements for safeguarding human health and

ensuring human and property safety. Products must be free from unreasonable dangers threatening human and property safety. Where a defective product causes personal injury or property damage, the aggrieved party may make a claim for compensation from the manufacturer or the seller of the product. Manufacturers and sellers of non-compliant products may be ordered to cease the production or sale of the products and could be subject to confiscation of the products and fines. Earnings from sales in violation of such standards or requirements may also be confiscated, and in severe cases, an offender's business license may be revoked.

On May 28, 2020, the National People's Congress promulgated the *Civil Code of the People's Republic of China*, or the *PRC Civil Code*, which took effect on January 1, 2021 and replaces the *Tort Law of the People's Republic of China*, the *Contract Law of the People's Republic of China*, and several other basic civil laws in the PRC. Under the *PRC Civil Code*, if a product is found to be defective and to compromise the personal and property security of others, the victim may require compensation to be made by the manufacturer or the seller of the product. Where any manufacturer or seller knowingly produces or sells defective products or fails to take effective remedial measures in accordance with the *PRC Civil Code* and thus causes death or serious damage to the health of another person, such person shall be entitled to claim punitive damages. If the transporter or storekeeper is responsible for the matter, the manufacturer or seller shall have the right to demand compensation for its losses.

Regulations Relating to Import and Export of Goods

Pursuant to the *Regulations of the PRC on the Administration of Import and Export of Goods* promulgated by the State Council on December 10, 2001 which came into effect on January 1, 2002, the *Foreign Trade Law of the PRC* promulgated by the Standing Committee of National People's Congress, or the SCNPC, on May 12, 1994 which came into effect on July 1, 1994 and amended on April, 6 2004 and November 7, 2016, the *Customs Law of the PRC* promulgated by the SCNPC, on January 22, 1987 which came into effect on July 1, 1987 and last amended on April 29, 2021, the *Measures for Record Filing and Registration by Foreign Trade Dealer* promulgated by MOFCOM on June 25, 2004, which came into effect on July 1, 2004 and last amended on May 10, 2021 and the *Administrative Provisions of the PRC Customs Authority on the Registration of Customs Declaration Agent* promulgated by the General Administration of Customs of the PRC on March 13, 2014 which came into effect on the same date and last amended on May 29, 2018, foreign trade business operators engaging in the import or export of goods or technology must go through the record filing and registration formalities with the MOFCOM or the agency entrusted by the MOFCOM. Unless otherwise provided by laws and regulations, the PRC government allows free export and import of goods and technologies, and protects the intellectual property rights associated with international trade. Unless otherwise provided for, the declaration of import or export goods and the payment of duties may be made by the consignees or consignors themselves, or by entrusted customs brokers that have been registered with the customs. The consignor and consignee refer to the legal person, any other organization or individual that is directly engaged in the import or export of goods within the territory of the PRC. A consignee or consignor of imported or exported goods must handle registration as a declaring entity at the local customs. After registration, they may make a customs declaration for themselves at all ports within the territory of the PRC.

Regulations Relating to the Control of Radio Transmission Equipment

Pursuant to the *Radio Regulation of the People's Republic of China* released by the State Council and the Central Military Commission on September 11, 1993, and effective on the same day, which was subsequently amended and released on November 11, 2016, and came into force on December 1, 2016, it should be applied to the radio regulatory authority of the state for the model approval before production or import of radio transmission equipment which will be sold and used in China, except for micro power short-distance radio transmission equipment. The catalogue of approved models of radio transmitting equipment was published by the radio regulatory authority of the state.

On October 7, 1997, in order to further strengthen the administration of manufacture of radio transmission equipment, the original State Radio Management Committee and the State Bureau of Technical Supervision jointly issued the *Radio Transmission Equipment Regulations*, which came into force on January 1, 1999. Any manufacture (including pilot production) of radio transmission equipment in PRC will be subject to these regulations. Such Regulations specifically require that the model of transmission

feature shall be approved by the State Radio Management Committee Office and the Model Approval Certificate of Radio Transmission Equipment and the Model Approval Code shall be obtained for the production of radio transmission equipment in the PRC, in addition, the Model Approval Code shall be marked on the exterior of radio transmission equipment. The above requirements shall be exempted if either of the following two conditions are satisfied, namely: (i) the equipment has passed the model approval according to the *Management Regulations of Import of Radio Transmission Equipment* and obtained “Model Approval Certificate of Radio Transmission Equipment”; or (ii) the production of radio transmission equipment is for the sole purpose of exporting, and will not be sold and/or used in the domestic market (except otherwise provided by agreements signed with relevant countries).

On December 26, 2018, Ministry of Industry and Information Technology of the PRC, or the MIIT promulgated the *Interim Measures for the Implementation of Record filing for the Sale of Radio Transmitting Equipment*, which became effective on March 1, 2019. According to the Measures, Sales of radio transmitting equipment shall be filed for the record with the provincial radio regulatory authority in the place where the seller is registered through the information platform within 10 working days from the date of commencement of sales. The seller shall be responsible for the authenticity of the filed information, and accept the supervision and administration implemented by the relevant authorities in accordance with the relevant law. The filing information shall include the information of the business entity and equipment to be sold. The business entity information shall include name of the business entity, unified social credit code, contact person and contact information, address of physical business premises or name and website of the online sales platform, and relevant certificates. The information of the equipment to be sold shall include the equipment model, name of the manufacturer, equipment model, and model approval code.

Regulations Relating to Environmental Protection and Work Safety

Environmental Protection

Pursuant to the *PRC Environmental Protection Law* promulgated by the SCNPC on December 26, 1989, amended on April 24, 2014, and effective on January 1, 2015, any entity which discharges or will discharge pollutants during the course of operations or other activities must implement effective environmental protection safeguards and procedures to control and properly treat waste gas, waste water, waste residue, dust, malodorous gases, radioactive substances, noise, vibrations, electromagnetic radiation, and other hazards produced during such activities.

Environmental protection authorities impose various administrative penalties on persons or enterprises in violation of the Environmental Protection Law. Such penalties include warnings, fines, orders to rectify within a prescribed period, orders to cease construction, orders to restrict or suspend production, orders to make recovery, orders to disclose relevant information or make an announcement, imposition of administrative action against relevant responsible persons, and orders to shut down enterprises. Any person or entity that pollutes the environment resulting in damage could also be held liable under the *PRC Civil Code*. In addition, environmental organizations may also bring lawsuits against any entity that discharges pollutants detrimental to the public welfare.

Work Safety

Under relevant construction safety laws and regulations, including the *PRC Work Safety Law*, which was promulgated by the SCNPC on June 29, 2002, amended on August 27, 2009 and August 31, 2014, and effective on December 1, 2014, production and operating business entities must establish objectives and measures for work safety and improve the working conditions for workers in a planned and systematic way. A work safety protection scheme must also be set up to implement the work safety job responsibility system. In addition, production and operating business entities must arrange work safety training and provide their employees with protective equipment that meets the national or industrial standards. Automobile and components manufacturers are subject to such environment protection and work safety requirements.

Fire Control

Pursuant to the *PRC Fire Safety Law*, which was promulgated by the SCNPC on April 29, 1998, and most recently amended on April 29, 2021, and the *Interim Provisions on Administration of Fire Control*

Design Review and Acceptance of Construction Project promulgated by the Ministry of Housing and Urban-Rural Development on April 1, 2020, which became effective on June 1, 2020, the construction entity of a large-scale crowded venue (including the construction of a manufacturing plant whose size is over 2,500square meters) and other special construction projects must apply for fire prevention design review with fire control authorities, and complete fire assessment inspection and acceptance procedures after the construction project is completed. The construction entity of other construction projects must complete the filing for fire prevention design and the fire safety completion inspection and acceptance procedures within five business days after passing the construction completion inspection and acceptance. If the construction entity fails to pass the fire safety inspection before such venue is put into use or fails to conform to the fire safety requirements after such inspection, it will be subject to (i) orders to suspend the construction of projects, use of such projects, or operation of relevant business, and (ii) a fine between RMB30,000 and RMB300,000.

Regulations Relating to Intellectual Property

China has adopted comprehensive legislation governing intellectual property rights, including copyrights, trademarks, patents and domain names. China is a signatory to the primary international conventions on intellectual property rights and has been a member of the Agreement on Trade Related Aspects of Intellectual Property Rights since its accession to the World Trade Organization in December 2001.

Copyright

On September 7, 1990, the SCNPC promulgated the *Copyright Law of the People's Republic of China*, or the Copyright Law, effective on June 1, 1991 and amended on October 27, 2001, February 26, 2010 and November 11, 2020, and the latest amendment took effect on June 1, 2021. The amended Copyright Law extends copyright protection to internet activities, products disseminated over the internet and software products. In addition, there is a voluntary registration system administered by the Copyright Protection Centre of China. According to the Copyright Law, Chinese citizens, legal persons, or other organizations shall, whether published or not, own copyright in their copyrightable works, which include, among others, works of literature, art, natural science, social science, engineering technology and computer software. Copyright owners enjoy certain legal rights, including right of publication, right of authorship and right of reproduction. An infringer of the copyrights shall be subject to various civil liabilities, which include ceasing infringement activities, apologizing to the copyright owners and compensating the loss of copyright owner. Infringers of copyright may also subject to fines and/or administrative or criminal liabilities in severe situations.

In order to further implement the *Regulations on Computer Software Protection*, promulgated by the State Council on December 20, 2001 and amended on January 8, 2011 and January 30, 2013, respectively, the National Copyright Administration issued the *Measures for the Registration of Computer Software Copyright* on February 20, 2002, which specify detailed procedures and requirements with respect to the registration of software copyrights.

Under the Order of the State Council on the Issuance of the *Regulations on the Protection of Layout-Designs of Integrated Circuits*, promulgated on 2 April 2001 and coming into force on 1 October 2001, any layout-design created by a Chinese natural person, legal person or other organization shall be eligible for the exclusive right of layout-design in accordance with these Regulations. Any layout-design which is to be protected shall be original in the sense that the layout-design is the result of the creator's own intellectual effort, and it is not commonplace among creators of layout-designs and manufacturers of integrated circuits at the time of its creation. The intellectual property administration department of the State Council is responsible for the relevant administrative work concerning the exclusive right of layout-design in accordance with these regulations.

Trademark

According to the *Trademark Law of the People's Republic of China* promulgated by the SCNPC on August 23, 1982, and amended on February 22, 1993, October 27, 2001, August 30, 2013 and April 23, 2019 respectively, the Trademark Office of the State Administration for Industry and Commerce Authority, or the SAIC, under the State Council is responsible for the registration and administration of trademarks in China. The SAIC under the State Council has established a Trademark Review and Adjudication Board for

resolving trademark disputes. Registered trademarks are valid for 10 years from the date the registration is approved. A registrant may apply to renew a registration within twelve months before the expiration date of the registration. If the registrant fails to apply in a timely manner, a grace period of six additional months may be granted. If the registrant fails to apply before the grace period expires, the registered trademark shall be deregistered. Renewed registrations are valid for ten years. On April 29, 2014, the State Council issued the revised *Implementing Regulations of the Trademark Law of the People's Republic of China*, which specifies the requirements of applying for trademark registration and renewal.

Patent

According to the *Patent Law of the People's Republic of China*, or the Patent Law, promulgated by the SCNPC on March 12, 1984 and amended on September 4, 1992, August 25, 2000, December 27, 2008, and October 17, 2020, the latest amendment took effect on June 1, 2021, respectively, and the *Implementation Rules of the Patent Law of the People's Republic of China*, or the Implementation Rules of the Patent Law, promulgated by the State Council on June 15, 2001 and revised on December 28, 2002 and January 9, 2010, respectively, the patent administrative department under the State Council is responsible for the administration of patent-related work nationwide and the patent administration departments of provincial or autonomous regions or municipal governments are responsible for administering patents within the respective administrative areas. The Patent Law and Implementation Rules of the Patent Law provide for three types of patents, namely "inventions," "utility models" and "designs." Invention patents are valid for twenty years, while utility model patents and design patents are valid for ten years, in each case from the date of application. The Chinese patent system adopts a "first come, first file" principle, which means that where more than one person files a patent application for the same invention, a patent will be granted to the person who files the application first. An invention or a utility model must possess novelty, inventiveness and practical applicability to be patentable. Third Parties must obtain consent or a proper license from the patent owner to use the patent. Otherwise, the unauthorized use constitutes an infringement on the patent rights.

Domain Names

On August 24, 2017, the MIIT promulgated the *Administrative Measures for Internet Domain Names*, or the Domain Name Measures, which became effective on November 1, 2017. The Domain Name Measures regulate the registration of domain names, such as China's national top-level domain name ".CN." The China Internet Network Information Center, or the CNNIC, issued the *Administrative Regulations for Country Code Top-Level Domain Name Registration and Country Code Top-Level Dispute Resolution Rules* on June 18, 2019, pursuant to which the CNNIC can authorize a domain name dispute resolution institution to decide domain name related disputes.

Regulations Relating to Foreign Exchange

The principal regulations governing foreign currency exchange in China are the *Administrative Regulations on Foreign Exchange of the People's Republic of China*, or the Foreign Exchange Administrative Regulation, which were promulgated by the State Council on January 29, 1996, became effective on April 1, 1996 and was subsequently amended on January 14, 1997 and August 1, 2008 (which became effective on August 5, 2008), respectively, and the *Administrative Regulations on Foreign Exchange Settlement, Sales and Payment*, which was promulgated by the PBOC, on June 20, 1996 and became effective on July 1, 1996. Under these regulations, payments of current account items, such as profit distributions and trade and service-related foreign exchange transactions, can be made in foreign currencies without prior approval from the State Administration of Foreign Exchange, or SAFE, by complying with certain procedural requirements. By contrast, approval from or registration with appropriate governmental authorities or the designated banks is required where RMB is to be converted into foreign currency and remitted outside of China to pay capital account items such as the repayment of foreign currency-denominated loans, direct investment overseas and investments in securities or derivative products outside of the PRC. FIEs are permitted to convert their after-tax dividends into foreign exchange and to remit such foreign exchange out of their foreign exchange bank accounts in the PRC.

On March 30, 2015, SAFE promulgated the *Notice on Reforming the Administration of Foreign Exchange Settlement of Capital of Foreign-invested Enterprises*, or the SAFE Circular 19, which took effect

on June 1, 2015 and further revised in 2019. According to the SAFE Circular 19, the foreign currency capital contribution to an FIE in its capital account may be converted into RMB on a discretionary basis.

On June 9, 2016, SAFE promulgated the *Circular on Reforming and Regulating Policies on the Management of the Settlement of Foreign Exchange of Capital Accounts*, or the SAFE Circular 16. The SAFE Circular 16 unifies the discretionary foreign exchange settlement for all the domestic institutions. The Discretionary Foreign Exchange Settlement refers to the foreign exchange capital in the capital account which has been confirmed by the relevant policies subject to the discretionary foreign exchange settlement (including foreign exchange capital, foreign loans and funds remitted from the proceeds from the overseas listing) can be settled at the banks based on the actual operational needs of the domestic institutions. The proportion of Discretionary Foreign Exchange Settlement of the foreign exchange capital is temporarily determined as 100%. Violations of SAFE Circular 19 or SAFE Circular 16 could result in administrative penalties in accordance with the Foreign Exchange Administrative Regulation and relevant provisions.

Furthermore, SAFE Circular 16 stipulates that the use of foreign exchange incomes of capital accounts by FIEs shall follow the principles of authenticity and self-use within the business scope of the enterprises. The foreign exchange incomes of capital accounts and capital in RMB obtained by the FIE from foreign exchange settlement shall not be used for the following purposes: (i) directly or indirectly used for the payment beyond the business scope of the enterprises or the payment prohibited by relevant laws and regulations; (ii) directly or indirectly used for investment in securities or financial schemes other than bank guaranteed products unless otherwise provided by relevant laws and regulations; (iii) used for granting loans to non-affiliated enterprises, unless otherwise permitted by its business scope; and (iv) used for the construction or purchase of real estate that is not for self-use (except for real estate enterprises).

On October 23, 2019, SAFE promulgated the *Notice of the State Administration of Foreign Exchange on Further Promoting the Convenience of Cross-border Trade and Investment*, or the SAFE Circular 28. The SAFE Circular 28 stipulates that non-investment FIEs may use capital to carry out domestic equity investment in accordance with the law under the premise of not violating the negative list and the projects invested are true and in compliance with laws and regulations.

On April 10, 2020, SAFE issued the *Notice of the SAFE on Optimizing Foreign Exchange Administration to Support the Development of Foreign-related Business*, or the SAFE Circular 8. The SAFE Circular 8 provides that under the condition that the use of funds is genuine and compliant with current administrative provisions on use of income relating to capital account, enterprises are allowed to use income under capital account such as capital funds, foreign debts and overseas listings for domestic payment, without submission to the bank prior to each transaction of materials evidencing the veracity of such payment.

Regulations Relating to Dividend Distribution

The principal regulations governing distribution of dividends of wholly foreign-owned enterprise, or WFOE, include the *Company Law of the People's Republic of China*. Under these regulations, WFOEs in China may pay dividends only out of their accumulated profits, if any, determined in accordance with the PRC accounting standards and regulations. In addition, foreign investment enterprises in the PRC are required to allocate at least 10% of their accumulated profits each year, if any, to fund certain reserve funds unless these reserves have reached 50% of the registered capital of the enterprises. These reserves are not distributable as cash dividends.

Regulations Relating to Foreign Debts

A loan made by foreign investors as shareholders in a foreign-invested enterprise is considered to be foreign debt in the PRC and is regulated by various laws and regulations, including the *Foreign Exchange Administrative Regulation*, the *Interim Provisions on the Management of Foreign Debts* promulgated by SAFE, the NDRC and the Ministry of Finance, or the MOF, and took effect on March 1, 2003 and the *Administrative Measures for Registration of Foreign Debts* promulgated by SAFE on April 28, 2013 and amended by the *Notice of the SAFE on Abolishing and Amending the Normative Documents Related to the Reform of the Registered Capital Registration System* on May 4, 2015. Under these rules, a shareholder loan in the form of foreign debt made to a Chinese entity does not require the prior approval of SAFE. However, such foreign debt must be registered with and recorded by local banks. The SAFE Circular 28 provides that a

non-financial enterprise in the pilot areas may register a permitted amount of foreign debts, which is as twice of the non-financial enterprise's net assets, at the local foreign exchange bureau. Such non-financial enterprise may borrow foreign debts within the permitted amount and directly handle the relevant procedures in banks without registration of each foreign debt. However, the non-financial enterprise shall report its international income and expenditure regularly.

Regulations Relating to Offshore Special Purpose Vehicles Held by PRC Residents

SAFE promulgated the *Circular on Printing and Distributing the Provisions on Foreign Exchange Administration over Domestic Direct Investment by Foreign Investors and the Supporting Documents* on May 10, 2013, which was amended on October 10, 2018 and on 30 December 2019 respectively, which specifies that the administration by SAFE or its local branches over direct investment by foreign investors in the PRC shall be conducted by way of registration and banks shall process foreign exchange business relating to the direct investment in the PRC based on the registration information provided by SAFE and its branches.

SAFE promulgated the SAFE Circular 37, on July 4, 2014 that requires PRC residents or entities to register with SAFE or its local branch in connection with their establishment or control of an offshore entity established for the purpose of overseas investment or financing. In addition, such PRC residents or entities must update their SAFE registrations when the offshore special purpose vehicle undergoes material events relating to any change of basic information (including change of such PRC citizens or residents, and name and term of operation), capital increase or reduction, transfers or exchanges of shares, or mergers or divisions. SAFE Circular 37 was issued to replace the *Notice on Relevant Issues Concerning Foreign Exchange Administration for PRC Residents Engaging in Financing and Roundtrip Investments via Overseas Special Purposes Vehicles*.

SAFE further enacted the *Notice of the State Administration of Foreign Exchange on Further Simplifying and Improving the Foreign Exchange Management Policies for Direct Investment*, or the SAFE Circular 13 and amended on 30 December 2019 by a notice, which allows PRC residents or entities to register with qualified banks in connection with their establishment or control of an offshore entity established for the purpose of overseas investment or financing. However, remedial registration applications made by PRC residents that previously failed to comply with the SAFE Circular 37 continue to fall under the jurisdiction of the relevant local branch of SAFE. In the event that a PRC shareholder holding interests in a special purpose vehicle fails to fulfill the required SAFE registration, the PRC subsidiaries of that special purpose vehicle may be prohibited from distributing profits to the offshore parent and from carrying out subsequent cross-border foreign exchange activities, and the special purpose vehicle may be restricted in its ability to contribute additional capital into its PRC subsidiary.

On January 26, 2017, SAFE issued the *Notice on Improving the Check of Authenticity and Compliance to Further Promote Foreign Exchange Control*, or the SAFE Circular 3, which stipulates several capital control measures with respect to the outbound remittance of profit from domestic entities to offshore entities, including (i) under the principle of genuine transaction, banks shall check board resolutions regarding profit distribution, the original version of tax filing records and audited financial statements; and (ii) domestic entities shall hold income to account for previous years' losses before remitting the profits. Moreover, pursuant to SAFE Circular 3, domestic entities shall make detailed explanations of the sources of capital and utilization arrangements, and provide board resolutions, contracts and other proof when completing the registration procedures in connection with an outbound investment.

Regulations Relating to Stock Incentive Plans

According to the *Notice of the State Administration of Foreign Exchange on Issues Relating to the Foreign Exchange Administration for Domestic Individuals Participating in Stock Incentive Plan of Overseas Listed Company*, or the Share Option Rules, which was issued on February 15, 2012 and other regulations, directors, supervisors, senior management and other employees participating in any share incentive plan of an overseas publicly listed company who are PRC citizens or non-PRC citizens residing in China for a continuous period of not less than one year, subject to certain exceptions, are required to register with SAFE. All such participants need to authorize a qualified PRC agent, such as a PRC subsidiary of the overseas publicly listed company to register with SAFE and handle foreign exchange matters such as opening accounts,

and transfer and settlement of the relevant proceeds. The Share Incentive Rules further require an offshore agent to be designated to handle matters in connection with the exercise of share options and sales of proceeds for the participants of the share incentive plans. Failure to complete the said SAFE registrations may subject the participating directors, supervisors, senior management and other employees to fines and other legal sanctions.

In addition, the State Administration of Taxation, or the SAT, has issued certain circulars concerning employee stock options and restricted shares. Under these circulars, employees working in the PRC who exercise stock options or are granted restricted shares will be subject to PRC individual income tax. The PRC subsidiaries of an overseas listed company are required to file documents relating to employee stock options and restricted shares with relevant tax authorities and to withhold individual income taxes of employees who exercise their stock option or purchase restricted shares. If the employees fail to pay or the PRC subsidiaries fail to withhold income tax in accordance with relevant laws and regulations, the PRC subsidiaries may face sanctions imposed by the tax authorities or other PRC governmental authorities.

Regulation on Outbound Direct Investment

On December 26, 2017, the NDRC promulgated the *Administrative Measures for the Outbound Investment of Enterprises*, or NDRC Order No.11, which took effect on March 1, 2018. According to NDRC Order No.11, non-sensitive overseas investment projects are required to make record filings with the local branch of the NDRC. On September 6, 2014, MOFCOM promulgated the *Administrative Measures on Overseas Investments*, which took effect on October 6, 2014. According to such regulations, overseas investments of PRC enterprises that involve non-sensitive countries and regions and non-sensitive industries must make record filings with a local branch of MOFCOM. The *Notice of the State Administration of Foreign Exchange on Further Improving and Adjusting Foreign Exchange Administration Policies for Direct Investment* was issued by SAFE on November 19, 2012 and amended on May 4, 2015, October 10, 2018 and December 30, 2019 respectively, under which PRC enterprises must register for overseas direct investment with local banks. The shareholders or beneficial owners who are PRC entities are required to be in compliance with the related overseas investment regulations. If they fail to complete the filings or registrations required by overseas direct investment regulations, the relevant authority may order them to suspend or cease the implementation of such investment and make corrections within a specified time.

Regulations Relating to Taxation

Enterprise Income tax

According to the *Enterprise Income Tax Law of the People's Republic of China*, or the EIT Law, which was promulgated on March 16, 2007, became effective from January 1, 2008 and amended on February 24, 2017 and December 29, 2018, respectively, an enterprise established outside the PRC with de facto management bodies within the PRC is considered a resident enterprise for PRC enterprise income tax purposes and is generally subject to a uniform 25% enterprise income tax rate on its worldwide income. The *Implementing Rules of the Enterprise Income Law of the People's Republic of China*, or the Implementing Rules of the EIT Law defines a de facto management body as a managing body that in practice exercises “substantial and overall management and control over the production and operations, personnel, accounting, and properties” of the enterprise. Non-PRC resident enterprises without any branches in the PRC pay an enterprise income tax in connection with their income originating from the PRC at the tax rate of 10%.

On February 3, 2015, the SAT issued the *Announcement on Several Issues Concerning the Enterprise Income Tax on Indirect Transfer of Assets by Non-Resident Enterprises*, or the SAT Circular 7, which was amended in 2017. The SAT Circular 7 repeals certain provisions in the *Notice of the State Administration of Taxation on Strengthening the Administration of Enterprise Income Tax on Income from Equity Transfer by Non-Resident Enterprises*, or the SAT Circular 698, issued by SAT on December 10, 2009 and the *Announcement on Several Issues Relating to the Administration of Income Tax on Non-resident Enterprises* issued by SAT on March 28, 2011 and clarifies certain provisions in the SAT Circular 698. The SAT Circular 7 provides comprehensive guidelines relating to, and heightening the Chinese tax authorities' scrutiny on, indirect transfers by a non-resident enterprise of assets (including assets of organizations and premises in the PRC, immovable property in the PRC, equity investments in PRC resident enterprises), or the PRC

Taxable Assets. For instance, when a non-resident enterprise transfers equity interests in an overseas holding company that directly or indirectly holds certain PRC Taxable Assets and if the transfer is believed by the Chinese tax authorities to have no reasonable commercial purpose other than to evade enterprise income tax, the SAT Circular 7 allows Chinese tax authorities to reclassify the indirect transfer of PRC Taxable Assets into a direct transfer and therefore impose a 10% rate of PRC enterprise income tax on the non-resident enterprise. The SAT Circular 7 lists several factors to be taken into consideration by tax authorities in determining if an indirect transfer has a reasonable commercial purpose. However, regardless of these factors, the overall arrangements in relation to an indirect transfer satisfying all the following criteria will be deemed to lack a reasonable commercial purpose: (i) 75% or more of the equity value of the intermediary enterprise being transferred is derived directly or indirectly from PRC Taxable Assets; (ii) at any time during the one-year period before the indirect transfer, 90% or more of the asset value of the intermediary enterprise (excluding cash) is comprised directly or indirectly of investments in the PRC, or during the one-year period before the indirect transfer, 90% or more of its income is derived directly or indirectly from the PRC; (iii) the functions performed and risks assumed by the intermediary enterprise and any of its subsidiaries and branches that directly or indirectly hold the PRC Taxable Assets are limited and are insufficient to prove their economic substance; and (iv) the foreign tax payable on the gain derived from the indirect transfer of the PRC Taxable Assets is lower than the potential PRC tax on the direct transfer of those assets. On the other hand, indirect transfers falling into the scope of the safe harbors under the SAT Circular 7 may not be subject to PRC tax under the SAT Circular 7. The safe harbors include qualified group restructurings, public market trades and exemptions under tax treaties or arrangements.

On October 17, 2017, SAT issued the *Announcement on Issues Relating to Withholding at Source of Income Tax of Non-resident Enterprises*, or the SAT Circular 37, which took effect on December 1, 2017. Certain provisions of the SAT Circular 37 were repealed by the *Announcement of the State Administration of Taxation on Revising Certain Taxation Normative Documents*. According to the SAT Circular 37, the balance after deducting the equity net value from the equity transfer income shall be the taxable income amount for equity transfer income. Equity transfer income shall mean the consideration collected by the equity transferor from the equity transfer, including various income in monetary form and non-monetary form. Equity net value shall mean the tax computation basis for obtaining the said equity. The tax computation basis for equity shall be: (i) the capital contribution costs actually paid by the equity transferor to a Chinese resident enterprise at the time of investment and equity participation, or (ii) the equity transfer costs actually paid at the time of acquisition of such equity to the original transferor of the said equity. Where there is reduction or appreciation of value during the equity holding period, and the gains or losses may be confirmed pursuant to the rules of the finance and tax authorities of the State Council, the equity net value shall be adjusted accordingly. When an enterprise computes equity transfer income, it shall not deduct the amount in the shareholders' retained earnings, such as undistributed profits, of the investee enterprise, which may be distributed in accordance with the said equity. In the event of partial transfer of equity under multiple investments or acquisitions, the enterprise shall determine the costs corresponding to the transferred equity in accordance with the transfer ratio, out of all costs of the equity

Under the SAT Circular 7 and the *Law of the People's Republic of China on the Administration of Tax Collection* promulgated by the SCNPC on September 4, 1992 and newly amended on April 24, 2015, in the case of an indirect transfer, entities or individuals obligated to pay the transfer price to the transferor shall act as withholding agents. Where the withholding agent does not make the withholding, and the transferor of the equity does not pay the tax payable amount, the tax authority may impose late payment interest on the transferor. In addition, the tax authority may also hold the withholding agents liable and impose a penalty of ranging from 50% to 300% of the unpaid tax on them. The penalty imposed on the withholding agents may be reduced or waived if the withholding agents have submitted the relevant materials in connection with the indirect transfer to the PRC tax authorities in accordance with the SAT Circular 7.

According to the *Circular of State Administration of Taxation on Issues Concerning Implementation of Preferential Enterprise Income Tax Treatment for High-Tech Enterprises* promulgated by SAT on April 22, 2009 and implemented since January 1, 2008, and *Circular of Printing the Administrative Measures for Recognition of High-Tech Enterprises* amended by Ministry of Science and Technology, MOF and SAT on January 29, 2016 and came into effect since January 1, 2016, upon the accreditation of the qualification of High-tech enterprises, such enterprises may apply for the entitlement of the preferential enterprise income tax treatment since the current year beginning from the valid period approved by the accreditation. A "high

and new technology enterprise,” or an HNTE, is entitled to a favorable statutory tax rate of 15% and such an enterprise should keep all statutory required relevant materials in case of future inspection. This qualification is reassessed by relevant government authorities every three years.

Withholding tax on dividend distribution

The EIT Law prescribes a standard withholding tax rate of 20% on dividends and other China-sourced income of non-PRC resident enterprises which have no establishment or place of business in the PRC, or if established, the relevant dividends or other China-sourced income are in fact not associated with such establishment or place of business in the PRC. However, the Implementing Rules of the EIT Law reduced the rate from 20% to 10%, effective from January 1, 2008. However, a lower withholding tax rate might be applied if there is a tax treaty or similar agreement between China and the jurisdiction of the foreign holding company, for example, pursuant to the *Arrangement Between the Mainland of China and the Hong Kong Special Administrative Region for the Avoidance of Double Taxation and Tax Evasion on Income*, or the Double Tax Avoidance Arrangement, and other applicable PRC laws, if a Hong Kong resident enterprise is determined by the competent PRC tax authority to have satisfied the relevant conditions and requirements under the Double Tax Avoidance Arrangement and other applicable laws, the 10% withholding tax on the dividends that the Hong Kong resident enterprise receives from a PRC resident enterprise may be reduced to 5% upon receiving approval from the tax authority in charge.

Based on the *Notice on Relevant Issues Relating to the Enforcement of Dividend Provisions in Tax Treaties* issued on February 20, 2009 by the SAT, if the relevant PRC tax authorities determine, at their discretion, that a company benefits from such reduced income tax rate due to a structure or arrangement that is primarily tax-driven, such PRC tax authorities may adjust the preferential tax treatment. The *Announcement of the State Administration of Taxation on Issues concerning “Beneficial Owners” in Tax Treaties*, promulgated by the SAT on February 3, 2018 and took effect on April 1 2018, further clarifies the analysis standard when determining one’s qualification for beneficial owner status.

Furthermore, the Administrative Measures for Convention Treatment for Non-resident Taxpayers, which became effective on January 1, 2020, require that non-resident taxpayers claiming treaty benefits shall be handled in accordance with the principles of “self-assessment, claiming for the enjoyment of treaty benefits, and retention of the relevant materials for future inspection.” Where a non-resident taxpayer self-assesses and concludes that it satisfies the criteria for claiming treaty benefits, it may enjoy treaty benefits at the time of tax declaration or at the time of withholding through a withholding agent, simultaneously gather and retain the relevant materials pursuant to the provisions of these Measures for future inspection, and subject to subsequent administration by relevant competent tax authorities.

Value-Added Tax

Pursuant to the *Interim Regulations on Value-Added Tax of the People’s Republic of China*, which was promulgated by the State Council on December 13, 1993 and amended on November 10, 2008, February 6, 2016 and November 19, 2017, respectively, and the *Implementation Rules for the Interim Regulations on Value-Added Tax of the People’s Republic of China*, which was promulgated by the MOF and SAT on December 15, 2008 and became effective on January 1, 2009 and as amended on October 28, 2011, entities or individuals engaging in sale of goods, provision of processing services, repairs and replacement services, selling services, sales of intangible assets or importation of goods within the territory of the PRC shall pay value-added tax, or VAT. Unless provided otherwise, the rate of VAT is 17% on sales and 6% on the services. On April 4, 2018, MOF and SAT jointly promulgated the *Circular of the Ministry of Finance and the State Administration of Taxation on Adjustment of Value-Added Tax Rates*, or the Circular 32, according to which (i) for VAT taxable sales acts or import of goods originally subject to VAT rates of 17% and 11% respectively, such tax rates shall be adjusted to 16% and 10%, respectively; (ii) for purchase of agricultural products originally subject to tax rate of 11%, such tax rate shall be adjusted to 10%; (iii) for purchase of agricultural products for the purpose of production and sales or consigned processing of goods subject to tax rate of 16%, such tax shall be calculated at the tax rate of 12%; (iv) for exported goods originally subject to tax rate of 17% and export tax refund rate of 17%, the export tax refund rate shall be adjusted to 16%; and (v) for exported goods and cross-border taxable acts originally subject to tax rate of 11% and export tax refund rate of 11%, the export tax refund rate shall be adjusted to 10%. Circular 32 became effective on May 1, 2018 and shall supersede existing provisions which are inconsistent with Circular 32.

On March 20, 2019, MOF, SAT and the General Administration of Customs jointly promulgated the *Announcement on Relevant Policies for Deepening Value-Added Tax Reform*, which became effective on April 1, 2019 and provides that (i) with respect to VAT taxable sales acts or import of goods originally subject to VAT rates of 16% and 10% respectively, such tax rates shall be adjusted to 13% and 9%, respectively; (ii) with respect to purchase of agricultural products originally subject to tax rate of 10%, such tax rate shall be adjusted to 9%; (iii) with respect to purchase of agricultural products for the purpose of production or consigned processing of goods subject to tax rate of 13%, such tax shall be calculated at the tax rate of 10%; (iv) with respect to export of goods and services originally subject to tax rate of 16% and export tax refund rate of 16%, the export tax refund rate shall be adjusted to 13%; and (v) with respect to export of goods and cross-border taxable acts originally subject to tax rate of 10% and export tax refund rate of 10%, the export tax refund rate shall be adjusted to 9%.

Regulations Relating to Employment and Social Welfare

According to the *Labor Contract Law of the People's Republic of China*, or the Labor Contract Law, promulgated by the SCNPC on June 29, 2007 and amended on December 28, 2012, and the *Implementation Rules of the Labor Contract Law of the People's Republic of China*, or the Implementation Rules of the Labor Contract Law, promulgated by the State Council on September 3, 2008, a written employment contract shall be concluded in the establishment of an employment relationship. If an employer fails to enter into a written employment contract with an employee within one year from the date on which the employment relationship is established, the employer must rectify the situation by entering into a written employment contract with the employee and pay the employee twice the employee's salary for the period from the day following the lapse of one month from the date of establishment of the employment relationship to the day prior to the execution of the written employment contract. The Labor Contract Law and its implementation rules also require compensation to be paid upon certain terminations. In addition, if an employer intends to enforce a non-compete provision in an employment contract or non-competition agreement with an employee, it has to compensate the employee on a monthly basis during the term of the restriction period after the termination or expiry of the labor contract. Employers in most cases are also required to provide severance payment to their employees after their employment relationships are terminated.

Pursuant to the *Social Insurance Law of the People's Republic of China*, which was promulgated by the SCNPC on October 28, 2010, effective on July 1, 2011 and last amended on December 29, 2018, the *Interim Regulations on the Collection of Social Insurance Fees*, issued by the State Council on January 22, 1999 and last amended on March 24, 2019, and the *Regulations on the Administration of Housing Provident Funds*, issued by the State Council on April 3, 1999 and last amended on March 24, 2019, enterprises in China are required to participate in certain employee benefit plans, including social insurance funds and housing provident funds, and contribute to the funds in amounts equal to certain percentages of salaries, including bonuses and allowances, of the employees as specified by the local government from time to time at locations where they operate their businesses or where they are located.

Regulations Relating to Overseas Listing and M&A

On August 8, 2006, six PRC regulatory agencies, including the China Securities Regulatory Commission, or the CSRC, promulgated the *Rules on the Merger and Acquisition of Domestic Enterprises by Foreign Investors*, or the M&A Rules, which became effective on September 8, 2006 and were amended on June 22, 2009. The M&A Rules, among other things, require offshore special purpose vehicles formed for overseas listing purposes through acquisitions of PRC domestic companies and controlled by PRC domestic enterprises or individuals to obtain the approval of the CSRC prior to the listing and trading of such special purpose vehicle's securities on an overseas stock exchange. In September 2006, the CSRC published on its official website procedures regarding its approval of overseas listings by special purpose vehicles. The CSRC approval procedures require the filing of a number of documents with the CSRC. Although (i) the CSRC currently has not issued any definitive rule or interpretation concerning whether offerings like ours under this prospectus are subject to the M&A Rules; and (ii) when our Company set up its offshore holding structure, Hesai Shanghai was a then existing foreign-invested entity and not a PRC domestic company as defined under the M&A Rules, and the acquisition by Hesai Hong Kong of the equity interest in Hesai Shanghai was not subject to the M&A Rules, the interpretation and application of the regulations remain unclear, and this offering may ultimately require approval from the CSRC. If CSRC approval is required, it is uncertain

whether it would be possible for us to obtain the approval and any failure to obtain or delay in obtaining CSRC approval for this offering would subject us to sanctions imposed by the CSRC and other PRC regulatory agencies.

The M&A Rules, and other regulations and rules concerning mergers and acquisitions established additional procedures and requirements that could make merger and acquisition activities by foreign investors more time consuming and complex. For example, the M&A Rules require that MOFCOM be notified in advance of any change-of-control transaction in which a foreign investor takes control of a PRC domestic enterprise, if (i) any important industry is concerned, (ii) such transaction involves factors that impact or may impact national economic security, or (iii) such transaction will lead to a change in control of a domestic enterprise which holds a famous trademark or PRC time-honored brand.

In addition, according to the *Notice on Establishing the Security Review System for Mergers and Acquisitions of Domestic Enterprises by Foreign Investors* issued by the General Office of the State Council on February 3, 2011 and became effective on March 3, 2011, the *Rules on Implementation of Security Review System for the Merger and Acquisition of Domestic Enterprises by Foreign Investors* issued by the MOFCOM on August 25, 2011 and became effective on September 1, 2011, mergers and acquisitions by foreign investors that raise “national defense and security” concerns and mergers and acquisitions through which foreign investors may acquire de facto control over domestic enterprises that raise “national security” concerns are subject to strict review by the MOFCOM, and the regulations prohibit any activities attempting to bypass such security review, including by structuring the transaction through a proxy or contractual control arrangement.

MANAGEMENT

Directors and Executive Officers

The following table sets forth information regarding our directors and executive officers as of the date of this prospectus.

Directors and Executive Officers	Age	Position/Title
Yifan Li	35	Co-Founder, Director and Chief Executive Officer
Kai Sun	36	Co-Founder, Director and Chief Scientist
Shaoqing Xiang	36	Co-Founder, Director and Chief Technology Officer
Louis T. Hsieh	56	Director and Global Chief Financial Officer
Cailian Yang	30	Director and Vice President of Operations

Dr. Yifan Li is our co-founder and has served as our chief executive officer and director since our inception. Prior to co-founding Hesai, Dr. Li served as a principal engineer at Western Digital in Silicon Valley from 2013 to 2014. Dr. Li received his bachelor's degree in mechanical engineering from Tsinghua University in 2009, a master's degree in mechanical engineering from University of Illinois at Urbana-Champaign in 2009, and a PhD degree in mechanical engineering from University of Illinois at Urbana-Champaign in 2013. Dr. Li's numerous accolades include being named as Fortune Magazine's "40 Under 40 in China," MIT Technology Review's "2020 Innovators Under 35 of China," and a Young Global Leader of the World Economic Forum for the Class of 2021.

Dr. Kai Sun is our co-founder and has served as our chief scientist and director since our inception. Dr. Sun received his bachelor's degree in thermal energy and power engineering from Shanghai Jiao Tong University in 2007, a master's degree in mechanical engineering from Stanford University in 2009, and a PhD degree in mechanical engineering and also a PhD minor degree in electrical engineering from Stanford University in 2013. Prior to co-founding Hesai, Dr. Sun worked as a research associate at Stanford University in 2014. Dr. Sun's primary research at Stanford University focused on building ultra-fast and high-sensitivity molecular detection systems with lasers and novel detection technologies. These detection systems operate in extremes conditions for the research of reaction kinetics. Several of Dr. Sun's papers were selected to IOP Select (Institute of Physics in the UK), Spotlight of OSA (Optical Society of America), and "100 Years of Combustion Kinetics at Argonne." Dr. Sun also won the Outstanding Paper Award of the journal Measurement Science and Technology in 2013.

Mr. Shaoqing Xiang is our co-founder and has served as our chief technology officer and director since our inception. Prior to co-founding Hesai, Mr. Xiang worked at Apple, Inc. as an iPhone hardware systems integration engineer from 2011 to 2014. Mr. Xiang received his bachelor's degree in micro-electromechanical systems from Tsinghua University in 2007. Mr. Xiang received a fellowship award and obtained dual master's degrees in mechanical engineering and electrical engineering from Stanford University in 2009 and 2011, respectively.

Mr. Louis T. Hsieh has served as our global chief financial officer since April 2021 and our director since June 2021. Mr. Hsieh also currently serves as a director at New Oriental Education & Technology Group (NYSE: EDU, HKSE: 09901), or New Oriental, the largest provider of private educational services in China. Mr. Hsieh joined New Oriental in 2005 and served as its chief financial officer from 2005 to 2015 and its president from 2008 to 2016. He also currently serves as an independent director and chairman of the audit committee of JD.com (NASDAQ: JD, HKSE: 09618) since May 2014. He also currently serves as an independent director and chairman of the audit committee (2016 – 2019) of YUM China Holdings, Inc. (NYSE: YUMC, HKSE: 09987), the largest restaurant operator in China. From May 2017 to October 2019, Mr. Hsieh served as the global chief financial officer of NIO Inc. (NYSE: NIO), a leading Chinese electric vehicle company. From August 2016 to September 2017, Mr. Hsieh served as an independent director and chairman of the audit committee of Nord Anglia Education Inc. (formerly NASDAQ: NORD, taken private in 2017). From 2007 to 2009, Mr. Hsieh served as an independent director and chairman of the audit committee of Perfect World (formerly NASDAQ: PWRD, taken private in 2015). Prior to that, Mr. Hsieh served as the chief financial officers of ARIO Data Networks, Inc. from 2003 to 2005. Before that, Mr. Hsieh held senior executive positions in private equity and investment banking with UBS

Capital (Managing Director and Asia Tech/Media/Telecom Head), JP Morgan (vice president) and Credit Suisse, and served as a corporate and securities law attorney at White & Case LLP. Mr. Hsieh holds a B.S. degree in industrial engineering and engineering management from Stanford University, an M.B.A. degree from The Harvard Business School, and a J.D. degree from the University of California at Berkeley.

Ms. *Cailian Yang* has served as our vice president of operations and director since November 2017. Ms. Yang joined us in December 2014 as the first employee of Hesai. Prior to joining us, Ms. Yang served as a customer manager in Shanghai Pudong Development Bank from October 2012 to July 2014, and a customer manager in Citibank from September 2014 to December 2014. Ms. Yang received her bachelor's degree in business English from Yancheng Teachers University in 2012.

Board of Directors

Our board of directors will consist of _____ directors upon the SEC's declaration of effectiveness of our registration statement on Form F-1 of which this prospectus is a part. A director is not required to hold any shares in our company by way of qualification. A director who is in any way, whether directly or indirectly, interested in a contract or proposed contract with our company is required to declare the nature of his or her interest at a meeting of our directors. A director may vote with respect to any contract, proposed contract or arrangement notwithstanding that he or she may be interested therein, and if he or she does so his or her vote shall be counted and he or she may be counted in the quorum at any meeting of our directors at which any such contract or proposed contract or arrangement is considered. Our directors may exercise all the powers of our company to raise or borrow money, and to mortgage or charge its undertaking, property and assets (present and future) and uncalled capital or any part thereof, to issue debentures, debenture stock, bonds, or other securities, whether outright or as collateral security for any debt, liability or obligation of our company or of any third party. None of our non-executive directors has a service contract with us that provides for benefits upon termination of service.

Committees of the Board of Directors

We will establish three committees under the board of directors immediately upon the effectiveness of our registration statement on Form F-1, of which this prospectus is a part: an audit committee; a compensation committee and a nominating and corporate governance committee. We will adopt a charter for each of the three committees. Each committee's members and functions are described below.

Audit Committee. Our audit committee will consist of _____, _____, _____ and _____, _____ will be the chairman of our audit committee. We have determined that _____, _____ and _____ satisfy the "independence" requirements of [Section 303A of the Corporate Governance Rules of the New York Stock Exchange/Rule 5605(a)(2) of the Listing Rules of the Nasdaq Stock Market] and Rule 10A-3 under the Exchange Act. We have determined that _____ qualifies as an "audit committee financial expert." The audit committee will oversee our accounting and financial reporting processes and the audits of the financial statements of our company. The audit committee will be responsible for, among other things:

- appointing the independent auditors and pre-approving all auditing and non-auditing services permitted to be performed by the independent auditors;
- reviewing with the independent auditors any audit problems or difficulties and management's response;
- discussing the annual audited financial statements with management and the independent auditors;
- reviewing the adequacy and effectiveness of our accounting and internal control policies and procedures and any steps taken to monitor and control major financial risk exposures;
- reviewing and approving all proposed related-party transactions;

- meeting separately and periodically with management and the independent auditors; and
- monitoring compliance with our code of business conduct and ethics, including reviewing the adequacy and effectiveness of our procedures to ensure proper compliance.

Compensation Committee. Our compensation committee will consist of _____, _____ and _____. _____ will be the chairman of our compensation committee. We have determined that _____, _____ and _____ satisfy the “independence” requirements of [Section 303A of the Corporate Governance Rules of the New York Stock Exchange/Rule 5605(a)(2) of the Listing Rules of the Nasdaq Stock Market]. The compensation committee will assist the board in reviewing and approving the compensation structure, including all forms of compensation, relating to our directors and executive officers. Our chief executive officer may not be present at any committee meeting during which his compensation is deliberated. The compensation committee will be responsible for, among other things:

- reviewing and approving, or recommending to the board for its approval, the compensation for our chief executive officer and other executive officers;
- reviewing and recommending to the board for determination with respect to the compensation of our non-employee directors;
- reviewing periodically and approving any incentive compensation or equity plans, programs or similar arrangements; and
- selecting a compensation consultant, legal counsel or other adviser only after taking into consideration all factors relevant to that person’s independence from management.

Nominating and Corporate Governance Committee. Our nominating and corporate governance committee will consist of _____, _____ and _____. _____ will be the chairman of our nominating and corporate governance committee. _____, _____ and _____ satisfy the “independence” requirements of [Section 303A of the Corporate Governance Rules of the New York Stock Exchange/Rule 5605(a)(2) of the Listing Rules of the Nasdaq Stock Market]. The nominating and corporate governance committee will assist the board of directors in selecting individuals qualified to become our directors and in determining the composition of the board and its committees. The nominating and corporate governance committee will be responsible for, among other things:

- selecting and recommending to the board nominees for election by the shareholders or appointment by the board;
- reviewing annually with the board the current composition of the board with regard to characteristics such as independence, knowledge, skills, experience and diversity;
- making recommendations on the frequency and structure of board meetings and monitoring the functioning of the committees of the board; and
- advising the board periodically with regard to significant developments in the law and practice of corporate governance as well as our compliance with applicable laws and regulations, and making recommendations to the board on all matters of corporate governance and on any remedial action to be taken.

Duties of Directors

Under Cayman Islands law, our directors owe fiduciary duties to our company, including a duty of loyalty, a duty to act honestly, and a duty to act in what they consider in good faith to be in our best interests. Our directors must also exercise their powers only for a proper purpose. Our directors also owe to our company a duty to act with skill and care. It was previously considered that a director need not exhibit in the performance of his or her duties a greater degree of skill than may reasonably be expected from a person of his or her knowledge and experience. However, English and Commonwealth courts have moved towards an objective standard with regard to the required skill and care and these authorities are likely to be followed in the Cayman Islands. In fulfilling their duty of care to us, our directors must ensure compliance

with our memorandum and articles of association, as amended and restated from time to time, and the class rights vested thereunder in the holders of the shares. In certain limited exceptional circumstances, a shareholder may have the right to seek damages in our name if a duty owed by our directors is breached.

Our board of directors has all the powers necessary for managing, and for directing and supervising, our business affairs. The functions and powers of our board of directors include, among others:

- convening shareholders' annual and extraordinary general meetings and reporting its work to shareholders at such meetings;
- declaring dividends and distributions;
- appointing officers and determining the term of office of the officers;
- exercising the borrowing powers of our company and mortgaging the property of our company; and
- approving the transfer of shares in our company, including the registration of such shares in our share register.

Terms of Directors and Officers

Our directors may be elected by a resolution of our board of directors, or by an ordinary resolution of our shareholders. Our directors are not subject to a term of office and hold office until such time as they are removed from office by ordinary resolution of our shareholders. A director will cease to be a director if, among other things, the director (i) becomes bankrupt or makes any arrangement or composition with his creditors; (ii) dies or is found by our company to be or becomes of unsound mind, (iii) resigns his or her office by notice in writing to our company, or (iv) without special leave of absence from our board, is absent from three consecutive board meetings and our directors resolve that his or her office be vacated.

Our officers are elected by and serve at the discretion of our board of directors.

[Employment Agreements and Indemnification Agreements

We have entered into employment agreements with each of our executive officers. Under these agreements, each of our executive officers is employed for a specified time period. We may terminate employment for cause, at any time, without advance notice or remuneration, for certain acts of the executive officer, such as conviction or plea of guilty to a felony or any crime involving moral turpitude, negligent or dishonest acts to our detriment, or misconduct or a failure to perform agreed duties. We may also terminate an executive officer's employment without cause upon a 60-day advance written notice. In such case of termination by us, we will provide severance payments to the executive officer as expressly required by applicable law of the jurisdiction where the executive officer is based. The executive officer may resign at any time with a three-month advance written notice.

Each executive officer has agreed to hold, both during and after the termination or expiry of his or her employment agreement, in strict confidence and not to use, except as required in the performance of his or her duties in connection with the employment or pursuant to applicable law, any of our confidential information or trade secrets, any confidential information or trade secrets of our clients or prospective clients, or the confidential or proprietary information of any third-party received by us and for which we have confidential obligations. The executive officers have also agreed to disclose in confidence to us all inventions, designs and trade secrets which they conceive, develop or reduce to practice during the executive officer's employment with us and to assign all right, title and interest in them to us, and assist us in obtaining and enforcing patents, copyrights and other legal rights for these inventions, designs and trade secrets.

In addition, each executive officer has agreed to be bound by non-competition and non-solicitation restrictions during the term of his or her employment and typically for one year following the last date of employment. Specifically, each executive officer has agreed not to (i) approach our suppliers, clients, customers or contacts or other persons or entities introduced to the executive officer in his or her capacity as a representative of us for the purpose of doing business with such persons or entities that will harm our business relationships with these persons or entities; (ii) assume employment with or provide services to any of our competitors, or engage, whether as principal, partner, licensor or otherwise, any of our competitors,

without our express consent; or (iii) seek directly or indirectly, to solicit the services of any of our employees who is employed by us on or after the date of the executive officer's termination, or in the year preceding such termination, without our express consent.

We have also entered into indemnification agreements with each of our directors and executive officers. Under these agreements, we agree to indemnify our directors and executive officers against certain liabilities and expenses incurred by such persons in connection with claims made by reason of their being a director or officer of our company.]

Compensation of Directors and Executive Officers

For the year ended December 31, 2020, we paid an aggregate of RMB4.6 million (US\$0.7 million) in cash to our directors and executive officers. We have not set aside or accrued any amount to provide pension, retirement or other similar benefits to our directors and executive officers. Our PRC subsidiaries are required by law to make contributions equal to certain percentages of each employee's salary for his or her pension insurance, medical insurance, unemployment insurance and other statutory benefits and a housing provident fund.

Share Incentive Plan

2021 Share Incentive Plan

In June 2021, our shareholders and board of directors adopted the 2021 Share Incentive Plan, or the 2021 Plan, to attract and retain the best available personnel, provide additional incentives to directors, officers, employees and consultants, and promote the success of our business. The maximum aggregate number of ordinary shares which may be issued pursuant to all awards under the 2021 Plan is initially 16,365,047, plus commencing no earlier than January 1 of the year immediately following this offering, an increase on the first day of the fiscal year, by an amount decided by our board of directors; *provided* that such increase shall not exceed 1.5% of the then total number of shares issued and outstanding on an as-converted and fully diluted basis on the last day of the immediately preceding fiscal year. The 2021 Plan replaced any share incentive plans or similar arrangements previously adopted by us.

The following paragraphs describe the principal terms of the 2021 Plan.

Types of Awards. The 2021 Plan permits the awards of options, restricted shares, restricted share units or any other type of awards, in the form of cash or otherwise, approved by the committee.

Plan Administration. Our board of directors or a committee of one or more members of the board of directors and/or one or more executive officers administers the 2021 Plan. The committee or the board of directors determines, among other things, the participants to receive awards, the type and number of awards to be granted to each participant, and the terms and conditions of each award.

Award Agreement. Awards granted under the 2021 Plan are evidenced by an award agreement that sets forth the terms, conditions and limitations for each award, which may include the term of the award, the provisions applicable in the event that the participant's employment or service terminates, and our authority to unilaterally or bilaterally amend, modify, suspend, cancel or rescind the award.

Eligibility. We may grant awards to employees, consultants and directors of our company.

Vesting Schedule. In general, the committee determines the vesting schedule, if any, which is specified in the relevant award agreement.

Exercise of Options. The exercise price per share subject to an option shall be determined by the committee and set forth in the award agreement which may be a fixed price or a variable price related to the fair market value of the shares.

Transfer Restrictions. Awards may not be transferred in any manner by the participant other than in accordance with the exceptions provided in the 2021 Plan, such as transfers to us or any subsidiary of us, the immediate family members of the eligible participant by gift, by will or the laws of descent and distribution, or as approved by the committee or an executive officer or director authorized by the committee.

Termination and Amendment of the 2021 Plan. Unless terminated earlier, the 2021 Plan has a term of 10 years. Our board of directors has the authority to amend or terminate the plan. However, no such action may adversely affect in any material way any awards previously granted unless agreed by the participant.

As of the date of this prospectus, no award has been granted under the 2021 Plan.

PRINCIPAL [AND SELLING] SHAREHOLDERS

Except as specifically noted, the following table sets forth information with respect to the beneficial ownership of our ordinary shares on an as-converted basis as of the date of this prospectus by:

- each of our directors and executive officers;
- each of our principal shareholders who beneficially own 5% or more of our total outstanding shares[; and
- each selling shareholder].

The calculations in the table below are based on 111,170,957 ordinary shares outstanding on an as-converted basis (including restricted shares) as of the date of this prospectus, and Class B ordinary shares outstanding immediately after the completion of this offering, assuming the underwriters do not exercise their option to purchase additional ADSs.

Beneficial ownership is determined in accordance with the rules and regulations of the SEC. In computing the number of shares beneficially owned by a person and the percentage ownership of that person, we have included shares that the person has the right to acquire within 60 days, including through the exercise of any option, warrant or other right or the conversion of any other security. These shares, however, are not included in the computation of the percentage ownership of any other person.

	Ordinary Shares Beneficially Owned Prior to This Offering				[Class B Ordinary Shares Being Sold in This Offering]		Ordinary Shares Beneficially Owned After This Offering			
	Class A Ordinary shares	Class B Ordinary Shares	% of Total Ordinary Shares on An As-converted Basis [†]	% of Aggregate Voting Power ^{***}	Number	%	Class A Ordinary shares	Class B Ordinary Shares	% of Total Ordinary Shares on An As-converted Basis	% of Aggregate Voting Power
Directors and Executive Officers**:										
Yifan Li ⁽¹⁾	9,899,374	—	8.9	26.0						
Kai Sun ⁽²⁾	10,234,631	—	9.2	26.8						
Shaoqing Xiang ⁽³⁾	9,899,374	—	8.9	26.0						
Louis T. Hsieh	—	—	—	—						
Cailian Yang	—	—	—	—						
All Directors and Executive Officers as a Group	30,033,379	—	27.0	78.8						
Principal [and Selling] Shareholders:										
ALBJ Limited ⁽¹⁾	9,899,374	—	8.9	26.0						
Fermat Star Limited ⁽²⁾	10,234,631	—	9.2	26.8						
Galbadia Limited ⁽³⁾	9,899,374	—	8.9	26.0						
Lightspeed Opportunity ⁽⁴⁾	—	10,688,294	9.6	2.8						
Lightspeed China Partners ⁽⁵⁾	—	9,523,412	8.6	2.5						
Baidu Holdings ⁽⁶⁾	—	7,881,155	7.1	2.1						
Bosch ⁽⁷⁾	—	7,653,252	6.9	2.0						
Yuanzhan ⁽⁸⁾	—	6,777,885	6.1	1.8						

Notes:

* Aggregate number of shares accounts for less than 1% of our total ordinary shares on an as-converted basis outstanding as of the date of this prospectus.

** Except as indicated otherwise below, the business address of our directors and executive officers is 9th Floor, Building L2-B, 1588 Zhuguang Road, Qingpu District, Shanghai 201702, People's Republic of China.

*** For each person or group included in this column, percentage of total voting power represents voting power based on both Class A and Class B ordinary shares held by such person or group with respect to all outstanding shares of our Class A and Class B ordinary shares as a single class. Each holder of our Class A ordinary shares is entitled to 10 votes per share. Each holder

of our Class B ordinary shares is entitled to one vote per share. Our Class A ordinary shares are convertible at any time by the holder into Class B ordinary shares on a one-for-one basis, while Class B ordinary shares are not convertible into Class A ordinary shares under any circumstances.

- † For each person and group included in this column, percentage ownership is calculated by dividing the number of shares beneficially owned by such person or group by the sum of the total number of shares outstanding and the number of shares such person or group has the right to acquire upon exercise of option, warrant or other right within 60 days after the date of this prospectus.
- (1) Represents 9,899,374 Class A ordinary shares held by ALBJ Limited, a company limited by shares incorporated in British Virgin Islands and wholly owned by Asian LBJ Limited, which is wholly owned by Dr. Yifan Li. The registered address of ALBJ Limited is Ritter House, Wickhams Cay II, PO Box 3170, Road Town, Tortola VG1110, British Virgin Islands.
 - (2) Represents 10,234,631 Class A ordinary shares held by Fermat Star Limited, a company limited by shares incorporated in British Virgin Islands and wholly owned by Rock Ocean Limited, which is wholly owned by Dr. Kai Sun. The registered address of Fermat Star Limited is Ritter House, Wickhams Cay II, PO Box 3170, Road Town, Tortola VG1110, British Virgin Islands.
 - (3) Represents 9,899,374 Class A ordinary shares held by Galbadia Limited, a company limited by shares incorporated in British Virgin Islands, and wholly owned by Balamb Limited, which is wholly owned by Mr. Shaoqing Xiang. The registered address of Galbadia Limited is Ritter House, Wickhams Cay II, PO Box 3170, Road Town, Tortola VG1110, British Virgin Islands.
 - (4) Represents 10,688,294 Class B ordinary shares held by Lightspeed Opportunity Fund, L.P., a Cayman Islands exempted limited partnership. The general partner of Lightspeed Opportunity Fund, L.P. is Lightspeed General Partner Opportunity Fund, L.P., whose general partner is Lightspeed Ultimate General Partner Opportunity Fund, Ltd. The directors of the Lightspeed Ultimate General Partner Opportunity Fund, Ltd. are Ravi Mhatre, Jeremy Liew and Arif Jammohamed. The business address of Lightspeed Opportunity Fund, L.P. is 2200 Sand Hill Road, Suite 100, Menlo Park, CA 94025, United States.
 - (5) Represents (i) 4,857,725 Class B ordinary shares held by Lightspeed China Partners III, L.P., a Cayman Islands partnership, and (ii) 3,431,282 Class B ordinary shares held by Lightspeed China Partners Select I, L.P., a Cayman Islands partnership, and (iii) 1,234,405 Class B ordinary shares held by Guangyi HS Holding Limited, a British Virgin Islands limited company. The general partner of Lightspeed China Partners III, L.P. is Lightspeed China Partners III GP, LLC. The general partner of Lightspeed China Partners Select I, L.P. is Lightspeed China Partners Select I GP, LLC. Mr. James Qun Mi and Yan Han are directors of both Lightspeed China Partners III GP, LLC and Lightspeed China Partners Select I GP, LLC, and each of James Qun Mi and Yan Han has 50% voting power of Lightspeed China Partners III GP, LLC and Lightspeed China Partners Select I GP, LLC, respectively. Guangyi HS Holding Limited is controlled by Aibao Chai and Yan Han, each of whom holds 50% controlling power. The business address of Lightspeed China Partners III, L.P. is PO Box 309, Uglan House, Grand Cayman, KY1-1104, Cayman Islands. The business address of Lightspeed China Partners Select I, L.P. is PO Box 309, Uglan House, Grand Cayman, KY1-1104, Cayman Islands. The business address of Guangyi HS Holding Limited is Craigmuir Chambers, P.O. Box 71, Road Town, Tortola, VG 1110, British Virgin Islands.
 - (6) Represents 7,881,155 Class B ordinary shares held by Baidu Holdings Limited, a British Virgin Islands limited liability company, which is wholly owned by Baidu Inc. The business address of Baidu Holdings Limited is Kingston Chambers, PO Box 173, Road Town, Tortola, British Virgin Islands.
 - (7) Represents 7,653,252 Class B ordinary shares held by Robert Bosch GmbH, a German company with limited liability. Approximately 93% of the voting interest in Robert Bosch GmbH is held by Robert Bosch Industrietreuhand KG, which is controlled by Franz Fehrenbach and Wolfgang Malchow as general partners. The remaining approximately 7% of the voting interest in Robert Bosch GmbH is held by Robert Bosch Familientreuhand KG (RBFK). Approximately 94% of the economic interest in Robert Bosch GmbH is held by Robert Bosch Stiftung GmbH, a limited liability company (charitable), and the remaining approximately economic interest is held by ERBO II GmbH, a limited liability company (charitable) which is owned by RB FAMILIENGESELLSCHAFT BÜRGERLICHEN RECHTS (Gbr I) and RB FAMILIENGESELLSCHAFT BÜRGERLICHEN RECHTS II (Gbr II). The business address of Robert Bosch GmbH is Robert-Bosch-Platz 1, 70839 Gerlingen, Germany.
 - (8) Represents (i) 1,052,323 Class B ordinary shares held by Lighthouse Blossom Limited, a British Virgin Islands corporation, (ii) 1,436,192 Class B ordinary shares held by Yuanzhan Equity Investment Management (Shanghai) Co., Ltd., a PRC limited liability company, (iii) 3,513,909 Class B ordinary shares held by Shanghai Wenqian Enterprise Management Center L.P., a PRC limited partnership and (iv) 775,461 Class B ordinary shares held by Hangzhou Yuanzhan Huayao Venture Capital L.P., a PRC limited partnership. Lighthouse Blossom Limited is wholly owned by Lighthouse Future Establish, which is ultimately controlled by Minglie Hu. The general partner of both Shanghai Wenqian Enterprise Management Center L.P. and Hangzhou Yuanzhan Huayao Venture Capital L.P. is Yuanzhan Equity Investment Management (Shanghai) Co., Ltd., which is ultimately controlled by Minglie Hu. Yuanzhan Equity Investment Management (Shanghai) Co., Ltd. is wholly owned by Minglie Hu, Yuesu Yu and Zhe Li. The business address of Lighthouse Blossom Limited is Ritter House, Wickhams Cay II, PO Box 3170, Road Town, Tortola VG1110, British Virgin Islands. The business address of Yuanzhan Equity Investment Management (Shanghai) Co., Ltd. is Room 1106, No.818, Longhua East Road, Shanghai, People's Republic of China. The business address of Shanghai Wenqian Enterprise Management Center L.P. is Room 328, 3rd Floor, Unit 2, No. 231, Shibocun Road, Free Trade Zone, Pudong New District, Shanghai, People's Republic of China. The business address of Hangzhou Yuanzhan Huayao Venture Capital L.P. is Room 1217, Unit 4, Building 6, No. 1500, Wenyi West Road, Cangqian Street, Hangzhou, Zhejiang Province, People's Republic of China.

As of the date of this prospectus, 1,969,237 of our Class B ordinary shares are held by five record holders in the United States.

We are not aware of any arrangement that may, at a subsequent date, result in a change of control of our company.

RELATED PARTY TRANSACTIONS**Private Placements**

See “Description of Share Capital — History of Securities Issuances.”

Shareholders Agreement

See “Description of Share Capital — Agreement with Certain Investor.”

Employment Agreements and Indemnification Agreements

See “Management — Employment Agreements and Indemnification Agreements.”

Share Incentive Plan

See “Management — Share Incentive Plan.”

Other Related Party Transactions

Transactions with Baidu entities. For the years ended December 31, 2018, 2019 and 2020 and for the five months ended May 31, 2021, we sold LiDAR products to various entities affiliated with Baidu Holdings Limited, one of our principal beneficial owners, or Baidu entities, for an aggregate amount of RMB1.5 million, RMB23.3 million, RMB40.6 million and RMB14.4 million, respectively. We had balance of accounts receivable (net of allowance) due from Baidu entities in an aggregate amount of nil, RMB3.7 million, RMB28.1 million and RMB2.3 million as of December 31, 2018, 2019 and 2020 and May 31, 2021, respectively. We had advances from Baidu entities in an aggregate amount of RMB1.3 million as of May 31, 2021.

Transactions with Suzhou Kunjie. Our transactions with Suzhou Kunjie Photonics Technology Co., Ltd., or Suzhou Kunjie, an entity in which we have a minority equity interest, included (i) purchases of service and goods, amounting to nil, RMB485.4 thousand, RMB982.5 thousand and nil for the years ended December 31, 2018, 2019 and 2020 and the five months ended May 31, 2021, respectively, and (ii) prepayments to Suzhou Kunjie of RMB960.0 thousand as of December 31, 2019.

DESCRIPTION OF SHARE CAPITAL

We are a Cayman Islands exempted company incorporated with limited liability and our affairs are governed by our memorandum and articles of association, the Companies Act (As Revised) of the Cayman Islands, which we refer to as the Companies Act below, and the common law of the Cayman Islands.

As of the date of this prospectus, our authorized share capital is US\$50,000 divided into 500,000,000 shares, par value of US\$0.0001 each, comprising (i) 35,000,000 Class A ordinary shares, (ii) 150,000,000 Class B ordinary shares, and (iii) 315,000,000 shares of such class or classes (however designated) as the board of directors may determine in accordance with our currently effective amended and restated memorandum and articles of association. As of the date of this prospectus, (i) 30,033,379 Class A ordinary shares and (ii) 81,137,578 Class B ordinary shares are issued and outstanding.

Immediately prior to the completion of this offering, our authorized share capital will be changed into US\$ divided into shares comprising (i) ordinary shares of a par value of US\$ each, [and (ii) shares of a par value of US\$ each of such class or classes (however designated) as the board of directors may determine in accordance with our post-offering memorandum and articles of association.] All of our shares issued and outstanding prior to the completion of the offering are and will be fully paid, and all of our shares to be issued in the offering will be issued as fully paid.

[Our Post-Offering Memorandum and Articles of Association

Our shareholders plan to adopt the [second] amended and restated memorandum and articles of association, which we refer to below as our post-offering memorandum and articles of association and which will become effective and replace our current amended and restated memorandum and articles of association in its entirety immediately prior to the completion of this offering. The following are summaries of material provisions of the post-offering memorandum and articles of association and of the Companies Act, insofar as they relate to the material terms of our ordinary shares.

Objects of Our Company. Under our post-offering memorandum and articles of association, the objects of our company are unrestricted and we have the full power and authority to carry out any object not prohibited by the Companies Act, or any other law of the Cayman Island.

Ordinary Shares. Our ordinary shares are divided into Class A ordinary shares and Class B ordinary shares. Holders of our Class A ordinary shares and Class B ordinary shares will have the same rights except for voting and conversion rights. Our ordinary shares are issued in registered form and are issued when registered in our register of members (shareholders). We may not issue shares to bearer. Our shareholders who are nonresidents of the Cayman Islands may freely hold and vote their shares.

Conversion. Class A ordinary shares may be converted into the same number of Class B ordinary shares by the holders thereof at any time, while Class B ordinary shares cannot be converted into Class A ordinary shares except in circumstances expressly permitted. [Upon any sale, transfer, assignment or disposition of Class A ordinary shares by a holder thereof to any person other than holders of Class A ordinary shares or their affiliates, such Class A ordinary shares shall be automatically and immediately converted into the same number of Class B ordinary shares.]

Dividends. The holders of our ordinary shares are entitled to such dividends as may be declared by our board of directors or declared by our shareholders by ordinary resolution (*provided* that no dividend may be declared by our shareholders which exceeds the amount recommended by our directors). Our post-offering memorandum and articles of association provide that dividends may be declared and paid out of the funds of our Company lawfully available therefor. Under the laws of the Cayman Islands, our company may pay a dividend out of either profit or share premium account; *provided* that in no circumstances may a dividend be paid if this would result in our company being unable to pay its debts as they fall due in the ordinary course of business.

Voting Rights. Holders of Class A ordinary shares and Class B ordinary shares shall, at all times, vote together as one class on all matters submitted to a vote by the members at any general meeting of the Company. Each Class B ordinary share shall be entitled to one vote on all matters subject to the vote at general

meetings of our company, and each Class A ordinary share shall be entitled to 10 votes on all matters subject to the vote at general meetings of our company. Voting at any meeting of shareholders is by show of hands unless a poll is demanded (before or on the declaration of the result of the show of hands). A poll may be demanded by the chairman of such meeting or [any one] shareholder holding not less than [10]% of the voting rights attaching to the shares present in person or by proxy.

An ordinary resolution to be passed at a meeting by the shareholders requires the affirmative vote of a simple majority of the votes attaching to the ordinary shares cast at a meeting, while a special resolution requires the affirmative vote of no less than two-thirds of the votes cast attaching to the outstanding ordinary shares at a meeting. A special resolution will be required for important matters such as a change of name or making changes to our post-offering memorandum and articles of association. Our shareholders may, among other things, divide or combine their shares by ordinary resolution.

General Meetings of Shareholders. As a Cayman Islands exempted company, we are not obliged by the Companies Act to call shareholders' annual general meetings. Our post-offering memorandum and articles of association provide that we may (but are not obliged to) in each year hold a general meeting as our annual general meeting in which case we shall specify the meeting as such in the notices calling it, and the annual general meeting shall be held at such time and place as may be determined by our directors.

Shareholders' general meetings may be convened by the chairman of our board of directors or by our directors (acting by a resolution of our board). Advance notice of at least [seven] days is required for the convening of our annual general shareholders' meeting (if any) and any other general meeting of our shareholders. A quorum required for any general meeting of shareholders consists of at least one shareholder present or by proxy, representing not less than [one-third] of all votes attaching to the issued and outstanding shares in our Company entitled to vote at a general meeting.

The Companies Act provides shareholders with only limited rights to requisition a general meeting, and does not provide shareholders with any right to put any proposal before a general meeting. However, these rights may be provided in a company's articles of association. Our post-offering memorandum and articles of association provide that upon the requisition of any one or more of our shareholders who together hold shares, which carry in aggregate [not less than one-third] of all votes attaching to the issued and outstanding shares of our company entitled to vote at general meetings, our board will convene an extraordinary general meeting and put the resolutions so requisitioned to a vote at such meeting. However, our post-offering memorandum and articles of association do not provide our shareholders with any right to put any proposals before annual general meetings or extraordinary general meetings not called by such shareholders.

Transfer of Ordinary Shares. Subject to the restrictions as set out below, any of our shareholders may transfer all or any of his or her ordinary shares by an instrument of transfer in the usual or common form or any other form approved by our board of directors.

Our board of directors may, in its absolute discretion, decline to register any transfer of any ordinary share that is not fully paid up or on which we have a lien. Our board of directors may also decline to register any transfer of any ordinary share unless:

- the instrument of transfer is lodged with us, accompanied by the certificate for the ordinary shares to which it relates and such other evidence as our board of directors may reasonably require to show the right of the transferor to make the transfer;
- the instrument of transfer is in respect of only one class of ordinary shares;
- the instrument of transfer is properly stamped, if required;
- in the case of a transfer to joint holders, the number of joint holders to whom the ordinary share is to be transferred does not exceed four;
- [the shares are free from any lien in favor of the Company;] and
- a fee of such maximum sum as [the New York Stock Exchange/Nasdaq Stock Market] may determine to be payable or such lesser sum as our directors may from time to time require is paid to us in respect thereof.

If our directors refuse to register a transfer they shall, within [three calendar months] after the date on which the instrument of transfer was lodged, send to each of the transferor and the transferee notice of such refusal.

The registration of transfers may, on 10 calendar days' notice being given by advertisement in such one or more newspapers, by electronic means or by any other means in accordance with the rules of the [the New York Stock Exchange/Nasdaq Stock Market], be suspended and the register of members closed at such times and for such periods as our board of directors may from time to time determine; provided, however, that the registration of transfers shall not be suspended nor the register of members closed for more than 30 calendar days in any year as our board may determine.

Liquidation. On the winding up of our company, if the assets available for distribution amongst our shareholders shall be more than sufficient to repay the whole of the share capital at the commencement of the winding up, the surplus shall be distributed among our shareholders in proportion to the par value of the shares held by them at the commencement of the winding up, subject to a deduction from those shares in respect of which there are monies due, all monies payable to our company for unpaid calls or otherwise. If our assets available for distribution are insufficient to repay all of the paid-up capital, the assets will be distributed so that, as nearly as may be, the losses are borne by our shareholders in proportion to the par value of the shares held by them.

Calls on Shares and Forfeiture of Shares. Our board of directors may from time to time make calls upon shareholders for any amounts unpaid on their shares in a notice served to such shareholders [at least 14 calendar days] prior to the specified time and place of payment. The shares that have been called upon and remain unpaid are subject to forfeiture.

Redemption, Repurchase and Surrender of Shares. We may issue shares on terms that such shares are subject to redemption, at our option or at the option of the holders of these shares, on such terms and in such manner as may be determined, before the issue of such shares, by our board of directors [or by our shareholders by special resolutions]. Our company may also repurchase any of our shares on such terms and in such manner as have been approved by our board of directors or by an [ordinary resolution] of our shareholders. Under the Companies Act, the redemption or repurchase of any share may be paid out of our Company's profits or out of the proceeds of a new issue of shares made for the purpose of such redemption or repurchase, or out of capital (including share premium account and capital redemption reserve) if our company can, immediately following such payment, pay its debts as they fall due in the ordinary course of business. In addition, under the Companies Act no such share may be redeemed or repurchased (a) unless it is fully paid up, (b) if such redemption or repurchase would result in there being no shares outstanding or (c) if the company has commenced liquidation. In addition, our company may accept the surrender of any fully paid share for no consideration.

Variations of Rights of Shares. If at any time, our share capital is divided into different classes [or series of] shares, the rights attached to any class [or series] of shares (unless otherwise provided by the terms of issue of the shares of that class or series), whether or not our company is being wound-up, may be varied with the consent in writing of [all]/[a majority of] the holders of the issued shares of that class or series or with the sanction of a resolution passed by a majority of the votes cast at a separate meeting of the holders of the shares of the class or series. The rights conferred upon the holders of the shares of any class issued shall not, unless otherwise expressly provided by the terms of issue of the shares of that class, be deemed to be varied by the creation or issue of further shares ranking *pari passu* with such existing class of shares.

Issuance of Additional Shares. Our post-offering memorandum and articles of association authorize our board of directors to issue additional ordinary shares from time to time as our board of directors shall determine, to the extent of available authorized but unissued shares.

Our post-offering memorandum and articles of association also authorize our board of directors to establish from time to time one or more series of preference shares and to determine, with respect to any series of preference shares, the terms and rights of that series, including:

- the designation of the series;

- the number of shares of the series;
- the dividend rights, dividend rates, conversion rights, voting rights; and
- the rights and terms of redemption and liquidation preferences.

Our board of directors may issue preference shares without action by our shareholders to the extent authorized but unissued. Issuance of these shares may dilute the voting power of holders of ordinary shares.

Inspection of Books and Records. Holders of our ordinary shares will have no general right under Cayman Islands law to inspect or obtain copies of our list of shareholders or our corporate records (save for our memorandum and articles of association, special resolutions passed by our shareholders, and our register of mortgages and charges). However, we will provide our shareholders with annual audited financial statements. See “Where You Can Find Additional Information.”

Anti-Takeover Provisions. Some provisions of our post-offering memorandum and articles of association may discourage, delay or prevent a change of control of our company or management that shareholders may consider favorable, including provisions that:

- authorize our board of directors to issue preference shares in one or more series and to designate the price, rights, preferences, privileges and restrictions of such preference shares without any further vote or action by our shareholders; and
- limit the ability of shareholders to requisition and convene general meetings of shareholders.

However, under Cayman Islands law, our directors may only exercise the rights and powers granted to them under our post-offering memorandum and articles of association for a proper purpose and for what they believe in good faith to be in the best interests of our company.

Exempted Company. We are an exempted company with limited liability incorporated under the Companies Act. The Companies Act distinguishes between ordinary resident companies and exempted companies. Any company that is registered in the Cayman Islands but conducts business mainly outside of the Cayman Islands may apply to be registered as an exempted company. The requirements for an exempted company are essentially the same as for an ordinary company except that an exempted company:

- does not have to file an annual return of its shareholders with the Registrar of Companies;
- is not required to open its register of members for inspection;
- does not have to hold an annual general meeting;
- may issue negotiable or bearer shares or shares with no par value;
- may obtain an undertaking against the imposition of any future taxation (such undertakings are usually given for 20 years in the first instance);
- may register by way of continuation in another jurisdiction and be deregistered in the Cayman Islands;
- may register as a limited duration company; and
- may register as a segregated portfolio company.

“Limited liability” means that the liability of each shareholder is limited to the amount unpaid by the shareholder on the shares of the company (except in exceptional circumstances, such as involving fraud, the establishment of an agency relationship or an illegal or improper purpose or other circumstances in which a court may be prepared to pierce or lift the corporate veil).

[Exclusive Forum. Unless we consent in writing to the selection of an alternative forum, the United States District Court for the Southern District of New York (or, if the United States District Court for the Southern District of New York lacks subject matter jurisdiction over a particular dispute, the state courts in New York County, New York) shall be the exclusive forum within the United States for the resolution of any complaint asserting a cause of action arising out of or relating in any way to the federal securities laws

of the United States, regardless of whether such legal suit, action, or proceeding also involves parties other than us. Any person or entity purchasing or otherwise acquiring any share or other securities in our company, or purchasing or otherwise acquiring American depository shares issued pursuant to deposit agreements, shall be deemed to have notice of and consented to this exclusive forum provision. Without prejudice to the foregoing, if this exclusive forum provision is held to be illegal, invalid or unenforceable under applicable law, the legality, validity or enforceability of the rest of the articles of association shall not be affected and this exclusive forum provision shall be interpreted and construed to the maximum extent possible to apply in the relevant jurisdiction with whatever modification or deletion may be necessary so as best to give effect to our intention.]]

Differences in Corporate Law

The Companies Act is derived, to a large extent, from the older Companies Acts of England but does not follow recent English statutory enactments and, accordingly, there are significant differences between the Companies Act of the Cayman Islands and the current Companies Act of England. In addition, the Companies Act of the Cayman Islands differs from laws applicable to U.S. corporations and their shareholders. Set forth below is a summary of certain significant differences between the provisions of the Companies Act applicable to us and the laws applicable to companies incorporated in the United States and their shareholders.

Mergers and Similar Arrangements. The Companies Act permits mergers and consolidations between Cayman Islands companies and between Cayman Islands companies and non-Cayman Islands companies. For these purposes, (i) “merger” means the merging of two or more constituent companies and the vesting of their undertaking, property and liabilities in one of such companies as the surviving company, and (ii) a “consolidation” means the combination of two or more constituent companies into a consolidated company and the vesting of the undertaking, property and liabilities of such companies to the consolidated company. In order to effect such a merger or consolidation, the directors of each constituent company must approve a written plan of merger or consolidation, which must then be authorized by (a) a special resolution of the shareholders of each constituent company, and (b) such other authorization, if any, as may be specified in such constituent company’s articles of association. The written plan of merger or consolidation must be filed with the Registrar of Companies of the Cayman Islands together with a declaration as to the solvency of the surviving or consolidated company, a declaration as to the assets and liabilities of each constituent company and an undertaking that a copy of the certificate of merger or consolidation will be given to the members and creditors of each constituent company and that notification of the merger or consolidation will be published in the Cayman Islands Gazette. Court approval is not required for a merger or consolidation that is effected in compliance with these statutory procedures.

A merger between a Cayman parent company and its Cayman subsidiary or subsidiaries does not require authorization by a resolution of shareholders of that Cayman subsidiary if a copy of the plan of merger is given to every member of that Cayman subsidiary to be merged unless that member agrees otherwise. For this purpose a company is a “parent” of a subsidiary if it holds issued shares that together represent at least 90.0% of the votes at a general meeting of the subsidiary.

The consent of each holder of a fixed or floating security interest over a constituent company is required unless this requirement is waived by a court in the Cayman Islands.

Save in certain limited circumstances, a shareholder of a Cayman constituent company who dissents from the merger or consolidation is entitled to payment of the fair value of his shares (which, if not agreed between the parties, will be determined by the Cayman Islands court) upon dissenting to the merger or consolidation; *provided* that the dissenting shareholder complies strictly with the procedures set out in the Companies Act. The exercise of dissenter rights will preclude the exercise by the dissenting shareholder of any other rights to which he or she might otherwise be entitled by virtue of holding shares, save for the right to seek relief on the grounds that the merger or consolidation is void or unlawful.

Separate from the statutory provisions relating to mergers and consolidations, the Companies Act also contains statutory provisions that facilitate the reconstruction and amalgamation of companies by way of schemes of arrangement; *provided* that the arrangement is approved by a majority in number of each class of shareholders and creditors with whom the arrangement is to be made, and who must in addition represent

three-fourths in value of each such class of shareholders or creditors, as the case may be, that are present and voting either in person or by proxy at a meeting, or meetings, convened for that purpose. The convening of the meetings and subsequently the arrangement must be sanctioned by the Grand Court of the Cayman Islands. While a dissenting shareholder has the right to express to the court the view that the transaction ought not to be approved, the court can be expected to approve the arrangement if it determines that:

- the statutory provisions as to the required majority vote have been met;
- the shareholders have been fairly represented at the meeting in question and the statutory majority are acting bona fide without coercion of the minority to promote interests adverse to those of the class;
- the arrangement is such that may be reasonably approved by an intelligent and honest man of that class acting in respect of his interest; and
- the arrangement is not one that would more properly be sanctioned under some other provision of the Companies Act.

The Companies Act also contains a statutory power of compulsory acquisition, which may facilitate the “squeeze out” of dissentient minority shareholders upon a tender offer. When a tender offer is made and accepted by holders of 90.0% of the shares affected within four months, the offeror may, within a two-month period commencing on the expiration of such four-month period, require the holders of the remaining shares to transfer such shares to the offeror on the terms of the offer. An objection can be made to the Grand Court of the Cayman Islands but this is unlikely to succeed in the case of an offer that has been so approved unless there is evidence of fraud, bad faith or collusion.

If an arrangement and reconstruction by way of scheme of arrangement is thus approved and sanctioned, or if a tender offer is made and accepted, in accordance with the foregoing statutory procedures, a dissenting shareholder would have no rights comparable to appraisal rights, which would otherwise ordinarily be available to dissenting shareholders of Delaware corporations, providing rights to receive payment in cash for the judicially determined value of the shares.

Shareholders’ Suits. In principle, we will normally be the proper plaintiff to sue for a wrong done to us as a company, and as a general rule a derivative action may not be brought by a minority shareholder. However, based on English authorities, which would in all likelihood be of persuasive authority in the Cayman Islands, the Cayman Islands court can be expected to follow and apply the common law principles (namely the rule in *Foss v. Harbottle* and the exceptions thereto) so that a non-controlling shareholder may be permitted to commence a class action against or derivative actions in the name of the company to challenge actions where:

- a company acts or proposes to act illegally or ultra vires (and is therefore incapable of ratification by the shareholders);
- the act complained of, although not ultra vires, could only be effected duly if authorized by more than a simple majority vote that has not been obtained; and
- those who control the company are perpetrating a “fraud on the minority.”

Indemnification of Directors and Executive Officers and Limitation of Liability. Cayman Islands law does not limit the extent to which a company’s memorandum and articles of association may provide for indemnification of officers and directors, except to the extent any such provision may be held by the Cayman Islands courts to be contrary to public policy, such as to provide indemnification against civil fraud or the consequences of committing a crime. Our post-offering memorandum and articles of association provide that we shall indemnify our directors and officers against all actions, proceedings, costs, charges, expenses, losses, damages or liabilities incurred or sustained by such directors or officer, other than by reason of such person’s dishonesty, willful default or fraud, in or about the conduct of our company’s business or affairs (including as a result of any mistake of judgment) or in the execution or discharge of his duties, powers, authorities or discretions, including, without prejudice to the generality of the foregoing, any costs, expenses, losses or liabilities incurred by such director or officer in defending (whether successfully or otherwise) any civil proceedings concerning our company or its affairs in any court whether in the Cayman Islands or

elsewhere. This standard of conduct is generally the same as permitted under the Delaware General Corporation Law for a Delaware corporation.

In addition, we have entered into indemnification agreements with our directors and executive officers that provide such persons with additional indemnification beyond that provided in our post-offering memorandum and articles of association.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers or persons controlling us under the foregoing provisions, we have been informed that in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Directors' Fiduciary Duties. Under Delaware corporate law, a director of a Delaware corporation has a fiduciary duty to the corporation and its shareholders. This duty has two components: the duty of care and the duty of loyalty. The duty of care requires that a director act in good faith, with the care that an ordinarily prudent person would exercise under similar circumstances. Under this duty, a director must inform himself of, and disclose to shareholders, all material information reasonably available regarding a significant transaction. The duty of loyalty requires that a director act in a manner he reasonably believes to be in the best interests of the corporation. He must not use his corporate position for personal gain or advantage. This duty prohibits self-dealing by a director and mandates that the best interest of the corporation and its shareholders take precedence over any interest possessed by a director, officer or controlling shareholder and not shared by the shareholders generally. In general, actions of a director are presumed to have been made on an informed basis, in good faith and in the honest belief that the action taken was in the best interests of the corporation. However, this presumption may be rebutted by evidence of a breach of one of the fiduciary duties. Should such evidence be presented concerning a transaction by a director, the director must prove the procedural fairness of the transaction, and that the transaction was of fair value to the corporation.

As a matter of Cayman Islands law, a director of a Cayman Islands company is in the position of a fiduciary with respect to the company and therefore it is considered that he owes the following duties to the company — a duty to act bona fide in the best interests of the company, a duty not to make a profit based on his position as director (unless the company permits him to do so), a duty not to put himself in a position where the interests of the company conflict with his personal interest or his duty to a third party, and a duty to exercise powers for the purpose for which such powers were intended. A director of a Cayman Islands company owes to the company a duty to act with skill and care. It was previously considered that a director need not exhibit in the performance of his duties a greater degree of skill than may reasonably be expected from a person of his knowledge and experience. However, English and Commonwealth courts have moved towards an objective standard with regard to the required skill and care and these authorities are likely to be followed in the Cayman Islands.

Shareholder Action by Written Consent. Under the Delaware General Corporation Law, a corporation may eliminate the right of shareholders to act by written consent by amendment to its certificate of incorporation. Cayman Islands law and our post-offering memorandum and articles of association provide that our shareholders may approve corporate matters by way of a unanimous written resolution signed by or on behalf of each shareholder who would have been entitled to vote on such matter at a general meeting without a meeting being held.

Shareholder Proposals. Under the Delaware General Corporation Law, a shareholder has the right to put any proposal before the annual meeting of shareholders; *provided* that it complies with the notice provisions in the governing documents. A special meeting may be called by the board of directors or any other person authorized to do so in the governing documents, but shareholders may be precluded from calling special meetings.

The Companies Act provides shareholders with only limited rights to requisition a general meeting, and does not provide shareholders with any right to put any proposal before a general meeting. However, these rights may be provided in a company's articles of association. Our post-offering memorandum and articles of association allow any one or more of our shareholders who together hold shares that carry in aggregate not less than one-third of the total number of votes attaching to all issued and outstanding

shares of our company entitled to vote at general meetings to requisition an extraordinary general meeting of our shareholders, in which case our board is obliged to convene an extraordinary general meeting and to put the resolutions so requisitioned to a vote at such meeting. Other than this right to requisition a shareholders' meeting, our post-offering memorandum and articles of association do not provide our shareholders with any other right to put proposals before annual general meetings or extraordinary general meetings. As an exempted Cayman Islands company, we are not obliged by law to call shareholders' annual general meetings.

Cumulative Voting. Under the Delaware General Corporation Law, cumulative voting for elections of directors is not permitted unless the corporation's certificate of incorporation specifically provides for it. Cumulative voting potentially facilitates the representation of minority shareholders on a board of directors since it permits the minority shareholder to cast all the votes to which the shareholder is entitled on a single director, which increases the shareholder's voting power with respect to electing such director. There are no prohibitions in relation to cumulative voting under the laws of the Cayman Islands but our post-offering memorandum and articles of association do not provide for cumulative voting. As a result, our shareholders are not afforded any less protections or rights on this issue than shareholders of a Delaware corporation.

Removal of Directors. Under the Delaware General Corporation Law, a director of a corporation with a classified board may be removed only for cause with the approval of a majority of the issued and outstanding shares entitled to vote, unless the certificate of incorporation provides otherwise. [Under our post-offering memorandum and articles of association, directors may be removed with or without cause, by an ordinary resolution of our shareholders. A director will also cease to be a director if he (i) becomes bankrupt or makes any arrangement or composition with his creditors; (ii) dies or is found to be or becomes of unsound mind; (iii) resigns his office by notice in writing; (iv) without special leave of absence from our board, is absent from meetings of our board for three consecutive meetings and our board resolves that his office be vacated; or (v) is removed from office pursuant to any other provision of our articles of association.]

Transactions with Interested Shareholders. The Delaware General Corporation Law contains a business combination statute applicable to Delaware corporations whereby, unless the corporation has specifically elected not to be governed by such statute by amendment to its certificate of incorporation, it is prohibited from engaging in certain business combinations with an "interested shareholder" for three years following the date that such person becomes an interested shareholder. An interested shareholder generally is a person or a group who or which owns or owned 15% or more of the target's outstanding voting shares within the past three years. This has the effect of limiting the ability of a potential acquirer to make a two-tiered bid for the target in which all shareholders would not be treated equally. The statute does not apply if, among other things, prior to the date on which such shareholder becomes an interested shareholder, the board of directors approves either the business combination or the transaction that resulted in the person becoming an interested shareholder. This encourages any potential acquirer of a Delaware corporation to negotiate the terms of any acquisition transaction with the target's board of directors.

Cayman Islands law has no comparable statute. As a result, we cannot avail ourselves of the types of protections afforded by the Delaware business combination statute. However, although Cayman Islands law does not regulate transactions between a company and its significant shareholders, the directors of our Company are required to comply with fiduciary duties, which they owe to our Company under Cayman Islands laws, including the duty to ensure that, in their opinion, any such transactions must be entered into bona fide in the best interests of the company and not with the effect of constituting a fraud on the minority shareholders.

Dissolution; Winding up. Under the Delaware General Corporation Law, unless the board of directors approves the proposal to dissolve, dissolution must be approved by shareholders holding 100% of the total voting power of the corporation. Only if the dissolution is initiated by the board of directors may it be approved by a simple majority of the corporation's outstanding shares. Delaware law allows a Delaware corporation to include in its certificate of incorporation a supermajority voting requirement in connection with dissolutions initiated by the board.

Under Cayman Islands law, a company may be wound up by either an order of the courts of the Cayman Islands or by a special resolution of its members or, if the company is unable to pay its debts as

they fall due, by an ordinary resolution of its members. The court has authority to order winding up in a number of specified circumstances including where it is, in the opinion of the court, just and equitable to do so. Under the Companies Act and our post-offering memorandum and articles of association, our company may be dissolved, liquidated, or wound up by a special resolution of our shareholders.

Variation of Rights of Shares. Under the Delaware General Corporation Law, a corporation may vary the rights of a class of shares with the approval of a majority of the outstanding shares of such class, unless the certificate of incorporation provides otherwise. [Under our post-offering memorandum and articles of association, if our share capital is divided into more than one class of shares, we may vary the rights attached to any class with the written consent of the holders of [all]/[a majority] of the issued shares of that class or with the sanction of a resolution passed by a majority of the votes cast at a separate meeting of the holders of the shares of that class.]

Amendment of Governing Documents. Under the Delaware General Corporation Law, a corporation's governing documents may be amended with the approval of a majority of the outstanding shares entitled to vote, unless the certificate of incorporation provides otherwise. Under the Companies Act and our post-offering memorandum and articles of association, our memorandum and articles of association may only be amended by a special resolution of our shareholders.

Rights of Non-resident or Foreign Shareholders. There are no limitations imposed by our post-offering memorandum and articles of association on the rights of non-resident or foreign shareholders to hold or exercise voting rights on our shares. In addition, there are no provisions in our post-offering memorandum and articles of association that require our Company to disclose shareholder ownership above any particular ownership threshold.

History of Securities Issuances

The following is a summary of our securities issuances in the past three years.

Ordinary Shares

On April 21, 2021, we issued one ordinary share to Ogier Global Subscriber (Cayman) Limited at par value US\$0.0001, which was transferred to Fermat Star Limited, an entity controlled by one of our founders, on the same date.

On April 21, 2021, we issued an aggregate of 29,033,379 ordinary shares to ALBJ Limited, Fermat Star Limited, and Galbadia Limited, entities owned by our founders, or the founder entities, at par value US\$0.0001. Such ordinary shares were re-designated as Class A ordinary shares on May 18, 2021.

As part of our reorganization, the original shareholders of Shanghai Hesai (together with their affiliates, "original shareholders") transferred their equity interests in Shanghai Hesai to Hesai Hong Kong Limited and subscribed for ordinary shares of Hesai Group in proportion to their respective interests in Shanghai Hesai prior to the reorganization. As a result, in June 2021, we issued ordinary shares to certain original shareholders, including (i) an aggregate of 999,999 Class A ordinary shares to the founder entities for a total consideration of US\$43,597,146, (ii) an aggregate of 47,255,142 Class B ordinary shares to certain original shareholders for the consideration of EUR11,288,118.06 for one original shareholder and US\$70,118,857 in aggregate for the others, and (iii) an aggregate of 15,579,406 Class B ordinary shares to certain original shareholders as a result of their exercise of warrants (as described below) for a total consideration of US\$26,314,068.

On June 11, 2021, as a result of certain Series D convertible loan investors' election to convert their convertible loans into Class B ordinary shares (as described below), we issued an aggregate of 18,303,030 Class B ordinary shares to such investors for a total consideration of US\$302,000,000.

Convertible Loans

In May 2021, we entered into Class B ordinary share purchase agreements with a number of Series D convertible loan investors, pursuant to which such investors extended convertible loans in the aggregate amount of US\$304,000,000 to us. Subject to the terms and conditions set forth in these agreements, investors

may elect to convert the loans they extended to us into Class B ordinary shares. As of the date of this prospectus, the Series D convertible loan investors (with the exception of PANGU VC INC) have made such election, and 18,303,030 Class B ordinary shares have been validly issued.

Warrants

On May 18, 2021, as part of our reorganization, we issued warrants to purchase up to an aggregate of 15,579,406 Class B ordinary shares to certain original shareholders. As of the date of this prospectus, the warrant holders have exercised the warrants in whole and 15,579,406 Class B ordinary shares have been validly issued.

Agreements with Certain Investors

In May 2021, we entered into a series of agreements with certain investors, or the investor agreements. The investor agreements provide for certain investors' rights, including registration rights, information and inspection rights, right of first refusal, preemptive rights, rights to appoint directors, and anti-dilution rights, and contains provisions governing our board of directors and other corporate governance matters. The special rights other than registration rights will automatically terminate upon the completion of this offering.

Registration Rights

We have granted certain registration rights to our shareholders. Set forth below is a description of the registration rights granted under the shareholders agreement.

Demand Registration Rights. At any time after the earlier of (i) the fourth anniversary of May 17, 2021 or (ii) six months after the closing of this offering, holders of at least 10 percent or more of the issued and outstanding registrable securities held by all holders (other than a registration statement relating either to the sale of securities to employees of the Company pursuant to a share option, share purchase or similar plan), may request in writing that we effect a registration for at least 25% of the registrable securities. We shall, within 10 business days of the receipt of such written request issued by any holder to register its registrable securities, give written notice of such request to all the holders, and thereupon shall use our reasonable best efforts to effect, as soon as practicable, the registration under the Securities Act of all registrable securities for which the requesting shareholder has requested registration and all other registrable securities that other shareholders requested us to register within 15 days after receipt of the written notice. We are obligated to effect no more than a total of three demand registrations, except in certain circumstances.

Form F-3 or Form S-3 Registration Rights. If we qualify for registration on Form F-3 or Form S-3, any holder may request us to file a registration statement on Form F-3 or Form S-3. Upon receipt of such a request, we shall promptly give written notice of such request to all the holders, and thereupon shall use our reasonable best efforts to effect, as soon as practicable, the registration under the Securities Act of all registrable securities for which the requesting shareholder has requested registration and all other registrable securities that other shareholders requested us to register within 15 days after receipt of the written notice, except in certain circumstances.

We are not obligated to effect a demand registration or a Form F-3 or Form S-3 registration if, among other things, (i) we, within 10 days of the receipt of any request of the holders, give notice to the initiating holders of our bona fide intention to effect the filing for our own account of a registration statement within 90 days of receipt of such request; (ii) in any particular jurisdiction in which we would be required to execute a general consent to service of process in effecting such registration or qualification; and (iii) we furnish to the holders a certificate signed by our chief executive officer stating that in the good faith judgment of the board, it would be materially detrimental to us and our shareholders for a registration statement to be filed in the near future. In addition, we have a right to defer filing of a registration statement during the period starting with the date of filing by us, and ending six months following the effective date of any registration statement pertaining to our ordinary shares, *provided* that the holders are entitled to join such registration pursuant to the piggyback registration rights.

Piggyback Registration Rights. If we propose to register for our own account any of our equity securities in connection with the public offering of such securities, or for the account of any holder of

equity securities any of such holder's equity securities, we shall promptly give all the holders notice of such registration in writing, and shall use our reasonable best efforts to afford each such holder an opportunity to include in such registration statement all or any part of the registrable securities then held by such holder. Each holder desiring to include in any such registration statement all or any part of the registrable securities held by it shall within 15 days after receipt of the above-described notice from us, so notify us in writing, and in such notice shall inform us of the number of registrable securities such holder wishes to include in such registration statement. We shall pay all registration expenses in connection with each of such piggyback registration.

Expenses of Registration. We will bear all registration expenses, other than underwriting discounts, selling commissions incurred in connection with any demand and the attorney's fees of the selling holders applicable to the sale of registrable securities, piggyback or Form F-3 registration, including, without limitation, the fees for the engagement of a special counsel for the holders participating in such registration.

Termination of Obligations. The shareholders' registration rights will terminate on the earlier of (i) the date that is five years from the date of closing of this offering, or (ii) with respect to any holder the date on which such holder may sell without registration, all of such holder's registrable securities under Rule 144 of the Securities Act in any 90-day period.

DESCRIPTION OF AMERICAN DEPOSITARY SHARES

[American Depositary Shares

, as depositary will issue the ADSs that you will be entitled to receive in this offering. Each ADS will represent an ownership interest in Class B ordinary shares that we will deposit with the custodian, as agent of the depositary, under the deposit agreement among ourselves, the depositary and yourself as an ADR holder. In the future, each ADS will also represent any securities, cash or other property deposited with the depositary but which they have not distributed directly to you. Unless specifically requested by you, all ADSs will be issued on the books of our depositary in book-entry form and periodic statements will be mailed to you that reflect your ownership interest in such ADSs. In our description, references to American depositary receipts or ADRs shall include the statements you will receive that reflect your ownership of ADSs.

The depositary's office is located at .

You may hold ADSs either directly or indirectly through your broker or other financial institution. If you hold ADSs directly, by having an ADS registered in your name on the books of the depositary, you are an ADR holder. This description assumes you hold your ADSs directly. If you hold the ADSs through your broker or financial institution nominee, you must rely on the procedures of such broker or financial institution to assert the rights of an ADR holder described in this section. You should consult with your broker or financial institution to find out what those procedures are.

As an ADR holder, we will not treat you as a shareholder of ours and you will not have any shareholder rights. Cayman Islands law governs shareholder rights. Because the depositary or its nominee will be the shareholder of record for the shares represented by all outstanding ADSs, shareholder rights rest with such record holder. Your rights are those of an ADR holder. Such rights derive from the terms of the deposit agreement to be entered into among us, the depositary and all registered holders from time to time of ADSs issued under the deposit agreement. The obligations of the depositary and its agents are also set out in the deposit agreement. Because the depositary or its nominee will actually be the registered owner of the shares, you must rely on it to exercise the rights of a shareholder on your behalf. The deposit agreement and the ADSs are governed by New York law.

The following is a summary of what we believe to be the material terms of the deposit agreement. Notwithstanding this, because it is a summary, it may not contain all the information that you may otherwise deem important. For more complete information, you should read the entire deposit agreement and the form of ADR that contains the terms of your ADSs. You can read a copy of the deposit agreement which is filed as an exhibit to the registration statement of which this prospectus forms apart.

Share Dividends and Other Distributions

How will I receive dividends and other distributions on the shares underlying my ADSs?

We may make various types of distributions with respect to our securities. The depositary has agreed that, to the extent practicable, it will pay to you the cash dividends or other distributions it or the custodian receives on shares or other deposited securities, after converting any cash received into U.S. dollars and, in all cases, making any necessary deductions provided for in the deposit agreement. You will receive these distributions in proportion to the number of underlying securities that your ADSs represent.

Except as stated below, the depositary will deliver such distributions to ADR holders in proportion to their interests in the following manner:

- *Cash.* The depositary will distribute any U.S. dollars available to it resulting from a cash dividend or other cash distribution or the net proceeds of sales of any other distribution or portion thereof (to the extent applicable), on an averaged or other practicable basis, subject to (i) appropriate adjustments for taxes withheld, (ii) such distribution being impermissible or impracticable with respect to certain registered ADR holders, and (iii) deduction of the depositary's expenses in (1) converting any foreign currency to U.S. dollars to the extent that it determines that such conversion may be made on a reasonable basis, (2) transferring foreign currency or U.S. dollars to the United

States by such means as the depositary may determine to the extent that it determines that such transfer may be made on a reasonable basis, (3) obtaining any approval or license of any governmental authority required for such conversion or transfer, which is obtainable at a reasonable cost and within a reasonable time and (4) making any sale by public or private means in any commercially reasonable manner. The depositary will hold any cash amounts it is unable to distribute in a non-interest-bearing account for the benefit of the applicable holders and beneficial owners of ADSs until the distribution can be effected or the funds that the depositary holds must be escheated as unclaimed property in accordance with the laws of the relevant states of the United States. *If exchange rates fluctuate during a time when the depositary cannot convert a foreign currency, you may lose some or all of the value of the distribution.*

- *Shares.* In the case of a distribution in shares, the depositary will issue additional ADRs to evidence the number of ADSs representing such shares. Only whole ADSs will be issued. Any shares that would result in fractional ADSs will be sold and the net proceeds will be distributed in the same manner as cash to the ADR holders entitled thereto.
- *Rights to Receive Additional Shares.* In the case of a distribution of rights to subscribe for additional shares or other rights, if we provide evidence satisfactory to the depositary that it may lawfully distribute such rights, the depositary will distribute warrants or other instruments in the discretion of the depositary representing such rights. However, if we do not furnish such evidence, the depositary may:
 - sell such rights if practicable and distribute the net proceeds in the same manner as cash to the ADR holders entitled thereto; or
 - if it is not practicable to sell such rights, do nothing and allow such rights to lapse, in which case ADR holders will receive nothing.
- We have no obligation to file a registration statement under the Securities Act in order to make any rights available to ADR holders.
- *Other Distributions.* In the case of a distribution of securities or property other than those described above, the depositary may either (i) distribute such securities or property in any manner it deems equitable and practicable or (ii) to the extent the depositary deems distribution of such securities or property not to be equitable and practicable, sell such securities or property and distribute any net proceeds in the same way it distributes cash.

If the depositary determines that any distribution described above is not practicable with respect to any specific registered ADR holder, the depositary may choose any method of distribution that it deems practicable for such ADR holder, including the distribution of foreign currency, securities or property, or it may retain such items, without paying interest on or investing them, on behalf of the ADR holder as deposited securities, in which case the ADSs will also represent the retained items.

Any U.S. dollars will be distributed by checks drawn on a bank in the United States for whole dollars and cents. Fractional cents will be withheld without liability and dealt with by the depositary in accordance with its then-current practices.

The depositary is not responsible if it decides that it is unlawful or impractical to make a distribution available to any ADR holders.

There can be no assurance that the depositary will be able to convert any currency at a specified exchange rate or sell any property, rights, shares or other securities at a specified price, nor that any of such transactions can be completed within a specified time period.

Deposit, Withdrawal and Cancellation

How does the depositary issue ADSs?

The depositary will issue ADSs if you or your broker deposit shares or evidence of rights to receive shares with the custodian and pay the fees and expenses owing to the depositary in connection with such

issuance. In the case of the ADSs to be issued under this prospectus, we will arrange with the underwriters named herein to deposit such shares.

Shares deposited in the future with the custodian must be accompanied by certain delivery documentation and shall, at the time of such deposit, be registered in the name of _____, as depositary for the benefit of holders of ADRs or in such other name as the depositary shall direct.

The custodian will hold all deposited shares (including those being deposited by or on our behalf in connection with the offering to which this prospectus relates) for the account of the depositary. ADR holders thus have no direct ownership interest in the shares and only have such rights as are contained in the deposit agreement. The custodian will also hold any additional securities, property and cash received on or in substitution for the deposited shares. The deposited shares and any such additional items are referred to as “deposited securities.” Upon each deposit of shares, receipt of related delivery documentation and compliance with the other provisions of the deposit agreement, including the payment of the fees and charges of the depositary and any taxes or other fees or charges owing, the depositary will issue an ADR or ADRs in the name or upon the order of the person entitled thereto evidencing the number of ADSs to which such person is entitled. All of the ADSs issued will, unless specifically requested to the contrary, be part of the depositary’s direct registration system, and a registered holder will receive periodic statements from the depositary that will show the number of ADSs registered in such holder’s name. An ADR holder can request that the ADSs not be held through the depositary’s direct registration system and that a certificated ADR be issued.

How do ADR holders cancel an ADS and obtain deposited securities?

When you turn in your ADR certificate at the depositary’s office, or when you provide proper instructions and documentation in the case of direct registration ADSs, the depositary will, upon payment of certain applicable fees, charges and taxes, deliver the underlying shares to you or upon your written order. At your risk, expense and request, the depositary may deliver deposited securities at such other place as you may request.

The depositary may only restrict the withdrawal of deposited securities in connection with:

- temporary delays caused by closing our transfer books or those of the depositary or the deposit of shares in connection with voting at a shareholders’ meeting, or the payment of dividends;
- the payment of fees, taxes and similar charges; or
- compliance with any U.S. or foreign laws or governmental regulations relating to the ADRs or to the withdrawal of deposited securities.

This right of withdrawal may not be limited by any other provision of the deposit agreement.

Record Dates

The depositary may, after consultation with us if practicable, fix record dates for the determination of the registered ADR holders who will be entitled (or obligated, as the case may be):

- to receive any distribution on or in respect of shares,
- to give instructions for the exercise of voting rights at a meeting of holders of shares,
- to pay the fee assessed by the depositary for administration of the ADR program and for any expenses as provided for in the ADR, or
- to receive any notice or to act in respect of other matters all subject to the provisions of the deposit agreement.

Voting Rights

How do I vote?

If you are an ADR holder and the depositary asks you to provide it with voting instructions, you may instruct the depositary how to exercise the voting rights for the shares that underlie your ADSs. As soon as

practicable after receiving notice of any meeting or solicitation of consents or proxies from us, the depositary will distribute to the registered ADR holders a notice stating such information as is contained in the voting materials received by the depositary and describing how you may instruct the depositary to exercise the voting rights for the shares that underlie your ADSs. For instructions to be valid, the depositary must receive them in the manner and on or before the date specified. No voting instructions may be deemed given to the depositary to give a discretionary proxy to a person designated by us if no instructions are received by the depositary from you on or before the response date established by the depositary. The depositary will try, as far as is practical, subject to the provisions of and governing the underlying shares or other deposited securities, to vote or to have its agents vote the shares or other deposited securities as you instruct. The depositary will only vote or attempt to vote as you instruct. The depositary will not itself exercise any voting discretion. Furthermore, neither the depositary nor its agents are responsible for any failure to carry out any voting instructions, for the manner in which any vote is cast or for the effect of any vote. Notwithstanding anything contained in the deposit agreement or any ADR, the depositary may, to the extent not prohibited by law or regulations, or by the requirements of the stock exchange on which the ADSs are listed, in lieu of distribution of the materials provided to the depositary in connection with any meeting of, or solicitation of consents or proxies from, holders of deposited securities, distribute to the registered holders of ADRs a notice that provides such holders with, or otherwise publicizes to such holders, instructions on how to retrieve such materials or receive such materials upon request (*i.e.*, by reference to a website containing the materials for retrieval or a contact for requesting copies of the materials).

Under our post-offering memorandum and articles of association, the depositary would be able to provide us with voting instructions without having to personally attend meetings in person, by means of it delivering an instrument of proxy. Such voting instructions may be provided to us by means of the depositary delivering an instrument of proxy via facsimile, email, mail, courier or other recognized form of delivery and we agree to accept any such delivery so long as it is timely received prior to the meeting. We will endeavor to provide the depositary with written notice of each meeting of shareholders promptly after determining the date of such meeting so as to enable it to solicit and receive voting instructions. In general, the depositary will require that voting instructions be received by the depositary no less than five business days' prior to the date of each meeting of shareholders. Under our post-offering memorandum and articles of association that we expect to adopt, the minimum notice period required to convene a general meeting is [seven] days. The depositary may not have sufficient time to solicit voting instructions, and it is possible that you, or persons who hold their ADSs through brokers, dealers or other third parties, will not have the opportunity to exercise a right to vote.

Notwithstanding the above, we have advised the depositary that under the Cayman Islands law and our post-offering memorandum and articles of association, each as in effect as of completion of this offering, voting at any meeting of shareholders will be by show of hands unless a poll is (before or on the declaration of the results of the show of hands) demanded. In the event that voting on any resolution or matter is conducted on a show-of-hands basis in accordance with our constituent documents, the depositary will refrain from voting and the voting instructions (or the deemed voting instructions, as set out above) received by the depositary from holders shall lapse. The depositary will not demand a poll or join in demanding a poll, whether or not requested to do so by holders of ADSs.

There is no guarantee that you will receive voting materials in time to instruct the depositary to vote and it is possible that you, or persons who hold their ADSs through brokers, dealers or other third parties, will not have the opportunity to exercise a right to vote.

Reports and Other Communications

Will ADR holders be able to view our reports?

The depositary will make available for inspection by ADR holders at the offices of the depositary and the custodian the deposit agreement, the provisions of or governing deposited securities, and any written communications from us that are both received by the custodian or its nominee as a holder of deposited securities and made generally available to the holders of deposited securities.

Additionally, if we make any written communications generally available to holders of our shares, and we furnish copies thereof (or English translations or summaries) to the depositary, it will distribute the same to registered ADR holders.

Fees and Expenses

What fees and expenses will I be responsible for paying?

The depositary may charge each person to whom ADSs are issued, including, without limitation, issuances against deposits of shares, issuances in respect of share distributions, rights and other distributions, issuances pursuant to a stock dividend or stock split declared by us or issuances pursuant to a merger, exchange of securities or any other transaction or event affecting the ADSs or deposited securities, and each person surrendering ADSs for withdrawal of deposited securities or whose ADRs are cancelled or reduced for any other reason, US\$5.00 for each 100 ADSs (or any portion thereof) issued, delivered, reduced, canceled or surrendered, as the case may be. The depositary may sell (by public or private sale) sufficient securities and property received in respect of a share distribution, rights and/or other distribution prior to such deposit to pay such charge.

The following additional charges shall be incurred by the ADR holders, by any party depositing or withdrawing shares or by any party surrendering ADSs or to whom ADSs are issued (including, without limitation, issuance pursuant to a stock dividend or stock split declared by us or an exchange of stock regarding the ADRs or the deposited securities or a distribution of ADSs), whichever is applicable':

- a fee of US\$ per ADR or ADRs for transfers of certificated or direct registration ADRs;
- a fee of up to US\$ per ADS for any cash distribution made pursuant to the deposit agreement;
- a fee of up to US\$ per ADS per calendar year (or portion thereof) for services performed by the depositary in administering the ADRs (which fee may be charged on a periodic basis during each calendar year and shall be assessed against holders of ADRs as of the record date or record dates set by the depositary during each calendar year and shall be payable in the manner described in the next succeeding provision);
- reimbursement of such fees, charges and expenses as are incurred by the depositary and/or any of the depositary's agents (including, without limitation, the custodian and expenses incurred on behalf of holders in connection with compliance with foreign exchange control regulations or any law or regulation relating to foreign investment) in connection with the servicing of the shares or other deposited securities, the delivery of deposited securities or otherwise in connection with the depositary's or its custodian's compliance with applicable law, rule or regulation (which charge shall be assessed on a proportionate basis against holders as of the record date or dates set by the depositary and shall be payable at the sole discretion of the depositary by billing such holders or by deducting such charge from one or more cash dividends or other cash distributions);
- a fee for the distribution of securities (or the sale of securities in connection with a distribution), such fee being in an amount equal to the fee for the execution and delivery of ADSs, which would have been charged as a result of the deposit of such securities (treating all such securities as if they were shares and there would be a fee of five cents per ADS outstanding);
- stock transfer or other taxes and other governmental charges;
- cable, telex and facsimile transmission and delivery charges incurred at your request in connection with the deposit or delivery of shares;
- transfer or registration fees for the registration of transfer of deposited securities on any applicable register in connection with the deposit or withdrawal of deposited securities; and
- expenses of the depositary in connection with the conversion of foreign currency into U.S. dollars.

We will pay all other charges and expenses of the depositary and any agent of the depositary (except the custodian) pursuant to agreements from time to time between us and the depositary. The charges described above may be amended from time to time by agreement between us and the depositary.

Our depositary has agreed to reimburse us for certain expenses we incur that are related to establishment and maintenance of the ADR program, including investor relations expenses and exchange application and listing fees. Neither the depositary nor we can determine the exact amount to be made available to us because (i) the number of ADSs that will be issued and outstanding, (ii) the level of fees to be charged to

holders of ADSs and (iii) our reimbursable expenses related to the ADR program are not known at this time. The depositary collects its fees for issuance and cancellation of ADSs directly from investors depositing shares or surrendering ADSs for the purpose of withdrawal or from intermediaries acting for them. The depositary collects fees for making distributions to investors by deducting those fees from the amounts distributed or by selling a portion of distributable property to pay the fees. The depositary may collect its annual fee for depositary services by deduction from cash distributions, or by directly billing investors, or by charging the book-entry system accounts of participants acting for them. The depositary will generally set off the amounts owing from distributions made to holders of ADSs. If, however, no distribution exists and payment owing is not timely received by the depositary, the depositary may refuse to provide any further services to holders that have not paid those fees and expenses owing until such fees and expenses have been paid. At the discretion of the depositary, all fees and charges owing under the deposit agreement are due in advance and/or when declared owing by the depositary.

Payment of Taxes

ADR holders must pay any tax or other governmental charge payable by the custodian or the depositary on any ADS or ADR, deposited security or distribution. If an ADR holder owes any tax or other governmental charge, the depositary may (i) deduct the amount thereof from any cash distributions, or (ii) sell deposited securities (by public or private sale) and deduct the amount owing from the net proceeds of such sale. In either case the ADR holder remains liable for any shortfall. Additionally, if any taxes or other governmental charges (including any penalties and/or interest) shall become payable by or on behalf of the custodian or the depositary with respect to any ADR, any deposited securities represented by the ADSs evidenced thereby or any distribution thereon, including, without limitation, any Chinese Enterprise Income Tax owing if the Circular Guoshuifa [2009] No. 82 issued by the Chinese State Administration of Taxation or any other circular, edict, order or ruling, as issued and as from time to time amended, is applied or otherwise, such tax or other governmental charge shall be paid by the holder thereof to the depositary. and by holding or having held an ADR the holder and all prior holders thereof, jointly and severally, agree to indemnify, defend and save harmless each of the depositary and its agents in respect thereof. If any tax or governmental charge is unpaid, the depositary may also refuse to effect any registration, registration of transfer, split-up or combination of deposited securities or withdrawal of deposited securities until such payment is made. If any tax or governmental charge is required to be withheld on any cash distribution, the depositary may deduct the amount required to be withheld from any cash distribution or, in the case of a non-cash distribution, sell the distributed property or securities (by public or private sale) to pay such taxes and distribute any remaining net proceeds to the ADR holders entitled thereto.

By holding an ADR or an interest therein, you will be agreeing to indemnify us, the depositary, its custodian and any of our or their respective directors, employees, agents and affiliates against, and hold each of them harmless from, any claims by any governmental authority with respect to taxes, additions to tax, penalties or interest arising out of any refund of taxes, reduced rate of withholding at source or other tax benefit obtained.

Reclassifications, Recapitalizations and Mergers

If we take certain actions that affect the deposited securities, including (i) any change in par value, split-up, consolidation, cancellation or other reclassification of deposited securities or (ii) any distributions not made to holders of ADRs or (iii) any recapitalization, reorganization, merger, consolidation, liquidation, receivership, bankruptcy or sale of all or substantially all of our assets, then the depositary may choose to:

- amend the form of ADR;
- distribute additional or amended ADRs;
- distribute cash, securities or other property it has received in connection with such actions;
- sell any securities or property received and distribute the proceeds as cash; or
- none of the above.

If the depositary does not choose any of the above options, any of the cash, securities or other property it receives will constitute part of the deposited securities and each ADS will then represent a proportionate interest in such property.

Amendment and Termination

How may the deposit agreement be amended?

We may agree with the depository to amend the deposit agreement and the ADSs without your consent for any reason. ADR holders must be given at least [30] days' notice of any amendment that imposes or increases any fees or charges (other than stock transfer or other taxes and other governmental charges, transfer or registration fees, cable, telex or facsimile transmission costs, delivery costs or other such expenses), or otherwise prejudices any substantial existing right of ADR holders. Such notice need not describe in detail the specific amendments effectuated thereby, but must give ADR holders a means to access the text of such amendment. If an ADR holder continues to hold an ADR or ADRs after being so notified, such ADR holder is deemed to agree to such amendment and to be bound by the deposit agreement as so amended. Notwithstanding the foregoing, if any governmental body or regulatory body should adopt new laws, rules or regulations that would require amendment or supplement of the deposit agreement or the form of ADR to ensure compliance therewith, we and the depository may amend or supplement the deposit agreement and the ADR at any time in accordance with such changed laws, rules or regulations, which amendment or supplement may take effect before a notice is given or within any other period of time as required for compliance. No amendment, however, will impair your right to surrender your ADSs and receive the underlying securities, except in order to comply with mandatory provisions of applicable law.

How may the deposit agreement be terminated?

The depository may, and shall at our written direction, terminate the deposit agreement and the ADRs by mailing notice of such termination to the registered holders of ADRs at least [30] days prior to the date fixed in such notice for such termination; provided, however, that if the depository shall have (i) resigned as depository under the deposit agreement, notice of such termination by the depository shall not be provided to registered holders unless a successor depository shall not be operating under the deposit agreement within [45] days of the date of such resignation, and (ii) been removed as depository under the deposit agreement, notice of such termination by the depository shall not be provided to registered holders of ADRs unless a successor depository shall not be operating under the deposit agreement on the 90th day after our notice of removal was first provided to the depository. After termination, the depository's only responsibility will be (i) to deliver deposited securities to ADR holders who surrender their ADRs, and (ii) to hold or sell distributions received on deposited securities. As soon as practicable after the expiration of six months from the termination date, the depository will sell the deposited securities that remain and hold the net proceeds of such sales (as long as it may lawfully do so), without liability for interest, in trust for the ADR holders who have not yet surrendered their ADRs. After making such sale, the depository shall have no obligations except to account for such proceeds and other cash.

Limitations on Obligations and Liability to ADS Holders

Limits on our obligations and the obligations of the depository; limits on liability to ADR holders and holders of ADSs

Prior to the issue, registration, registration of transfer, split-up, combination, or cancellation of any ADRs, or the delivery of any distribution in respect thereof, and from time to time, we or the depository or its custodian may require:

- payment with respect thereto of (i) any stock transfer or other tax or other governmental charge, (ii) any stock transfer or registration fees in effect for the registration of transfers of shares or other deposited securities upon any applicable register and (iii) any applicable fees and expenses described in the deposit agreement;
- the production of proof satisfactory to it of (i) the identity of any signatory and genuineness of any signature and (ii) such other information, including, without limitation, information as to citizenship, residence, exchange control approval, beneficial ownership of any securities, compliance with applicable law, regulations, provisions of or governing deposited securities and terms of the deposit agreement and the ADRs, as it may deem necessary or proper; and

- compliance with such regulations as the depositary may establish consistent with the deposit agreement.

The issuance of ADRs, the acceptance of deposits of shares, the registration, registration of transfer, split-up or combination of ADRs or the withdrawal of shares, may be suspended, generally or in particular instances, when the ADR register or any register for deposited securities is closed or when any such action is deemed advisable by the depositary; *provided* that the ability to withdraw shares may only be limited under the following circumstances: (i) temporary delays caused by closing transfer books of the depositary or our transfer books or the deposit of shares in connection with voting at a shareholders' meeting, or the payment of dividends, (ii) the payment of fees, taxes, and similar charges, and (iii) compliance with any laws or governmental regulations relating to ADRs or to the withdrawal of deposited securities.

The deposit agreement expressly limits the obligations and liability of the depositary, ourselves and our respective agents. Neither we or the depositary nor any such agent will be liable if:

- any present or future law, rule, regulation, fiat, order or decree of the United States, the Cayman Islands, the People's Republic of China or any other country, or of any governmental or regulatory authority or securities exchange or market or automated quotation system, the provisions of or governing any deposited securities, any present or future provision of our charter, any act of God, war, terrorism or other circumstance beyond our, the depositary's or our respective agents' control shall prevent or delay, or shall cause any of them to be subject to any civil or criminal penalty in connection with, any act that the deposit agreement or the ADRs provide shall be done or performed by us, the depositary or our respective agents (including, without limitation, voting);
- it exercises or fails to exercise discretion under the deposit agreement or the ADR;
- it performs its obligations under the deposit agreement and ADRs without gross negligence or bad faith;
- it takes any action or refrains from taking any action in reliance upon the advice of or information from legal counsel, accountants, any person presenting shares for deposit, any registered holder of ADRs, or any other person believed by it to be competent to give such advice or information; or
- it relies upon any written notice, request, direction or other document believed by it to be genuine and to have been signed or presented by the proper party or parties.

Neither the depositary nor its agents have any obligation to appear in, prosecute or defend any action, suit or other proceeding in respect of any deposited securities or the ADRs. We and our agents shall only be obligated to appear in, prosecute or defend any action, suit or other proceeding in respect of any deposited securities or the ADRs, which in our opinion may involve us in expense or liability, if indemnity satisfactory to us against all expense (including fees and disbursements of counsel) and liability is furnished as often as may be required. The depositary and its agents may fully respond to any and all demands or requests for information maintained by or on its behalf in connection with the deposit agreement, any registered holder or holders of ADRs, any ADRs or otherwise related to the deposit agreement or ADRs to the extent such information is requested or required by or pursuant to any lawful authority, including, without limitation, laws, rules, regulations, administrative or judicial process, banking, securities or other regulators. The depositary shall not be liable for the acts or omissions made by any securities depositary, clearing agency or settlement system in connection with or arising out of book-entry settlement of deposited securities or otherwise. Furthermore, the depositary shall not be responsible for, and shall incur no liability in connection with or arising from, the insolvency of any custodian that is not a branch or affiliate of

. The depositary and the custodian(s) may use third-party delivery services and providers of information regarding matters such as pricing, proxy voting, corporate actions, class action litigation and other services in connection with the ADRs and the deposit agreement, and use local agents to provide extraordinary services such as attendance at annual meetings of issuers of securities. Although the depositary and the custodian will use reasonable care (and cause their agents to use reasonable care) in the selection and retention of such third-party providers and local agents, they will not be responsible for any errors or omissions made by them in providing the relevant information or services.

Additionally, none of us, the depositary or the custodian shall be liable for the failure by any registered holder of ADRs or beneficial owner therein to obtain the benefits of credits on the basis of non-U.S. tax

paid against such holder's or beneficial owner's income tax liability. Neither we nor the depositary shall incur any liability for any tax consequences that may be incurred by holders or beneficial owners on account of their ownership of ADRs or ADSs.

Neither the depositary nor its agents will be responsible for any failure to carry out any instructions to vote any of the deposited securities, for the manner in which any such vote is cast or for the effect of any such vote. Neither the depositary nor any of its agents shall be liable to registered holders of ADRs or beneficial owners of interests in ADSs for any indirect, special, punitive or consequential damages (including, without limitation, lost profits) of any form incurred by any person or entity, whether or not foreseeable and regardless of the type of action in which such a claim may be brought.

In the deposit agreement each party thereto (including, for avoidance of doubt, each holder and beneficial owner and/or holder of interests in ADRs) irrevocably waives, to the fullest extent permitted by applicable law, any right it may have to a trial by jury in any suit, action or proceeding against the depositary and/or the company directly or indirectly arising out of or relating to the shares or other deposited securities, the ADSs or the ADRs, the deposit agreement or any transaction contemplated therein, or the breach thereof (whether based on contract, tort, common law or any other theory).

The depositary may own and deal in any class of our securities and in ADSs.

Disclosure of Interest in ADSs

To the extent that the provisions of or governing any deposited securities may require disclosure of or impose limits on beneficial or other ownership of deposited securities, other shares and other securities and may provide for blocking transfer, voting or other rights to enforce such disclosure or limits, you agree to comply with all such disclosure requirements and ownership limitations and to comply with any reasonable instructions we may provide in respect thereof. We reserve the right to instruct you to deliver your ADSs for cancellation and withdrawal of the deposited securities so as to permit us to deal with you directly as a holder of shares and, by holding an ADS or an interest therein, you will be agreeing to comply with such instructions.

Books of Depositary

The depositary or its agent will maintain a register for the registration, registration of transfer, combination and split-up of ADRs, which register shall include the depositary's direct registration system. Registered holders of ADRs may inspect such records at the depositary's office at all reasonable times, but solely for the purpose of communicating with other holders in the interest of the business of our company or a matter relating to the deposit agreement. Such register may be closed from time to time, when deemed expedient by the depositary.

The depositary will maintain facilities for the delivery and receipt of ADRs.

Appointment

In the deposit agreement, each registered holder of ADRs and each person holding an interest in ADSs, upon acceptance of any ADSs (or any interest therein) issued in accordance with the terms and conditions of the deposit agreement will be deemed for all purposes to:

- be a party to and bound by the terms of the deposit agreement and the applicable ADR or ADRs, and
- appoint the depositary its attorney-in-fact, with full power to delegate, to act on its behalf and to take any and all actions contemplated in the deposit agreement and the applicable ADR or ADRs, to adopt any and all procedures necessary to comply with applicable laws and to take such action as the depositary in its sole discretion may deem necessary or appropriate to carry out the purposes of the deposit agreement and the applicable ADR and ADRs, the taking of such actions to be the conclusive determinant of the necessity and appropriateness thereof.

Governing Law

The deposit agreement and the ADRs shall be governed by and construed in accordance with the laws of the State of New York. In the deposit agreement, we have submitted to the jurisdiction of the courts of the State of New York and appointed an agent for service of process on our behalf. Notwithstanding the foregoing, any action based on the deposit agreement or the transactions contemplated thereby may be instituted by the depository and holders in any competent court in the Cayman Islands, Hong Kong, the People's Republic of China and/or the United States or through the commencement of an English language arbitration either in New York, New York in accordance with the Commercial Arbitration Rules of the American Arbitration Association or in Hong Kong following the arbitration rules of the United Nations Commission on International Trade Law (UNCITRAL).]

SHARES ELIGIBLE FOR FUTURE SALE

Upon completion of this offering, we will have _____ ADSs outstanding, representing _____ ordinary shares, or approximately _____ % of our outstanding ordinary shares, assuming the underwriters do not exercise their option to purchase additional ADSs. All of the ADSs sold in this offering will be freely transferable by persons other than by our “affiliates” without restriction or further registration under the Securities Act. Sales of substantial amounts of the ADSs in the public market could adversely affect prevailing market prices of the ADSs. Prior to this offering, there has been no public market for our ordinary shares or ADSs. We intend to apply to list the ADSs on the [New York Stock Exchange/Nasdaq Stock Market], but we cannot assure you that a regular trading market will develop in the ADSs. We do not expect that a trading market will develop for our ordinary shares not represented by the ADSs.

Lock-up Agreements

[We, our directors and executive officers and all of our existing shareholders and holders of share-based awards] have agreed, for a period of 180 days after the date of this prospectus, [not to offer, sell, contract to sell, pledge, grant any option to purchase, make any short sale, lend or otherwise dispose of, except in this offering, any of our ordinary shares or ADSs or securities that are substantially similar to our ordinary shares or ADSs, including, but not limited to, any options or warrants to purchase our ordinary shares, ADSs or any securities that are convertible into or exchangeable for, or that represent the right to receive, our ordinary shares, ADSs or any such substantially similar securities (other than pursuant to employee share option plans existing on, or upon the conversion or exchange of convertible or exchangeable securities outstanding as of, the date such lock-up agreement was executed),] without the prior written consent of the representatives of the underwriters.

Other than this offering, we are not aware of any plans by any significant shareholders to dispose of significant numbers of the ADSs or ordinary shares. However, one or more existing shareholders or owners of securities convertible or exchangeable into or exercisable for the ADSs or ordinary shares may dispose of significant numbers of the ADSs or ordinary shares in the future. We cannot predict what effect, if any, future sales of the ADSs or ordinary shares, or the availability of ADSs or ordinary shares for future sale, will have on the trading price of the ADSs from time to time. Sales of substantial amounts of the ADSs or ordinary shares in the public market, or the perception that these sales could occur, could adversely affect the trading price of the ADSs.

Rule 144

All of our ordinary shares that will be outstanding upon the completion of this offering, other than those ordinary shares sold in this offering, are “restricted securities” as that term is defined in Rule 144 under the Securities Act and may be sold publicly in the United States only if they are subject to an effective registration statement under the Securities Act or pursuant to an exemption from the registration requirement such as those provided by Rule 144 and Rule 701 promulgated under the Securities Act. In general, beginning 90 days after the date of this prospectus, a person (or persons whose shares are aggregated) who at the time of a sale is not, and has not been during the three months preceding the sale, an affiliate of ours and has beneficially owned our restricted securities for at least six months will be entitled to sell the restricted securities without registration under the Securities Act, subject only to the availability of current public information about us, and will be entitled to sell restricted securities beneficially owned for at least one year without restriction. Persons who are our affiliates and have beneficially owned our restricted securities for at least six months may sell a number of restricted securities within any three-month period that does not exceed the greater of the following:

- 1% of the then-outstanding ordinary shares of the same class, in the form of ADSs or otherwise, which will equal approximately _____ ordinary shares immediately after this offering; or
- the average weekly trading volume of our ordinary shares of the same class in the form of ADSs or otherwise, on the [New York Stock Exchange/Nasdaq Stock Market], during the four calendar weeks preceding the date on which notice of the sale is filed with the SEC.

Sales by our affiliates under Rule 144 are also subject to certain requirements relating to manner of sale, notice and the availability of current public information about us.

Rule 701

In general, under Rule 701 of the Securities Act as currently in effect, each of our employees, consultants or advisors who purchases our ordinary shares from us in connection with a compensatory stock plan or other written agreement executed prior to the completion of this offering is eligible to resell those ordinary shares in reliance on Rule 144, but without compliance with some of the restrictions, including the holding period, contained in Rule 144. [However, the Rule 701 shares would remain subject to lock-up arrangements and would only become eligible for sale when the lock-up period expires.]

TAXATION

The following summary of Cayman Islands, PRC and U.S. federal income tax considerations of an investment in the ADSs or ordinary shares is based upon laws and relevant interpretations thereof in effect as of the date of this registration statement, all of which are subject to change. This summary does not deal with all possible tax considerations relating to an investment in the ADSs or ordinary shares, such as the tax considerations under U.S. state and local tax laws or under the tax laws of jurisdictions other than the Cayman Islands, the People's Republic of China and the United States. To the extent that the discussion relates to matters of Cayman Islands tax law, it represents the opinion of Maples and Calder (Hong Kong) LLP, our Cayman Islands counsel; to the extent it relates to PRC tax law, it is the opinion of Commerce & Finance Law Offices, our PRC counsel.

Cayman Islands Taxation

The Cayman Islands currently levies no taxes on individuals or corporations based upon profits, income, gains or appreciation and there is no taxation in the nature of inheritance tax or estate duty. There are no other taxes likely to be material to us levied by the government of the Cayman Islands except for stamp duties, which may be applicable on instruments executed in, or, after execution, brought to, or produced before a court of the Cayman Islands. The Cayman Islands is not party to any double tax treaties that are applicable to any payments made to or by our company. There are no exchange control regulations or currency restrictions in the Cayman Islands.

Payments of dividends and capital in respect of our ordinary shares or ADSs will not be subject to taxation in the Cayman Islands and no withholding will be required on the payment of a dividend or capital to any holder of our ordinary shares or ADSs, nor will gains derived from the disposal of our ordinary shares or ADSs be subject to Cayman Islands income or corporation tax.

People's Republic of China Taxation

Under the PRC Enterprise Income Tax Law and its implementation rules, an enterprise established outside of the PRC with a “de facto management body” within the PRC is considered a resident enterprise and will be subject to the enterprise income tax at the rate of 25% on its global income. The implementation rules define the term “de facto management body” as the body that exercises full and substantial control over and overall management of the business, productions, personnel, accounts and properties of an enterprise. The SAT Circular 82 provides certain specific criteria for determining whether the “de facto management body” of a PRC-controlled enterprise that is incorporated offshore is located in China. Although this circular only applies to offshore enterprises controlled by PRC enterprises or PRC enterprise groups, not those controlled by PRC individuals or foreigners, the criteria set forth in the circular may reflect the SAT’s general position on how the “de facto management body” test should be applied in determining the tax resident status of all offshore enterprises. According to SAT Circular 82, an offshore incorporated enterprise controlled by a PRC enterprise or a PRC enterprise group will be regarded as a PRC tax resident by virtue of having its “de facto management body” in China only if all of the following conditions are met: (i) the primary location of the day-to-day operational management is in the PRC; (ii) decisions relating to the enterprise’s financial and human resource matters are made or are subject to approval by organizations or personnel in the PRC; (iii) the enterprise’s primary assets, accounting books and records, company seals, and board and shareholder resolutions, are located or maintained in the PRC; and (iv) at least 50% of voting board members or senior executives habitually reside in the PRC.

We believe that Hesai Group is not a PRC resident enterprise for PRC tax purposes. Hesai Group is a company incorporated outside of the PRC and is not controlled by a PRC enterprise or PRC enterprise group, and we do not believe that Hesai Group meets all of the conditions above. For the same reasons, we believe our other entities outside of China are not PRC resident enterprises either. However, the tax resident status of an enterprise is subject to determination by the PRC tax authorities and uncertainties remain with respect to the interpretation of the term “de facto management body.” There can be no assurance that the PRC government will ultimately take a view that is consistent with us.

If the PRC tax authorities determine that Hesai Group is a PRC resident enterprise for enterprise income tax purposes, we may be required to withhold a 10% withholding tax from dividends we pay to our

shareholders that are non-resident enterprises, including the holders of the ADSs. In addition, non-resident enterprise shareholders (including the ADS holders) may be subject to a 10% PRC tax on gains realized on the sale or other disposition of ADSs or ordinary shares, if such income is treated as sourced from within the PRC, subject to any reduction or exemption set forth in applicable tax treaties or under applicable tax arrangements between jurisdictions. It is unclear whether our non-PRC individual shareholders (including the ADS holders) would be subject to any PRC tax on dividends or gains obtained by such non-PRC individual shareholders in the event we are determined to be a PRC resident enterprise. If any PRC tax were to apply to such dividends or gains, it would generally apply at a rate of 20% unless a reduced rate is available under an applicable tax treaty, subject to any reduction or exemption set forth in applicable tax treaties or under applicable tax arrangements between jurisdictions. It is also unclear whether non-PRC shareholders of Hesai Group would be able to claim the benefits of any tax treaties between their jurisdiction of tax residence and the PRC in the event that Hesai Group is treated as a PRC resident enterprise.

Provided that our Cayman Islands holding company, Hesai Group, is not deemed to be a PRC resident enterprise, holders of the ADSs and ordinary shares who are not PRC residents will not be subject to PRC income tax on dividends distributed by us or gains realized from the sale or other disposition of our ordinary shares or ADSs. However, under SAT Bulletin 7 and SAT Bulletin 37, where a non-resident enterprise conducts an “indirect transfer” by transferring taxable assets, including, in particular, equity interests in a PRC resident enterprise, indirectly by disposing of the equity interests of an overseas holding company, the non-resident enterprise, being the transferor, or the transferee or the PRC entity that directly owned such taxable assets may report to the relevant tax authority such indirect transfer. Using a “substance over form” principle, the PRC tax authority may disregard the existence of the overseas holding company if it lacks a reasonable commercial purpose and was established for the purpose of reducing, avoiding or deferring PRC tax. As a result, gains derived from such indirect transfer may be subject to PRC enterprise income tax, and the transferee or other person who is obligated to pay for the transfer is obligated to withhold the applicable taxes, currently at a rate of 10% for the transfer of equity interests in a PRC resident enterprise. We and our non-PRC resident investors may be at risk of being required to file a return and being taxed under SAT Bulletin 7 and SAT Bulletin 37, and we may be required to expend valuable resources to comply with SAT Bulletin 7 and SAT Bulletin 37, or to establish that we and our non-PRC resident investors should not be taxed under these circulars.

United States Federal Income Tax Considerations

The following discussion is a summary of U.S. federal income tax considerations generally applicable to the ownership and disposition of the ADSs or Class B ordinary shares by a U.S. Holder (as defined below) that acquires the ADSs in this offering and holds the ADSs or Class B ordinary shares as “capital assets” (generally, property held for investment) under the U.S. Internal Revenue Code of 1986, as amended, or the Code. This discussion is based upon existing U.S. federal tax law, which is subject to differing interpretations or change, possibly with retroactive effect. There can be no assurance that the Internal Revenue Service (the “IRS”) or a court will not take a contrary position. This discussion, moreover, does not address the U.S. federal estate, gift, Medicare, and alternative minimum tax considerations, or any state, local and non-U.S. tax considerations, relating to the ownership or disposition of the ADSs or ordinary shares. The following summary does not address all aspects of U.S. federal income taxation that may be important to particular investors in light of their individual circumstances or to persons in special tax situations such as:

- banks and other financial institutions;
- insurance companies;
- pension plans;
- cooperatives;
- regulated investment companies;
- real estate investment trusts;
- broker-dealers;
- traders that elect to use a mark-to-market method of accounting;

- certain former U.S. citizens or long-term residents;
- tax-exempt entities (including private foundations);
- holders who acquire their ADSs or ordinary shares pursuant to any employee share option or otherwise as compensation;
- investors that will hold their ADSs or ordinary shares as part of a straddle, hedge, conversion, constructive sale or other integrated transaction for U.S. federal income tax purposes;
- investors that have a functional currency other than the U.S. dollar;
- persons that actually or constructively own 10% or more of our stock (by vote or value); or
- partnerships or other entities taxable as partnerships for U.S. federal income tax purposes, or persons holding ordinary shares through such entities;

all of whom may be subject to tax rules that differ significantly from those discussed below.

Each U.S. Holder is urged to consult its tax advisor regarding the application of U.S. federal taxation to its particular circumstances, and the state, local, non-U.S. and other tax considerations of the ownership and disposition of the ADSs or our ordinary shares.

General

For purposes of this discussion, a “U.S. Holder” is a beneficial owner of the ADSs or ordinary shares that is, for U.S. federal income tax purposes:

- an individual who is a citizen or resident of the United States;
- a corporation (or other entity treated as a corporation for U.S. federal income tax purposes) created in, or organized under the laws of the United States or any state thereof or the District of Columbia;
- an estate the income of which is includible in gross income for U.S. federal income tax purposes regardless of its source; or
- a trust (A) the administration of which is subject to the primary supervision of a U.S. court and that has one or more U.S. persons who have the authority to control all substantial decisions of the trust or (B) that has otherwise validly elected to be treated as a U.S. person under the Code.

If a partnership (or other entity treated as a partnership for U.S. federal income tax purposes) is a beneficial owner of the ADSs or ordinary shares, the tax treatment of a partner in the partnership will generally depend upon the status of the partner and the activities of the partnership. Partners in a partnership holding the ADSs or ordinary shares are urged to consult their tax advisors regarding an investment in the ADSs or ordinary shares.

For U.S. federal income tax purposes, it is generally expected that a U.S. Holder of ADSs will be treated as the beneficial owner of the underlying shares represented by the ADSs. The remainder of this discussion assumes that a U.S. Holder of the ADSs will be treated in this manner. Accordingly, deposits or withdrawals of ordinary shares for ADSs will generally not be subject to U.S. federal income tax.

Passive Foreign Investment Company Considerations

A non-U.S. corporation, such as our company, will be a PFIC for U.S. federal income tax purposes for any taxable year, if either (i) 75% or more of its gross income for such year consists of certain types of “passive” income or (ii) 50% or more of the value of its assets (generally determined on the basis of a quarterly average) during such year is attributable to assets that produce or are held for the production of passive income. For this purpose, cash and assets readily convertible into cash are categorized as a passive asset and the company’s goodwill and other unbooked intangibles are taken into account. Passive income generally includes, among other things, dividends, interest, rents, royalties, and gains from the disposition of passive assets. We will be treated as owning a proportionate share of the assets and earning a proportionate share of the income of any other corporation in which we own, directly or indirectly, 25% or more (by value) of the stock.

Based upon our current and projected income and assets, including the proceeds from this offering, and projections as to the value of our assets immediately following this offering, we do not expect to be a PFIC for the current taxable year or the foreseeable future. However, no assurance can be given in this regard because the determination of whether we will be or become a PFIC is a factual determination made annually that will depend, in part, upon the composition of our income and assets and the value of our assets. Fluctuations in the market price of the ADSs may cause us to be or become a PFIC for the current or future taxable years because the value of our assets for purposes of the asset test, including the value of our goodwill and unbooked intangibles, may be determined by reference to the market price of the ADSs from time to time (which may be volatile). If our market capitalization is less than anticipated or subsequently declines, we may be or become a PFIC for the current taxable year or future taxable years. Furthermore, the composition of our income and assets may also be affected by how, and how quickly, we use our liquid assets and the cash raised in this offering. Under circumstances where our revenue from activities that produce passive income significantly increases relative to our revenue from activities that produce non-passive income, or where we determine not to deploy significant amounts of cash for active purposes, our risk of becoming a PFIC may substantially increase.

If we are a PFIC for any year during which a U.S. Holder holds the ADSs or ordinary shares, the PFIC rules discussed below under “— Passive Foreign Investment Company Rules” generally will apply to such U.S. Holder for such taxable year, and unless the U.S. Holder makes certain elections, will apply in future years even if we cease to be a PFIC.

The discussion below under “— Dividends” and “— Sale or Other Disposition” is written on the basis that we will not be or become a PFIC for U.S. federal income tax purposes. The U.S. federal income tax rules that apply generally if we are treated as a PFIC are discussed below under “— Passive Foreign Investment Company Rules.”

Dividends

Any cash distributions paid on the ADSs or ordinary shares (including the amount of any PRC tax withheld) out of our current or accumulated earnings and profits, as determined under U.S. federal income tax principles, will generally be includible in the gross income of a U.S. Holder as dividend income on the day actually or constructively received by the U.S. Holder, in the case of ordinary shares, or by the depository, in the case of ADSs. Because we do not intend to determine our earnings and profits on the basis of U.S. federal income tax principles, any distribution we pay will generally be treated as a “dividend” for U.S. federal income tax purposes. Dividends received on the ADSs or ordinary shares will not be eligible for the dividends received deduction allowed to corporations in respect of dividends received from U.S. corporations.

Individuals and other non-corporate U.S. Holders will be subject to tax at the lower capital gain tax rate applicable to “qualified dividend income,” *provided* that certain conditions are satisfied, including that (1) the ADSs or ordinary shares are readily tradable on an established securities market in the United States, or, in the event that we are deemed to be a PRC resident enterprise under the PRC tax law, we are eligible for the benefit of the United States-PRC income tax treaty (the “Treaty”), (2) we are neither a PFIC nor treated as such with respect to a U.S. Holder (as discussed below) for the taxable year in which the dividend is paid and the preceding taxable year, and (3) certain holding period requirements are met. We intend to list the ADSs on the [Nasdaq Stock Market/New York Stock Exchange]. Provided the listing is approved, we believe that the ADSs will be readily tradable on an established securities market in the United States and that we will be a qualified foreign corporation with respect to dividends paid on the ADSs. There can be no assurance that the ADSs will continue to be considered readily tradable on an established securities market in later years. Because the ordinary shares will not be listed on a U.S. exchange, dividends received with respect to ordinary shares that are not represented by ADSs may not be treated as qualified dividends. U.S. Holders are urged to consult their tax advisors regarding the availability of the lower rate for dividends paid with respect to the ADSs or ordinary shares.

In the event that we are deemed to be a PRC resident enterprise under the PRC Enterprise Income Tax Law (see “Taxation — People’s Republic of China Taxation”), we may be eligible for the benefits of the Treaty. If we are eligible for such benefits, dividends we pay on our ordinary shares, regardless of whether

such shares are represented by the ADSs, and regardless of whether the ADSs are readily tradable on an established securities market in the United States, would be eligible for the reduced rates of taxation described in the preceding paragraph.

For U.S. foreign tax credit purposes, dividends paid on the ADSs or ordinary shares generally will be treated as income from foreign sources and generally will constitute passive category income. If PRC withholding taxes apply to dividends paid to a U.S. Holder with respect to the ADSs or ordinary shares, such U.S. Holder may be able to obtain a reduced rate of PRC withholding taxes under the Treaty if certain requirements are met. In addition, subject to certain conditions and limitations, PRC withholding taxes on dividends that are non-refundable under the Treaty may be treated as foreign taxes eligible for credit against a U.S. Holder's U.S. federal income tax liability. A U.S. Holder who does not elect to claim a foreign tax credit for foreign tax withheld may instead claim a deduction for U.S. federal income tax purposes, in respect of such withholding, but only for a year in which such holder elects to do so for all creditable foreign income taxes. The rules governing the foreign tax credit are complex and U.S. Holders are urged to consult their tax advisors regarding the availability of the foreign tax credit under their particular circumstances.

Sale or Other Disposition

A U.S. Holder will generally recognize gain or loss upon the sale or other disposition of ADSs or ordinary shares in an amount equal to the difference between the amount realized upon the disposition and the holder's adjusted tax basis in such ADSs or ordinary shares. The gain or loss will generally be capital gain or loss. Individuals and other non-corporate U.S. Holders who have held the ADSs or ordinary shares for more than one year will generally be eligible for reduced tax rates. The deductibility of a capital loss may be subject to limitations. Any such gain or loss that the U.S. Holder recognizes will generally be treated as U.S. source income or loss for foreign tax credit limitation purposes, which will generally limit the availability of foreign tax credits. However, in the event we are deemed to be a PRC resident enterprise under the PRC Enterprise Income Tax Law, U.S. Holders may be eligible for the benefits of the Treaty. In such event, if PRC tax were to be imposed on any gain from the disposition of the ADSs or ordinary shares, a U.S. Holder that is eligible for the benefits of the Treaty may elect to treat such gain as PRC source income. If a U.S. Holder is not eligible for the benefits of the income tax treaty or fails to treat any gain as foreign source, then such U.S. Holder may not be able to use the foreign tax credit arising from any PRC tax imposed on the disposition of the ADSs or ordinary shares unless such credit can be applied (subject to applicable limitations) against U.S. federal income tax due on other income derived from foreign sources in the same income category (generally, the passive category). U.S. Holders are urged to consult their tax advisors regarding the creditability of any PRC tax.

Passive Foreign Investment Company Rules

If we are a PFIC for any taxable year during which a U.S. Holder holds the ADSs or ordinary shares, and unless the U.S. Holder makes a mark-to-market election (as described below), the U.S. Holder will generally be subject to special tax rules on (i) any excess distribution that we make to the U.S. Holder (which generally means any distribution paid during a taxable year to a U.S. Holder that is greater than 125 percent of the average annual distributions paid in the three preceding taxable years or, if shorter, the U.S. Holder's holding period for the ADSs or ordinary shares), and (ii) any gain realized on the sale or other disposition of ADSs or ordinary shares. Under the PFIC rules:

- the excess distribution or gain will be allocated ratably over the U.S. Holder's holding period for the ADSs or ordinary shares;
- the amount allocated to the current taxable year and any taxable years in the U.S. Holder's holding period prior to the first taxable year in which we are a PFIC (each, a "pre-PFIC year"), will be taxable as ordinary income; and
- the amount allocated to each prior taxable year, other than a pre-PFIC year, will be subject to tax at the highest tax rate in effect for individuals or corporations, as appropriate, for that year, increased by an additional tax equal to the interest on the resulting tax deemed deferred with respect to each such taxable year.

If we are a PFIC for any taxable year during which a U.S. Holder holds the ADSs or ordinary shares and any of our subsidiaries is also a PFIC, such U.S. Holder would be treated as owning a proportionate amount (by value) of the shares of the lower-tier PFIC for purposes of the application of these rules. U.S. Holders are urged to consult their tax advisors regarding the application of the PFIC rules to any of our subsidiaries.

As an alternative to the foregoing rules, a U.S. Holder of “marketable stock” (as defined below) in a PFIC may make a mark-to-market election with respect to such stock. If a U.S. Holder makes this election with respect to the ADSs, the holder will generally (i) include as ordinary income for each taxable year that we are a PFIC the excess, if any, of the fair market value of ADSs held at the end of the taxable year over the adjusted tax basis of such ADSs and (ii) deduct as an ordinary loss the excess, if any, of the adjusted tax basis of the ADSs over the fair market value of such ADSs held at the end of the taxable year, but such deduction will only be allowed to the extent of the amount previously included in income as a result of the mark-to-market election. The U.S. Holder’s adjusted tax basis in the ADSs would be adjusted to reflect any income or loss resulting from the mark-to-market election. If a U.S. Holder makes a mark-to-market election in respect of the ADSs and we cease to be a PFIC, the holder will not take into account the gain or loss described above during any period that we are not a PFIC. If a U.S. Holder makes a mark-to-market election, any gain such U.S. Holder recognizes upon the sale or other disposition of the ADSs in a year when we are a PFIC will be treated as ordinary income and any loss will be treated as ordinary loss, but such loss will only be treated as ordinary loss to the extent of the net amount previously included in income as a result of the mark-to-market election.

The mark-to-market election is available only for “marketable stock,” which is stock that is traded in other than de minimis quantities on at least 15 days during each calendar quarter (“regularly traded”) on a qualified exchange or other market, as defined in applicable United States Treasury regulations. The ADSs, but not our ordinary shares, will be traded on a qualified exchange upon their listing on the [New York Stock Exchange/Nasdaq Stock Market]. We anticipate that the ADSs should qualify as being regularly traded, but no assurances may be given in this regard.

Because a mark-to-market election cannot technically be made for any lower-tier PFICs that we may own, a U.S. Holder may continue to be subject to the PFIC rules with respect to such U.S. Holder’s indirect interest in any investments held by us that are treated as an equity interest in a PFIC for U.S. federal income tax purposes.

We do not intend to provide information necessary for U.S. Holders to make qualified electing fund elections which, if available, would result in tax treatment different from (and generally less adverse than) the general tax treatment for PFICs described above.

If a U.S. Holder owns the ADSs or ordinary shares during any taxable year that we are a PFIC, the holder must generally file an annual IRS Form 8621. You should consult your tax advisor regarding the U.S. federal income tax consideration of owning and disposing of the ADSs or ordinary shares if we are or become a PFIC, including the availability and possibility of making a mark-to-market election.

THE PRECEDING DISCUSSION OF U.S. FEDERAL INCOME TAX CONSIDERATIONS IS INTENDED FOR GENERAL INFORMATION ONLY AND DOES NOT CONSTITUTE TAX ADVICE. U.S. HOLDERS SHOULD CONSULT THEIR TAX ADVISORS AS TO THE U.S. FEDERAL, STATE, LOCAL AND NON-U.S. TAX CONSIDERATIONS TO THEM OF THE OWNERSHIP AND DISPOSITION OF THE ADS AND ORDINARY SHARES IN THEIR PARTICULAR CIRCUMSTANCES.

UNDERWRITING

Under the terms and subject to the conditions in an underwriting agreement dated the date of this prospectus, the underwriters named below, for whom [Goldman Sachs (Asia) L.L.C., Morgan Stanley & Co. LLC and Credit Suisse Securities (USA) LLC] are acting as representatives, have severally agreed to purchase, and we [and the selling shareholders] have agreed to sell to them, severally, the number of ADSs indicated below:

Name	Number of ADSs
[Goldman Sachs (Asia) L.L.C.	
Morgan Stanley & Co. LLC	
Credit Suisse Securities (USA) LLC]	
Total:	

The underwriters and the representatives are collectively referred to as the “underwriters” and the “representatives,” respectively. The underwriters are offering the ADSs subject to their acceptance of the ADSs from us [and the selling shareholders] and subject to prior sale. The underwriting agreement provides that the obligations of the several underwriters to pay for and accept delivery of the ADSs offered by this prospectus are subject to the approval of certain legal matters by their counsel and to certain other conditions[, such as lack of material adverse change, or any development involving a prospective material adverse change, in the business, financial condition and results of operations of the Company]. The underwriters are obligated, severally but not jointly, to take and pay for all of the ADSs offered by this prospectus if any such ADSs are taken. However, the underwriters are not required to take or pay for the ADSs covered by the underwriters’ over-allotment option described below.

The underwriters initially propose to offer part of the ADSs directly to the public at the offering price listed on the cover page of this prospectus and part to certain dealers. After the initial offering of the ADSs, the offering price and other selling terms may from time to time be varied by the representatives.

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus, to purchase up to additional ADSs at the public offering price listed on the cover page of this prospectus, less underwriting discounts and commissions. The underwriters may exercise this option solely for the purpose of covering over-allotments, if any, made in connection with the offering of the ADSs offered by this prospectus. To the extent the option is exercised, each underwriter will become obligated, subject to certain conditions, to purchase about the same percentage of the additional ADSs as the number listed next to the underwriter’s name in the preceding table bears to the total number of ADSs listed next to the names of all underwriters in the preceding table.

The following table shows the per ADS and total public offering price, underwriting discounts and commissions, and proceeds before expenses to us [and the selling shareholders]. These amounts are shown assuming both no exercise and full exercise of the underwriters’ option to purchase up to an additional ADSs.

	Per ADS	Total	
		No Exercise	Full Exercise
Public offering price	US\$	US\$	US\$
Underwriting discounts and commissions to be paid by us:	US\$	US\$	US\$
[The selling shareholders Proceeds, before expenses, to us	US\$	US\$	US\$]
[Proceeds, before expenses, to selling shareholders	US\$	US\$	US\$]

[We have agreed to reimburse the underwriters for certain of their expenses in an amount up to US\$ million.]

The underwriters have informed us that they do not intend sales to discretionary accounts to exceed 5% of the total number of ADSs offered by them.

Some of the underwriters are expected to make offers and sales both inside and outside the United States through their respective selling agents. Any offers or sales in the United States will be conducted by broker-dealers registered with the SEC.

Goldman Sachs (Asia) L.L.C. will offer ADSs in the United States through its SEC-registered broker-dealer affiliate in the United States, Goldman Sachs & Co. LLC. The address of Goldman Sachs (Asia) L.L.C. is 68th Floor, Cheung Kong Center, 2 Queens Road Central, Hong Kong. The address of Morgan Stanley & Co. LLC is 1585 Broadway, New York, NY 10036, United States of America. The address of Credit Suisse Securities (USA) LLC is Eleven Madison Avenue New York, NY 10010, United States.

The ADSs have been approved for [listing on the New York Stock Exchange] [quotation on the NASDAQ Global [Select] Market] under the trading symbol “HSAI”.

We and our directors, executive officers, and all of our existing shareholders and holders of share-based awards have agreed that, without the prior written consent of _____ on behalf of the underwriters, we and they will not, during the period ending 180 days after the date of this prospectus (the “restricted period”):

- offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of, directly or indirectly, any of our ordinary shares or ADSs or any securities convertible into or exercisable or exchangeable for our ordinary shares or ADSs;
- file any registration statement with the Securities and Exchange Commission relating to the offering of our ordinary shares or ADSs or any securities convertible into or exercisable or exchangeable for our ordinary shares or ADSs; or
- enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of our ordinary shares or ADSs.

whether any such transaction described above is to be settled by delivery of our ordinary shares or ADSs or such other securities, in cash or otherwise. In addition, we and each such person agrees that, without the prior written consent of _____ on behalf of the underwriters, we or such other person will not, during the restricted period, make any demand for, or exercise any right with respect to, the registration of any of our ordinary shares or ADSs or any security convertible into or exercisable or exchangeable for our ordinary shares or ADSs.

The restrictions described in the immediately preceding paragraph do not apply to:

- the sale of ordinary shares or ADSs to the underwriters; or
- the issuance by the Company of ordinary shares or ADSs upon the exercise of an option or a warrant or the conversion of a security outstanding on the date of this prospectus of which the underwriters have been advised in writing;
- transactions by any person other than us relating to our ordinary shares or ADSs or other securities acquired in open market transactions after the completion of the offering of the ADSs; *provided* that no filing under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), is required or voluntarily made in connection with subsequent sales of our ordinary shares or ADSs or other securities acquired in such open market transactions; or
- [the establishment of a trading plan pursuant to Rule 10b5-1 under the Exchange Act for the transfer of ordinary shares or ADSs, *provided* that (i) such plan does not provide for the transfer of ordinary shares or ADSs during the restricted period and (ii) to the extent a public announcement or filing under the Exchange Act, if any, is required or voluntarily made regarding the establishment of such plan, such announcement or filing shall include a statement to the effect that no transfer of ordinary shares or ADSs may be made under such plan during the restricted period].

The representatives, in their sole discretion, may release our ordinary shares and ADSs and other securities subject to the lock-up agreements described above in whole or in part at any time.

In order to facilitate the offering of the ADSs, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the ADSs pursuant to Regulation M of the Securities Act of 1933. Specifically, the underwriters may sell more ADSs than they are obligated to purchase under the underwriting agreement, creating a short position. A short sale is covered if the short position is no greater than the number of ADSs available for purchase by the underwriters under the over-allotment option. The underwriters can close out a covered short sale by exercising the over-allotment option or purchasing ADSs in the open market. In determining the source of ADSs to close out a covered short sale, the underwriters will consider, among other things, the open market price of ADSs compared to the price available under the over-allotment option. The underwriters may also sell ADSs in excess of the over-allotment option, creating a naked short position. The underwriters must close out any naked short position by purchasing ADSs in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the ADSs in the open market after pricing that could adversely affect investors who purchase in this offering. As an additional means of facilitating this offering, the underwriters may bid for, and purchase, ADSs in the open market to stabilize the price of the ADSs. These activities may raise or maintain the market price of the ADSs above independent market levels or prevent or retard a decline in the market price of the ADSs. The underwriters are not required to engage in these activities and may end any of these activities at any time. If the representatives of the underwriters purchase the ADSs in the open market in stabilizing transactions or to cover short sales, the representatives can require the underwriters that sold those shares as part of this offering to repay the underwriting discount received by them.

We[, the selling shareholders] and the underwriters have agreed to indemnify each other against certain liabilities, including liabilities under the Securities Act.

A prospectus in electronic format may be made available on websites maintained by one or more underwriters, or selling group members, if any, participating in this offering. The representatives may agree to allocate a number of ADSs to underwriters for sale to their online brokerage account holders. Internet distributions will be allocated by the representatives to underwriters that may make Internet distributions on the same basis as other allocations.

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. Certain of the underwriters and their respective affiliates have, from time to time, performed, and may in the future perform, various financial advisory and investment banking services for us, for which they received or will receive customary fees and expenses.

In addition, in the ordinary course of their various business activities, the underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers and may at any time hold long and short positions in such securities and instruments. Such investment and securities activities may involve our securities and instruments. The underwriters and their respective affiliates may also make investment recommendations or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long or short positions in such securities and instruments.

Pricing of the Offering

Prior to this offering, there has been no public market for our ordinary shares or the ADSs. The initial public offering price was determined by negotiations between us and the representatives. Among the factors considered in determining the initial public offering price were our future prospects and those of our industry in general, our sales, earnings and certain other financial and operating information in recent periods, and the price-earnings ratios, price-sales ratios, market prices of securities, and certain financial and operating information of companies engaged in activities similar to ours.

[Directed Share Program

At our request, the underwriters have reserved % of the ADSs being offered by this prospectus for sale, at the initial public offering price, to our directors, officers, employees, business associates and related

persons. If purchased by these persons, these ADSs will be subject to a 180-day lock-up restriction. The number of ADSs available for sale to the general public will be reduced to the extent these individuals purchase such reserved ADSs. Any reserved ADSs that are not so purchased will be offered by the underwriters to the general public on the same basis as the other ADSs offered by this prospectus.]

Selling Restrictions

No action may be taken in any jurisdiction other than the United States that would permit a public offering of the ADSs or the possession, circulation or distribution of this prospectus in any jurisdiction where action for that purpose is required. Accordingly, the ADSs may not be offered or sold, directly or indirectly, and neither the prospectus nor any other offering material or advertisements in connection with the ADSs may be distributed or published in or from any country or jurisdiction except under circumstances that will result in compliance with any applicable laws, rules and regulations of any such country or jurisdiction.

Australia

No placement document, prospectus, product disclosure statement or other disclosure document has been lodged with the Australian Securities and Investments Commission, or ASIC, in relation to the offering. This prospectus does not constitute a prospectus, product disclosure statement or other disclosure document under the Corporations Act 2001, or the Corporations Act, and does not purport to include the information required for a prospectus, product disclosure statement or other disclosure document under the Corporations Act. Any offer in Australia of the ADSs may only be made to persons, or the Exempt Investors, who are “sophisticated investors” (within the meaning of section 708(8) of the Corporations Act), “professional investors” (within the meaning of section 708(11) of the Corporations Act) or otherwise pursuant to one or more exemptions contained in section 708 of the Corporations Act so that it is lawful to offer the ADSs without disclosure to investors under Chapter 6D of the Corporations Act. The ADSs applied for by Exempt Investors in Australia must not be offered for sale in Australia in the period of 12 months after the date of allotment under the offering, except in circumstances where disclosure to investors under Chapter 6D of the Corporations Act would not be required pursuant to an exemption under section 708 of the Corporations Act or otherwise or where the offer is pursuant to a disclosure document which complies with Chapter 6D of the Corporations Act. Any person acquiring ADSs must observe such Australian on-sale restrictions. This prospectus contains general information only and does not take account of the investment objectives, financial situation or particular needs of any particular person. It does not contain any ADSs recommendations or financial product advice. Before making an investment decision, investors need to consider whether the information in this prospectus is appropriate to their needs, objectives and circumstances, and, if necessary, seek expert advice on those matters.

Canada

The securities may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the securities must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation; *provided* that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser’s province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser’s province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts, or NI 33-105, the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

Cayman Islands

This prospectus is not intended to constitute a public offer of the ADSs or ordinary shares, whether by way of sale or subscription, in the Cayman Islands. No offer or invitation may be made to the public in the Cayman Islands to subscribe for or purchase the ordinary shares or any ADS. The ADSs and ordinary shares have not been offered or sold, and will not be offered or sold, directly or indirectly, in the Cayman Islands.

Dubai International Finance Center

This prospectus relates to an Exempt Offer, as defined in the Offered Securities Rules module of the DFSA Rulebook, or the OSR, in accordance with the Offered Securities Rules of the Dubai Financial Services Authority. This prospectus is intended for distribution only to persons, as defined in the OSR, of a type specified in those rules. It must not be delivered to, or relied on by, any other person. The Dubai Financial Services Authority has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The Dubai Financial Services Authority has not approved this prospectus nor taken steps to verify the information set out in it, and has no responsibility for it. The ADSs to which this prospectus relates may be illiquid and/or subject to restrictions on their resale.

Prospective purchasers of the ADSs offered should conduct their own due diligence on the ADSs. If you do not understand the contents of this prospectus you should consult an authorized financial adviser.

European Economic Area

In relation to each Member State of the European Economic Area (each an “EEA State”), no ADSs have been offered or will be offered pursuant to the offering to the public in that EEA State prior to the publication of a prospectus in relation to the ADSs which has been approved by the competent authority in that EEA State or, where appropriate, approved in another EEA State and notified to the competent authority in that EEA State, all in accordance with the EU Prospectus Regulation, except that it may make an offer to the public in that EEA State of the ADSs at any time under the following exemptions under the EU Prospectus Regulation:

- (a) to any legal entity which is a qualified investor as defined under the EU Prospectus Regulation;
- (b) to fewer than 150 natural or legal persons (other than qualified investors as defined under the EU Prospectus Regulation), subject to obtaining the prior consent of the representatives for any such offer; or
- (c) in any other circumstances falling within Article 1(4) of the EU Prospectus Regulation, *provided* that no such offer of the ADSs shall require the issuer or any underwriter to publish a prospectus pursuant to Article 3 of the EU Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the EU Prospectus Regulation.

For the purposes of this provision, the expression an “offer to the public” in relation to the ADSs in any EEA State means the communication in any form and by any means of sufficient information on the terms of the offer and the ADSs to be offered so as to enable an investor to decide to purchase or subscribe for the ADSs, and the expression “EU Prospectus Regulation” means Regulation (EU) 2017/1129.

This European Economic Area selling restriction is in addition to any other selling restrictions set out below.

France

Neither this prospectus nor any other offering material relating to the ADSs described in this prospectus has been submitted to the clearance procedures of the Autorité des Marchés Financiers or of the competent authority of another member state of the European Economic Area and notified to the Autorité des Marchés Financiers. The ADSs have not been offered or sold and will not be offered or sold, directly or indirectly, to the public in France. Neither this prospectus nor any other offering material relating to the ADSs has been or will be (1) released, issued, distributed or caused to be released, issued or distributed to the public in France; or (2) used in connection with any offer for subscription or sale of the ADSs to the public in France.

Such offers, sales and distributions will be made in France only:

- (a) to qualified investors (investisseurs éstraint) and/or to a restricted circle of investors (cercle éstraint d'investisseurs), in each case investing for their own account, all as defined in, and in accordance with, articles L.411-2, D.411-1, D.411-2, D.734-1, D.744-1, D.754-1 and D.764-1 of the French Code monétaire et financier;
- (b) to investment services providers authorized to engage in portfolio management on behalf of third parties; or
- (c) in a transaction that, in accordance with article L.411-2-II-1° -or-2° -or 3° of the French Code monétaire et financier and article 211-2 of the General Regulations (Réglement Général) of the Autorité des Marchés Financiers, does not constitute a public offer (appel public á l'épargne).

The ADSs may be resold directly or indirectly, only in compliance with articles L.411-1, L.411-2, L.412-1 and L.621-8 through L.621-8-3 of the French Code monétaire et financier.

Germany

This prospectus does not constitute a Prospectus Directive-compliant prospectus in accordance with the German Securities Prospectus Act (Wertpapierprospektgesetz) and does therefore not allow any public offering in the Federal Republic of Germany, or Germany, or any other Relevant Member State pursuant to § 17 and § 18 of the German Securities Prospectus Act. No action has been or will be taken in Germany that would permit a public offering of the ADSs, or distribution of a prospectus or any other offering material relating to the ADSs. In particular, no securities prospectus (Wertpapierprospekt) within the meaning of the German Securities Prospectus Act or any other applicable laws of Germany, has been or will be published within Germany, nor has this prospectus been filed with or approved by the German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht) for publication within Germany.

Each underwriter will represent, agree and undertake (i) that it has not offered, sold or delivered and will not offer, sell or deliver the ADSs within Germany other than in accordance with the German Securities Prospectus Act (Wertpapierprospektgesetz) and any other applicable laws in Germany governing the issue, sale and offering of ADSs, and (ii) that it will distribute in Germany any offering material relating to the ADSs only under circumstances that will result in compliance with the applicable rules and regulations of Germany.

This prospectus is strictly for use of the person who has received it. It may not be forwarded to other persons or published in Germany.

Italy

The offering of ADSs has not been registered with the Commissione Nazionale per le Società e la Borsa ("CONSOB") pursuant to Italian securities legislation and, accordingly, no ADSs may be offered, sold or delivered, nor copies of this prospectus or any other documents relating to the ADSs may be distributed in Italy except:

- to "qualified investors," as referred to in Article 100 of Legislative Decree No. 58 of February 24, 1998, as amended, or the Decree No. 58, and defined in Article 26, paragraph 1, letter d) of CONSOB Regulation No. 16190 of October 29, 2007, as amended ("Regulation No. 16190") pursuant to Article 34-ter, paragraph 1, letter. b) of CONSOB Regulation No. 11971 of 14 May 1999, as amended ("Regulation No. 11971"); or
- in any other circumstances where an express exemption from compliance with the offer restrictions applies, as provided under Decree No. 58 or Regulation No. 11971.

Any offer, sale or delivery of the ADSs or distribution of copies of this prospectus or any other documents relating to the ADSs in the Republic of Italy must be:

- made by investment firms, banks or financial intermediaries permitted to conduct such activities in the Republic of Italy in accordance with Legislative Decree No. 385 of September 1, 1993, as amended, or the Banking Law, Decree No. 58 and Regulation No. 16190 and any other applicable laws and regulations;

- in compliance with Article 129 of the Banking Law, and the implementing guidelines of the Bank of Italy, as amended; and
- in compliance with any other applicable notification requirement or limitation which may be imposed, from time to time, by CONSOB or the Bank of Italy or other competent authority.

Please note that, in accordance with Article 100-bis of Decree No. 58, where no exemption from the rules on public offerings applies, the subsequent distribution of the ADSs on the secondary market in Italy must be made in compliance with the public offer and the prospectus requirement rules provided under Decree No. 58 and Regulation No. 11971.

Furthermore, ADSs which are initially offered and placed in Italy or abroad to qualified investors only but in the following year are regularly (“sistematicamente”) distributed on the secondary market in Italy to non-qualified investors become subject to the public offer and the prospectus requirement rules provided under Decree No. 58 and Regulation No. 11971. Failure to comply with such rules may result in the sale of the ADSs being declared null and void and in the liability of the intermediary transferring the ADSs for any damages suffered by such non-qualified investors.

Switzerland

The ADSs may not be offered or sold to any investors in Switzerland other than on a non-public basis. This prospectus does not constitute a prospectus within the meaning of Article 652a and Art. 1156 of the Swiss Code of Obligations (Schweizerisches Obligationenrecht). Neither this offering nor the ADSs have been or will be approved by any Swiss regulatory authority.

Hong Kong

The ADSs may not be offered or sold by means of any document other than (i) in circumstances which do not constitute an offer to the public within the meaning of the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32, Laws of Hong Kong), or (ii) to “professional investors” within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder, or (iii) in other circumstances which do not result in the document being a “prospectus” within the meaning of the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32, Laws of Hong Kong), and no advertisement, invitation or document relating to the ADSs may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the laws of Hong Kong) other than with respect to ADSs which are or are intended to be disposed of only to persons outside Hong Kong or only to “professional investors” within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder.

Israel

In the State of Israel, the ADSs offered hereby may not be offered to any person or entity other than the following:

- a fund for joint investments in trust (*i.e.*, mutual fund), as such term is defined in the Law for Joint Investments in Trust, 5754-1994, or a management company of such a fund;
- a provident fund as defined in Section 47(a)(2) of the Income Tax Ordinance of the State of Israel, or a management company of such a fund;
- an insurer, as defined in the Law for Oversight of Insurance Transactions, 5741-1981, a banking entity or satellite entity, as such terms are defined in the Banking Law (Licensing), 5741-1981, other than a joint services company, acting for their own account or for the account of investors of the type listed in Section 15A(b) of the Securities Law 1968;
- a company that is licensed as a portfolio manager, as such term is defined in Section 8(b) of the Law for the Regulation of Investment Advisors and Portfolio Managers, 5755-1995, acting on its own account or for the account of investors of the type listed in Section 15A(b) of the Securities Law 1968;

- a company that is licensed as an investment advisor, as such term is defined in Section 7(c) of the Law for the Regulation of Investment Advisors and Portfolio Managers, 5755-1995, acting on its own account;
- a company that is a member of the Tel Aviv Stock Exchange, acting on its own account or for the account of investors of the type listed in Section 15A(b) of the Securities Law 1968;
- a company that is a member of the Tel Aviv Stock Exchange, acting on its own account or for the account of investors of the type listed in Section 15A(b) of the Securities Law 1968;
- an underwriter fulfilling the conditions of Section 56(c) of the Securities Law, 5728-1968;
- a venture capital fund (defined as an entity primarily involved in investments in companies which, at the time of investment, (i) are primarily engaged in research and development or manufacture of new technological products or processes and (ii) involve above-average risk);
- an entity primarily engaged in capital markets activities in which all of the equity owners meet one or more of the above criteria; and
- an entity, other than an entity formed for the purpose of purchasing the ADSs in this offering, in which the shareholders equity (including pursuant to foreign accounting rules, international accounting regulations and U.S. generally accepted accounting rules, as defined in the Securities Law Regulations (Preparation of Annual Financial Statements), 1993) is in excess of NIS 250 million.

Any offeree of the ADSs offered hereby in the State of Israel shall be required to submit written confirmation that it falls within the scope of one of the above criteria. This prospectus will not be distributed or directed to investors in the State of Israel who do not fall within one of the above criteria.

Japan

No registration pursuant to Article 4, paragraph 1 of the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948, as amended) (the “FIEL”) has been made or will be made with respect to the solicitation of the application for the acquisition of the ADSs.

Accordingly, the ADSs have not been, directly or indirectly, offered or sold and will not be, directly or indirectly, offered or sold in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan) or to others for re-offering or re-sale, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan except pursuant to an exemption from the registration requirements, and otherwise in compliance with, the FIEL and the other applicable laws and regulations of Japan.

For Qualified Institutional Investors (“QII”)

Please note that the solicitation for newly issued or secondary securities (each as described in Paragraph 2, Article 4 of the FIEL) in relation to the ADSs constitutes either a “QII only private placement” or a “QII only secondary distribution” (each as described in Paragraph 1, Article 23-13 of the FIEL). Disclosure regarding any such solicitation, as is otherwise prescribed in Paragraph 1, Article 4 of the FIEL, has not been made in relation to the ADSs. The ADSs may only be transferred to QIIs.

For Non-QII Investors

Please note that the solicitation for newly issued or secondary securities (each as described in Paragraph 2, Article 4 of the FIEL) in relation to the ADSs constitutes either a “small number private placement” or a “small number private secondary distribution” (each as is described in Paragraph 4, Article 23-13 of the FIEL). Disclosure regarding any such solicitation, as is otherwise prescribed in Paragraph 1, Article 4 of the FIEL, has not been made in relation to the ADSs. The ADSs may only be transferred en bloc without subdivision to a single investor.

PRC

This prospectus may not be circulated or distributed in the PRC and the ADSs may not be offered or sold, and will not offer or sell to any person for re-offering or resale directly or indirectly to any resident of

the PRC except pursuant to applicable laws and regulations of the PRC. For the purposes of this paragraph, the PRC does not include Taiwan and the special administrative regions of Hong Kong and Macau.

Qatar

In the State of Qatar, the offer contained herein is made on an exclusive basis to the specifically intended recipient thereof, upon that person's request and initiative, for personal use only and shall in no way be construed as a general offer for the sale of securities to the public or an attempt to do business as a bank, an investment company or otherwise in the State of Qatar. This prospectus and the underlying securities have not been approved or licensed by the Qatar Central Bank or the Qatar Financial Center Regulatory Authority or any other regulator in the State of Qatar. The information contained in this prospectus shall only be shared with any third parties in Qatar on a need to know basis for the purpose of evaluating the contained offer. Any distribution of this prospectus by the recipient to third parties in Qatar beyond the terms hereof is not permitted and shall be at the liability of such recipient

Singapore

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the ADSs may not be circulated or distributed, nor may the ADSs be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor (as defined under Section 4A of the Securities and Futures Act, Chapter 289 of Singapore (the "SFA")) under Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA, in each case subject to conditions set forth in the SFA.

Where the ADSs are subscribed or purchased under Section 275 of the SFA by a relevant person which is a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor, the securities (as defined in Section 239(1) of the SFA) of that corporation shall not be transferable for six months after that corporation has acquired the ADSs under Section 275 of the SFA except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person (as defined in Section 275(2) of the SFA), (2) where such transfer arises from an offer in that corporation's securities pursuant to Section 275(1A) of the SFA, (3) where no consideration is or will be given for the transfer, (4) where the transfer is by operation of law, (5) as specified in Section 276(7) of the SFA, or (6) as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore ("Regulation 32")

Where the ADSs are subscribed or purchased under Section 275 of the SFA by a relevant person which is a trust (where the trustee is not an accredited investor (as defined in Section 4A of the SFA)) whose sole purpose is to hold investments and each beneficiary of the trust is an accredited investor, the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferable for six months after that trust has acquired the ADSs under Section 275 of the SFA except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person (as defined in Section 275(2) of the SFA), (2) where such transfer arises from an offer that is made on terms that such rights or interest are acquired at a consideration of not less than S\$200,000 (or its equivalent in a foreign currency) for each transaction (whether such amount is to be paid for in cash or by exchange of securities or other assets), (3) where no consideration is or will be given for the transfer, (4) where the transfer is by operation of law, (5) as specified in Section 276(7) of the SFA, or (6) as specified in Regulation 32.

Taiwan

The ADSs have not been and will not be registered or filed with, or approved by, the Financial Supervisory Commission of Taiwan pursuant to relevant securities laws and regulations and may not be offered or sold in Taiwan through a public offering or in circumstances which constitute an offer within the meaning of the Securities and Exchange Act of Taiwan or relevant laws and regulations that require a

registration, filing or approval of the Financial Supervisory Commission of Taiwan. No person or entity in Taiwan has been authorized to offer or sell the ADSs in Taiwan through a public offering or in such an offering that require registration, filing or approval of the Financial Supervisory Commission of Taiwan except pursuant to the applicable laws and regulations of Taiwan and the competent authority's ruling thereunder.

United Arab Emirates

The ADSs have not been offered or sold, and will not be offered or sold, directly or indirectly, in the United Arab Emirates, except: (1) in compliance with all applicable laws and regulations of the United Arab Emirates; and (2) through persons or corporate entities authorized and licensed to provide investment advice and/or engage in brokerage activity and/or trade in respect of foreign securities in the United Arab Emirates. The information contained in this prospectus does not constitute a public offer of securities in the United Arab Emirates in accordance with the Commercial Companies Law (Federal Law No. 8 of 1984 (as amended)) or otherwise and is not intended to be a public offer and is addressed only to persons who are sophisticated investors.

United Kingdom

In relation to the United Kingdom, no ADSs have been offered or will be offered pursuant to the offering to the public in the United Kingdom prior to the publication of a prospectus in relation to the ADSs which has been approved by the Financial Conduct Authority in accordance with the UK Prospectus Regulation, except that it may make an offer to the public in the United Kingdom of the ADSs at any time under the following exemptions under the UK Prospectus Regulation:

- to any legal entity which is a qualified investor as defined under the UK Prospectus Regulation;
- to fewer than 150 natural or legal persons (other than qualified investors as defined under the UK Prospectus Regulation), subject to obtaining the prior consent of the underwriters for any such offer; or
- in any other circumstances falling within Article 1(4) of the UK Prospectus Regulation;

provided that no such offer of the ADSs shall require the issuer or any underwriter to publish a prospectus pursuant to Article 3 of the UK Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the UK Prospectus Regulation.

In the United Kingdom, the offering is only addressed to, and is directed only at, “qualified investors” within the meaning of Article 2(e) of the UK Prospectus Regulation, who are also (i) persons having professional experience in matters relating to investments who fall within the definition of “investment professionals” in Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the “Order”); (ii) high net worth bodies corporate, unincorporated associations and partnerships and trustees of high value trusts as described in Article 49(2) of the Order; or (iii) persons to whom it may otherwise lawfully be communicated (all such persons being referred to as “relevant persons”). This prospectus must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this prospectus relates is available only to relevant persons and will be engaged in only with relevant persons.

For the purposes of this provision, the expression an “offer to the public” in relation to the ADSs in the United Kingdom means the communication in any form and by any means of sufficient information on the terms of the offerings and the ADSs to be offered so as to enable an investor to decide to purchase or subscribe for the ADSs, and the expression “UK Prospectus Regulation” means the UK version of Regulation (EU) No 2017/1129 as amended by The Prospectus (Amendment etc.) (EU Exit) Regulations 2019, which is part of UK law by virtue of the European Union (Withdrawal) Act 2018.

EXPENSES RELATED TO THIS OFFERING

Set forth below is an itemization of the total expenses, excluding underwriting discounts and commissions, that we expect to incur in connection with this offering. With the exception of the SEC registration fee, the Financial Industry Regulatory Authority Inc., or FINRA, filing fee, and the stock exchange market entry and listing fee, all amounts are estimates.

SEC Registration Fee	US\$
FINRA Filing Fee	
Stock Exchange Market Entry and Listing Fee	
Printing and Engraving Expenses	
Legal Fees and Expenses	
Accounting Fees and Expenses	
Miscellaneous	
Total	US\$

LEGAL MATTERS

We are being represented by Skadden, Arps, Slate, Meagher & Flom LLP with respect to certain legal matters as to United States federal securities and New York State law. The underwriters are being represented by Latham & Watkins LLP with respect to certain legal matters as to United States federal securities and New York State law. The validity of our Class B ordinary shares represented by the ADSs offered in this offering will be passed upon for us by Maples and Calder (Hong Kong) LLP. Certain legal matters as to PRC law will be passed upon for us by Commerce & Finance Law Offices and for the underwriters by Fangda Partners. Skadden, Arps, Slate, Meagher & Flom LLP may rely upon Maples and Calder (Hong Kong) LLP with respect to matters governed by Cayman Islands law and Commerce & Finance Law Offices with respect to matters governed by PRC law. Latham & Watkins LLP may rely upon Fangda Partners with respect to matters governed by PRC law.

EXPERTS

The consolidated financial statements of Shanghai Hesai included in this prospectus have been audited by Deloitte Touche Tohmatsu Certified Public Accountants LLP, an independent registered public accounting firm, as stated in their report appearing herein. Such consolidated financial statements have been so included in reliance upon the report of such firm given upon its authority as experts in accounting and auditing.

The balance sheet of Hesai Group included in this prospectus has been audited by Deloitte Touche Tohmatsu Certified Public Accountants LLP, an independent registered public accounting firm, as stated in their report appearing herein. Such balance sheet has been so included in reliance upon the report of such firm given upon its authority as expert in accounting and auditing.

The office of Deloitte Touche Tohmatsu Certified Public Accountants LLP is located at 30/F, Bund Center, 222 Yan An Road East, Shanghai, People's Republic of China.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed a registration statement, including relevant exhibits, with the SEC on Form F-1 under the Securities Act with respect to the underlying Class B ordinary shares represented by the ADSs to be sold in this offering. We have also filed a related registration statement on Form F-6 with the SEC to register the ADSs. This prospectus, which constitutes a part of the registration statement on Form F-1, does not contain all of the information contained in the registration statement. You should read our registration statements and their exhibits and schedules for further information with respect to us and the ADSs.

Immediately upon the effectiveness of the registration statement on Form F-1 of which this prospectus forms a part, we will become subject to periodic reporting and other informational requirements of the Exchange Act as applicable to foreign private issuers. Accordingly, we will be required to file reports, including annual reports on Form 20-F, and other information with the SEC. All information filed with the SEC can be obtained over the internet at the SEC's website at www.sec.gov or inspected and copied at the public reference facilities maintained by the SEC at 100 F Street, N.E., Washington, D.C. 20549. You can request copies of documents, upon payment of a duplicating fee, by writing to the SEC.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS**HESAI TECHNOLOGY CO., LTD.**

	<u>Page</u>
<u>Report of Independent Registered Public Accounting Firm</u>	<u>F-2</u>
<u>Consolidated Balance Sheets as of December 31, 2019 and 2020</u>	<u>F-3</u>
<u>Consolidated Statements of Operations and Comprehensive Loss for the Years Ended December 31, 2019 and 2020</u>	<u>F-4</u>
<u>Consolidated Statements of Changes in Shareholders' Equity for the Years Ended December 31, 2019 and 2020</u>	<u>F-5</u>
<u>Consolidated Statements of Cash Flows for the Years Ended December 31, 2019 and 2020</u>	<u>F-6</u>
<u>Notes to the Consolidated Financial Statements</u>	<u>F-7</u>

HESAI GROUP

<u>Report of Independent Registered Public Accounting Firm</u>	<u>F-33</u>
<u>Balance Sheet as of April 21, 2021</u>	<u>F-34</u>
<u>Notes to the Balance Sheet</u>	<u>F-35</u>

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**To the Shareholders and the Board of Directors of Hesai Technology Co., Ltd.:****Opinion on the Financial Statements**

We have audited the accompanying consolidated balance sheets of Hesai Technology Co., Ltd. and its subsidiaries (the “Company”), as of December 31, 2019 and 2020, the related consolidated statements of operations and comprehensive loss, changes in shareholders’ equity, and cash flows, for the years ended December 31, 2019 and 2020 and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2020, and the results of its operations and its cash flows for the years ended December 31, 2019 and 2020, in conformity with accounting principles generally accepted in the United States of America.

Convenience Translation

Our audits also comprehended the translation of Renminbi amounts into United States dollar amounts and, in our opinion, such translation has been made in conformity with the basis stated in Note 2. Such United States dollar amounts are presented solely for the convenience of readers in the United States of America.

Basis for Opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. We are a public accounting firm registered with the Public Group 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 financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Deloitte Touche Tohmatsu Certified Public Accountants LLP

Shanghai, the People’s Republic of China

July 2, 2021

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

HESAI TECHNOLOGY CO., LTD.

CONSOLIDATED BALANCE SHEETS
AS OF DECEMBER 31, 2019 and 2020

(Amounts in thousands, except share and per share data and otherwise noted)

	As of December 31,		
	2019	2020	
	RMB	RMB	USD
			(Note 2)
ASSETS			
Current assets:			
Cash and cash equivalents	112,737	256,688	39,339
Short-term investments	910,972	638,981	97,928
Accounts receivable (net of allowance for doubtful accounts of RMB2,257 and RMB5,270 as of December 31, 2019 and 2020, respectively)	36,511	56,319	8,631
Contract assets (net of allowance for doubtful accounts of nil and RMB687 as of December 31, 2019 and 2020, respectively)	—	38,337	5,875
Amounts due from related parties (net of allowance for doubtful accounts of RMB31 and RMB504 as of December 31, 2019 and 2020, respectively)	7,962	28,331	4,342
Inventories	70,243	149,925	22,977
Prepayments and other current assets	31,835	40,658	6,232
Total current assets	1,170,260	1,209,239	185,324
Property and equipment, net	47,409	63,837	9,783
Investment in equity method investee	1,990	1,986	304
Intangible assets, net	9,060	14,260	2,185
Goodwill	3,893	3,640	558
Other non-current assets	9,750	19,163	2,937
Total non-current assets	72,102	102,886	15,767
TOTAL ASSETS	1,242,362	1,312,125	201,091
LIABILITIES, REDEEMABLE PREFERRED EQUITY AND SHAREHOLDERS' EQUITY (DEFICIT)			
Current liabilities:			
Accounts payable	18,608	55,437	8,496
Contract liabilities	11,843	9,357	1,434
Amounts due to related parties	2,906	—	—
Income tax payable	1,263	9	1
Accrued warranty liability	7,457	10,042	1,539
Accrued expenses and other current liabilities	229,091	91,895	14,084
Total current liabilities	271,168	166,740	25,554
Deferred tax liabilities	693	578	89
Other non-current liabilities	41,289	7,614	1,167
Total non-current liabilities	41,982	8,192	1,256
TOTAL LIABILITIES	313,150	174,932	26,810
Commitments and contingencies (Note 21)			
Redeemable preferred equity	1,098,639	—	—
Shareholders' (deficit) equity			
Paid-in capital	28,240	—	—
Class A Ordinary shares (RMB1 par value, nil and 108,120,166 shares authorized, issued and outstanding as of December 31, 2019 and 2020, respectively)	—	108,120	16,570
Class B Ordinary shares (RMB1 par value, nil and 251,879,834 shares authorized, nil and 241,238,114 issued and outstanding as of December 31, 2019 and 2020, respectively)	—	241,238	36,971
Additional paid-in capital	—	872,739	133,752
Accumulated other comprehensive income (loss)	1,332	(618)	(95)
Accumulated deficit	(198,999)	(84,286)	(12,917)
Total shareholders' (deficit) equity	(169,427)	1,137,193	174,281
TOTAL LIABILITIES, REDEEMABLE EQUITY AND SHAREHOLDERS' (DEFICIT) EQUITY	1,242,362	1,312,125	201,091

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

HESAI TECHNOLOGY CO., LTD.

**CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
FOR THE YEARS ENDED DECEMBER 31, 2019 and 2020**

(Amounts in thousands, except share and per share data and otherwise noted)

	Year ended December 31,		
	2019	2020	
	RMB	RMB	USD (Note 2)
Net revenues (including related party revenues of RMB47,852 and RMB41,765 for the years ended December 31, 2019 and 2020, respectively)	348,084	415,514	63,680
Cost of revenues	103,377	176,600	27,065
Gross Profit	244,707	238,914	36,615
Operating expenses:			
Sales and marketing expenses	38,740	49,904	7,648
General and administrative expenses	55,112	76,553	11,732
Research and development expenses	149,817	229,653	35,196
Other operating expenses (income), net	149,089	(15,384)	(2,358)
Total operating expenses	392,758	340,726	52,218
Loss from operations	(148,051)	(101,812)	(15,603)
Interest income	19,107	20,925	3,207
Foreign exchange gain (loss), net	9,619	(25,696)	(3,938)
Other income (loss), net	31	(832)	(128)
Net loss before income tax	(119,294)	(107,415)	(16,462)
Income tax expense (benefit)	930	(199)	(30)
Net Loss	(120,224)	(107,216)	(16,432)
Change in redemption value of preferred equity	(55,247)	—	—
Net loss attributable to ordinary shareholders	(175,471)	(107,216)	(16,432)
Net loss per share:			
Basic and diluted	(0.58)	(0.31)	(0.05)
Weighted average shares used in calculating net loss per share:			
Basic and diluted	301,671,134	349,299,147	349,299,147
Net loss	(120,224)	(107,216)	(16,432)
Foreign currency translation adjustments	1,332	(1,950)	(299)
Comprehensive loss, net of tax of nil	(118,892)	(109,166)	(16,731)

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

HESAI TECHNOLOGY CO., LTD.

**CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
FOR THE YEARS ENDED DECEMBER 31, 2019 and 2020**

(Amounts in thousands, except share and per share data and otherwise noted)

	Paid-in capital	Class A Ordinary shares	Class A Ordinary shares	Class B Ordinary shares	Class B Ordinary shares	Additional Paid-in capital	Accumulated deficit	Accumulated other comprehensive income (loss)	Total Shareholders' (deficit) Equity
	RMB	Number	RMB	Number	RMB	RMB	RMB	RMB	RMB
Balance as of January 1, 2019	28,240	—	—	—	—	—	(23,528)	—	4,712
Net loss	—	—	—	—	—	—	(120,224)	—	(120,224)
Change in redemption value of preferred equity	—	—	—	—	—	—	(55,247)	—	(55,247)
Foreign currency translation	—	—	—	—	—	—	—	1,332	1,332
Balance as of December 31, 2019	28,240	—	—	—	—	—	(198,999)	1,332	(169,427)
Net loss	—	—	—	—	—	—	(107,216)	—	(107,216)
Foreign currency translation	—	—	—	—	—	—	—	(1,950)	(1,950)
Conversion to joint stock company as part of 2020 Reorganization (Note 13)	(28,240)	108,120,166	108,120	89,977,402	89,977	(391,786)	221,929	—	—
Conversion of redeemable preferred shares to ordinary shares as part of the 2020 Reorganization (Note13)	—	—	—	135,657,083	135,657	962,982	—	—	1,098,639
Issuance of ordinary shares to new investors	—	—	—	15,603,629	15,604	301,543	—	—	317,147
Balance as of December 31, 2020	—	108,120,166	108,120	241,238,114	241,238	872,739	(84,286)	(618)	1,137,193

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

HESAI TECHNOLOGY CO., LTD.
CONSOLIDATED STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2019 and 2020
(Amounts in thousands and otherwise noted)

	Year ended December 31,		
	2019	2020	
	RMB	RMB	USD
			(Note 2)
Cash flows from operating activities:			
Net loss	(120,224)	(107,216)	(16,432)
<i>Adjustments to reconcile net loss to net cash used in operating activities:</i>			
Depreciation and amortization	9,724	19,215	2,945
Allowance for doubtful accounts	91	4,174	640
Loss from disposal of property and equipment	—	28	4
Share of loss in equity method investees.	10	4	1
Foreign exchange (gain) loss	(10,404)	21,503	3,296
Inventory write-down	4,195	7,060	1,082
<i>Changes in operating assets and liabilities:</i>			
Accounts receivable	6,963	(22,578)	(3,460)
Contract assets	—	(39,024)	(5,982)
Inventories	(32,387)	(83,607)	(12,814)
Prepayments and other current assets	(13,037)	(8,790)	(1,348)
Amounts due from related parties	(1,817)	(20,842)	(3,195)
Non-current assets	1,000	(4,100)	(629)
Amounts due to related parties	(719)	(2,906)	(445)
Contract liabilities	8,192	(2,569)	(394)
Deferred tax liabilities	(325)	(156)	(24)
Accounts payable	(8,480)	36,258	5,557
Income tax payable	1,255	(1,268)	(194)
Accrued expenses and other current liabilities	205,646	(143,526)	(21,996)
Other non-current liabilities	(3,517)	(3,675)	(563)
Net cash provided by (used in) operating activities	46,166	(352,015)	(53,951)
Cash flows from investing activities:			
Purchases of short-term investments	(1,845,438)	(2,001,137)	(306,688)
Maturity of short-term investments	1,120,447	2,256,724	345,858
Payment for business acquisition, net of cash RMB613 acquired	(12,930)	—	—
Payment for investment in equity investee	(2,000)	—	—
Proceeds from disposals of property and equipment	-	19	3
Purchases of property and equipment	(32,420)	(66,000)	(10,115)
Purchases of intangible assets	(7,156)	(10,579)	(1,621)
Net cash (used in) provided by investing activities	(779,497)	179,027	27,437
Cash flows from financing activities:			
Proceeds from issuance of redeemable preferred equity.	739,741	—	—
Proceeds received exercise of share-based award.	—	6,290	964
Proceeds from issuance of ordinary shares	—	317,147	48,606
Net cash provided by financing activities.	739,741	323,437	49,570
Net increase in cash and cash equivalents	6,410	150,449	23,056
Cash and cash equivalents, beginning of the year.	104,336	112,737	17,278
Effect of foreign exchange rate changes on cash and cash equivalents	1,991	(6,498)	(995)
Cash and cash equivalents, end of the year	112,737	256,688	39,339
Supplemental disclosure of cash flow information:			
Income taxes paid (refund).	8,662	(8,662)	(1,328)
Supplemental disclosure of non-cash investing and financing activities:			
Payables for purchases of property and equipment.	3,919	3,823	586
Deferred government subsidy applied to purchases of property and equipment	—	30,000	4,598

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

Notes to the Consolidated Financial Statements

1. ORGANIZATION AND NATURE OF OPERATIONS

Description of Business and Corporate History

Hesai Technology Co., Ltd. (the “Company”), together with its subsidiaries (collectively, the “Group”) is primarily engaged in the development, manufacture and sales of 3-dimensional light detection and ranging solutions, or LiDAR. The Group’s LiDAR solutions enable a broad spectrum of applications across autonomous vehicles fleets providing passenger and freight mobility services, passenger or commercial vehicles with advanced driver assistance systems, as well as other service robots with varying degrees of automations, including last mile delivery services.

The Group’s history began in October 2014 with the establishment of Shanghai Hesai Photonics Co., Ltd. (“Hesai Photonics”), a limited liability company established in the People’s Republic of China (the “PRC”) by Mr. Kai Sun, Mr. Yifan Li and Mr. Shaoqing Xiang (collectively known as the “Founding Shareholders”). In August 2020, Hesai Photonics was converted by its then shareholders into a joint stock company under PRC law and changed its name to Hesai Technology Co., Ltd.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of presentation

The consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (“U.S. GAAP”).

The consolidated financial statements include the financial statements of the Company and its subsidiaries. The results of the subsidiaries are consolidated from the date on which the Company obtained control. All transactions and balances among the Company and its subsidiaries have been eliminated upon consolidation.

Use of estimates

The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. On an ongoing basis, the Group’s management reviews these estimates based on information that is currently available. Changes in facts and circumstances may cause the Group to revise its estimates. Significant accounting estimates reflected in the Group’s consolidated financial statement mainly include warranty reserves, inventory write-down, allowance for doubtful accounts, the useful lives of property and equipment and intangible assets, impairment of goodwill and intangible assets, and valuation of ordinary shares and share-based compensation.

Fair value measurements

Fair value is defined as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When determining the fair value measurements for assets and liabilities required or permitted to be recorded at fair value, the Group considers the principal or most advantageous market in which it would transact and it considers assumptions that market participants would use when pricing the asset or liability.

The established fair value hierarchy requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. A financial instrument’s categorization within the fair value hierarchy is based upon the lowest level of input that is significant to the fair value measurement. The three levels of inputs may be used to measure fair value include:

Level 1 Valuation techniques in which all significant inputs are unadjusted quoted prices from active markets for assets or liabilities that are identical to the assets or liabilities being measured.

Level 2 Valuation techniques in which significant inputs include quoted prices from active markets for assets or liabilities that are similar to the assets or liabilities being measured and/or quoted prices for assets or liabilities that are identical or similar to the assets or liabilities being measured from markets that are not active. Also, model-derived valuations in which all significant inputs and significant value drivers are observable in active markets are Level 2 valuation techniques.

Level 3 Valuation techniques in which one or more significant inputs or significant value drivers are unobservable. Unobservable inputs are valuation technique inputs that reflect the Group's own assumptions about the assumptions that market participants would use in pricing an asset or liability.

The fair value guidance describes three main approaches to measure the fair value of assets and liabilities: (1) market approach; (2) income approach and (3) cost approach. The market approach uses prices and other relevant information generated from market transactions involving identical or comparable assets or liabilities. The income approach uses valuation techniques to convert future amounts to a single present value amount. The measurement is based on the value indicated by current market expectations about those future amounts. The cost approach is based on the amount that would currently be required to replace an asset.

When available, the Group uses quoted market prices to determine the fair value of an asset or liability. If quoted market prices are not available, the Group will measure fair value using valuation techniques that use, when possible, current market-based or independently sourced market parameters, such as interest rates and currency rates.

Financial instruments not reported at fair value include cash and cash equivalents, accounts receivable, contract assets, amounts due from/to related parties, other receivables included in other current assets, accounts payable, and other current liabilities. The carrying amounts of the short-term financial instruments approximate their fair value due to their short-term nature.

The Group's assets and liabilities measured at fair value on a recurring basis subsequent initial recognition include certain short-term investments that the Group elects to apply fair value option under ASC 825 (see Note 2 — Short-term investments), which are classified as level 2 within the fair value hierarchy as the key inputs to the valuation model are observable in active markets. The difference between fair value and cost of such short-term investment is immaterial. The carrying amounts of short-term investment were RMB910,972 and RMB638,981 as of December 31, 2019 and 2020.

Functional currency and foreign currency translation

The Group uses Renminbi ("RMB") as its reporting currency. The functional currency of the Company and its subsidiary located in PRC is RMB, and the functional currency of subsidiaries located outside of PRC is the United States dollar ("USD").

Assets and liabilities are translated from each entity's functional currency to the reporting currency at the exchange rate on the balance sheet date. Equity amounts are translated at historical exchange rates, and revenues, expenses, gains and losses are translated using the average rate for the year. Translation adjustments are reported as cumulative translation adjustments and are shown as a separate component of accumulated other comprehensive income (loss) in the consolidated statements of shareholders' equity.

Monetary assets and liabilities denominated in currencies other than the entity's applicable functional currencies are translated into the functional currencies at the prevailing rates of exchange at the balance sheet date. Nonmonetary assets and liabilities are remeasured into the applicable functional currencies at historical exchange rates. Transactions in currencies other than the applicable functional currencies during the year are converted into the functional currencies at the applicable rates of exchange prevailing at the transaction dates. Transaction gains and losses are recognized in the consolidated statements of operations and comprehensive loss.

Cash and cash equivalents

The Group classifies cash on hand and cash in bank with original maturities of three months or less, and are unrestricted as to withdrawal or use, as cash and cash equivalents.

Short-term investments

Short-term investments mainly consist of time deposits, and structured bank financial deposits held at the commercial banks in the PRC. Time deposits are the balances placed with the banks with original maturities over three months, but less than one year, whose carrying amount approximate to fair value due to their short-term nature.

Structured deposits consist of financial instruments with variable interests rates indexed to interest rates, exchange rates, commodities, broad-based index of stock market, and other financial or non-financial underlying assets. These inputs are observable in active markets over the terms of the instruments the Group holds, and accordingly, the fair value measurements are classified as Level 2 in the hierarchy. The Group elected the fair value option at the date of initial recognition to measure structured deposits at fair value. Changes in the fair value are recorded as interest income in the consolidated statements of operations and comprehensive loss, and is immaterial in the periods presented.

Accounts receivable, net

Accounts receivable mainly consist of amounts due from the Group's customers, which are recorded net of allowance for credit loss. The Group performs ongoing credit evaluation of its customers, and assesses allowance for credit loss based on expected credit loss model on a portfolio basis. Account receivable balances are written off after all collection efforts have been exhausted.

The Group elected to early adopt Accounting Standards Update ("ASU") No. 2016-13, *Financial Instruments — Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* using the modified retrospective transition method from January 1, 2019. The Group has developed a current expected credit loss ("CECL") model based on historical experience, the age of the accounts receivable balances, credit quality of its customers, current economic conditions, reasonable and supportable forecasts of future economic conditions, and other factors that may affect its ability to collect from customers. The cumulative effect from the adoption as of January 1, 2019 was immaterial to the consolidated financial statements.

Inventories

Inventories consist of raw materials, work-in-process, and finished goods and are stated at lower of cost or net realizable value. Costs are computed under the weighted average method. Net realizable value is determined as estimated selling prices in the ordinary course of business, less reasonably predictable costs to sell. Valuation of inventories is based on currently available information about expected recoverable value. The estimate is dependent upon factors such as market trends, inventory ageing, and historical and forecasted customer demands. Inventory write-down is recorded as cost of revenues.

Property and equipment, net

Property and equipment is stated at cost less accumulated depreciation and impairment. Property and equipment are depreciated at rates sufficient to write off its costs less impairment, if any, over the estimated useful lives on a straight-line basis. The estimated useful lives are as follows:

Electronic equipment	3 – 5 years
Machinery and equipment	10 years
Furniture and fixture	5 years
Transportation vehicles	4 years
Leasehold improvements	Over the shorter of the lease term or expected useful lives

Intangible assets, net

Intangible assets are recognized and measured at cost upon acquisition. Following the initial recognition, intangible assets are carried at cost less any accumulated amortization and any accumulated impairment

losses. The identifiable intangible assets acquired are amortized on a straight-line basis over the respective useful lives as follows:

Software	3 – 5 years
Acquired technology	3 – 5 years

Goodwill

Goodwill represents the excess of the purchase price over the fair value of assets and liabilities acquired in a business combination in connection with acquisition of 100% equity interests of Oxigraf, Inc. Goodwill is tested for impairment annually or more frequently if events or changes in circumstances indicate that it might be impaired. The Group elected to early adopt ASU No. 2017-14, simplifying the Test for Goodwill Impairment on January 1, 2019. Under this guidance, the Group has the option to choose whether it will apply the qualitative assessment first and then the quantitative assessment, if necessary, or to apply the quantitative assessment directly. If the Group chooses to apply a qualitative assessment first, it starts the goodwill impairment test by assessing qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If the Group determines that it is more likely not the fair value of a reporting unit is less than its carrying amount, the quantitative impairment test is mandatory. Otherwise, no further testing is required. The quantitative impairment test consists of comparison of the fair value of a reporting unit to its carrying amount.

Application of a goodwill impairment test requires significant management judgments, including the identification of reporting units, assigning assets and liabilities to reporting units, assigning goodwill to reporting units, and determining the fair value of each reporting unit. The judgment in estimating the fair value of reporting units includes estimating future cash flows, determining appropriate discount rates and making other assumptions. Changes in these estimates and assumptions could materially affect the determination of fair value for each reporting unit.

No goodwill impairment was recorded for the years ended December 31, 2019 and 2020.

Investment in equity method investee

The Group uses equity method to account for common stock investments in entities over which it has significant influence but does not have controlling interests. Under the equity method of accounting, the Group's share of the earnings or losses of the investee companies, impairments, and other adjustments required by the equity method are reflected in the consolidated statements of operations and comprehensive loss. When the Group's share of losses in an investee equals or exceeds its carrying amount of the investment in the investee, the Group does not recognize further losses, unless the Group has guaranteed the obligations of the investee or is otherwise committed to provide further financial support for the investee. An impairment loss is recorded when there has been a loss in value of the investment that is other than temporary.

An impairment charge is recorded if the carrying amount of the investment exceeds its fair value and this condition is determined to be other-than temporary. The Group estimated the fair value of investments in equity investees under discounted cash flow analysis which requires significant judgments, including the estimation of future cash flows, which is dependent on internal forecasts, the estimation of long term growth rate of a company's business, the estimation of the useful life over which cash flows will occur, and the determination of the weighted average cost of capital. The Group did not record any impairment on its equity method investment during the years ended December 31, 2019 and 2020.

Revenue recognition

The Group's revenue mainly derives from sales of LiDAR products and gas detection products. The Group applies the ASU 2014-09, *Revenue from Contracts with Customers* — Topic 606 for its revenue recognition for all periods presented.

The Group recognizes revenue at a point in time when controls of the products are transferred to the customers, and generally occur upon delivery according to the terms of the underlying contracts. Product sales to certain customers may require customer acceptance due to performance acceptance criteria that is

considered more than a formality. For these product sales, revenue is recognized upon the expiration of the customer acceptance period. The Group's standalone selling prices are based on the prices charged to customers for the single performance obligation which is transfer of control of products upon delivery to the customers or upon expiration of the customer acceptance period. The Group's general terms and conditions for its contracts do not contain a right of return that allows the customer to return products and receive a credit, therefore the Group does not estimate returns. Amounts billed to customers for shipping and handling are included in revenue. Taxes collected from customers and remitted to governmental authorities are excluded from revenue on the net basis of accounting. Accounts receivable are due under normal trade terms, typically within 30 to 90 days.

The Group also enters into contract to develop and manufacture custom LiDAR products that are tailored based on customer requirement. Revenues from these custom products are recognized over the time using an output method based on units of product shipped to date relative to total production units under the contract. The amount of customized products sold are immaterial for the years presented.

The Group typically provides one-year standard product warranties on its products and the warranty period cannot be extended. Standard warranties are considered to be assurance type warranties and are not accounted for as separate performance obligations. The Group accrues estimated future warranty costs and charges to cost of revenues in the period that the related revenue is recognized. These estimates are based on historical warranty experience and any known or expected changes in warranty exposure, such as trends of product reliability and costs of repairing and replacing defective products.

A contract asset is recorded when the Group has transferred products to the customer before payment is received or is due, and the Group's right to consideration is conditional on future performance or other factors in the contract. The Group records contract asset for unbilled receivables for certain customers where the control of the goods has been transferred. A contract liability exists when the Group has received consideration but has not transferred the related goods or services to the customer. The Group's contract liabilities mainly consist of payments received from customers before they received the products.

Cost of revenues

Cost of revenues includes the manufacturing cost of LiDAR sensors and gas detection products, which primarily consists of direct material costs, personnel-related costs, purchasing costs, depreciation, amortization and overhead associated with manufacturing operations, accrued warranty costs, shipping costs, licensing fees, and write-downs of inventories excess and obsolete inventories.

Research and development expenses

Research and development expenses consist primarily of personnel-related costs directly associated with research and development organization, with the remainder being prototype expenses, third-party engineering and contractor costs, an allocated portion of facility and IT costs and depreciation. The Group's research and development costs are related to enhancing and developing additional functionality for its existing products and on new product development, including new releases and upgrades to LiDAR sensors. The Group expenses research and development costs as incurred.

Government grants

Government grants consist of cash subsidies received by the Group from PRC local governments. Grants received as incentives for conducting business in certain local districts with no performance obligation or other restriction as to the use are recognized when cash is received. Grants received with government specified performance obligations are recognized when all the obligations have been fulfilled. Government grants received related to the purchases of long-term assets are used to net the cost of the respective assets.

Cash grants related to unfulfilled obligations of RMB41,289 and RMB7,614 were included in other non-current liabilities as of December 31, 2019 and 2020, respectively. Cash grants of RMB11,009 and RMB15,384 were recorded in other operating income for the year ended December 31, 2019 and 2020, respectively.

Loss per share

Basic loss per share is computed by dividing net loss attributable to the holders of ordinary shares by the weighted average number of ordinary shares outstanding during the year.

Diluted loss per share reflect the potential dilution that could occur if securities or other contracts to issue ordinary shares were exercised or converted into ordinary shares. The Group had share options, which could potentially dilute basic earnings per ordinary share in the future. To calculate the number of shares for diluted earnings per ordinary share, the effect of the share options is computed using the treasury stock method.

Share-based compensation

The Group grants share-based awards of the Company to eligible employees and accounts for these share based awards in accordance with ASC 718, *Compensation — Stock Compensation*.

Share-based awards that are subject to both the service period and the occurrence of a Qualified IPO as performance condition are measured at the grant date fair value and share-based compensation expenses are recognized for the cumulatively vested amount upon the completion of the Qualified IPO first and then over the remaining requisite service period, net of actual forfeitures, if any.

The fair value of the share options granted to employees is determined with the assistance of an independent third party valuation firm. The binomial option pricing model was applied in determining the estimated fair value of the options granted to employees.

The accounting for the modification of a share-based compensation's requisite service period is based on whether the modified requisite service period is shorter or longer than the original requisite service period. If an entity modifies the requisite service period of a share-based payment award and the modified award's requisite service period is shorter than the original award's requisite service period, the Group recognizes compensation cost over the remaining portion of the modified award's requisite service period.

Income Taxes

Current income taxes are provided for in accordance with the laws of the relevant tax authorities.

Deferred income taxes are provided using assets and liabilities method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements. Under this method, deferred tax assets and liabilities are determined on the basis of the differences between financial statements and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. Deferred tax assets are recognized to the extent that these assets are more likely than not to be realized. In making such a determination, the management consider all positive and negative evidence, including future reversals of projected future taxable income and results of recent operation. Deferred tax assets are then reduced by a valuation allowance through a charge to income tax expense when, in the opinion of management, it is more likely than not that a portion of or all of the deferred tax assets will not be realized.

The Group accounts for uncertainty in income taxes recognized in the consolidated financial statements by applying a two-step process to determine the amount of the benefit to be recognized. First, the tax position must be evaluated to determine the likelihood that it will be sustained upon external examination by the taxing authorities. If the tax position is deemed more-likely-than-not to be sustained (defined as a likelihood of more than fifty percent of being sustained upon an audit, based on the technical merits of the tax position), the tax position is then assessed to determine the amount of benefits to recognize in the combined and consolidated financial statements. The amount of the benefits that may be recognized is the largest amount that has a greater than 50% likelihood of being realized upon ultimate settlement. Interest and penalties on income taxes will be classified as a component of the provisions for income taxes. The Group did not recognize any income tax due to uncertain tax position or incur any interest and penalties related to potential underpaid income tax expenses for the years ended December 31, 2019 and 2020.

Operating Leases

Leases where substantially all the rewards and risks of ownership of assets remain with the lessor are accounted for as operating leases. Total rental payments applicable to such operating leases are recognized on a straight-line basis over the lease term. Certain of the operating lease agreements contain rent holidays and are considered in determining the straight-line rent expense to be recorded over the lease term.

Comprehensive income (loss)

Comprehensive income (loss) is defined as the change in equity of the Group during a period arising from transactions and other events and circumstances excluding transactions resulting from investments by shareholders and distributions to shareholders. Comprehensive income (loss) is reported in the consolidated statement of operations and comprehensive income (loss). Accumulated other comprehensive income (loss), as presented on the accompanying consolidated balance sheets consists of accumulated foreign currency translation adjustments.

Segments

The Chief Executive Officer, Chief Scientist and Chief Technology Officer (collectively referred to the “founders”) are identified as the chief operating decision maker (CODM).

The Group organized its operations into two segments: LiDAR segment and gas detection segment. The financial information of the respective segments are disclosed in Note 19.

Concentration of risks***Concentration of credit risk***

Financial instruments that potentially expose the Group to concentration of credit risk consist primarily of cash and cash equivalents, short-term investments, accounts receivable, contract assets, amounts due from related parties, and prepayments and other current assets.

The Group places its cash and cash equivalents and short-term investments in various commercial banks in the PRC. The Group believes that no significant credit risk exists as these banks are principally government-owned financial institutions with high credit ratings.

Accounts receivable, contract assets and amounts due from related parties are typically unsecured and are derived from revenue earned from the customers. The Group conducts credit evaluations of customers to whom credit terms are extended. The Group establishes an allowance for doubtful accounts based on CECL model developed by the Group, which considers historical experience, the age of the accounts receivable balances, credit quality of its customers, current economic conditions, reasonable and supportable forecasts of future economic conditions, and other factors that may affect its ability to collect from customers.

Prepayments and other current assets mainly consists of deposits of rent, and prepaid expenses, which can be applied for deduction of future payments for expenses. The Group has no significant concentrations of credit risk with respect to its prepayments and other current assets.

Concentration of customers

The following customers accounted for 10% or more of revenue for the years ended December 31, 2019 and 2020:

	For the Year ended December 31,	
	2019	2020
Customer A	*	11.6%
Customer B	23.6%	*

The following customers accounted for 10% or more of the Group's accounts receivable, contract assets and amounts due from related parties as of December 31, 2019 and 2020:

	As of December 31,	
	2019	2020
Customer B	*	31.8%
Customer C	*	17.5%
Customer D	15.7%	*
Customer E	14.6%	*

Concentration of suppliers

The following supplier accounted for 10% or more of purchases for the years ended December 31, 2019 and 2020:

	As of December 31,	
	2019	2020
Supplier A	11.5%	14.0%

Foreign currency risk

A significant portion of Group's cash and cash equivalents and short-term investments are denominated in USD, fluctuations in exchange rates between USD and RMB may result in foreign exchange gains or losses. The value of USD is subject to changes in central government policies and to international economic and political developments affecting supply and demand in the China Foreign Exchange Trading System market. The cash and cash equivalents and time deposits that are denominated in USD of the Group included an aggregated amounts of USD74,361 and USD63,970 as of December 31, 2019 and 2020, respectively.

Recent accounting pronouncements

Under the Jumpstart Our Business Startups Act of 2012, as amended ("the JOBS Act"), the Group meets the definition of an emerging growth company, or EGC as of December 31, 2019 and December 31, 2020, and has elected the extended transition period for complying with new or revised accounting standards, which delays the adoption of these accounting standards until they would apply to private companies. Once the Group ceases to qualify as EGC, it will immediately adopt the new and revised accounting standards already effective for public companies.

In December 2019, the Financial Accounting Standards Board ("FASB") issued ASU 2019-12, *simplifying the Accounting for Income Taxes*, as part of its initiative to reduce complexity in accounting standards. The amendments in the ASU are effective for non-issuers for fiscal years beginning after December 15, 2021, and interim periods within fiscal years beginning after December 15, 2022. Early adoption of the standard is permitted, including adoption in interim or annual periods for which financial statements have not yet been issued. The Group plans to adopt the ASU prospectively on January 1, 2022, and does not expect the adoption of this ASU to have a material impact on the consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, *Leases* (Topic 842). The guidance supersedes existing guidance on accounting for leases with the main difference being that operating leases are to be recorded in the statement of financial position as right of use assets and lease liabilities, initially measured at the present value of the lease payments. For operating leases with a term of 12 months or less, a lessee is permitted to make an accounting policy election not to recognize lease assets and liabilities. In transition, entities are required to recognize and measure leases at the beginning of the earliest period presented using a modified retrospective approach. In July 2018 (ASU 2018-11), the FASB further amended the guidance to provide another transition method in addition to the existing transition method by allowing entities to initially apply the new leases standard at the adoption date and recognize an accumulative-effective adjustment to the opening balance of retained earnings in the period of adoption. In June 2020, the FASB issued ASU 2020-05, *Revenue from Contracts with Customers* (Topic 606) and *Leases* (Topic 842) — *Effective Dates for Certain Entities*, which defer the effective date of leases for private companies to fiscal year beginning after December 15, 2021. The Group is in the process of evaluating the impact on its consolidated financial statements upon adoption.

In August 2020, the FASB issued ASU 2020-06, *Debt with Conversion and Other Options* (Subtopic 470-20) and *Contracts in Entity's Own Equity* (Subtopic 815-40) — *Accounting for Convertible Instruments and Contracts in an Entity's Own Equity*. The ASU will be effective for the Group on January 1, 2024 and can be early adopted on January 1, 2021. The guidance reduces the number of accounting models for convertible debt instruments and convertible preferred stock. For convertible instruments with conversion features that are not required to be accounted for as derivatives under Topic 815, *Derivatives and Hedging*, or that do not result in substantial premiums accounted for as paid-in capital, the embedded conversion features no longer are separated from the host contract. The Group is in the process of evaluating the impact on its consolidated financial statements upon adoption.

Convenience translation

The Group's business is primarily conducted in China and most of its revenues are denominated in RMB. However, periodic reports made to shareholders will include current period amounts translated into USD using the then current exchange rates, for the convenience of the readers. Translations of balances in the consolidated balance sheet, consolidated statements of operations and comprehensive loss and consolidated statements of cash flows from RMB into USD as of and for the year ended December 31, 2020 are solely for the convenience of the readers and were calculated at the rate of USD1.00=RMB6.5250 representing the noon buying rate set forth in the H.10 statistical release of the United States as of December 31, 2020.

3. BUSINESS COMBINATION

In March 2019, in order to expand its offering of gas detection product in the United States, the Group acquired 100% equity interests of Oxigraf, Inc. ("Oxigraf") for a cash consideration of USD2,011 (RMB equivalent of 13,543). Oxigraf, located in the United States, is a manufacturer of laser absorption spectroscopy sensors for oxygen gas measurement and analysis.

The Group determined the fair value of identifiable assets and liabilities resulted from the acquisition with the assistance of a third party valuation firm. The fair value of assets acquired, liabilities assumed and goodwill resulted for this acquisition are as follows:

	RMB
Total cash consideration	13,543
Recognized amounts of identifiable assets acquired and liabilities assumed	
Cash and cash equivalents	613
Accounts receivable	1,721
Inventories	3,310
Intangible assets	2,424
Other non-current assets	2,169
Prepayments and other current assets	875
Total assets acquired	11,112

	RMB
Accounts payable	279
Deferred tax liabilities	985
Accrued expenses and other current liabilities	62
Total liabilities assumed	1,326
Net assets acquired	9,786
Goodwill	3,757
	13,543

The identifiable assets acquired are required to be recognized and measured at fair value as of the acquisition date. An intangible asset is identified if it meets either the separability criterion or the contractual-legal criteria in accordance with ASC 805, *Business Combination*. The assembled workforce did not meet the separation criteria or the contractual-legal criteria and therefore are not identifiable and not recognized apart from goodwill. Acquired identifiable intangible assets include identifiable technology and sales backlog. The technology is amortized over an estimated useful live of 5 years and the sales backlog has been fully amortized in 2019.

Goodwill is recognized as a result of expected synergies from combining operations of Oxigraf and the Group as well as other intangible assets that do not qualify for separate recognition. Goodwill is not amortized and is not deductible for tax purposes. Goodwill is assigned to the gas detection reporting unit. The Group reviews goodwill for impairment annually and there was no impairment recorded for years ended December 31, 2019 and 2020.

The pro forma unaudited condensed financial information has been prepared to illustrate the effect of the business combination, assuming that all acquisitions occurred as of the beginning of the period. The pro forma results have been prepared based on management's best estimate and do not purport to be indicative of the results of operations which actually would have resulted had the acquisitions occurred as of the beginning of the period:

	For the Year ended December 31, 2019
	RMB
Pro forma net revenues	350,536
Pro forma loss from operations	(120,016)
Pro forma net loss attributable to ordinary shareholders	(175,263)

Since the date of acquisition, revenues of Oxigraf recognized in the Group's consolidated statements of operations and comprehensive loss for year ended December 31, 2019 was RMB13,813. The Group determined it is impracticable to disclose net earnings of Oxigraf since acquisition because it was fully integrated into the Group's business upon acquisition.

4. SHORT-TERM INVESTMENTS

The following table summarizes the Group's balances of short-term investment:

	As of December 31,	
	2019	2020
	RMB	RMB
Structured bank financial products	454,455	246,612
Time deposits	456,517	392,369
Total short-term investments	910,972	638,981

For the years ended December 31, 2019 and 2020, the Group recorded RMB19,107 and RMB20,925 interest income. No credit loss was recognized for the years ended December 31, 2019 and 2020.

5. ACCOUNTS RECEIVABLE, NET

Accounts receivable and expected credit losses as of December 31, 2019 and 2020 are as follows:

	<u>As of December 31,</u>	
	<u>2019</u>	<u>2020</u>
	<u>RMB</u>	<u>RMB</u>
Accounts receivable	38,768	61,589
Less: allowance for expected credit losses	(2,257)	(5,270)
Total Accounts receivable, net	<u>36,511</u>	<u>56,319</u>

The roll-forward of the allowance for credit losses related to accounts receivable for the year ended December 31, 2019 and 2020 consists of the following activity:

	<u>For the Year ended</u> <u>December 31,</u>	
	<u>2019</u>	<u>2020</u>
	<u>RMB</u>	<u>RMB</u>
Balance at beginning of the year	2,197	2,257
Provision for expected credit losses	60	3,015
Write-off	—	(2)
Balance at end of the year	<u>2,257</u>	<u>5,270</u>

6. INVENTORIES

	<u>As of December 31,</u>	
	<u>2019</u>	<u>2020</u>
	<u>RMB</u>	<u>RMB</u>
Raw materials	28,305	61,609
Work-in-process	36,236	81,104
Finished goods	5,702	7,212
Inventories	<u>70,243</u>	<u>149,925</u>

Inventory write-off were RMB4,195 and RMB7,060, respectively, for the years ended December 31, 2019 and 2020.

7. PREPAYMENTS AND OTHER CURRENT ASSETS

Prepayments and other current assets, as of December 31, 2019 and 2020 were as follows:

	<u>As of December 31,</u>	
	<u>2019</u>	<u>2020</u>
	<u>RMB</u>	<u>RMB</u>
Advances to suppliers	9,400	18,307
Deposits	7,214	7,024
Prepaid expenses	6,112	8,295
Value-added tax recoverable	8,662	5,937
Others	447	1,095
Total	<u>31,835</u>	<u>40,658</u>

8. PROPERTY AND EQUIPMENT, NET

Property and equipment, as of December 31, 2019 and 2020 are as follows:

	As of December 31,	
	2019	2020
	RMB	RMB
Cost		
Electronic equipment	23,179	29,651
Leasehold improvements	20,645	32,488
Machinery and equipment	14,682	11,602
Furniture and fixture	1,869	4,452
Transportation vehicles	382	382
Total cost	60,757	78,575
Less: Accumulated depreciation	(13,348)	(19,793)
Property and equipment, net	47,409	58,782
Construction in progress	—	5,055
Total	47,409	63,837

Depreciation expenses were RMB8,611 and RMB15,435 for the years ended December 31, 2019 and 2020, respectively.

9. INVESTMENT IN EQUITY METHOD INVESTEE

	As of December 31,	
	2019	2020
	RMB	RMB
Suzhou Kunjie Phototonics Technology Co., Ltd	1,990	1,986
Total	1,990	1,986

In July 2019, the Group acquired 12.9% of equity interests of Suzhou Kunjie Phototonics Technology Co., Ltd. (“Suzhou Kunjie”) for a consideration of RMB2,000, and is able to nominate, appoint and remove one director out of three directors of Suzhou Kunjie. As such, the Group is able to exercise significant influence over Suzhou Kunjie and accounted for it under equity method.

The Group recorded RMB10 and RMB4 shares of loss in equity method investment during year ended December 31, 2019 and 2020, respectively. The Group did not record any impairment on its equity method investment during the years ended December 31, 2019 and 2020.

10. INTANGIBLE ASSETS, NET

Intangible assets as of December 31, 2019 and 2020 are as follows:

	As of December 31,	
	2019	2020
	RMB	RMB
Software	2,627	11,080
Technology	8,044	7,667
Total cost	10,671	18,747
Less: accumulated amortization	(1,611)	(4,487)
Intangible assets, net	9,060	14,260

Amortization expenses related to intangible assets were RMB1,113 and RMB3,780 for the years ended December 31, 2019 and 2020. The Group expects to record amortization expenses of RMB5,460, RMB4,494, RMB2,233, RMB713, RMB1,360 for the years ending December 31, 2021, 2022, 2023, 2024 and 2025 and years after, respectively.

11. ACCRUED EXPENSES AND OTHER CURRENT LIABILITIES

Accrued expenses and other current liabilities as of December 31, 2019 and 2020 are as follows:

	As of December 31,	
	2019	2020
	RMB	RMB
Salaries and welfare payables	35,902	61,576
Advances from employee	—	6,290
Payables for purchase of property and equipment	3,919	3,823
Withholding social security and housing funds	983	1,789
VAT and other tax payables	1,055	1,490
Professional service fees	18,917	717
Accrued litigation settlement cost	160,098	—
Others	8,217	16,210
Total	229,091	91,895

As of December 31, 2019, the Group estimated costs relating to potential litigation settlement in relation to a patent infringement filed by a third party of RMB160,098, which was paid during year ended December 31, 2020.

12. REDEEMABLE PREFERRED EQUITY

Since its establishment, Hesai Photonic has received several rounds of equity financing in the form of Series A+/B+/C-1/C-2/C-3 redeemable preferred equity from outside investors from March 2017 to July 2019. As of December 31, 2019, total redeemable preferred equity consisted of 40.8% of total equity interest of Hesai Photonic.

The Group classifies the redeemable preferred equity as mezzanine equity as the preferred equity is redeemable upon the occurrence of an event not solely within the control of the Group.

The Group recognizes changes in the redemption value immediately as they occur and adjusts the carrying amount of the preferred shares to equal the redemption value at the end of each reporting period as if it was the redemption date for the redeemable preferred equity. The change in redemption value is recorded against retained earnings, or in the absence of retained earnings, by charging against additional paid-in capital. Once additional paid-in capital has been exhausted, additional charges are recorded by increasing the accumulated deficit.

On August 1, 2020, in connection with the 2020 Reorganization, all the outstanding redeemable preferred equity into ordinary shares of the Company at no consideration, all in the same proportion as the percentage of equity interest they held in Hesai Photonic.

The details of redeemable preferred equity financing and the subjected preference right are set out as below:

Series	Issuance Date	As percent of equity at issuance date	Proceeds from issuance, net of issuance cost	January 1,	Change in redemption value	December 31,	August 1,	Upon	December 31,
				2019 Carrying Amount		2019 Carrying Amount	2020 Carrying Amount	Completion of Reorganization Amount	2020 Carrying Amount
			RMB	RMB	RMB	RMB	RMB	RMB	
Series A+	March 2017	10.9%	75,750	86,827	6,946	93,773	93,773	(93,773)	—
Series B	November 2017	10.9%	104,611	115,412	9,233	124,645	124,645	(124,645)	—
Series B+	June 2018	6.0%	96,316	101,412	8,113	109,525	109,525	(109,525)	—
Series C-1	May 2019	7.8%	261,635	—	11,868	273,503	273,503	(273,503)	—
Series C-2	June 2019	7.0%	254,052	—	11,008	265,060	265,060	(265,060)	—
Series C-3	July 2019	5.8%	224,054	—	8,079	232,133	232,133	(232,133)	—
Total			<u>1,016,418</u>	<u>303,651</u>	<u>55,247</u>	<u>1,098,639</u>	<u>1,098,639</u>	<u>(1,098,639)</u>	<u>—</u>

Change in redemption value of RMB55,247 was recorded for the year ended December 31, 2019. As all of redeemable preferred equity interests were converted to ordinary shares in August 2020, no change in redemption value was recorded for the year ended December 31, 2020 as the management of the Group evaluated that redemption was not probable and therefore did not accrete the preferred equity interest to the redemption value.

Key terms of the redeemable preferred equity are as follows, which was no longer exist upon the conversion to ordinary shares:

Voting

Before the re-organization of the Company, directors exercised controls over the Company through resolution of board of directors. Redeemable preferred equity holders were eligible to exercise influence over the management and operating policy through nomination, appointment and removal of directors.

Redemption

The holders of redeemable preferred equity shall have the right to redeem if a Qualified-IPO has not been consummated by December 31, 2022.

The redemption price of Series A+/B+/C-1/C-2/C-3 redeemable preferred equity shall be the issue price plus a compound interest rate of 8% per annum for each year such redeemable preferred equity was outstanding, calculated from the date of payment of consideration for subscription through the date of redemption thereof (and calculated on a pro rata basis in case of a partial year) plus all declared but unpaid dividends thereon up to the date of actual payment of such redemption price, proportionally adjusted for share subdivisions, share dividends, reorganizations, reclassifications, consolidations or mergers.

The redemption right is exercised in the sequence of Series C-1/C-2/C-3, Series B+, Series B, and Series A+ redeemable preferred equity.

Dividend rights

The holders receive dividends on as-if converted basis when dividends are declared.

Liquidation

In the event of any liquidation, including deemed liquidation event (as described below), dissolution or winding up of the Company, either voluntary or involuntary, distributions shall be made in the following manner (after satisfaction of all creditors' claims and claims that may be preferred by law):

- (i) The holders of Series A+/B+/C-1/C-2/C-3 redeemable preferred equity shall be entitled to receive the amount equal to their respective issue prices, plus all declared but unpaid dividends on such preferred equity. The liquidation preference is exercised in the sequence of

Series C-1/C-2/C-3 redeemable preferred equity, Series B+ redeemable preferred equity, Series B redeemable preferred equity, and Series A+ redeemable preferred equity.

If there are any assets or funds remaining after distribution in full to the holders of preferred equity, the remaining assets and funds of the Group that is legally available for distribution to the shareholders shall be distributed to the holders of the preferred equity and ordinary shares ratably amongst them in proportion to the number of ordinary shares held by them on an as-converted basis.

- (ii) If after satisfaction of all creditors' claims and claims that may be preferred by law, the distributable fund is larger than 140% of the issuance price plus any and all declared but unpaid dividends for all Series A+/B+/C-1/C-2/C-3 redeemable preferred equity shareholder, the liquidation preference is no longer applicable.

A deemed liquidation event shall include i) a merger, amalgamation or consolidation of the Group; ii) a sale, exchange, transfer or other disposition of all or substantially all of the assets of the Group.

13. ORDINARY SHARES

On August 1, 2020, in conjunction with the conversion of Hesai Photonic into a joint stock company under PRC law, and changed its name to Hesai Technology Co., Ltd., the Company issued 51,485,191 ordinary shares to its existing equity interest holders at no consideration, all in the same proportions, on an as converted basis, as the percentage of equity interest they held in Hesai Photonic (the "2020 Reorganization"). In accordance with the relevant PRC rules and regulation, upon conversion to the joint stock company, the Company can transfer all of its accumulated profit/deficits to additional paid-in capital. Accordingly, the Company has transfer its accumulated deficits amount to RMB221,929 to additional paid in capital.

In conjunction with the 2020 Reorganization, the Company adopted a dual voting structure on its shares and the Company's ordinary shares were divided into Class A and Class B ordinary shares. 108,120,166 ordinary shares held by the Founding Shareholders were re-designated as Class A ordinary shares on 1:1 basis with the rest of the ordinary shares re-designated to Class B ordinary shares on 1:1 basis. The Holders of Class A ordinary shares and Class B ordinary shares have the same rights, except for voting rights. Holders of Class A ordinary shares are entitled to five votes per share in general meetings of shareholders, while holders of Class B ordinary shares are entitled to one vote per share.

In September 2020, the Company issued 15,603,629 of Class B ordinary shares to new investors for cash consideration of RMB 317,147.

On September 27, 2020, the Group completed the share split on the basis of 5.48 additional ordinary shares in respective class for each outstanding ordinary share prior to the share split. After the share split, total 360,000,000 ordinary shares authorized and 349,358,280 issued and outstanding. All share and per share data in this financial statements have been retrospectively adjusted and are reflective of the share split.

14. NET REVENUES

The following table presents the Group's net revenues for the years ended December 31, 2019 and 2020.

	For the Year ended December 31,	
	2019	2020
	RMB	RMB
Product revenues		
Revenue from LiDAR products	328,064	346,068
Revenue from gas detection products	19,532	68,599
Other revenues	488	847
Net revenues	348,084	415,514

The following table summarizes the Group's revenues disaggregated by the different geographic location.

	For the Year ended December 31,	
	2019	2020
	RMB	RMB
Product Revenue by geographic location		
North America	150,477	201,194
Mainland China	125,704	185,516
Europe	64,491	16,589
Other regions	7,412	12,215
Net revenues	348,084	415,514

The movements of the Group's accounts receivable and contract balances are as follows:

	Accounts Receivable	Contract assets	Contract liabilities
	RMB	RMB	RMB
Opening Balance as of January 1, 2019	47,846	—	3,772
(Decrease)/increase, net	(11,335)	—	8,071
Ending Balance as of December 31, 2019	36,511	—	11,843
Increase/(decrease), net	19,808	38,337	(2,486)
Ending Balance as of December 31, 2020	56,319	38,337	9,357

Revenues with amount of RMB3,772 and RMB11,843 were recognized in the years ended December 31, 2019 and 2020, respectively, that were included in the balance of contract liabilities at the beginning of the each year.

15. INCOME TAXES

United States

The applicable income tax rate of United States where the Company's subsidiaries having operations for the years ended December 31, 2019 and 2020 is 27.98%, which is a blended state and federal rate.

PRC

The PRC Enterprise Income Tax Law ("EIT Law"), which became effective on January 1, 2008, applies a uniform enterprise income tax ("EIT") rate of 25% to both foreign-invested enterprises ("FIEs") and domestic enterprises. Certified High and New Technology Enterprises ("HNTE") are entitled to a favorable statutory tax rate of 15%, but need to re-apply every three years. During this three-year period, an HNTE must conduct a qualification self-review each year to ensure it meets the HNTE criteria and is eligible for the 15% preferential tax rate for that year. If an HNTE fails to meet the criteria for qualification as an HNTE in any year, the enterprise cannot enjoy the 15% preferential tax rate in that year, and must instead use the regular 25% EIT rate.

The Company applied for the HNTE qualification and received approval in December 2019. The Company is entitled to continue to enjoy the beneficial tax rate of 15% as an HNTE for the years 2019 through 2021.

According to a policy promulgated by the State Tax Bureau of the PRC and effective from 2008 onwards, enterprises engaged in R&D activities are entitled to claim an additional tax deduction amounting to 50% of the qualified R&D expenses incurred in determining its tax assessable profits for that year. The additional tax deduction amount of the qualified R&D expenses has been increased from 50% to 75%,

effective from 2018 to 2020, according to a new tax incentives policy promulgated by the State Tax Bureau of the PRC in September 2018 (“Super Deduction”).

Withholding tax on undistributed dividends

Under the EIT Law enacted by the National People’s Congress of the PRC, dividends generated after January 1, 2008 and payable by a foreign investment enterprise in the PRC to its foreign investors who are non-resident enterprises are subject to a 10% withholding tax, unless any such foreign investor’s jurisdiction of incorporation has a tax treaty with the PRC that provides for a different withholding arrangement.

In accordance with accounting guidance, all undistributed earnings are presumed to be transferred to the parent company and are subject to the withholding taxes. All FIEs are subject to the withholding tax from January 1, 2008. The presumption may be overcome if the Group has sufficient evidence to demonstrate that the undistributed dividends will be re-invested and the remittance of the dividends will be postponed indefinitely. The Group did not record any dividend withholding tax, as it has no retained earnings for any of the years presented.

The EIT Law also provides that an enterprise established under the laws of a foreign country or region but whose “de facto management body” is located in the PRC be treated as a resident enterprise for PRC tax purposes and consequently be subject to the PRC income tax at the rate of 25% for its global income. The Implementing Rules of the EIT Law merely define the location of the “de facto management body” as “the place where the exercising, in substance, of the overall management and control of the production and business operation, personnel, accounting, properties, etc., of a non-PRC company is located.” Based on a review of surrounding facts and circumstances, the Group does not believe that it is likely that its operations outside of the PRC will be considered a resident enterprise for PRC tax purposes. However, due to limited guidance and implementation history of the EIT Law, there is uncertainty as to the application of the EIT Law. Should the Company be treated as a resident enterprise for PRC tax purposes, the Company will be subject to PRC income tax on worldwide income at a uniform tax rate of 25%. The Company is not subject to any other uncertain tax position.

The current and deferred portion of income tax expenses included in the consolidated statement of operations and comprehensive loss are as follows:

	For the Year ended December 31,	
	2019	2020
	RMB	RMB
Current tax expenses	1,255	—
Over-provision in prior year	—	(125)
Deferred tax benefits	(325)	(74)
Income tax expenses (benefits)	<u>930</u>	<u>(199)</u>

Net loss before income tax by tax jurisdiction:

	For the Year ended December 31,	
	2019	2020
	RMB	RMB
Net loss before income tax from PRC operations	(119,205)	(104,524)
Net loss before income tax from non-PRC operations	(89)	(2,891)
Total net loss before income tax	<u>(119,294)</u>	<u>(107,415)</u>

A reconciliation between the effective income tax rate and the PRC statutory income tax rate is as follows:

	For the Year ended December 31,	
	2019	2020
Statutory income tax rate	25.00%	25.00%
Effect of different tax rate of different jurisdictions	0.02%	0.10%
Effect of non-deductible expenses	(1.61)%	(0.30)%
Effect of super deduction on R&D expenses	23.39%	38.83%
Effect of change of valuation allowance	(47.58)%	(63.56)%
Over provision for prior years	—	0.12%
Income tax expenses	(0.78)%	0.19%

Deferred tax assets and deferred tax liabilities

	For the Year ended December 31,	
	2019	2020
	RMB	RMB
Deferred tax assets		
– Net operating loss carry forwards	11,935	119,354
– Deductible temporary differences	45,728	7,637
– Deferred revenue	10,322	9,278
Less: valuation allowance	(67,985)	(136,269)
Net deferred tax assets	—	—
Deferred tax liabilities		
– Identifiable intangible assets from business combination.	693	578
Total deferred tax liabilities	693	578

Movement of valuation allowance

Movement of valuation allowance is as follow:

	For the Year ended December 31,	
	2019	2020
	RMB	RMB
Balance at beginning of the year	11,478	67,985
Addition	56,507	68,284
Total	67,985	136,269

As of December 31, 2019 and 2020, the Group had net operating loss carry forwards of approximately RMB47,741 and RMB476,996, respectively, which arose from the subsidiaries established in the PRC and United States. The loss carry forwards for PRC entities will expire during the period from 2024 to 2030, while the federal loss carry forwards for US entities do not expire and can be carried forward indefinitely. The Group had provided a full valuation allowance for the deferred tax assets as of December 31, 2019 and 2020, as management determined that deferred tax assets were not more likely than not to be realizable in future tax years based on all available evidence.

16. SHARE-BASED COMPENSATION

2017 Option Incentive Plan (“2017 Plan”)

In 2017, Hesai Photonic implemented an equity-based incentive plan (the “2017 Plan”) to grant its employees options to acquire equity interest of Hesai Photonic. 9.83% of Hesai Photonics’ equity interest has reserved for equity-based awards under the 2017 plan.

Under the 2017 Plan, the incentive recipient is required to continue their employment with the Group for four years to vest. The commencement date (“Commencement Date”) is determined to be the date when the employee completed first year of employment. The options vest ratably beginning at the first anniversary of the latter of Commencement Date or date of grant over three years. The incentive recipient shall exercise the vested option within 6 months. The option exercise price is the fair value of the proportionate equity interest granted under the award, as determined by management of Hesai Photonic multiplied by a factor of 7%.

When the incentive recipients exercise option to acquire Hesai Photonics equity interest upon vesting, the award agreements provide Hesai Photonics the rights to repurchase these equity interest at the exercise price paid by the incentive recipients, if the incentive recipients terminate their employment with Hesai Photonic prior to its initial public offering (the “IPO”).

The Group considered the IPO condition created an implicit service condition on the grant. And as such, no share based compensation expense were recorded for year ended December 31, 2019.

As of January 1, 2019, the Group has granted an accumulated 1,787,963 options, representing 5.88% of the equity of Hesai Photonics. During the year ended December 31, 2019, the Group granted 531,150 options, representing 1.75% of the equity of Hesai Photonics.

In preparation of the 2020 Reorganization, on December 29, 2019, Hesai Photonic modified the 2017 Plan to immediate vest all options. 77 award recipients then exercised all of their outstanding options to acquire 7.63% equity interest of Hesai Photonic on the same day in the amount of RMB6,290. These equity interests acquired by the award recipients are subject to the following conditions:

- Hesai Photonic has the right to repurchase all of the equity interest held by these award recipients if they terminate their employments within 5 years of service, at the exercise price paid by the award recipients.
- Hesai Photonic has the right to repurchase all of the equity interest held by these award recipients if they terminate their employment after 5 years of service and prior to a qualified IPO, at a price of exercise price plus a return based on a fixed annual rate of 8%

Based on the above terms, the repurchase provision terminates only when the award recipients completed 5 years of service and the Group completed its IPO. The repurchase feature is effectively a vesting condition as the award recipient must continue providing service until the award vests upon the completion of an IPO. As such, the Group determines that the early exercise of the share options is therefore not considered to be a substantive exercise for accounting purposes. Payment received by Hesai Photonic for the exercise price in the total amount of RMB6,290 is recognized as a liability. Since the IPO is a substantive performance condition that the management of the Group has determined to be not probable, no compensation expense was recorded for the years ended December 31, 2019 and 2020.

In connection with the 2020 Reorganization, these equity interest were converted to 2,319,113 ordinary shares of the Company with the same terms and condition noted above. 49,816 shares were forfeited by the award recipients and repurchased by the Group at cost of RMB252. As of December 31, 2020, 14,710,802 ordinary shares as adjusted for share splits that legally owned by the award recipients and the corresponding unrecognized share-based compensation relating to these awards was amounted to RMB39,205, which will be amortized over the service periods of the award recipients when IPO is probable.

The binomial option pricing model was applied in determining the estimated fair value of the options granted. The model requires the input of subjective assumptions. The following table presents the assumptions used to estimate the fair values of the share options granted during the year ended December 31, 2019:

	For the year ended December 31, 2019
Expected volatility	51.00% – 53.00%
Risk-free interest rate (per annum)	2.73% – 2.94%
Expected dividend yield	0.00%
Employee forfeiture rate (per annum)	3.80%
Exercise multiples	2.50
Contractual life	3.00
Fair value of underlying ordinary share	RMB5.41 – 6.71
Fair value of option to subscribe 1 ordinary share	RMB4.88 – 5.95

(1) Expected volatility

Volatility is estimated based on annualized standard deviation of daily stock price return of comparable companies for the period before valuation date and with similar span as Time to Expiration.

(2) Risk-free interest rate

We estimated the risk-free interest rate based on the yield curve of China Sovereign Bond as at each valuation date.

(3) Expected dividend yield

The dividend yield was estimated as zero based on the plan to retain profit for corporate expansion and no dividend will be distributed in the near future.

(4) Employee forfeiture rate

Employee forfeiture rate was estimated by the management using employee resignation statistics.

(5) Exercise multiple

Assumption on exercise multiple is made with reference to academic research.

(6) Contractual life

Vesting beginning date is assumed to be the IPO date.

(7) Fair value of underlying ordinary share

We determined the fair value of underlying ordinary share based on estimated equity value and allocation of it to each element of its capital structure, equity interests awarded are presented in ordinary shares based on the conversion used in the 2020 reorganization.

2020 Option Incentive Plan

The Group implemented a share option incentive plan (the “2020 Option Incentive Plan”) in October 2020 to grant share options to eligible middle management and other key employees (the “incentive recipients”). The total number of option that could be grant under the 2020 Plan is 5,054,138 and upon conversion, new issuance of Class B ordinary shares would be issued to the holders. The contractual term is 5 years.

As of December 31, 2020, 5,054,138 share options were granted to employees with exercise price of RMB 3.25 per share.

One-third of the award will be vested at the latter of the first anniversary of the Commencement Date or the Group’s completion of IPO (“First Vesting Date”). The remaining two-thirds shall be vested at each of the 12 months from the First Vesting Date, respectively. The actual number of the shares could be exercised is also subjected to adjustment based on employee performance evaluation result. The Group considers the

IPO being a substantive performance condition and as a result, the Group has not recognized any share-based compensation expenses related to the options granted

The binomial option pricing model was applied in determining the estimated fair value of the options granted. The model requires the input of subjective assumptions. The following table presents the assumptions used to estimate the fair values of the share options granted for the year ended December 31, 2020:

	For the year ended December 31, 2020
Expected volatility	49.00% – 52.00%
Risk-free interest rate (per annum)	2.70% – 2.88%
Expected dividend yield	0.00%
Employee forfeiture rate (per annum)	3.80%
Exercise multiples	2.50
Contractual life	1.93 – 3.93
Fair value per ordinary share	RMB20.33
Fair value of option to subscribe one ordinary share	RMB17.16 – 17.41

(1) Expected volatility

Volatility is estimated based on annualized standard deviation of daily stock price return of comparable companies for the period before valuation date and with similar span as Time to Expiration.

(2) Risk-free interest rate

We estimated the risk-free interest rate based on the yield curve of China Sovereign Bond as at each valuation date.

(3) Expected dividend yield

The dividend yield was estimated as zero based on the plan to retain profit for corporate expansion and no dividend will be distributed in the near future.

(4) Employee forfeiture rate

Employee forfeiture rate was estimated by the management using employee resignation statistics.

(5) Exercise multiple

Assumption on exercise multiple is made with reference to academic research.

(6) Contractual life

Vesting beginning date is assumed to be the IPO date.

(7) Fair value per ordinary share

We determined the fair value per ordinary share based on estimated equity value and allocation of it to each element of its capital structure.

The following table summarized the activities of 2020 Option Incentive Plan classified as equity:

	Number of options	Weighted average exercise price	Weighted average remaining contract life	Weighted average grant date fair value	Aggregate intrinsic value
		RMB	Years	RMB	RMB
Outstanding at December 31, 2019	—	—	—	—	—
Granted	5,054,138	3.25	2.93	17.29	17.08
Forfeited	—	—	—	—	—
Exercised	—	—	—	—	—
Outstanding at December 31, 2020	5,054,138	3.25	2.93	17.29	17.08
Vested and expected to vest as of December 31, 2020	—	—	—	—	—
Exercisable as of December 31, 2020	—	—	—	—	—

As of December 31, 2020, there was RMB87,560 of unrecognized compensation expense related to share options that has not been vested. Share-based compensation of RMB5,346 would be recognized immediately if the IPO condition had been met.

17. RELATED PARTY TRANSACTIONS

Major related parties that transacted with the Group and their respective relationship to the Group listed as below:

Name of the related parties	Relationship
Suzhou Kunjie Phototonics Technology Co., Ltd	An equity method investee of the Group
Robert Bosch Gesellschaft mit Beschraenkter Haftung	An affiliate of the shareholder of the Group
Robert Bosch Kft.	An affiliate of the shareholder of the Group
Robert Bosch Ltd	An affiliate of the shareholder of the Group
Robert Bosch France	An affiliate of the shareholder of the Group
Bosch Automotive Products (Suzhou) Co., Ltd.	An affiliate of the shareholder of the Group
Baidu USA LLC	An affiliate of the shareholder of the Group
Beijing Baidu Netcom Technology Co., Ltd.	An affiliate of the shareholder of the Group
Apollo Intelligent Transportation Technology (Guangzhou) Co., Ltd.	An affiliate of the shareholder of the Group
Baidu Smart Travel Information Technology (Chongqing) Co., Ltd.	An affiliate of the shareholder of the Group
Apollo Intelligent Transportation Technology (Hefei) Co., Ltd.	An affiliate of the shareholder of the Group

For the years ended December 31, 2019 and 2020, significant related party transactions were as follows:

	For year ended December 31,	
	2019	2020
	RMB	RMB
Revenue from sale of LiDAR products		
Affiliates of the shareholders of the Group	47,852	41,765
Total	47,852	41,765

	For year ended December 31,	
	2019	2020
	RMB	RMB
Research and development expenses		
An equity method investee of the Group	485	900
Total	485	900

	For year ended December 31,	
	2019	2020
	RMB	RMB
Purchases of raw materials		
An equity method investee of the Group	—	83
Total	—	83

The balances due from related parties of operations are as follows:

	As of December 31,	
	2019	2020
	RMB	RMB
Amounts due from related parties, net of allowance		
Affiliates of the shareholder of the Group	6,946	28,088
An equity method investee of the Group	960	—
Total	7,906	28,088

18. LOSS PER SHARE

The Company was converted to a joint stock company in August 2020 and completed a share-split effective as of September 27, 2020. For the purpose of calculating loss per shares, a total of 333,754,651 Class A and Class B ordinary shares, adjusted for the share split, were considered to be outstanding for all periods presented.

	For the year ended December 31,	
	2019	2020
	RMB	RMB
Numerator		
Net loss	(120,224)	(107,216)
Change in redemption value of redeemable preferred equity	(55,247)	—
Net loss attributable to ordinary shareholders	(175,471)	(107,216)

	For the year ended December 31,	
	2019	2020
	RMB	RMB
Denominator		
Weighted average number of ordinary shares outstanding-basic and diluted	301,671,134	349,299,147
Basic and diluted net loss per share attributable to ordinary shareholders	(0.58)	(0.31)

For the years ended December 31, 2019 and 2020, the following share options were excluded from the calculation of diluted net loss per ordinary share, as their inclusion would have been anti-dilutive for the period prescribed.

	For the year ended December 31,	
	2019	2020
	Number	Number
Shares issuable upon exercise of share options	—	5,054,138

19. SEGMENTS

The Group organized its operations into two segments: LiDAR segment and gas detection segment.

The table below provides a summary of the Group's operating segment results for the years ended December 31, 2019 and 2020.

	Year ended December 31,	
	2019	2020
	RMB	RMB
LiDAR segment		
LiDAR product revenues	328,552	346,915
Cost of Revenues	97,358	155,986
Segment profit	231,194	190,929
Gas detection segment		
Gas detection product revenues	19,532	68,599
Cost of products sold	6,019	20,614
Segment profit	13,513	47,985
Total segment profit	244,707	238,914

The following is a reconciliation of the reportable segments' measures of profit or loss to the Group's consolidated loss before income taxes:

	Year ended December 31,	
	2019	2020
	RMB	RMB
Total profit for reportable segments	244,707	238,914
Unallocated amounts*		
Sales and marketing expenses	(38,740)	(49,904)
General and administrative expenses	(55,112)	(76,553)
Research and development expenses	(149,817)	(229,653)

	Year ended December 31,	
	2019	2020
	RMB	RMB
Other operating expenses (income), net	(149,089)	15,384
Interest income	19,107	20,925
Foreign exchange gains (loss)	9,619	(25,696)
Other income, net	31	(832)
Loss before income tax	(119,294)	(107,415)

* The Group does not distinguish expenses between segments in its internal reporting, and reports expenses as a whole.

Depreciation of property and equipment, net (included in the measurement of segment profit or loss):

	Year ended December 31,	
	2019	2020
	RMB	RMB
LiDAR segment	1,364	2,528
Gas detection segment	81	500
	<u>1,445</u>	<u>3,028</u>

20. MAINLAND CHINA CONTRIBUTION PLAN AND PROFIT APPROPRIATION

(a) Mainland China Contribution Plan

Full time employees of the Group in the PRC participate in a government-mandated defined contribution plan pursuant to which certain pension benefits, medical care, unemployment insurance, employee housing fund and other welfare benefits are provided to employees. PRC labor regulations require the Group to accrue for these benefits based on a certain percentage of the employees' salaries. The total contribution for such employee benefits were RMB9,758 and RMB2,707 for the years ended December 31, 2019 and 2020, respectively. The Group has no ongoing obligation to its employees subsequent to its contributions to the PRC plan.

(b) Statutory Reserves and Profit Appropriation

The Group's entities in the PRC are required under PRC laws to distribute its after-tax profits of the current year and set aside at least 10% of its after-tax profits each year, if any to fund certain statutory reserve funds until such reserve funds reach 50% of their registered capital. The statutory reserve funds are not distributable as cash dividends. The Group has no statutory reserve balance for the years ended December 31, 2019 and 2020.

21. COMMITMENTS AND CONTINGENCIES

Operating lease commitments

The Group has leased office under operating lease agreements.

Future minimum lease payment under non-cancellable operating lease agreements are as follow:

	As of December 31,
	2020
	RMB
2021	18,070
Total	18,070

The Group has no future minimum lease payments in 2022 and thereafter.

Contingencies

The Group records and discloses legal contingencies in accordance with ASC 450, Contingencies. A provision is recorded when it is both probable that a liability has been incurred and the amount of the loss can be reasonably estimated. The Group monitors the stage of progress of its litigation matters to determine if any adjustments are required.

In August 2019, a lawsuit was filed against the Group for patent infringement by a third party, and the Group filed countersuits in November 2019, April and May 2020. Based on management's assessment of the merits of the case brought against the Group, a contingent liability in the amount of RMB160 million was recorded during the year ended December, 31, 2019 based on the what management determined to be the amount of probable loss. On June 24, 2020, the Group reached a settlement and patent cross license agreement with this third party to settle all matters fully and finally. Under the settlement agreement, the Group agreed to pay a one-off settlement and royalty fee of RMB160,098 and variable annual royalty fees through 2030. The annual royalty fee is calculated based on a tiered percentage of sales, subject to a minimum amount each year, and is recorded as part of cost of revenues. As of December 31, 2020, all legal proceedings concerning the aforementioned litigation were terminated.

The Group may from time to time be subject to various legal or administrative claims and proceedings arising in the ordinary course of business. The Group is currently not a party of any material legal or administrative proceedings.

The Group has a standby credit facility of RMB100,000 issued by China Merchants Bank for the period from May 28, 2020 to May 27, 2021. As of December 31, 2020, the Group did not draw down any amount under the credit facility.

22. SUBSEQUENT EVENT

On April 21, 2021, the Founding Shareholders established Hesai Group as the offshore holding company under the laws of Cayman Islands. Subsequent to the establishment of Hesai Group, the Founding Shareholders and its investors undertook a series of transactions to redomicile the Group's business from the PRC to the Cayman Islands (the "2021 Reorganization"). Upon the completion of the 2021 Reorganization in June 2021, all of the shareholders of the Hesai Technology Co., Ltd. subscribed to the ordinary shares of Hesai Group, on a as converted basis, as the percentage of equity interest they held in Hesai Technology Co., Ltd. Hesai Technology Co. Ltd. become a wholly owned subsidiary of the Hesai Group. The main purpose of the 2021 Reorganization was to establish a Cayman Islands holding company for the existing business in preparation for an oversea initial public offering.

In June 2021, the Hesai Group has issued 18,303,030 Class B ordinary shares to new investors for a cash consideration of US\$302,000.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**To the Shareholders and the Board of Directors of Hesai Group:**

We have audited the accompanying balance sheet of Hesai Group (the “Company”) as of April 21, 2021, the incorporation date of the Company. The financial statement is the responsibility of the Company’s management. Our responsibility is to express an opinion on the financial statement based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan perform the audit to obtain reasonable assurance about whether the balance sheet is free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of internal control over financial reporting. Our audits included consideration of its internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall balance sheet presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, such balance sheet presentation presents fairly, in all material respects, the financial position of the Company as of April 21, 2021 in conformity with accounting principles generally accepted in the United States of America.

/s/ Deloitte Touche Tohmatsu Certified Public Accountants LLP

Shanghai, the People’s Republic of China

July 2, 2021

We have served as the Company’s auditor since 2021.

BALANCE SHEET AS OF APRIL 21, 2021
(As of the Date of Incorporation of Hesai Group)

	<u>As of April 21, 2021</u>
	USD
EQUITY	
Share capital	2,903
Subscription receivable	(2,903)
TOTAL EQUITY	—

The accompanying notes are an integral part of consolidated financial statement.

Hesai Group

NOTES TO THE BALANCE SHEET

1. ORGANIZATION AND PRINCIPAL ACTIVITIES

In anticipation of an initial public offering (the “IPO”), Hesai Group was incorporated under the laws of the Cayman Islands on April 21, 2021 as its offshore holding company. The Company has no operations. On May 6, 2021, the Company established a wholly-owned subsidiary in Hong Kong, Hesai Hong Kong Limited, to be an intermediate holding company.

2. SHARE CAPITAL

As of the incorporation date, April 21, 2021, the total issued share capital of the Company is US\$2,903 consisting of 29,033,380 ordinary shares with a par value of USD0.0001 and total authorized share capital is US\$50,000 divided into 500,000,000 shares.

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 6. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

Cayman Islands law does not limit the extent to which a company's articles of association may provide for indemnification of officers and directors, except to the extent any such provision may be held by the Cayman Islands courts to be contrary to public policy, such as to provide indemnification against civil fraud or the consequences of committing a crime.

The post-offering memorandum and articles of association that we expect to adopt and to become effective immediately prior to the completion of this offering provide that we shall indemnify our directors and officers (each an indemnified person) against all actions, proceedings, costs, charges, expenses, losses, damages or liabilities incurred or sustained by such indemnified person, other than by reason of such person's own dishonesty, willful default or fraud, in or about the conduct of our company's business or affairs (including as a result of any mistake of judgment) or in the execution or discharge of his duties, powers, authorities or discretions, including, without prejudice to the generality of the foregoing, any costs, expenses, losses or liabilities incurred by such indemnified person in defending (whether successfully or otherwise) any civil proceedings concerning our company or its affairs in any court whether in the Cayman Islands or elsewhere.

Pursuant to the indemnification agreements, the form of which will be filed as Exhibit 10.3 to this registration statement, we agree to indemnify our directors and executive officers against certain liabilities and expenses incurred by such persons in connection with claims made by reason of their being such a director or officer.

The underwriting agreement, the form of which will be filed as Exhibit 1.1 to this registration statement, will also provide indemnification for us and our officers and directors for certain liabilities.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling us pursuant to the foregoing provisions, we have been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

ITEM 7. RECENT SALES OF UNREGISTERED SECURITIES.

During the past three years, we have issued the following securities. We believe that each of the following issuances was exempt from registration under the Securities Act pursuant to Section 4(a)(2) of the Securities Act regarding transactions not involving a public offering or in reliance on Regulation S under the Securities Act regarding sales by an issuer in offshore transactions. No underwriters were involved in these issuances of securities.

Securities/Purchaser	Date of Issuance	Number of Securities	Consideration
Class A Ordinary Shares			
Fermat Star Limited	April 21, 2021	9,893,855	US\$989.3855
ALBJ Limited	April 21, 2021	9,569,762	US\$956.9762
Galbadia Limited	April 21, 2021	9,569,762	US\$956.9762
Fermat Star Limited	June 1, 2021	340,775	US\$14,856,826
ALBJ Limited	June 1, 2021	329,612	US\$14,370,160

Securities/Purchaser	Date of Issuance	Number of Securities	Consideration
Galbadia Limited	June 1, 2021	329,612	US\$14,370,160
Class B Ordinary Shares			
Rice No.2 Limited	June 1, 2021	1,790,797	US\$2,805,372
Forward Captain Limited	June 1, 2021	1,800,370	US\$2,881,719
SAIHEYUANXIN INVESTMENT LIMITED	June 1, 2021	813,663	US\$1,324,977
Lighthouse Blossom Limited	June 1, 2021	1,052,323	US\$1,886,769
Forward Sight Investment Limited	June 1, 2021	3,022,369	US\$5,418,976
Baidu Holdings Limited	June 1, 2021	7,881,155	US\$14,130,566
Zhen Partners Fund IV, L.P.	June 1, 2021	524,127	US\$939,738
Lightspeed China Partners III, L.P.	June 1, 2021	4,857,725	US\$8,709,688
Lightspeed China Partners Select I, L.P.	June 1, 2021	3,431,282	US\$6,152,139
Moonstone Investments Limited	June 1, 2021	1,715,641	US\$3,076,069
Knollwood Investment Fund LLC	June 1, 2021	514,692	US\$922,820
AJ5 Ltd	June 1, 2021	514,692	US\$922,820
Qiming Venture Partners VI, L.P.	June 1, 2021	2,506,031	US\$4,493,203
Qiming Managing Directors Fund VI, L.P.	June 1, 2021	67,432	US\$120,903
Robert Bosch GmbH	June 1, 2021	7,653,252	EUR11,288,118.06
ON Semiconductor Benelux B.V.	June 1, 2021	171,564	US\$307,607
Lightspeed Opportunity Fund, L.P.	June 1, 2021	7,981,370	US\$14,310,247
MC2 (Hong Kong) Limited	June 1, 2021	956,657	US\$1,715,244
Fast Pace Limited	June 11, 2021	3,030,303	US\$50,000,000
GSPR IV Holdings Limited	June 11, 2021	5,454,545	US\$90,000,000
Solid Bit Hong Kong Limited	June 11, 2021	3,030,303	US\$50,000,000
CPandar Investment Limited	June 11, 2021	3,030,303	US\$50,000,000
Lightspeed Opportunity Fund, L.P.	June 11, 2021	606,061	US\$10,000,000
SMRS-TOPE LLC	June 11, 2021	606,061	US\$10,000,000
KGT Strategic Private Investments, LP	June 11, 2021	303,030	US\$5,000,000
Pantheon Access Co-Investment Program, L.P.-Series 151	June 11, 2021	303,030	US\$5,000,000
Moonrise China Partners I LP	June 11, 2021	242,424	US\$4,000,000
Qiming Venture Partners VI, L.P.	June 11, 2021	472,144	US\$7,790,376
Qiming Managing Directors Fund VI, L.P.	June 11, 2021	12,704	US\$209,624
Pagoda Innovation Partners L.P.	June 11, 2021	606,061	US\$10,000,000
HT Global Investment Limited	June 11, 2021	606,061	US\$10,000,000
Yuanzhan Equity Investment Management (Shanghai) Co., Ltd.	June 25, 2021	1,436,192	US\$2,575,029
Shanghai Wenqian Enterprise Management Center L.P.	June 25, 2021	3,513,909	US\$5,164,707
Zhuhai Hengqinrui Growth Venture Capital Fund L.P.	June 25, 2021	1,905,016	US\$2,933,606
Hangzhou Yuanzhan Huayao Venture Capital L.P.	June 25, 2021	775,461	US\$1,388,827
PANGU VC INC	June 25, 2021	647,296	US\$1,160,573
Guangyi HS Holding Limited	June 25, 2021	1,234,405	US\$2,213,234
SONIC WAY DEVELOPMENTS LIMITED	June 25, 2021	780,069	US\$1,398,629
TALENT CHOICE INTERNATIONAL LIMITED	June 25, 2021	420,038	US\$753,109
Suzhou Detong Hexin Venture Capital L.P.	June 25, 2021	1,175,691	US\$2,107,962
Shanghai Feiyu Xinyan Investment Management L.P.	June 25, 2021	2,878,171	US\$5,160,434

Securities/Purchaser	Date of Issuance	Number of Securities	Consideration
Chuang Zhi Limited	June 25, 2021	813,158	US\$1,457,958
Convertible Loans			
Fast Pace Limited	May 17, 2021	Convertible to 3,030,303 Class B ordinary shares	US\$50,000,000
GSPR IV Holdings Limited	May 10, 2021	Convertible to 5,454,545 Class B ordinary shares	US\$90,000,000
Solid Bit Hong Kong Limited	May 10, 2021	Convertible to 3,030,303 Class B ordinary shares	US\$50,000,000
CPandar Investment Limited	May 11, 2021	Convertible to 3,030,303 Class B ordinary shares	US\$50,000,000
Lightspeed Opportunity Fund, L.P.	May 19, 2021	Convertible to 606,061 Class B ordinary shares	US\$10,000,000
SMRS-TOPE LLC	May 10, 2021	Convertible to 606,061 Class B ordinary shares	US\$10,000,000
KGT Strategic Private Investments, LP	May 10, 2021	Convertible to 303,030 Class B ordinary shares	US\$5,000,000
Pantheon Access Co-Investment Program, L.P.-Series 151	May 10, 2021	Convertible to 303,030 Class B ordinary shares	US\$5,000,000
Moonrise China Partners I LP	May 10, 2021	Convertible to 242,424 Class B ordinary shares	US\$4,000,000
Qiming Venture Partners VI, L.P.	May 11, 2021	Convertible to 472,144 Class B ordinary shares	US\$7,790,376
Qiming Managing Directors Fund VI, L.P.	May 11, 2021	Convertible to 12,704 Class B ordinary shares	US\$209,624
Pagoda Innovation Partners L.P.	May 11, 2021	Convertible to 606,061 Class B ordinary shares	US\$10,000,000
HT Global Investment Limited	May 10, 2021	Convertible to 606,061 Class B ordinary shares	US\$10,000,000
PANGU VC INC	May 14, 2021	Convertible to 121,212 Class B ordinary shares	US\$2,000,000
Warrants			
Yuanzhan Equity Investment Management (Shanghai) Co., Ltd.	May 18, 2021	1,436,192	N/A
Shanghai Wenqian Enterprise Management Center L.P.	May 18, 2021	3,513,909	N/A
Zhuhai Hengqinrushi Growth Venture Capital Fund L.P.	May 18, 2021	1,905,016	N/A
Hangzhou Yuanzhan Huayao Venture Capital L.P.	May 18, 2021	775,461	N/A
PANGU VC INC	May 18, 2021	647,296	N/A
Guangyi HS Holding Limited	May 18, 2021	1,234,405	N/A
SONIC WAY DEVELOPMENTS LIMITED	May 18, 2021	780,069	N/A
TALENT CHOICE INTERNATIONAL LIMITED	May 18, 2021	420,038	N/A
Suzhou Detong Hexin Venture Capital L.P.	May 18, 2021	1,175,691	N/A
Shanghai Feiyu Xinyan Investment Management L.P.	May 18, 2021	2,878,171	N/A
Chuang Zhi Limited	May 18, 2021	813,158	N/A

ITEM 8. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES.

(a) Exhibits

See Exhibit Index beginning on page [II-5](#) of this registration statement.

The agreements included as exhibits to this registration statement contain representations and warranties by each of the parties to the applicable agreement. These representations and warranties were made solely for the benefit of the other parties to the applicable agreement and (i) were not intended to be treated as categorical statements of fact, but rather as a way of allocating the risk to one of the parties if those statements prove to be inaccurate; (ii) may have been qualified in such agreement by disclosure that was made to the other party in connection with the negotiation of the applicable agreement; (iii) may apply contract standards of “materiality” that are different from “materiality” under the applicable securities laws; and (iv) were made only as of the date of the applicable agreement or such other date or dates as may be specified in the agreement.

We acknowledge that, notwithstanding the inclusion of the foregoing cautionary statements, we are responsible for considering whether additional specific disclosure of material information regarding material contractual provisions is required to make the statements in this registration statement not misleading.

(b) Financial Statement Schedules

Schedules have been omitted because the information required to be set forth therein is not applicable or is shown in the Consolidated Financial Statements or the Notes thereto.

ITEM 9. UNDERTAKINGS.

The undersigned registrant hereby undertakes to provide to the underwriter at the closing specified in the underwriting agreements, certificates in such denominations and registered in such names as required by the underwriter to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the provisions described in Item 6, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes that:

- (1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.
- (2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

Hesai Group**Exhibit Index**

Exhibit Number	Description of Document
1.1*	Form of Underwriting Agreement
3.1*	Amended and Restated Memorandum and Articles of Association of the Registrant, as currently in effect
3.2*	Form of Second Amended and Restated Memorandum and Articles of Association of the Registrant, effective immediately prior to the completion of this offering
4.1*	Registrant's Specimen American Depositary Receipt (included in Exhibit 4.3)
4.2*	Registrant's Specimen Certificate for Class B Ordinary Shares
4.3*	Form of Deposit Agreement, among the Registrant, the depositary and the holders and beneficial owners of American Depositary Shares issued thereunder
5.1*	Opinion of Maples and Calder (Hong Kong) LLP regarding the validity of the Class B ordinary shares being registered and certain Cayman Islands tax matters
8.1*	Opinion of Maples and Calder (Hong Kong) LLP regarding certain Cayman Islands tax matters (included in Exhibit 5.1)
8.2*	Opinion of Commerce & Finance Law Offices regarding certain PRC tax matters (included in Exhibit 99.2)
10.1*	2021 Share Incentive Plan
10.2*	Form of Indemnification Agreement between the Registrant and its directors and executive officers
10.3*	Form of Employment Agreement between the Registrant and its executive officers
10.4*	Share Purchase Agreement by and among the Registrant, Hesai Hong Kong Limited, Hesai Technology Co., Ltd., the founders and CPandar Investment Limited dated May 11, 2021
10.5*	Share Purchase Agreement by and among the Registrant, Hesai Hong Kong Limited, Hesai Technology Co., Ltd., the founders and SMRS-TOPE LLC dated May 10, 2021
10.6*	Share Purchase Agreement by and among the Registrant, Hesai Hong Kong Limited, Hesai Technology Co., Ltd., the founders and GSPR IV Holdings Limited dated May 10, 2021
10.7*	Share Purchase Agreement by and among the Registrant, Hesai Hong Kong Limited, Hesai Technology Co., Ltd., the founders and HT Global Investment Limited dated May 10, 2021
10.8*	Share Purchase Agreement by and among the Registrant, Hesai Hong Kong Limited, Hesai Technology Co., Ltd., the founders and Lightspeed Opportunity Fund, L.P. dated May 19, 2021
10.9*	Share Purchase Agreement by and among the Registrant, Hesai Hong Kong Limited, Hesai Technology Co., Ltd., the founders and Solid Bit Hong Kong Limited dated May 10, 2021
10.10*	Share Purchase Agreement by and among the Registrant, Hesai Hong Kong Limited, Hesai Technology Co., Ltd., the founders and Moonrise China Partners I LP dated May 10, 2021
10.11*	Share Purchase Agreement by and among the Registrant, Hesai Hong Kong Limited, Hesai Technology Co., Ltd., the founders and Pagoda Innovation Partners L.P. dated May 11, 2021
10.12*	Share Purchase Agreement by and among the Registrant, Hesai Hong Kong Limited, Hesai Technology Co., Ltd., the founders and PANGU VC INC dated May 14, 2021
10.13*	Share Purchase Agreement by and among the Registrant, Hesai Hong Kong Limited, Hesai Technology Co., Ltd., the founders, KGT Strategic Private Investments, LP and Pantheon Access Co-Investment Program, L.P.-Series 151 dated May 10, 2021
10.14*	Share Purchase Agreement by and among the Registrant, Hesai Hong Kong Limited, Hesai Technology Co., Ltd., the founders and Qiming Venture Partners VI, L.P. and Qiming Managing Directors Fund VI, L.P. dated May 11, 2021

Exhibit Number	Description of Document
10.15*	Share Purchase Agreement by and among the Registrant, Hesai Hong Kong Limited, Hesai Technology Co., Ltd., the founders and Hubei Xiaomi Yangtze River Industry Fund LL.P. and Fast Pace Limited dated May 17, 2021
10.16*	Agreement by and among the Registrant, Hesai Hong Kong Limited, Hesai Technology Co., Ltd., the founders and CPandar Investment Limited dated May 11, 2021
10.17*	Agreement by and among the Registrant, Hesai Hong Kong Limited, Hesai Technology Co., Ltd., the founders and SMRS-TOPE LLC dated May 10, 2021
10.18*	Agreement by and among the Registrant, Hesai Hong Kong Limited, Hesai Technology Co., Ltd., the founders and GSPR IV Holdings Limited dated May 10, 2021
10.19*	Agreement by and among the Registrant, Hesai Hong Kong Limited, Hesai Technology Co., Ltd., the founders and HT Global Investment Limited dated May 10, 2021
10.20*	Agreement by and among the Registrant, Hesai Hong Kong Limited, Hesai Technology Co., Ltd., the founders and Lightspeed Opportunity Fund, L.P. dated May 19, 2021
10.21*	Agreement by and among the Registrant, Hesai Hong Kong Limited, Hesai Technology Co., Ltd., the founders and Solid Bit Hong Kong Limited dated May 10, 2021
10.22*	Agreement by and among the Registrant, Hesai Hong Kong Limited, Hesai Technology Co., Ltd., the founders and Moonrise China Partners I LP dated May 10, 2021
10.23*	Agreement by and among the Registrant, Hesai Hong Kong Limited, Hesai Technology Co., Ltd., the founders and Pagoda Innovation Partners L.P. dated May 11, 2021
10.24*	Agreement by and among the Registrant, Hesai Hong Kong Limited, Hesai Technology Co., Ltd., the founders and PANGU VC INC dated May 14, 2021
10.25*	Agreement by and among the Registrant, Hesai Hong Kong Limited, Hesai Technology Co., Ltd., the founders, KGT Strategic Private Investments, LP and Pantheon Access Co-Investment Program, L.P.-Series 151 dated May 10, 2021
10.26*	Agreement by and among the Registrant, Hesai Hong Kong Limited, Hesai Technology Co., Ltd., the founders and Qiming Venture Partners VI, L.P. and Qiming Managing Directors Fund VI, L.P. dated May 11, 2021
10.27*	Agreement by and among the Registrant, Hesai Hong Kong Limited, Hesai Technology Co., Ltd., the founders and Hubei Xiaomi Yangtze River Industry Fund LL.P. and Fast Pace Limited dated May 17, 2021
10.28*	Share Purchase Agreement by and between the Registrant and Robert Bosch GmbH dated June 1, 2021
10.29*	Business Cooperation Agreement by and between Beijing Baidu Netcom Science Technology Co., Ltd. and Hesai Photonics Technology Co., Ltd. (currently known as Hesai Technology Co., Ltd.) on March 1, 2020
21.1*	Principal Subsidiaries of the Registrant
23.1*	Consent of Deloitte Touche Tohmatsu Certified Public Accountants LLP, an independent registered public accounting firm
23.2*	Consent of Maples and Calder (Hong Kong) LLP (included in Exhibit 5.1)
23.3*	Consent of Commerce & Finance Law Offices (included in Exhibit 99.2)
24.1*	Powers of Attorney (included on signature page)
99.1*	Code of Business Conduct and Ethics of the Registrant
99.2*	Opinion of Commerce & Finance Law Offices regarding certain PRC law matters
99.3*	Consent of Frost & Sullivan

* To be filed by amendment.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form F-1 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Shanghai, China, on _____, 2021.

Hesai Group

By: _____
Name: Yifan Li
Title: Chief Executive Officer

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints each of Dr. Yifan Li and Mr. Louis T. Hsieh as attorneys-in-fact with full power of substitution for him or her in any and all capacities to do any and all acts and all things and to execute any and all instruments which said attorney and agent may deem necessary or desirable to enable the registrant to comply with the Securities Act of 1933, as amended (the “Securities Act”), and any rules, regulations and requirements of the Securities and Exchange Commission thereunder, in connection with the registration under the Securities Act of ordinary shares of the registrant (the “Shares”), including, without limitation, the power and authority to sign the name of each of the undersigned in the capacities indicated below to the Registration Statement on Form F-1 (the “Registration Statement”) to be filed with the Securities and Exchange Commission with respect to such Shares, to any and all amendments or supplements to such Registration Statement, whether such amendments or supplements are filed before or after the effective date of such Registration Statement, to any related Registration Statement filed pursuant to Rule 462(b) under the Securities Act, and to any and all instruments or documents filed as part of or in connection with such Registration Statement or any and all amendments thereto, whether such amendments are filed before or after the effective date of such Registration Statement; and each of the undersigned hereby ratifies and confirms all that such attorney and agent shall do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities and on _____, 2021.

Signature	Title
_____ Yifan Li	Director and Chief Executive Officer (Principal Executive Officer)
_____ Kai Sun	Director
_____ Shaoqing Xiang	Director
_____ Louis T. Hsieh	Director and Global Chief Financial Officer (Principal Financial and Accounting Officer)
_____ Cailian Yang	Director

SIGNATURE OF AUTHORIZED REPRESENTATIVE IN THE UNITED STATES

Pursuant to the Securities Act of 1933, as amended, the undersigned, the duly authorized representative in the United States of Hesai Group has signed this registration statement or amendment thereto in on _____, 2021.

Authorized U.S. Representative

By: _____
Name:
Title: