

OVERVIEW

We are a producer of tantalum- and niobium-based metallurgical products in China. Tantalum- and niobium-based metallurgical products are essential in the downstream manufacture of many products used in high-tech industries, such as special alloy, chemical, electronic ceramics, aeronautics, aerospace, high-end electronics, defence and hard alloy. Our principal products are tantalum pentoxide and niobium pentoxide. We also produce and sell potassium heptafluorotantalate. We process our products into varying purity levels and specifications in order to meet the requirements for different end products. In addition, we sell processed products such as tantalum bars, tantalum carbide, niobium bars and niobium powder, which are produced by engaging third-party metallurgy companies to process the pentoxide products and potassium heptafluorotantalate we produce, or purchased from third-party metallurgy companies. Moreover, we provide processing services for processing tantalum ores and niobium ores supplied by our customers into pentoxide products and potassium heptafluorotantalate.

According to the CIC Report, we were one of the 15 major market players in the tantalum- and niobium-based metallurgy industry in China in 2018, and we were the largest producer of tantalum- and niobium-based hydrometallurgical products in China for FY2016, FY2017 and FY2018 in terms of total annual production volume for external sales. Our total production volume of pentoxide products and potassium heptafluorotantalate was approximately 878.9 tonnes, 1,031.0 tonnes and 1,321.0 tonnes for FY2016, FY2017 and FY2018, respectively, accounting for approximately 30.0%, 31.5% and 35.8% of the market share in China for FY2016, FY2017 and FY2018, respectively.

Our Group was established in 2006. Over the years, we focused on the production and sale of tantalum- and niobium-based metallurgical products, and gradually expanded our production and operations. While our annual production capacity of potassium heptafluorotantalate has maintained at 207 tonnes since the commencement of our production in 2010, our annual production capacity of pentoxide products increased from approximately 171 tonnes in 2010 to approximately 1,282.5 tonnes for FY2018.

As at the Latest Practicable Date, our production facilities had nine production lines for pentoxide products and potassium heptafluorotantalate. We can also produce six types of recycled products using our waste material recycling facilities. Our production plant is located in Yingde, Guangdong Province, which is in close proximity to several major national and provincial expressways and ports, connecting us with the major cities in Guangdong Province, as well as enabling us to ship our products and procure our principal raw materials through the South China Sea.

Our success has been supported by our research and development capabilities. We conduct research and development on tantalum- and niobium-based metallurgical products, and have been able to develop tantalum pentoxide and niobium pentoxide with purity levels above the industry standards issued by MIIT and NDRC and produce products with different physical properties to be applied in different industries. Since 2012 and up to the Latest Practicable Date, we have been accredited as a High-tech Enterprise (高新技術企業). As at the Latest Practicable Date, we owned 24 patents in China relating to production equipment and process. These patents certify the technological innovation of our products and production process, which enable us to deliver products that meet our customers' specifications and attract new customers. We believe our research and development capabilities will

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enable us to adapt to the changing needs of different industries which require our products, achieve product innovation to fulfil our customers' specific requirements, and maintain our market position in the industry.

We are led by a management team which is experienced in our industry. The founder of our Group, our executive Director and chief executive officer, Mr. Wu, graduated from Central South Institute of Mining and Metallurgy* (中南礦冶學院) (currently known as Central South University (中南大學)) with a bachelor's degree in powder metallurgy, and has specialised in the tantalum and niobium metallurgy industry for over 30 years. Our vice president, Mr. Zhong Yuelian, has over 25 years of experience in the tantalum and niobium metallurgy industry and he participated in inventing five patents for our Group. Both Mr. Wu and Mr. Zhong Yuelian have extensive experience in leading our Group's operation and future development in the industry. Their experience is also illustrated by their participation in the drafting of the industry standards of certain metallurgical products in the PRC. For further details of the qualifications and experience of our Directors and senior management, please refer to the section headed "Directors and Senior Management" in this prospectus.

Our revenue increased from approximately RMB217.4 million for FY2016 to approximately RMB307.4 million for FY2017, and further increased to approximately RMB514.7 million for FY2018. For 8M2019, our revenue amounted to approximately RMB400.8 million, representing an increase of approximately RMB53.0 million from approximately RMB347.8 million for 8M2018. Our net profit from continuing operations increased from approximately RMB24.7 million for FY2016 to approximately RMB38.6 million for FY2017, and further increased to approximately RMB77.1 million for FY2018. For 8M2019, our net profit from continuing operations amounted to approximately RMB51.4 million, representing a decrease of approximately RMB11.3 million from approximately RMB62.7 million for 8M2018.

OUR COMPETITIVE STRENGTHS

Our Directors believe that our Group has the following competitive strengths, which have driven the growth in our business and financial performance.

We were the largest producer of tantalum- and niobium-based hydrometallurgical products in terms of total annual production volume for external sales in China

According to the CIC Report, we were the largest producer of tantalum- and niobium-based hydrometallurgical products in China for FY2016, FY2017 and FY2018 in terms of total annual production volume for external sales, accounting for approximately 30.0%, 31.5% and 35.8% of the market share in China for FY2016, FY2017 and FY2018, respectively. Our principal products are tantalum pentoxide and niobium pentoxide, which are essential in the downstream manufacture of many products used in high-tech industries, including special alloy, chemical, electronic ceramics, aeronautics, aerospace, high-end electronics, defence and hard alloy. Due to their distinctive properties, tantalum pentoxide and niobium pentoxide have no common comparable products in downstream applications. According to the CIC Report, there are approximately 15 market players in the market for tantalum- and niobium-based hydrometallurgical products in China in 2018. Moreover, according to the CIC Report, the total production volume in China accounted for approximately 58.6% of the total production volume of tantalum- and niobium-based hydrometallurgical products in global market for FY2018, and the top five producers of tantalum- and niobium-based hydrometallurgical products in China, including us, accounted for approximately 43.6% of global production volume for FY2018.

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Due to the scarcity of tantalum and niobium, and the relatively small number of major market players in the industry, we believe our market position as the largest producer of tantalum- and niobium-based hydrometallurgical products in terms of production volume for external sales in China cannot be easily challenged. With our leading market position, we are able to serve customers in a wide range of downstream industries. Through working closely with our customers and the manufacturers of end products, we have accumulated in-depth knowledge of the specifications of different end products and the requirements of our customers across different industries. This enables us to better serve our existing customers and attract new customers. In addition, our leading market position enables us to build up good and long-term relationship with our suppliers of tantalum and niobium ores. As such, we enjoy a competitive edge over other industry players in terms of a stable supply of raw materials for our production.

We were an early entrant in a fast-growing market with high entry barriers

Although tantalum- and niobium-based metallurgical products have been manufactured in China for over 50 years, their use in high-tech industries has been relatively recent. Many of the common products using pentoxide products and potassium heptafluorotantalate as raw materials, such as special alloys and additives to be used in the manufacture of high-speed trains and mobile phone lenses, were only invented or mass-produced in the past 20 years. The founder of our Group, our executive Director and chief executive officer, Mr. Wu, began working on tantalum- and niobium-based metallurgical products in the 1980s, and established our Group in 2006. We are one of the earliest non-state owned PRC-based market participants in this industry. These enabled us to build a wide customer base, and develop technical know-how at an early stage.

Given that the scarcity of tantalum and niobium resources and the relatively small number of market players in the industry, potential new entrants into our industry may face significant entry barriers in terms of technology and know-how, access to suppliers and customers, or ability to benefit from economies of scale. As an early entrant into this industry, we are one of the few industry players that have such technical sophistication, know-how, and extensive experience to manufacture tantalum- and niobium-based metallurgical products. Furthermore, we have built up our reputation in the industry and developed long-term cooperative relationships with suppliers of our raw materials in the upstream, and purchasers of our products in the downstream. We believe we will be able to solidify our market position and are well positioned for further growth.

According to the CIC Report, the production volume of high-purity niobium pentoxide in the global market is expected to grow from 1,887.3 tonnes in 2018 to 2,479.7 tonnes in 2023, representing a CAGR of 5.6%, and the production volume of high-purity niobium pentoxide for external sales in the PRC market is expected to grow from 670.0 tonnes in 2018 to 1,066.3 tonnes in 2023, representing a CAGR of 9.7%. The production volume of high-purity tantalum pentoxide in the global market is expected to grow from 571.4 tonnes in 2018 to 712.7 tonnes in 2023, representing a CAGR of 4.5%, while the production volume of high-purity tantalum pentoxide for external sales in the PRC market is expected to grow from 200.0 tonnes in 2018 to 302.9 tonnes in 2023, representing a CAGR of 8.7%. With our experience in the industry, we believe we will benefit from such expected growth in our industry and further increase our market share in the PRC tantalum and niobium metallurgy industry.

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We have a dedicated and experienced research and development team and benefit from the results of our research and development efforts

We have a dedicated and experienced research and development team, which works closely with our production team to improve our production process. Our research and development department comprised 11 employees as at the Latest Practicable Date. It is led by our executive Director and chief executive officer, Mr. Wu, and our vice president, Mr. Zhong Yuelian, who have over 30 and 25 years of experience in the tantalum and niobium metallurgy industry, respectively. In addition, two of our senior engineers and an industrial analysis engineer also participate in our research and development projects. For further details of their qualifications, please refer to the paragraph headed “Research and development” in this section. Mr. Wu, Mr. Zhong Yuelian and other members of our senior management have been dedicated to research and development in our field and they have been committed to applying their experience and knowledge to ramp up our production and diversify our product offerings. For further details of the experience of our Directors and senior management, please refer to the section headed “Directors and Senior Management” in this prospectus.

During the Track Record Period, our research and development efforts mainly focused on: (i) improving the techniques for processing tantalum ores and niobium ores to reduce production costs; and (ii) enhancing technologies for producing pentoxide products and potassium heptafluorotantalate to improve the purity levels of these products and develop products with different physical properties. We worked closely with research and academic institute and company to develop products that serve our customers’ needs. For example, from 2013 to 2016, we collaborated with the Institute of Process Engineering, Chinese Academy of Sciences* (中國科學院過程工程研究所) to research on and develop technologies for the production of tantalum pentoxide and niobium pentoxide, and the recovery of ammonia during the production process of tantalum pentoxide and niobium pentoxide. From 2015 to 2019, we worked with Institute for the Comprehensive Utilisation of Resources, Guangdong General Research Institute for Industrial Technology (Guangdong Research Institute of Non-ferrous Metals)* (廣東省工業技術研究院(廣州有色金屬研究院)資源綜合利用研究所) to research on the technique for recycling the waste water produced during the tantalum and niobium production process. We received assistance from senior engineers and technicians from research institutes for research and development during the period from April 2015 to March 2019.

In addition, we are able to develop and produce products that meet the specific requirements of our customers. For example, we produced niobium pentoxide with a reduced level of antimony (銻) content and sold it to a customer in the United States in 2015, and niobium pentoxide with a reduced level of iron content and first sold it to a customer in Japan in 2017. As a result of our continuous efforts in research and development, as at the Latest Practicable Date, we owned 24 patents in China relating to production equipment and process.

We are led by an experienced and dedicated management team

Our experienced management team has been dedicated to the production and sale of products. The focus and dedication of our senior management have enabled us to be an expert in the tantalum and niobium metallurgy industry. Our executive Director and chief executive officer, Mr. Wu, graduated from Central South Institute of Mining and Metallurgy* (中南礦冶學院) (currently known as Central South University (中南大學)) with a bachelor’s degree in powder metallurgy, and has been working in the tantalum and niobium metallurgy industry for more than 30 years. He was the guest director and

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vice president of the Tantalum-niobium Branch of China Non-ferrous Metals Industry Association* (中國有色金屬工業協會鉭鈮分會) in 2009 and 2018, respectively, and has been a member of the editorial board of a trade magazine namely “Development of the Tantalum-niobium Industry” (鉭鈮工業進展). Such exposure enables him to be aware of the changes in the industry and timely capture market opportunities. Our vice president, Mr. Zhong Yuelian, has over 25 years of experience in the tantalum and niobium metallurgy industry. He has dedicated himself to our research and development, in particular, in upgrading our production process. Mr. Zhong participated in inventing five patents for our Group. The experience of Mr. Wu and Mr. Zhong Yuelian is also illustrated by their participation in the drafting of the industry standards of certain metallurgical products in the PRC. Mr. Shi Bo, our research and development director, also had over 20 years of experience in the industry. We believe that our experienced senior management team will continue to be a driver for our future growth.

OUR BUSINESS STRATEGIES

Our business objectives are to achieve sustainable growth and strengthen our market position in the tantalum and niobium metallurgy industry in the PRC. In furtherance of this goal, we plan to adopt the following strategies:

Extend our production and sales to downstream products

We plan to build and set up new production facilities to extend our production to tantalum powder and tantalum bars. In the abstract, we intend to extend our production and sales to tantalum powder and tantalum bars for the following reasons: (1) according to the CIC Report, there is expected growth in the markets for tantalum powder and tantalum bars; (2) there are opportunities for leading market players in the other segments of the supply chain of the tantalum and niobium metallurgy industry to enter the markets for the production of tantalum powder and tantalum bars as there were only few market players and the utilisation rate of the production capacity of the key manufacturers have reached a reasonable range between 60% and 80% as compared with other manufacturing industries; (3) we are well-positioned to extend our production to tantalum powder and tantalum bars, in particular we will have a stable supply of raw materials as well as we have experienced management team and employees; (4) we have been experiencing steady growth in the demand from our customers for tantalum bars during the Track Record Period; (5) our reliance on third-party metallurgy companies to provide processing services for the production of tantalum bars is not desirable and cannot satisfy the needs of our customers, and we have rejected some orders for tantalum bars from our customers because of unavailability of processing services; (6) it is an industry trend for market players in the tantalum and niobium metallurgy industry to achieve supply chain integration; and (7) the economic benefit from extending our production to tantalum powder and tantalum bars is expected to outweigh its cost.

Reasons for downward supply chain integration

From time to time, we adjust our product offerings in light of the changing demand of our target customers. According to the CIC Report, it is an industry trend for market players in the tantalum and niobium metallurgy industry to achieve supply chain integration to expand their production and satisfy the demand of their customers. The supply chain of tantalum and niobium metallurgy industry included the mining, hydrometallurgy, pyro-metallurgy, and processing of tantalum and niobium. Tantalum ores and niobium ores are processed by hydrometallurgical process into hydrometallurgical products, including tantalum pentoxide, niobium pentoxide and potassium heptafluorotantalate. Hydrometallurgical products can be processed by pyro-metallurgical process into pyro-metallurgical products, including

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tantalum powder and niobium bars. Pyro-metallurgical products can then be further processed into processed products, such as tantalum bars and niobium powder. For further details about the value chain of the tantalum and niobium metallurgy industry, please refer to the paragraph headed “Industry Overview — Overview of the global and PRC tantalum and niobium metallurgy industry — Value chain for the global and PRC tantalum and niobium metallurgy industry” in this prospectus. It is common for producers of tantalum- and niobium-based metallurgical products in China and overseas to seek vertical supply chain integration, for example, by establishing production capacity for downstream products through in-house research and development or by acquiring downstream producers. According to the CIC Report, as of 2018, there were only few companies that engaged in the production of tantalum powder in China. Among such tantalum powder producers in China, at least two of the major tantalum powder producers originally engaged in hydrometallurgy and developed into pyro-metallurgy through in-house research and development, and most of the major tantalum powder producers have the capacity to produce processed products.

By providing both hydrometallurgical and pyro-metallurgical tantalum- and niobium-based products, a producer would be able to offer a more comprehensive product portfolio to cater for its customers’ needs and expand its customer base. Also, by having a wider range of products and customer base, such producer would be less vulnerable to changes in the market than competitors which only produce hydrometallurgical products.

Tantalum powder and tantalum bars

By undergoing pyro-metallurgical process, potassium heptafluorotantalate can be processed into tantalum powder. Through such pyro-metallurgical process, approximately 2.3 units of potassium heptafluorotantalate will be used to produce one unit of metallurgical grade tantalum powder.

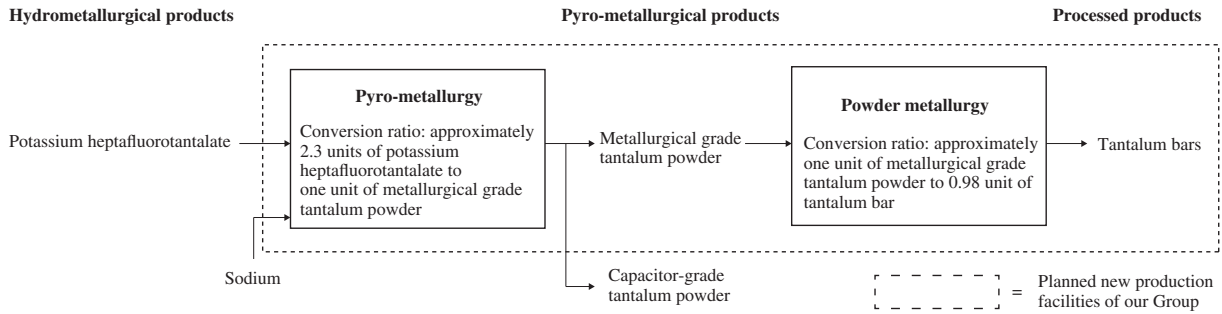
Tantalum powder can be categorised into metallurgical grade tantalum powder and capacitor-grade tantalum powder. Metallurgical grade tantalum powder is an important raw material for producing products such as high-performance semi-conductors, heat-resistant nickel-based alloys for aerospace engines, 3D printing and surgical material for orthopaedics. Capacitor-grade tantalum powder can be used in the production of tantalum capacitors applied in producing mobile phones, notebooks, televisions and military electronic equipment.

In order to be used in downstream applications, metallurgical grade tantalum powder can be further processed into tantalum bars by powder metallurgy process. Through such powder metallurgy process, approximately one unit of metallurgical grade tantalum powder will be used to produce 0.98 unit of tantalum bar.

In other words, assuming that we do not purchase potassium heptafluorotantalate from external source but rely on the 200 tonnes of potassium heptafluorotantalate we produce internally as raw materials, our planned new production facilities will be able to produce approximately 86.7 tonnes of metallurgical grade tantalum powder, which can be further processed into approximately 85.0 tonnes of tantalum bars.

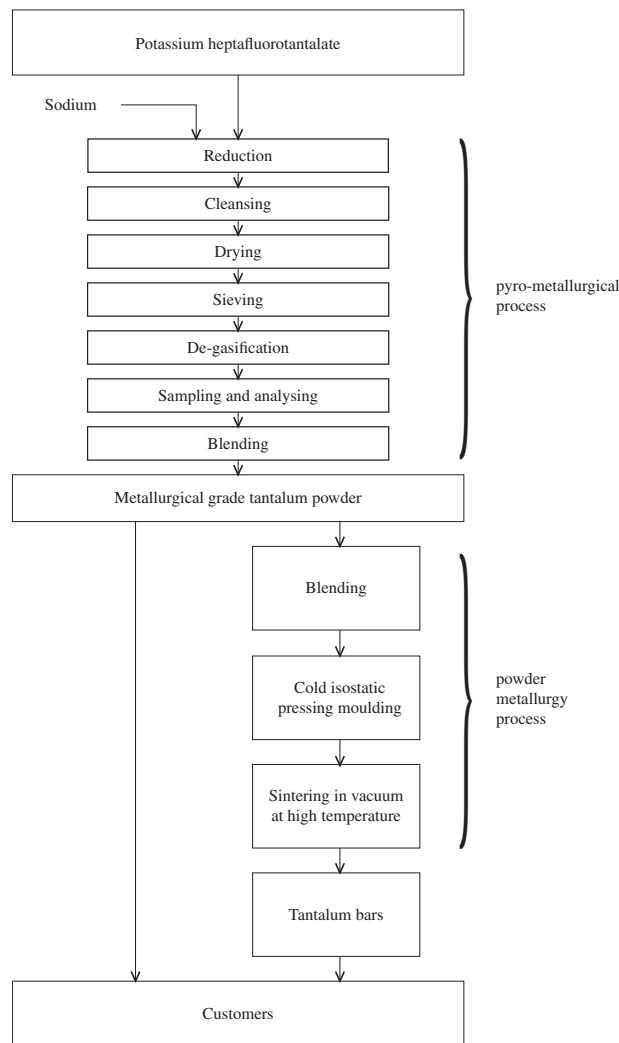
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Typical value chain of processing potassium heptafluorotantalate into tantalum powder and tantalum bars is illustrated as follows:



Depending on customers' request, tantalum powder can be sold to customers directly, or be further processed into tantalum bars for sale to customers.

The following diagram sets forth a summary of the production process of metallurgical grade tantalum powder and tantalum bars:



Details of the pyro-metallurgical process are as follows:

- *Reduction.* After the diluent is added into the reduction reaction bomb for heating and melting, potassium heptafluorotantalate is pushed into the reduction reaction bomb and get melted, and then the sodium metal is quantitatively transported into the reaction bomb for continuous reaction with the potassium heptafluorotantalate to produce tantalum powder mixed with fluoride salt and chloride salt (such as sodium fluoride, potassium fluoride and sodium chloride). In order to prevent the oxidation of tantalum powder, the whole reduction process must be carried out under the protection of high-purity argon.
- *Cleansing.* In order to improve the purity of tantalum powder, the fluorine salt and chlorine salt produced in the reduction process are removed by water, and the other metal oxide impurities on the tantalum powder particles are removed by adding dilute nitric acid and dilute hydrofluoric acid for rotary pickling.
- *Drying.* The cleaned tantalum powder is put into the vacuum oven on separate plates, and dried under the vacuum state at the temperature of 150°C.
- *Sieving.* The dried tantalum powder is separated by a standard sieve, and the large tantalum powder is then further crushed into fine particles to meet standard requirements.
- *De-gasification.* Under high vacuum and high temperature (generally no more than 1400°C) conditions, the gas adsorbed on the surface of tantalum powder and the remaining fluoride salt and chloride salt inside the tantalum powder particles are removed to further improve the purity of tantalum powder and the physical properties of tantalum powder.
- *Sampling and analysing.* The tantalum powder is sampled and its physical properties (particle size, bulk density, porosity, particle size distribution, etc.) and chemical impurity content are analysed.
- *Blending.* Several batches of tantalum powder are blended evenly by the mixer, and then packed by vacuum sealing machine after weighing by electronic scale.

Powder metallurgy is a metal-forming process that moulds and compresses metallic powder into a specific shape and size and sinters the metal at high temperature. The conversion of tantalum powder into tantalum bars by powder metallurgy process involves four major procedures: (1) multiple batches of tantalum powder are blended in a V-shape mixer; (2) a flexible mould filled with blended tantalum powder is placed in a cold isostatic press and is compressed at 150–210 megapascal; (3) tantalum billet generated from the previous procedure is then sintered in a sintering furnace at a temperature between 1700°C and 2500°C, and (4) after insulating the metal for a period of time and cooling down, a tantalum bar is formed.

China is a major exporter of tantalum- and niobium-based metallurgical products to the developed countries where major manufacturers for processing and production of key end products of tantalum- and niobium-based metallurgical products are located. For details, please refer to the paragraph headed “Industry Overview — History and development trends of the global and PRC tantalum and niobium metallurgy industry” in this prospectus.

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To encourage development of the industry, China had set low export tax for processed metallurgical products. As at the Latest Practicable Date, both tantalum powder and tantalum bars were not subject to export tax of China, and certain types of tantalum powder and tantalum bars could also enjoy value-added tax refunds from China.

We sold tantalum bars to our customers during the Track Record Period and up to the Latest Practicable Date

Despite that we did not sell tantalum powder during the Track Record Period, we sold tantalum bars and experienced a steady growth in the demand for tantalum bars during the Track Record Period. During the Track Record Period, we received orders for tantalum bars from overseas customers including customers from the United States, Europe and India, as well as customers in the PRC. We sold approximately 4.2 tonnes, 7.0 tonnes, 9.2 tonnes, 1.0 tonne and 12.5 tonnes of tantalum bars to our customers for FY2016, FY2017, FY2018, 8M2018 and 8M2019, respectively. Our revenue generated from sale of tantalum bars amounted to approximately RMB6.8 million, RMB12.8 million, RMB20.4 million, RMB2.2 million and RMB23.2 million, representing approximately 82.2%, 99.5%, 81.4% and 77.8% of our revenue generated from sale of processed products for FY2016, FY2017, FY2018, 8M2018 and 8M2019, respectively. Except for 3.0 tonnes of tantalum bars that were tantalum bars with special product characteristics tailor-made for and sold to a new customer during 8M2019 for approximately RMB5.3 million for 8M2019, tantalum bars sold to our customers during the Track Record Period were produced by processing potassium heptafluorotantalate into metallurgical grade tantalum powder, and then further processed into tantalum bars. Subsequent to the Track Record Period, in October and November 2019, we have received orders for a total of 8.3 tonnes of tantalum bars.

Our gross profit margin for tantalum bars was approximately 29.2%, 31.8%, 27.5%, 21.6% and 13.4% for FY2016, FY2017, FY2018, 8M2018 and 8M2019, respectively. As we did not possess production facilities to process our potassium heptafluorotantalate into tantalum bars, during the Track Record Period, we had to engage third-party metallurgy companies to provide the processing services to us and we incurred processing fee in our cost of sales. During the Track Record Period, our gross profit margin for tantalum bars was sensitive to the level of processing fee, which was a significant component of our cost of sales next to our raw materials costs. By producing tantalum powder and tantalum bars at our planned new production facilities, our Directors believe that our Group will be financially better off. For further details of our financial analysis, please refer to the paragraph headed “Our business strategies — Cost-benefit analysis” in this section.

In light of the wide applications of tantalum powder and tantalum bars, and according to the CIC Report, there will be growth in the markets for tantalum powder and tantalum bars in the PRC, our Directors expect that there will be increasing demand for tantalum powder and tantalum bars from our existing and new customers.

Our reliance on third-party metallurgy companies to process our potassium heptafluorotantalate into tantalum bars is not desirable and cannot satisfy the needs of our customers

During the Track Record Period and up to the Latest Practicable Date, since we did not possess production facilities to process our potassium heptafluorotantalate into metallurgical grade tantalum powder, which can be further processed into tantalum bars, we engaged third-party metallurgy companies to process our potassium heptafluorotantalate into tantalum bars and sold to our customers.

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In addition to the impact of processing fee on our financial performance as disclosed above, our Directors believe that such reliance on third-party metallurgy companies to produce tantalum bars is not desirable and cannot satisfy the needs of our customers. As stated above, there were only few companies that engaged in the production of tantalum powder in China as of 2018. These companies may not satisfy our orders all the time, as they would only accept our orders for processing services to produce tantalum bars when their production capacity was not fully utilised. Therefore, there are risks that we cannot meet our customers' demand for tantalum bars if the third-party metallurgy companies are unable to entertain our requests for processing services.

During the Track Record Period, our Group engaged two third-party metallurgy companies to process our potassium heptafluorotantalate into tantalum bars. Since July 2019, as one of such metallurgy companies was relocating its production facilities and was not able to provide processing services to us, only one of the third-party metallurgy companies that we engaged during the Track Record Period could continue to provide such processing services to us. However, such third party metallurgy company was not always available to provide such processing services.

In October 2019, we received an order from a customer for 0.3 tonne of tantalum bars, which was of relatively small quantity compared to other orders for tantalum bars placed with us. However, the production capacity of such third party metallurgy company was fully utilised and was unavailable to provide processing services to us. Since (1) we have had good business relationship with such customer since 2017 and it was one of our five largest customers during the Track Record Period; (2) according to such customer, it was satisfied with the quality of our products and would like to purchase tantalum bars from us instead of dealing with an unfamiliar supplier directly; and (3) such customer indicated that it would place orders for a larger quantity of tantalum bars in the future if the quality of tantalum bars supplied by us could meet its requirements, our Directors consider that it was a good opportunity to maintain positive business relationship with such customer for sale of tantalum bars. Therefore, we sourced around and identified another third party metallurgy company, which had capacity for processing services to satisfy that order of relatively small size at that time. As such, we engaged that third party metallurgy company to satisfy such order. Such third party metallurgy company does not generally provide processing services for tantalum bars. However, at the material times, its production line for potassium heptafluorotantalate was undergoing a technical upgrade and could not provide sufficient raw materials to fully utilise its production lines for tantalum powder and tantalum bars, and hence agreed to provide processing services to us for such order of relatively small size. Since it was a temporary availability in its production lines, it will not be able to continue to provide processing services to us in the future.

Our supply of tantalum bars was limited by the availability of the third-party metallurgy companies to provide processing services. We did not actively procure orders for tantalum bars during the Track Record Period and would confirm the availability of the third-party metallurgy companies before taking up any orders for tantalum bars. As a result, we have rejected some customers' orders for tantalum powder or tantalum bars during the Track Record Period and up to the Latest Practicable Date. In particular, in the year ended 31 December 2019, without taking into account verbal enquiries that we did not entertain, we have formally rejected orders for a total of not less than 25 tonnes of tantalum powder or tantalum bars as the third-party metallurgy companies were unable to provide processing services at the material times. In July 2019, we have also received enquiry from one of our existing customers for

supplying 4 to 5 tonnes of tantalum bars per month. Since we were relying on third party metallurgy companies to provide processing services, we were not able to take up such recurring orders for tantalum bars.

Our Directors consider that it was difficult to find alternative third-party metallurgy companies to provide such processing services. There were only few companies that engaged in the production of tantalum powder in China as of 2018, and not all of such metallurgy companies were willing or available to provide processing services. For instance, according to the best knowledge of our Directors, the two largest manufacturers of tantalum powder and tantalum bars in China, which accounted for approximately 73.8% and 80.0% of the total production capacity of the key manufacturers of tantalum powder and tantalum bars in China respectively, do not provide processing services to third parties even when they have surplus in their production capacity. Another manufacturer with relatively small production capacity also does not generally provide processing services to third parties as its production capacity is usually fully occupied. In addition, different manufacturers also produced different types of tantalum powder (such as metallurgical grade tantalum powder and capacitor-grade tantalum powder) and used different production techniques, which further increased the difficulty in finding suitable third-party metallurgy companies to provide such processing services. The unit price and output yield of the processing services quoted by third-party metallurgy companies varied and our Group might not be able to supply tantalum bars in commercially viable terms.

In addition, if the third-party metallurgy companies are unable to deliver the tantalum bars on time, we might not be able to meet the delivery schedule as agreed with our customers. For instance, for FY2018, as the third-party metallurgy company engaged by us was unable to deliver the tantalum bars to us on time, we delayed our delivery to our customer and paid additional transportation costs to deliver by plane instead of by sea as requested by our customer to catch up with the delivery schedule.

Expected growth in the markets for tantalum powder and tantalum bars

According to the CIC Report, the production volume of tantalum powder in the global market is expected to grow from 1,456.3 tonnes in 2018 to 1,826.2 tonnes in 2023, representing a CAGR of 4.6%. In particular, the production volume of metallurgical grade tantalum powder in the global market is expected to grow from 837.1 tonnes in 2018 to 1,126.1 tonnes in 2023, representing a CAGR of 6.1%. The production volume of tantalum powder in the PRC is also expected to grow from 485.5 tonnes in 2018 to 609.1 tonnes in 2023, representing a CAGR of 4.6%. Such growth in the market size for tantalum powder is mainly attributable to (i) the wide range of application of metallurgical grade tantalum powder in downstream applications, such as semi-conductor, erosion-resistant equipment and aviation equipment, and the market size of semi-conductor, erosion-resistant equipment and aviation equipment is expected to grow at CAGRs of approximately 5.5%, 9.8% and 28.6%, respectively, between 2018 and 2023 and (ii) emerging applications of tantalum powder in downstream sectors including 3D printing and surgical materials for orthopaedics.

At the same time, according to the CIC Report, the production volume of tantalum bars in the PRC is expected to grow from 221.6 tonnes in 2018 to 337.6 tonnes in 2023, representing a CAGR of 8.8%. Tantalum bar is one of the most common tantalum-based processed products manufactured by PRC-based processing companies, which can be further processed into a variety of metallic products and alloy. Tantalum bar is widely used in the production of heat-resistant special alloys in the aerospace

industry, and mill products that can be applied in chemical equipment industries and semi-conductor industries. These industries are expected to grow in the coming years, which will in turn drive the demand for processed tantalum- and niobium-based metallurgical products in the PRC.

Opportunity for vertical supply chain integration into the markets for tantalum powder and tantalum bars

According to the CIC Report, (i) it is expected that there will be growth in the markets for tantalum powder and tantalum bars; (ii) there are only few companies that engaged in the production of tantalum powder and tantalum bars; (iii) the utilisation rate of the production capacity of key manufacturers of tantalum powder and tantalum bars in the PRC was approximately 80% and 68.2% in 2018, respectively; and (iv) the utilisation rate of the production capacity of the key manufacturers have reached a reasonable range between 60% and 80%. Since the utilisation rate of the production capacity of key manufacturers of tantalum powder and tantalum bars in the PRC was in a reasonable range and there is expected growth in such markets, it is expected that there will be potentials for new market players.

The markets for tantalum powder and tantalum bars are dynamic markets. Some market players may expand their production while some may withdraw from the market. Given one of the key players (which was one of the third-party metallurgy companies engaged by our Group during the Track Record Period to provide processing services) reduced its production as the site of its production facilities was reclassified as greening zone by the local government and it had to relocate its production facilities, while the demand for tantalum powder and tantalum bars is expected to grow due to emerging applications of tantalum powder as well as an expansion in current downstream applications of tantalum powder and tantalum bars, there is opportunity for new market players to capture the growth in such market.

Furthermore, as there are only few existing suppliers for tantalum powder and tantalum bars, new suppliers have been welcomed and are expected to be welcomed by the semi-conductor industry. Semi-conductor is one of the major downstream application of metallurgical grade tantalum powder and tantalum bars. In order to pursue better pricing and quality and to meet the delivery schedule, producers of semi-conductors generally source relevant materials from various suppliers and trading companies in different countries.

The tantalum and niobium metallurgical market has been a niche market. According to the CIC Report, there were only approximately 30 market players (including metallurgy companies in the hydrometallurgical, pyro-metallurgical and processed products segments) in the tantalum and niobium metallurgy industry in China in 2018 with 15 major market players that contributed over 85% of the total production volume in their relevant segments in China in 2018 and the remaining market players have relatively smaller scale that cannot compete with such major market players. For details of such major metallurgy companies, please refer to the paragraph headed “Industry Overview — The PRC tantalum- and niobium-based metallurgical products market” in this prospectus. The value chain of the tantalum and niobium metallurgy industry comprised raw materials, hydrometallurgical products, pyro-metallurgical products, processed products as well as end products and downstream applications. Hydrometallurgical products play an important role in the tantalum and niobium metallurgy industry as all pyro-metallurgical products are produced from hydrometallurgical products and hydrometallurgical products can also be used directly in production of some processed products or end products. Given (1)

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we were the largest producer of tantalum- and niobium-based hydrometallurgical products in China for FY2016, FY2017 and FY2018 in terms of total annual production volume for external sales, (2) we sold full range of hydrometallurgical products directly to producers of pyro-metallurgical products, processed products and end products or indirectly after our products were further processed by our customers, and (3) we sold some pyro-metallurgical products and processed products upon customers' request, we were one of the 15 major market players in the tantalum and niobium metallurgy industry in China in 2018.

The tantalum and niobium metallurgy industry has high entry barriers. Such entry barriers include substantial initial investment for setting up production facilities and recruiting skilled personnel, as well as technologies to meet the technical requirements of the customers and stable supply of raw materials. For further details of the entry barriers, market size and competitive landscape, please refer to the paragraph headed "Industry Overview — Entry barriers for the global and PRC tantalum and niobium metallurgy industry" and "Industry Overview — The PRC tantalum- and niobium-based hydrometallurgical products market" in this prospectus. As such, it is expected the growth in the markets for tantalum powder and tantalum bars will be captured by existing players like us in the tantalum and niobium metallurgy industry. At the same time, according to the CIC Report, it is common for market players in the tantalum and niobium metallurgy industry to achieve supply chain integration to expand their production and to expand their development potentials, and it is quite common for the industry-leading companies to operate in several segments along the value chain to enable them to have a higher control of the whole value chain, such as quality control and cost control. Market players with in-house upstream production are expected to enjoy competitive advantage to expand their production to downstream products. Industry-leading companies may rely heavily upon their in-house production of tantalum- and niobium-based hydrometallurgical products to support the further production of pyro-metallurgical and processed products. For instance, both of the two largest manufacturers of tantalum powder and tantalum bars in the PRC expanded from hydrometallurgy into pyro-metallurgy and processing through in-house research and development. Furthermore, in order to enter the markets for tantalum powder and tantalum bars, market players should have experienced professionals that master the relevant production techniques, upfront capital for setting up the production facilities and customised equipment. As such, it is expected that the experience of market players in the sale of downstream products produced by engaging third-party metallurgy companies for processing services would set important foundation for extending their in-house production to the same. As such, it is expected that the well-established and experienced market players in the upstream market will have competitive advantage to enter the markets for tantalum powder and tantalum bars and capture the growth of the same.

We are well-positioned to extend our production to tantalum powder and tantalum bars

As evidenced by our leading market position as the largest producer of tantalum- and niobium-based hydrometallurgical products in China in terms of total annual production volume for external sales and one of the major market players in the PRC tantalum and niobium metallurgical industry, we believe that our customers has recognised our knowledge and experience in the production of tantalum- and niobium-based metallurgical products. Together with the following factors, we believe that we are well-positioned to extend our production to tantalum powder and tantalum bars:

(a) *We will have a stable supply of the raw materials required*

Potassium heptafluorotantalate is the major raw material for producing tantalum powder, and tantalum powder can then be further processed into tantalum bars. We were the largest producer of tantalum- and niobium-based hydrometallurgical products in China for FY2016, FY2017 and FY2018 in terms of total annual production volume for external sales, according to the CIC Report, and our existing production facilities have an estimated annual production capacity of 207 tonnes of potassium heptafluorotantalate. According to the CIC Report, most of the key manufacturers of tantalum powder and tantalum bars in the PRC rely partly or solely on external suppliers for supply of potassium heptafluorotantalate. The quality of tantalum powder as well as tantalum bars is highly reliant on the quality of potassium heptafluorotantalate. We have been consistently producing potassium heptafluorotantalate that met industry standards issued by NDRC. As evidenced by the fact that we have a proven track record of supplying potassium heptafluorotantalate to our customers in the past decade, we could control the purity levels and specifications of the potassium heptafluorotantalate used. Therefore, when we use the potassium heptafluorotantalate produced by us to produce tantalum powder, we would face a lower risk of instability of the purity level of potassium heptafluorotantalate as compared with other tantalum powder producers that source potassium heptafluorotantalate from different third-party suppliers, which will in turn facilitate us to satisfy our customers' requirements. In addition, by relying on our in-house production for supply of potassium heptafluorotantalate, we could source raw materials for the production of tantalum powder and tantalum bars at production costs. As compared with the other manufacturers for tantalum powder and tantalum bars which procured potassium heptafluorotantalate from other suppliers at market price, since the market price of potassium heptafluorotantalate is based on production costs plus a profit margin, we could have a lower raw materials costs for production of tantalum powder and tantalum bars. Furthermore, since our Group's overall output yield of potassium heptafluorotantalate was approximately 93.08%, 92.40% and 93.22% for FY2016, FY2017 and FY2018 respectively, which was consistently higher than industry average that ranges from 90% to 92%, we will be able to further lower the raw materials costs for producing tantalum powder and tantalum bars.

(b) *We have experienced management team and employees*

Our management team has extensive experience in the tantalum and niobium metallurgy industry. In particular, the founder of our Group, our executive Director and chief executive officer, Mr. Wu, has been working in the tantalum and niobium metallurgy industry for more than 30 years and he has accumulated extensive industry experience, including experience in tantalum powder production. Mr. Zhong Yuelian, our vice president, also has over 25 years of experience working in the tantalum and niobium metallurgy industry. For details of their experience and qualification, please refer to the section headed "Directors and Senior Management" in this prospectus. In addition, one of our senior engineer,

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Mr. Yuan Ningfeng, also has over 25 years of experience in the tantalum and niobium metallurgy industry, including engaging in research and development of tantalum powder and production of pyro-metallurgical products. Our Directors believe that the experience and qualifications of our Directors and employees will facilitate our future development in production of pyro-metallurgical products.

(c) Others

Moreover, by selling tantalum bars produced by third-party metallurgy companies using our potassium heptafluorotantalate, we have maintained stable relationships with customers for downstream tantalum based products and understood their requirements for the products, which set the foundation for us to extend our production to tantalum powder and tantalum bars.

Furthermore, our Group had entered into cooperation agreements with two potential customers located in Changsha and Ningbo respectively. Pursuant to the cooperation agreement with the potential customer located in Changsha, subject to the entering into formal sale and purchase agreements and our tantalum powder can meet its requirements, it expects to purchase not less than 30 tonnes of tantalum powder from us per year and maintain not less than 5 years of cooperation relationship with us. Pursuant to the cooperation agreement with the potential customer located in Ningbo, it estimates that it would require approximately 20-40 tonnes of tantalum powder for its production per year, and subject to the entering into formal sale and purchase agreements and our tantalum powder can meet its requirements, it expects to purchase 30-60% of its annual demand for tantalum powder from us and maintain a long term cooperation relationship with us. Our Directors consider that such cooperation agreements are acknowledgement from our potential customers of our capabilities to extend our production and sales to tantalum powder and indicate our potential to capture the growth in the market for tantalum powder and tantalum bars.

The construction plan

We plan to build and set up our planned new production facilities in Qingyuan, Guangdong. Our Group has been actively looking for land suitable for setting up our planned new production facilities. In May 2019, we entered into an agreement with the Qingyuan Overseas Chinese Industrial Park Administration Committee* (清遠華僑工業園管理委員會) for setting up our planned new production facilities for downstream products in the Qingyuan Overseas Chinese Industrial Park* (清遠華僑工業園). In November 2019, we entered into another agreement with the agent for Qingyuan Overseas Chinese Industrial Park Administration Committee*, pursuant to which, we paid a deposit of RMB6 million for the purpose of obtaining local government's approval and completing the relevant procedures for the acquisition of the land. The land acquisition will be subject to bidding, auction or listing procedures. The cost for the land acquisition is expected to be approximately RMB29.5 million, which will be financed by our internal resources.

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We expect to commence the construction of our planned new production facilities for tantalum powder and tantalum bars in the year ending 31 December 2020. The following table sets out a breakdown of our capital expenditure plan for the construction of our planned new production facilities for tantalum powder and tantalum bars, acquisition and installation of the relevant machinery and equipment and other related expenses:

	RMB'000
Construction of the planned new production facilities	37,470
Acquisition and installation of the machinery and equipment	46,740
Other expenses	<u>5,000</u>
Total	<u><u>89,210</u></u>

The abovementioned capital expenditure will be financed by the net proceeds from the Global Offering. For further details, please refer to the section headed “Future Plans and Use of Proceeds”.

The estimated annual production capacity of the planned new production facilities is 100 tonnes of tantalum powder (which could be further processed into approximately 98 tonnes of tantalum bars at our planned new production facilities upon customers’ request). Such estimated annual production capacity was designed based on factors including: (i) our estimated annual production capacity of potassium heptafluorotantalate, which is the major raw materials for producing tantalum powder; and (ii) we experienced a steady growth in the demand for tantalum bars during the Track Record Period. Since tantalum powder can be sold to customers directly or be further processed into tantalum bars for sale to customers depending on customers’ demand, our planned new production facilities are designed to have the capacity to process all of the tantalum powder produced at our planned new production facilities into tantalum bars if necessary. It is estimated that the machinery and equipment at our planned new production facilities will have the capacity to process approximately 102 tonnes of tantalum powder into approximately 100 tonnes of tantalum bars per annum.

We plan to commence production of tantalum powder and tantalum bars at our new production facilities in 2021 and expect to increase the utilisation rate of the planned new production facilities gradually from approximately 30% in the first year of production to over 85% in the fourth year of production. Our planned new production facilities will be approximately 12 km away from our existing production facilities. When we commence the production of tantalum powder and tantalum bars at our planned new production facilities, we plan to engage external logistics services providers to transport the potassium heptafluorotantalate produced at our existing production facilities to our planned new production facilities and the transportation cost is not expected to be significant.

Payback period analysis

Payback period refers to the period of time it takes for the present value of net cash flows expected to be generated from the production and sale of tantalum powder to recover the expected capital expenditure.

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We estimate that the payback period of our planned new production facilities will be approximately 4.4 years from the commencement of construction. The estimated payback period was made on the following principal bases and assumptions:

1. There will be no material adverse change to the prevailing government policies, laws and regulations affecting the tantalum and niobium metallurgy industry.
2. There will be no natural disaster such as earthquakes and flooding.
3. According to the CIC Report, the estimated PRC annual average market price for tantalum powder is expected to be approximately RMB2,346.4 thousand per tonne, RMB2,360.8 thousand per tonne and RMB2,375.2 thousand per tonne in 2021, 2022 and 2023, respectively, which is lower as compared to the estimated PRC annual average market price for tantalum bars of approximately RMB2,931.2 thousand per tonne, RMB2,994.6 thousand per tonne and RMB3,059.5 thousand per tonne in 2021, 2022 and 2023, respectively. Considering that the return for each tonne of tantalum powder is expected to be generally lower than that for each tonne of tantalum bars, our Directors adopted a more conservative approach by assuming that for the purpose of our payback period analysis, our planned new production facilities will only produce tantalum powder.
4. Potassium heptafluorotantalate is the major raw material for production of tantalum powder at our planned new production facilities, and it is estimated that approximately 2.3 units of potassium heptafluorotantalate are required to produce 1 unit of tantalum powder in our planned new production facilities. Furthermore, for purpose of our payback period analysis it is assumed that all of the tantalum powder is to be produced by the 200 tonnes of potassium heptafluorotantalate produced by us as raw materials. In other words, it is assumed that we do not purchase potassium heptafluorotantalate from external source but rely on our internal production of potassium heptafluorotantalate, and the annual production volume of tantalum powder at our planned new production facilities is approximately 86.7 tonnes, which constitute approximately 86.7% of the estimated annual production capacity of 100 tonnes.
5. Our Directors estimated that it would take approximately three years for our planned new production facilities to gradually reach the abovementioned annual production volume of tantalum powder of approximately 86.7 tonnes, such that (i) from the first to the third year of production, our production and sale of tantalum powder will gradually increase; and (ii) from the fourth year of production onwards, we will be able to use all the potassium heptafluorotantalate we produce as raw materials for the production of tantalum powder. In particular, our Directors estimated that the production volume of tantalum powder would increase from approximately 30 tonnes in the first year of production to approximately 50 tonnes in the second year of production to approximately 70 tonnes in the third year of production, and would reach approximately 86.7 tonnes from the fourth year of production onwards. As a result, the estimated utilisation rate of our planned new production facilities will increase gradually from approximately 30% in the first year of production to approximately 50% in the second year of production to approximately 70% in the third year of production and will reach approximately 86.7% from the fourth year of production onwards.

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6. Considering the expected growth in the markets for tantalum powder according to the CIC Report, our Directors estimated that the sales volume of tantalum powder would increase gradually from approximately 30 tonnes in the first year of production to approximately 50 tonnes in the second year of production to approximately 70 tonnes in the third year of production and would remain stable at approximately 86.7 tonnes from the fourth year of production onwards.
7. The estimated selling price of tantalum powder will increase gradually from approximately RMB2,346.4 thousand per tonne in the first year of production to approximately RMB2,360.8 thousand per tonne in the second year of production and will remain stable at approximately RMB2,375.2 thousand per tonne from the third year of production onwards, which is in line with the forecast according to the CIC Report.
8. For the purpose of our payback period analysis, the estimated costs of production of tantalum powder comprise costs of production of potassium heptafluorotantalate, electricity and fuels costs and labour costs. Our Directors estimated that the costs of production of potassium heptafluorotantalate would be the most significant component of the costs of production of tantalum powder, which is consistent with the cost structure of our principal products.

In line with the gradual increase in our production scale of tantalum powder and driven by the increasing market prices of potassium heptafluorotantalate, our Directors estimated that the unit cost of production of tantalum powder would increase from approximately RMB1,457 thousand per tonne in the first year of production to approximately RMB1,527 thousand per tonne in the second year of production to approximately RMB1,602 thousand per tonne in the third year of production and would remain stable from the fourth year of production onwards. At the estimated production volume as disclosed above, our Directors estimated that the costs of production of tantalum powder would increase gradually from approximately RMB43.7 million in the first year of production to approximately RMB76.4 million in the second year of production to approximately RMB112.2 million in the third year of production and would remain stable at approximately RMB138.9 million from the fourth year of production onwards.

9. Depreciation and amortisation expenses do not have any effect on cash flow, and thus they are excluded in the calculation for the purpose of our payback period analysis. For the basis of the additional depreciation and amortisation expenses, please refer to the paragraph headed “Our business strategies — Cost-benefit analysis” in this section.

Our Directors estimated (i) the selling and distribution expenses based on their ratio to revenue during the Track Record Period; and (ii) the administrative expenses based on the actual level incurred for the year ended 31 December 2019, adjusted for expected growth.

10. Zhiyuan New Material will continue to be a High-tech Enterprise and enjoy a preferential tax deduction of income tax by 10% (i.e. an effective corporate income tax rate of 15%).
11. After taking into account of other expenses, including selling and distribution expenses, administrative expenses and income tax expenses, our Directors estimated that the net cash flows from the production and sale of tantalum powder would increase from approximately RMB17.1 million in the first year of production to approximately RMB30.2 million in the

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second year of production to approximately RMB41.5 million in the third year of production to approximately RMB53.5 million in the fourth year of production to approximately RMB53.1 million in the fifth year of production.

12. There will not be any unforeseeable circumstances leading to any delay in the setting up of our planned new production facilities, delay in the commencement of production and material increment in costs.

Cost-benefit analysis

For the purpose of our cost-benefit analysis, our Directors considered the economic benefits of three scenarios, namely:

1. For the first scenario, it is assumed that we do not implement our business strategy to produce and sell tantalum powder and tantalum bars but continue to produce and sell potassium heptafluorotantalate (the “**Continuance Scenario**”). For the Continuance Scenario, it is assumed that we produce and sell 200 tonnes of potassium heptafluorotantalate.
2. For the second scenario, it is assumed that we only produce and sell tantalum powder (but not tantalum bars) by self-processing the potassium heptafluorotantalate we produce (the “**Self-Processing of Tantalum Powder Scenario**”). For the Self-Processing of Tantalum Powder Scenario, it is assumed that we produce and sell approximately 86.7 tonnes of tantalum powder by self-processing 200 tonnes of potassium heptafluorotantalate.
3. For the third scenario, it is assumed that we only produce and sell tantalum bars (but not tantalum powder) by self-processing the potassium heptafluorotantalate we produce (the “**Self-Processing of Tantalum Bars Scenario**”). For the Self-Processing of Tantalum Bars Scenario, it is assumed that we produce and sell approximately 85.0 tonnes of tantalum bars by self-processing approximately 86.7 tonnes of tantalum powder.

In other words, for the Self-Processing of Tantalum Powder Scenario and Self-Processing of Tantalum Bars Scenario, it is assumed that we do not purchase potassium heptafluorotantalate from external source but rely on our internal production of potassium heptafluorotantalate, and accordingly for the purpose of our cost-benefit analysis it is assumed that the annual production volume of tantalum powder and tantalum bars constitutes approximately 86.7% and 85.0% of the estimated annual production capacity of 100 tonnes, respectively.

For the conversion ratios between potassium heptafluorotantalate, tantalum powder and tantalum bars, please refer to the paragraph headed “Our business strategies — Tantalum powder and tantalum bars” in this section.

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Our Directors consider that our Group is financially better off to self-process tantalum bars and tantalum powder for sale at our planned new production facilities than if our Group continues to sell potassium heptafluorotantalate, in view of the following:

(i) Higher revenue for self-processing and sale of tantalum bars and tantalum powder

Despite that we did not sell tantalum powder during the Track Record Period, we sold tantalum bars and our average selling price of tantalum bars was consistently higher than that of potassium heptafluorotantalate. In addition, according to the CIC Report, it is estimated that from 2021 (i.e. the first year of production) to 2023, the PRC annual average market prices for tantalum bars and tantalum powder are expected to continue to be higher than that of potassium heptafluorotantalate. The following table sets forth the comparison of the estimated PRC annual average market prices of tantalum bars, tantalum powder and potassium heptafluorotantalate from 2021 to 2023 as extracted from the CIC Report:

	Estimated PRC annual average market price		
	2021E	2022E	2023E
	RMB'000 per tonne	RMB'000 per tonne	RMB'000 per tonne
Potassium heptafluorotantalate	818.1	859.2	902.5
Tantalum bars	2,931.2	2,994.6	3,059.5
Tantalum powder	2,346.4	2,360.8	2,375.2

Our Directors expect that for the first ten years of production we will generate a higher revenue of (i) approximately RMB230.3 million from the Self-Processing of Tantalum Powder Scenario than from the Continuance Scenario; and (ii) approximately RMB697.1 million from the Self-Processing of Tantalum Bars Scenario than from the Continuance Scenario, based on the following principal bases and assumptions:

1. Our Directors estimate that it would take approximately three years for our planned new production facilities to gradually increase the production volume. As such, for the Self-Processing of Tantalum Powder Scenario and Self-Processing of Tantalum Bars Scenario, it is assumed that (i) from the first to the third year of production, our production and sale of tantalum powder/tantalum bars will gradually increase and our sale of potassium heptafluorotantalate will gradually decrease; and (ii) from the fourth year of production onwards, we will be able to utilise all the 200 tonnes of potassium heptafluorotantalate we produce as raw materials.

On this basis, our Directors estimate that:

- (i) for the Self-Processing of Tantalum Powder Scenario, the sales volume of tantalum powder will be approximately 30 tonnes, 50 tonnes and 70 tonnes in the first, second and third year of production, respectively, and will remain at approximately 86.7 tonnes from the fourth year of production onwards.

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- (ii) for the Self-Processing of Tantalum Bars Scenario, the sales volume of tantalum bars will be approximately 29.4 tonnes, 49.0 tonnes and 68.6 tonnes in the first, second and third year of production, respectively, and will remain at approximately 85.0 tonnes from the fourth year of production onwards.
 - (iii) for the Self-Processing of Tantalum Powder Scenario and Self-Processing of Tantalum Bars Scenario, our Directors estimated that the sales volume of potassium heptafluorotantalate would decrease gradually from approximately 130.8 tonnes in the first year of production to approximately 84.7 tonnes in the second year of production to approximately 38.5 tonnes in the third year of production and would cease thereafter.
2. For all the Continuance Scenario, Self-Processing of Tantalum Powder Scenario and Self-Processing of Tantalum Bars Scenario, the estimated selling prices of potassium heptafluorotantalate, tantalum powder and tantalum bars from the first to the third year of production are in line with the forecast according to the CIC Report and will remain stable from the fourth year of production onwards.
- (ii) *Higher gross profit margin and overall profitability for self-processing and sale of tantalum bars and tantalum powder***

Our Directors estimate that the gross profit margin and overall profitability for tantalum powder and tantalum bars would be generally higher than that for potassium heptafluorotantalate.

In terms of gross profit margin, we estimate that:

- (i) the estimated gross profit margin for tantalum powder under the Self-Processing of Tantalum Powder Scenario would range from approximately 30.5% to 33.0% for the period from the first to the tenth year of production with the overall estimated gross profit margin increasing from approximately 28.8% in the first year of production to approximately 30.9% starting from the fourth year of production, as compared to the estimated gross profit margin for potassium heptafluorotantalate of approximately 26.0% under the Continuance Scenario for the same period; and
- (ii) the estimated gross profit margin for tantalum bars under the Self-Processing of Tantalum Bars Scenario would range from approximately 44.4% to 45.1% for the period from the first to the tenth year of production with the overall estimated gross profit margin increasing from approximately 34.4% in the first year of production to approximately 44.8% starting from the fourth year of production, as compared to the estimated gross profit margin for potassium heptafluorotantalate of approximately 26.0% under the Continuance Scenario for the same period.

In terms of overall profitability, we estimate that:

- (i) we would generate a higher net profit of approximately RMB58.1 million from the sale of tantalum powder under the Self-Processing of Tantalum Powder Scenario than from the sale of potassium heptafluorotantalate under the Continuance Scenario for the first ten years of production; and

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- (ii) we would generate a higher net profit of approximately RMB445.6 million from the sale of tantalum bars under the Self-Processing of Tantalum Bars Scenario than from the sale of potassium heptafluorotantalate under the Continuance Scenario for the first ten years of production.

The above estimations were made based on the following principal bases and assumptions:

1. The basis of estimation of revenue for the Continuance Scenario, Self-Processing of Tantalum Powder Scenario and Self-Processing of Tantalum Bars Scenario is consistent with those as disclosed above.
2. The estimated gross profit margin for potassium heptafluorotantalate is estimated with reference to our gross profit margin for potassium heptafluorotantalate during the Track Record Period.
3. For the Self-Processing of Tantalum Powder Scenario and Self-Processing of Tantalum Bars Scenario, the estimated costs of production of tantalum powder/tantalum bars comprise costs of production of potassium heptafluorotantalate, factory overheads, electricity and fuels and labour. Our Directors estimated that the costs of production of potassium heptafluorotantalate would be the most significant component of the costs of production of tantalum powder/tantalum bars, which is consistent with the cost structure of our Group's principal products.

In addition, our Directors estimated that the total additional depreciation and amortisation expenses per annum would be approximately RMB7.4 million based on the assumptions that (i) the useful life would be 50 years in respect of the land; and (ii) the useful lives would range from 10 years to 20 years in respect of construction cost of the production facilities, machinery and equipment and other expenses. The basis of allocation of the total additional depreciation and amortisation expenses is set out below, which is consistent with our Group's accounting policy:

- (i) approximately RMB3.5 million would be allocated to the costs of production of tantalum powder/tantalum bars in respect of (a) the construction cost of the production facilities; and (b) the machinery and equipment that are attributable to direct production; and
 - (ii) the remainder of approximately RMB3.9 million would be allocated to administrative expenses which would not affect the calculation of gross profit but overall profitability.
4. For Self-Processing of the Tantalum Powder Scenario and Self-Processing of Tantalum Bars Scenario, the other expenses mainly comprise selling and distribution expenses, administrative expenses and income tax expenses. For the basis of estimation of selling and distribution expenses and administrative expenses, please refer to the paragraph headed "Our business strategies — Payback period analysis" in this section.
 5. Zhiyuan New Material will continue to be a High-tech Enterprise and enjoy a preferential tax deduction of income tax by 10% (i.e. an effective corporate income tax rate of 15%).

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Analysis of gross profit margin

During the Track Record Period, we sold tantalum bars and recorded gross profit margin of approximately 29.2%, 31.8%, 27.5%, 21.6% and 13.4% for FY2016, FY2017, FY2018, 8M2018 and 8M2019, respectively. In addition, during the Track Record Period, we incurred processing fee for engaging third-party metallurgy companies to conduct the processing for us. Despite the processing fee remained relatively stable for 8M2018 and 8M2019, the significant decrease in our gross profit margin for tantalum bars from 8M2018 to 8M2019 was mainly due to (i) the decrease in our average selling price for 8M2019 which was consistent with the market trend according to the CIC Report. For 8M2019, our average selling price of tantalum bars was approximately RMB1,856.2 thousand per tonne, representing a decrease of approximately 17.5% from approximately RMB2,248.9 thousand per tonne for 8M2018; and (ii) our cost of potassium heptafluorotantalate as raw materials for 8M2019 was distorted by the high market price of potassium heptafluorotantalate when it was at the peak as we utilised the potassium heptafluorotantalate carried forward from FY2018. According to the CIC Report, the market price of potassium heptafluorotantalate increased by approximately 34.9% from approximately RMB698.5 thousand per tonne in 2017 to approximately RMB942.3 thousands per tonne in 2018, and decreased by 21.3% to approximately RMB741.6 thousand per tonne in 2019.

Our gross profit margin for tantalum bars during the Track Record Period was sensitive to the processing fee recognised in our cost of sales. Our processing fee for tantalum bars was approximately RMB164,300 per tonne, RMB170,900 per tonne, RMB167,700 per tonne and RMB167,400 per tonne for FY2016, FY2017, FY2018 and 8M2019, respectively. Solely for the purpose of illustrating the impact of processing fee on our gross profit margin for tantalum bars, our gross profit margin excluding processing fee for tantalum bars was approximately 41.6%, 39.9%, 35.1%, 29.0% and 22.4% for FY2016, FY2017, FY2018, 8M2018 and 8M2019 respectively. In addition, according to the CIC Report, the processing fee for tantalum bars is expected to increase by approximately 10% from 2020 to 2023 mainly because of (1) the expected increase in the cost of processing; (2) the expected growth of the growth in the markets for tantalum powder and tantalum bars in the PRC; and (3) the limited number of metallurgy companies for providing processing services. As such, we expect that our gross profit margin for tantalum bars will be further adversely affected by the processing fee.

By self-processing potassium heptafluorotantalate into tantalum bars, we will be able to avoid processing fee in our cost of sales and will incur (a) additional depreciation expenses allocated to our costs of production as disclosed above; and (b) incremental costs of production in respect of electricity, fuels and labour of approximately RMB76,000 per tonne of tantalum bars with reference to the techniques for the production of tantalum bars. Our Directors expect the net impact of this is that our gross profit margin of tantalum bars will increase, considering:

- (i) according to the CIC Report, the PRC annual average market prices of tantalum bars are expected to increase from approximately RMB2,931.2 thousand per tonne in 2021 to approximately RMB2,994.6 thousand per tonne in 2022 to approximately RMB3,059.5 thousand per tonne in 2023;
- (ii) we will be able to increase our average selling price with our ability to supply a larger quantity of tantalum bars; and

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- (iii) at a large production volume, we will be able to lower our cost of sales by replacing a higher variable cost (i.e. processing fee) with a lower variable cost (i.e. the incremental costs of production) and a fixed cost (i.e. depreciation). Our Directors expect that we will be able to secure a large production volume of tantalum bars as we are able to produce potassium heptafluorotantalate as raw materials internally. As disclosed above, we will be able to produce approximately 85.0 tonnes of tantalum bars without purchasing potassium heptafluorotantalate as raw materials from external source, which constitute approximately 85.0% of the estimated annual production capacity of the planned new production facilities.

Based on the above analysis, our Directors estimate that it would be more cost-efficient to self-process tantalum powder and tantalum bars than to outsource the processing because the processing fee for outsourcing would outweigh the additional depreciation and amortisation expenses and incremental costs of production for self-processing.

Other benefits for extending our production to tantalum powder and tantalum bars

As tantalum powder and tantalum bars can be used in a wide range of industries while a majority of potassium heptafluorotantalate produced is used for producing tantalum powder and tantalum bars, there is a broader customer base for tantalum powder and tantalum bars than potassium heptafluorotantalate. While our existing production facilities have an annual production capacity of 207 tonnes of potassium heptafluorotantalate, we experienced an under-utilisation of our production line for potassium heptafluorotantalate for FY2016, FY2017 and 8M2019. The utilisation rate of our production line for potassium heptafluorotantalate was approximately 51.8%, 52.4% and 42.8% for FY2016, FY2017 and 8M2019, respectively. For FY2018, the utilisation rate of our production line for potassium heptafluorotantalate was approximately 96.4%. The comparatively higher utilisation rate for FY2018 was due to the purchase by Customer F for a large volume of potassium heptafluorotantalate, which accounted for a majority of our sale of potassium heptafluorotantalate by volume for FY2018. Customer F procured its raw materials through an online tendering system. Customer F's purchase for potassium heptafluorotantalate increased for FY2018 because we were awarded contract for the sale of potassium heptafluorotantalate for several months. Since the orders from Customer F were awarded by online tendering, Customer F will be able to source potassium heptafluorotantalate from other suppliers and we cannot ensure that we will be awarded contracts of similar volume in the future. Customer F was one of our five largest customers during the Track Record Period, our Directors believe our relationship with Customer F will not be negatively affected even if we may have less potassium heptafluorotantalate available for sale in the future, because (i) the demand from Customer F for potassium heptafluorotantalate fluctuated vigorously during the Track Record Period and is expected to continue to fluctuate in the future; (ii) while we will prioritise using our potassium heptafluorotantalate for production of tantalum powder and tantalum bars, we will only increase the utilisation rate of our new production facilities gradually in the first to third year of production of tantalum powder and tantalum bars and reduce the volume of potassium heptafluorotantalate available for sale accordingly; (iii) we commenced business relationship with Customer F by selling niobium pentoxide to it in 2012 and have had stable business relationship with it since then, and apart from potassium heptafluorotantalate, Customer F has also purchased other products from us during the Track Record Period, including niobium pentoxide; (iv) Customer F represents a group of companies and we generally sold potassium heptafluorotantalate to one of its members, our Directors consider that our sales to other members of Customer F would not be affected by the reduction of sales of potassium heptafluorotantalate to one of its members; and (v) according to the best knowledge of our Directors, Customer F procured potassium

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heptafluorotantalate in batches for 10 to 20 tonnes instead of a large batch at once, Customer F will consider the price quoted by the supplier and the quality of its products and will not consider the tender submission frequency of the supplier, therefore, the reduction in the volume of potassium heptafluorotantalate available for sale will not affect our sales of potassium heptafluorotantalate (when available) and other products to Customer F. As such, if we are able to produce tantalum powder and tantalum bars using our potassium heptafluorotantalate, we could better utilise our production capacity of potassium heptafluorotantalate in our existing production facilities. At the same time, by using potassium heptafluorotantalate produced by us to produce tantalum powder and tantalum bars, we could ensure the stable supply of the potassium heptafluorotantalate and control the purity levels and specifications of the potassium heptafluorotantalate used, which will facilitate us to satisfy our customers' requirements for tantalum powder and tantalum bars.

By developing our new production facilities that adopt pyro-metallurgy process, our Directors believe that (i) we could capture the expected growing demand for downstream pyro-metallurgical tantalum-based products to increase our market share in the tantalum and niobium metallurgy industry in China; (ii) by extending our production to downstream products, we can provide more comprehensive services to our customers as well as catering to different needs of our existing and potential customers and our Group would be less vulnerable to changes in the market than our peers which only produce hydrometallurgical products; (iii) we can reduce our reliance on third-party metallurgy companies to produce our processed products; and (iv) by broadening our product portfolio, we could solidify our market position and be better positioned for future growth.

Our Directors consider that, by extending our production and sales to downstream products, we will also be able to expand our overseas customer base. China charges 30% export tax for potassium heptafluorotantalate but nil export tax for tantalum powder and tantalum bars and certain types of tantalum powder and tantalum bars could also enjoy value-added tax refunds from China. Despite the recent threats and tensions of the Sino-US trade war, as at the Latest Practicable Date, the United States has not imposed any additional tariff on the export of tantalum powder and tantalum bars from China to the United States. Together with our plans set out in the paragraph headed "Our business strategies — Strengthening our sales network in overseas markets" below in this section, including to set up an office in the United Kingdom, we believe that the extension of production and sales to downstream products would broaden our customer base, increase our market share and diversify our operations in overseas market.

Given the above reasons, our Directors believe that it is an opportunity for our Group to extend our production into downstream products. We plan to gradually expand our customer base for downstream products by maintaining good relationship with our existing customers, and exploring opportunities with potential customers. We believe this development will enable us to offer a more comprehensive product portfolio (with both hydrometallurgical, pyro-metallurgical and processed tantalum- and niobium-based products) for our customers with different needs.

We plan to allocate approximately 68.8% (equivalent to approximately HK\$101.5 million or RMB89.2 million) of the net proceeds from the Global Offering (based on the Offer Price of HK\$2.56 per Share, being the mid-point of the Offer Price range stated in this prospectus and assuming the Over-allotment Option is not exercised) to implement our plan to extend our production to downstream products. For details, please refer to the section headed "Future Plans and Use of Proceeds" in this prospectus.

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Continue to devote resources on research and development projects on new products and innovative production methods

We believe that our research and development capabilities are critical to the development of our Group. Therefore, we will continue to invest in research and development. Through our research and development efforts, we have been able to expand our production capacity, improve the purity levels of tantalum pentoxide and niobium pentoxide, develop pentoxide products with special physical properties to meet the demands of our customers, and enhance our capabilities in recycling waste materials for environmental protection.

The table below sets out the details and significance of some recent research and development projects of our Group:

<u>Project</u>	<u>Commencement date and completion date</u>	<u>Significance</u>
Research and application of high purity niobium pentoxide for target materials (靶材級高純氧化鈮生產工藝研發與應用)	January 2015 to December 2015	As a result of this project, we developed a new niobium pentoxide product that has large loose specific weight and spherical shape. This product has been welcomed by our customers for producing target materials. We have also filed an application for a patent for such production method, namely, a method of preparing large loose specific weight and spherical niobium pentoxide (一種大松裝比重、球形五氧化二鈮的製備方法).
Research and application of high purity niobium pentoxide for optical glass (高端光學玻璃用高純氧化鈮生產工藝的研發與應用)	January 2017 to December 2017	As a result of this project, we developed a new niobium pentoxide product with a reduced level of iron content, which met the specific requirements of a customer in Japan. We have also registered a patent for the results of this project, namely, a method to prepare high purity niobium oxide from alloy containing tantalum, niobium and iron (一種鈮鉬鐵合金製取高純氧化鈮的方法).
Research on extraction of fluoride from acidic waste water containing fluorine from hydrometallurgical process (從鈮鈿濕法冶煉含氟酸性廢水制取氟鹽產品工藝研究)	January 2017 to December 2017	As a result of this project, we have started to produce one of our recycled products, namely potassium fluorosilicate, in 2018.

Going forward, noting the expected growth in the market for pentoxide products of higher purity and downstream pyro-metallurgical tantalum- and niobium-based products, we intend to devote our research and development efforts on the projects that involve (i) developing new production process,

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technologies and techniques; and (ii) developing products of different purity levels and specifications. As at 31 August 2019, we had eight on-going in-house research and development projects and one cooperative project with research and academic institute in China.

We plan to finance five new research and development projects, which are expected to commence in 2020, partially out of the net proceeds from the Global Offering. The table below sets out the details and significance of these upcoming research and development projects:

Project	Expected commencement date and completion date	Purpose and function	Expected cost arrangement
			RMB'000
Research on application of high purity tantalum powder in semiconductor coating target materials (半導體鍍膜靶材用高純鉭粉的研究)	April 2020 to March 2022	To develop tantalum powder that can be used for producing semiconductor coating target materials	<p>Expected costs for purchasing the potassium heptafluorotantalate needed for the project: 2,240 (to be financed by net proceeds from the Global Offering)</p> <p>Expected costs for purchasing chemicals needed for the project: 100 (to be financed by net proceeds from the Global Offering)</p> <p>Expected costs for the utilities needed for the project: 60 (to be financed by net proceeds from the Global Offering)</p> <p>Other expected cost for the project: 1,600 (to be financed by internal resources)</p>
Research on production process of niobium pentoxide for application in lithium battery materials (鋰電材料用氧化鈮生產工藝研究)	April 2020 to March 2021	To develop a production method to produce niobium pentoxide which can be used in lithium battery	<p>Expected costs for purchasing the ores needed for the project: 960 (to be financed by net proceeds from the Global Offering)</p> <p>Expected costs for purchasing chemicals needed for the project: 200 (to be financed by net proceeds from the Global Offering)</p> <p>Expected costs for the utilities needed for the project: 40 (to be financed by net proceeds from the Global Offering)</p> <p>Other expected cost for the project: 800 (to be financed by internal resources)</p>

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<u>Project</u>	<u>Expected commencement date and completion date</u>	<u>Purpose and function</u>	<u>Expected cost arrangement</u>
			RMB'000
Research on new techniques on niobium oxide extraction (鉬鈮氧化物制取新工藝研究)	April 2020 to March 2021	To develop a production method to replace the use of ammonia in the production process of pentoxide products in order to reduce ammonia contained in the wastewater produced during the production process	<p>Expected costs for purchasing the ores needed for the project: 960 (to be financed by net proceeds from the Global Offering)</p> <p>Expected costs for purchasing chemicals needed for the project: 200 (to be financed by net proceeds from the Global Offering)</p> <p>Expected costs for the utilities needed for the project: 40 (to be financed by net proceeds from the Global Offering)</p> <p>Other expected cost for the project: 800 (to be financed by internal resources)</p>
Research on alkaline waste water resource management technique for tantalum- and niobium-based metallurgical industry (鉬鈮工業鹼性廢水資源化治理創新技術研究)	April 2020 to March 2022	To recycle ammonium fluoride or ammonium hydrogen fluoride from waste water	<p>Expected costs for purchasing the ores needed for the project: 9,600 (to be financed by net proceeds from the Global Offering)</p> <p>Expected costs for purchasing chemicals needed for the project: 2,400 (to be financed by net proceeds from the Global Offering)</p> <p>Expected costs for the utilities needed for the project: 2,000 (to be financed by net proceeds from the Global Offering)</p> <p>Other expected cost for the project: 3,000 (to be financed by internal resources)</p>
Research on acidic waste water resource management technique for tantalum and niobium metallurgy industry (鉬鈮工業酸性廢水資源化治理技術研究)	April 2020 to March 2021	To reduce the release of acidic waste water	<p>Expected costs for purchasing the ores needed for the project: 3,200 (to be financed by net proceeds from the Global Offering)</p> <p>Expected costs for purchasing chemicals needed for the project: 700 (to be financed by net proceeds from the Global Offering)</p> <p>Expected costs for the utilities needed for the project: 600 (to be financed by net proceeds from the Global Offering)</p> <p>Other expected cost for the project: 1,500 (to be financed by internal resources)</p>

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We plan to utilise approximately 17.9% (equivalent to approximately HK\$26.5 million or RMB23.3 million) of the net proceeds from the Global Offering (based on the Offer Price of HK\$2.56 per Share, being the mid-point of the Offer Price range stated in this prospectus and assuming the Over-allotment Option is not exercised) to finance the expected cost for purchasing the raw materials, chemicals and utilities needed for the above research and development projects, and the remaining expenses (including the remuneration and bonus for the staff involved in the projects and the administrative costs) are expected to be financed by our internal resources and/or external funding. For further details, please refer to the section headed “Future Plans and Use of Proceeds” in this prospectus.

In order to further enhance our research and development capabilities, we also plan to (i) attract and retain talented employees in the tantalum and niobium metallurgy industry by providing competitive remuneration packages, extensive training and attractive career development opportunities using our internal resources; and (ii) strengthen our cooperation with research and academic institutes to improve the production process and the quality of our products, while reducing production costs and improving efficiency in resource utilisation.

Strengthening our sales network in overseas markets

According to the CIC Report, a majority of the total output of tantalum- and niobium-based metallurgical products produced by China-based tantalum and niobium metallurgy and processing companies is exported to international markets. For FY2016, FY2017, FY2018, 8M2018 and 8M2019, our overseas sales amounted to approximately RMB43.5 million, RMB46.9 million, RMB51.9 million, RMB15.8 million and RMB39.4 million, respectively.

We plan to continue to strengthen our sales network in overseas market and explore business opportunities in overseas markets in order to broaden our customer base, increase our market share and diversify our operations. In particular, we plan to:

- (i) set up an office in the United Kingdom for strengthening our sales network, developing our relationship with customers and expanding our customer base in Europe. With an office established in the United Kingdom, we are of the view that our access to business opportunities in Europe would be improved, as we would be able to collect first-hand market information and to explore new business opportunities. We plan to utilise approximately 2.8% (equivalent to approximately HK\$4.2 million or RMB3.6 million) of the net proceeds from the Global Offering (based on the Offer Price of HK\$2.56 per Share, being the mid-point of the Offer Price range stated in this prospectus and assuming the Over-allotment Option is not exercised) to finance the setting up of the office in the United Kingdom. For further details, please refer to the section headed “Future Plans and Use of Proceeds” in this prospectus;
- (ii) cooperate with different sales agents in Europe, who have good understanding of the local markets and access to the established sales channels in the European countries; and
- (iii) continue to extend our domestic and overseas network through various means, such as participating in domestic and international industry exhibitions to introduce our products to existing and potential customers, with an aim to increase our exposure and enhance brand recognition.

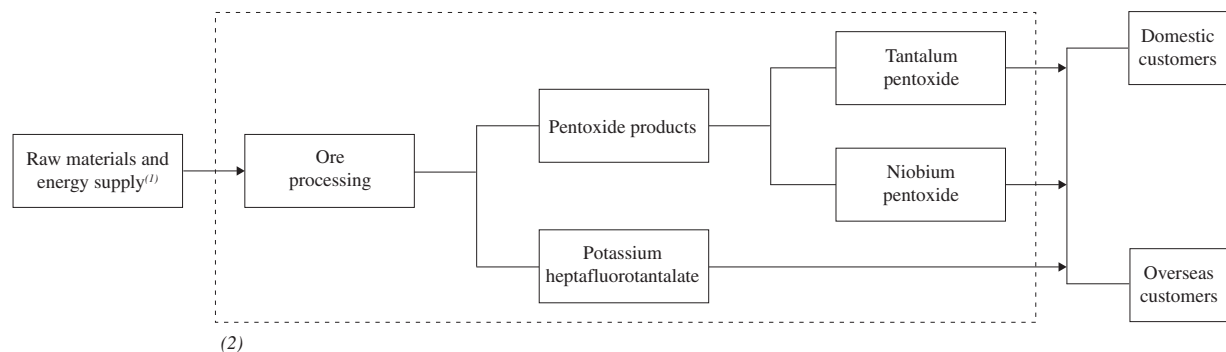
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Further secure sources of our principal raw materials

Most of the ores supplied by our suppliers come from mines in Brazil and African countries other than the PRC. We have established long-term cooperative relationships with our suppliers, which enable us to procure the raw materials that are required for our production. In light of the expansion of our existing production facilities for hydrometallurgical products in 2017 and our plan to extend our production to downstream products, we will explore avenues to further secure the supply of raw materials to us, such as: (i) entering into strategic alliances with some of our suppliers; and (ii) setting up an office in Brazil to enhance relationship with the local small and medium mining companies or suppliers, which in return will enable us to secure stable supplies of raw materials in Brazil. As such, we would be able to have a stable supply of raw materials by gaining access to the resources of the ores at market price, and reduce the order lead time for raw materials at a competitive price to meet our production plan and reduce reliance on suppliers which obtain ores from overseas mines and then resell them at a profit. We plan to utilise approximately 0.7% (equivalent to approximately HK\$1.0 million or RMB0.9 million) of the net proceeds from the Global Offering (based on the Offer Price of HK\$2.56 per Share, being the mid-point of the Offer Price range stated in this prospectus and assuming the Over-allotment Option is not exercised) to finance the setting up of the office in Brazil. For further details, please refer to the section headed “Future Plans and Use of Proceeds” in this prospectus.

OUR BUSINESS MODEL

We engage in the production and sale of two types of tantalum- and niobium-based metallurgical products, namely pentoxide products and potassium heptafluorotantalate. The following diagram illustrates our business model regarding the production and sale of pentoxide products and potassium heptafluorotantalate:



Notes:

- (1) Includes electricity and water, both of which are procured from Independent Third Parties.
- (2) “- - -” denotes our principal business scope.

To a limited extent, we also: (i) sell processed products such as tantalum bars, tantalum carbide, niobium bars and niobium powder, which are produced by engaging third-party metallurgy companies to process pentoxide products and potassium heptafluorotantalate we produce, or purchased from third-party metallurgy companies; and (ii) provide processing services for processing tantalum ores and niobium ores into pentoxide products and potassium heptafluorotantalate.

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For FY2016, FY2017, FY2018, 8M2018 and 8M2019, our revenue generated from sale of products amounted to approximately RMB199.2 million, RMB293.0 million, RMB504.1 million, RMB338.8 million and RMB396.8 million, respectively, constituting approximately 91.6%, 95.3%, 97.9%, 97.4% and 99.0% of our total revenue, respectively. For the same periods, our revenue generated from the provision of processing services amounted to approximately RMB18.2 million, RMB14.3 million, RMB10.6 million, RMB9.1 million and RMB4.0 million, respectively, constituting approximately 8.4%, 4.7%, 2.1%, 2.6% and 1.0% of our total revenue, respectively. For detailed analysis of our revenue, please refer to the paragraph headed “Financial Information — Principal components of the consolidated statements of profit or loss — Revenue” in this prospectus.

OUR PRODUCTS

Our principal products are tantalum pentoxide and niobium pentoxide. We also produce and sell potassium heptafluorotantalate. To a limited extent, we also sell processed products such as tantalum bars, tantalum carbide, niobium bars and niobium powder. The following table sets forth the breakdown of our revenue from sale of products for the years/periods indicated:

	FY2016		FY2017		FY2018		8M2018		8M2019	
	RMB'000	%	RMB'000	%	RMB'000	%	RMB'000	%	RMB'000	%
Pentoxide products:	167,398	84.0	235,447	80.3	340,815	67.6	228,846	67.6	320,797	80.8
Tantalum pentoxide:	93,703	47.0	105,449	36.0	126,635	25.1	92,981	27.5	150,577	37.9
Industrial grade tantalum pentoxide	91,415	45.9	98,573	33.7	116,537	23.1	84,884	25.1	146,110	36.8
High-purity tantalum pentoxide	2,288	1.1	6,876	2.3	10,098	2.0	8,097	2.4	4,467	1.1
Niobium pentoxide:	73,695	37.0	129,998	44.3	214,180	42.5	135,865	40.1	170,220	42.9
Industrial grade niobium pentoxide	63,136	31.7	102,624	35.0	168,193	33.4	104,292	30.8	123,617	31.2
High-purity niobium pentoxide	10,559	5.3	27,374	9.3	45,987	9.1	31,573	9.3	46,603	11.7
Potassium heptafluorotantalate	21,142	10.6	44,756	15.3	134,347	26.7	105,734	31.2	31,630	8.0
Processed products:	8,297	4.2	12,845	4.4	25,056	5.0	2,266	0.7	29,818	7.5
Tantalum bars	6,821	3.4	12,786	4.4	20,392	4.1	2,249	0.7	23,202	5.8
Tantalum carbide	1,360	0.8	—	—	—	—	—	—	—	—
Niobium bars	97	0.0	2	0.0	4,647	0.9	—	—	6,616	1.7
Niobium powder	19	0.0	57	0.0	17	0.0	17	0.0	—	—
Recycled products ⁽¹⁾	2,207	1.1	—	—	3,698	0.7	1,915	0.5	10,148	2.6
Others ⁽²⁾	171	0.1	—	—	182	0.0	—	—	4,424	1.1
Total revenue from sale of products	199,215	100.0	293,048	100.0	504,098	100.0	338,761	100.0	396,817	100.0

Notes:

- (1) Our recycled products mainly included three types of products produced by recycling our waste materials, namely tin hydroxide, potassium fluorosilicate and tungsten acid.
- (2) For FY2016, we sold cobalt carbonate (CoCO₃), which is a type of by-product generated in our production process. For FY2018 and 8M2019, we sold ferro niobium tantalum alloy, which is a kind of impurity included in our raw materials.

Pentoxide Products

We are engaged in the production and sale of two types of pentoxide products, namely tantalum pentoxide (Ta₂O₅) and niobium pentoxide (Nb₂O₅). Tantalum pentoxide is a white or light yellow solid powder at room temperature, while niobium pentoxide is a white solid powder at room temperature.

We set forth below illustrations of tantalum pentoxide and niobium pentoxide:



Tantalum pentoxide (Ta_2O_5)



Niobium pentoxide (Nb_2O_5)

Due to their comparatively superior characteristics in mechanical properties, malleability and heat resistance, both tantalum pentoxide and niobium pentoxide are widely used in the manufacturing processes across the industries of special alloy, chemical, electronic ceramics, aeronautics, aerospace, high-end electronics, defence and hard alloy. Tantalum pentoxide and niobium pentoxide can be used to manufacture pyro-metallurgical products and processed products, such as tantalum carbide, niobium ingots and niobium powder, which are then used as ingredients or raw materials in the manufacturing processes of high-end electronic components, camera lenses of mobile phones, artificial bones, high-speed trains and aircraft carriers.

By purity, tantalum pentoxide and niobium pentoxide are further classified into industrial grade tantalum pentoxide and high-purity tantalum pentoxide, and industrial grade niobium pentoxide and high-purity niobium pentoxide, respectively. For more information, please refer to the paragraph headed “Production process” in this section. Because of their purity levels, high-purity tantalum pentoxide and high-purity niobium pentoxide are widely used for the production of high-performance optical glass, optical coating films and target materials which can be further used in end products like mobile phones, high-end integrated circuits and super-conducting materials.

Potassium Heptafluorotantalate (K_2TaF_7)

Potassium heptafluorotantalate (K_2TaF_7) is white crystalline solid at room temperature, and is mainly used to manufacture tantalum powder and tantalum bars, which are then mainly used to produce special alloys and high-end electronic components. We set forth below an illustration of potassium heptafluorotantalate:



Potassium heptafluorotantalate (K_2TaF_7)

Processed Products

We strive to maintain good relationships with our existing customers and expand our customer base. In order to facilitate our expansion into production and sales of downstream products by gaining understanding of potential customers’ needs and expectations, we also sell processed products such as

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tantalum bars, tantalum carbide, niobium bars and niobium powder, which are produced by engaging third-party metallurgy companies to process the pentoxide products and potassium heptafluorotantalate we produce, or purchased from third-party metallurgy companies. For more information on the applications of such processed products, please refer to the paragraph headed “Pentoxide products” in this section.

We set forth below illustrations of these processed products:



Tantalum bars



Tantalum carbide



Niobium powder



Niobium bars

The following table sets forth the revenue, sales volume and average selling price for the years/periods indicated:

	FY2016			FY2017			FY2018			8M2019					
	Revenue	Sales volume	Average selling price	Revenue	Sales volume	Average selling price	Revenue	Sales volume	Average selling price	Revenue	Sales volume	Average selling price			
	RMB'000	tonne	RMB'000 per tonne	RMB'000	tonne	RMB'000 per tonne	RMB'000	tonne	RMB'000 per tonne	RMB'000	tonne	RMB'000 per tonne			
Sale of products															
Pentoxide products:															
Tantalum pentoxide:															
<i>Industrial grade tantalum pentoxide</i>	91,415	98.4	929.4	98,573	87.0	1,132.4	116,537	81.6	1,428.2	84,884	58.2	1,457.7	146,110	121.8	1,199.1
<i>High-purity tantalum pentoxide</i>	2,288	2.0	1,150.4	6,876	5.6	1,224.8	10,098	6.5	1,549.7	8,097	5.3	1,524.6	4,467	3.3	1,365.5
Niobium pentoxide:															
<i>Industrial grade niobium pentoxide</i>	63,136	442.3	142.7	102,624	572.7	179.2	168,193	751.7	223.8	104,292	448.2	232.7	123,617	604.2	204.6
<i>High-purity niobium pentoxide</i>	10,559	49.6	213.0	27,374	123.7	221.2	45,987	169.1	272.0	31,573	115.7	272.8	46,603	177.5	262.5
Potassium heptafluorotantalate	21,142	43.3	488.3	44,756	62.0	721.9	134,347	159.0	845.2	105,734	123.6	855.8	31,630	44.2	716.3
Processed products:															
<i>Tantalum bars</i>	6,821	4.2	1,605.3	12,786	7.0	1,826.6	20,392	9.2	2,216.5	2,249	1.0	2,248.9	23,202	12.5	1,856.2
<i>Tantalum carbide</i>	1,360	1.0	1,360.3	—	—	—	—	—	—	—	—	—	—	—	—
<i>Niobium bars</i>	97	0.3	324.8	2	0.0	367.5	4,647	11.5	404.1	—	—	—	6,616	16.2	408.2
<i>Niobium powder</i>	19	0.0	512.8	57	0.1	535.9	17	0.0	598.3	17	0.0	598.3	—	—	—
Recycled products	2,207	26.7	82.8	—	—	—	3,698	1,330.4	2.8	1,915	693.7	2.8	10,148	919.2	11.0
Others	171	1.7	100.9	—	—	—	182	0.8	219.8	—	—	—	4,424	24.2	182.7
Processing services	18,226	251.1	72.6	14,312	134.2	106.6	10,620	93.0	114.3	9,054	74.8	121.0	3,969	25.2	157.5
Total	217,441	920.6		307,360	992.3		514,718	2,612.8		347,815	1,520.5		400,786	1,948.3	

Notes:

- Our recycled products mainly included three types of products that are produced by recycling our waste materials, namely tin hydroxide, potassium fluorosulfate and tungsten acid.
- For FY2016, we sold cobalt carbonate (CoCO₃), which is a type of by-product generated in our production process. For FY2018 and 8M2019, we sold ferro niobium tantalum alloy, which is a kind of impurity included in our raw materials.
- We provided processing services for processing tantalum ores and niobium ores supplied by our customers into pentoxide products and potassium heptafluorotantalate.

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For reasons of the change in average selling price and sales volume during the Track Record Period, please refer to the paragraph headed “Financial Information — Principal components of the consolidated statements of profit or loss — Sales volume and average selling price” in this prospectus.

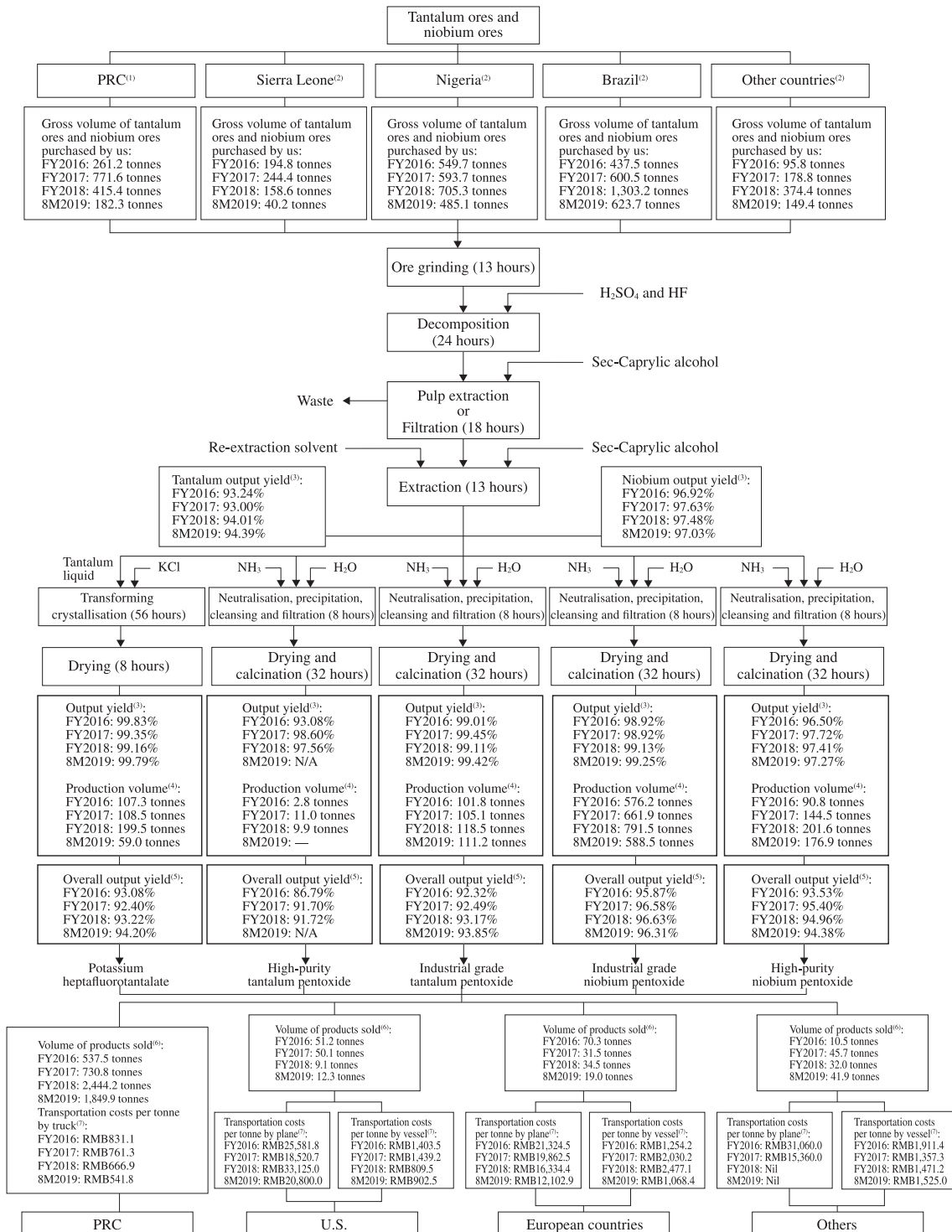
During the Track Record Period, we have received positive feedback from our customers on our pentoxide products and potassium heptafluorotantalate which consistently meet the industry standards on purity, which enabled us to gain greater market recognition, and therefore greater demand, for such products. According to the CIC Report, our techniques have enabled us to reduce the impurities of several metallic elements that are hard to remove to a designated level, and as such we can offer specific products that serve our customers’ needs. We believe such positive feedback from our customers attributed to our continuous effort, as (i) we work closely with our customers to understand their technical specifications, such as specified particle size and shape; and (ii) we improve the purity levels of our products and develop products with different physical properties through research and development efforts. The highest purity of our high-purity pentoxide products delivered to our customers was not less than 99.99%, compared with the industry standards for high-purity pentoxide products of a purity level of not less than 99.95%.

	Industry standards on purity	Highest purity of our products delivered to customers
Industrial grade tantalum pentoxide	99.0% to 99.6%	higher than 99.8%
High-purity tantalum pentoxide	not less than 99.95%	not less than 99.99%
Industrial grade niobium pentoxide	99.0% to 99.6%	not less than 99.8%
High-purity niobium pentoxide	not less than 99.95%	not less than 99.99%
Potassium heptafluorotantalate	55.8% to 56.8%	56.8%

Supported by our research and development capabilities, we are able to constantly improve our impurity-removing techniques by improving the key formula of impurity-removing reagents and solvents. For example, the metallic element antimony (銻) is commonly found in the tantalum and niobium ores but difficult to remove in the extraction process. We successfully developed a new kind of antimony-removing reagent that helps create antimony-based metal complex (銻絡合物) to remove antimony from tantalum and niobium liquids. Another example is our successful development and adoption of copper-removing reagent, leading to better quality of our products in terms of lower copper impurity.

PRODUCTION PROCESS

We use tantalum ores and niobium ores as principal raw materials in our production of pentoxide products and potassium heptafluorotantalate. The production time for each critical process and the total amount of time required for producing each type of finished products differ due to their respective physical and chemical features, the grade of ores and the technology involved. The following diagram sets forth a summary of the production process of our major products with average processing time and relevant data during the Track Record Period:



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Notes:

- (1) For tantalum ores and niobium ores sourced from suppliers in the PRC which sourced the same from mines in various countries, the transportation costs were generally borne by our suppliers and therefore not recorded in our cost of sales. To the best knowledge of our Directors, for FY2016, FY2017, FY2018 and 8M2019, apart from approximately 107.0 tonnes, 197.1 tonnes, nil and nil of tantalum ores and niobium ores (due to the low concentration level of these ores) that originated from the PRC, respectively, the other tantalum ores and niobium ores supplied by our suppliers in the PRC were from mines in other countries. During the Track Record Period, we purchased tantalum ores and niobium ores that originated from the PRC from two mining companies, namely Guangxi Non-ferrous Limu Mining Co., Ltd.* (廣西有色栗木礦業有限公司) and Supplier M, being a mining company in Jiangxi Province.
- (2) The transportation costs from mines to ports in the PRC by vessel were generally borne by our suppliers and therefore not recorded in our cost of sales. The transportation costs from ports in the PRC to our production facilities (including import charges, agency fees, port construction dues, commodity inspection fees, and delivery fees) were approximately RMB196.1, RMB368.7, RMB399.8 and RMB378.4 per tonne for FY2016, FY2017, FY2018 and 8M2019, respectively.
- (3) The output yield represents output volume of tantalum or niobium contents in the products for the year/period divided by input volume of tantalum or niobium contents in the raw materials used to produce the products for the year/period. When calculating the output yield, ores provided by our customers for processing services and products produced for processing services are included. The total input volume of tantalum contents in the raw materials for FY2016, FY2017, FY2018 and 8M2019 amounted to approximately 172.3 tonnes, 194.5 tonnes, 259.5 tonnes and 149.6 tonnes, respectively. The total input volume of niobium contents in the raw materials for FY2016, FY2017, FY2018 and 8M2019 amounted to approximately 695.8 tonnes, 835.2 tonnes, 1,114.3 tonnes and 730.9 tonnes, respectively.
- (4) Production volume represents actual production volume for sale of products and provision of processing services. The actual production volume for sale of products for FY2016, FY2017, FY2018 and 8M2019 amounted to approximately 653.7 tonnes, 904.2 tonnes, 1,221.5 tonnes and 910.2 tonnes, respectively. The actual production volume for processing services for FY2016, FY2017, FY2018 and 8M2019 amounted to approximately 225.2 tonnes, 126.8 tonnes, 99.5 tonnes and 25.4 tonnes, respectively.
- (5) The overall output yield from tantalum or niobium contents in the raw materials to tantalum or niobium contents in the finished goods is a theoretical value, because the volume of intermediate products produced after extraction could be different from the input volume of intermediate products to produce the finished goods, primarily due to the movement of intermediate product inventory balance.
- (6) The volume of products sold represents the sales volume attributable to sales of products and includes processed products, recycled products and other products. The differences between the production volume and the volume of products sold mainly represent the volume of such products that: (i) we produced for the provision of processing services; (ii) we engaged third-party metallurgy companies to process the products we produced into processed products; and (iii) are reflected in the movement of inventories balance.
- (7) The transportation costs per tonne to each destination only represent those of major means of transportation to such destination.
- (8) For the purpose of this diagram, H₂SO₄ means sulphuric acid, HF means hydrofluoric acid, KCl means potassium chloride, NH₃ means ammonia and H₂O means water.

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The table below sets forth the detailed information on our purchases from mining companies of tantalum ores and niobium ores that originated from the PRC during the Track Record Period:

		FY2016			FY2017			FY2018			8M2019		
		Tantalum and niobium ores	Tantalum and niobium content	%	Tantalum and niobium ores	Tantalum and niobium content	%	Tantalum and niobium ores	Tantalum and niobium content	%	Tantalum and niobium ores	Tantalum and niobium content	%
		tonne	tonne		tonne	tonne		tonne	tonne		tonne	tonne	
Guangxi Non-ferrous Limu Mining Co., Ltd.* (廣西有色栗木礦業有限公司)	Mining company	97.0	4.5	4.6	156.9	8.7	5.5	—	—	—	—	—	—
Supplier M	Mining company	10.0	2.8	28.0	40.2	12.3	30.6	—	—	—	—	—	—
Total		107.0	7.3	6.8	197.1	21.0	10.7	—	—	—	—	—	—

Compared with tantalum-niobium mines in major reserves of tantalum and niobium globally, the ore grade in China is much lower, with the average tantalum ore grade ranging between 0.008% and 0.016% and the average niobium ore grade ranging between 0.02% and 0.03%. This is mainly because: (i) there is no highly-concentrated tantalum or niobium mine in China, and tantalum and niobium ores from China are often found in iron mines and rare earth mines, which increase difficulty in extracting tantalum and niobium elements; (ii) tantalum and niobium elements are more dispersed in the mines in China compared with major reserves globally; and (iii) tantalum and niobium grain size is smaller in China compared to that of major reserves globally.

The tables below illustrate tantalum ore grade and niobium ore grade in major tantalum and niobium reserves globally and in the PRC:

Tantalum Ore Grade

Canada	0.11%
Mozambique	0.07%
Ethiopia	0.05%
Australia	0.02%–0.05%
Brazil	0.04%
The PRC	0.008%–0.016%

Source: United States Department of the Interior, CIC

Niobium Ore Grade

Brazil	1.57%–3.00%
The Democratic Republic of Congo	0.90%–1.60%
Kenya	0.70%
Canada	0.43%–0.72%
Tanzania	0.40%
The PRC	0.02%–0.03%

Source: United States Department of the Interior, CIC

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The tables below set forth the wet weight of tantalum and niobium ores purchased by us, our total purchase amount of tantalum and niobium ores, and content of pentoxide in tantalum and niobium ores purchased by us during the Track Record Period:

Wet weight of tantalum and niobium ores purchased by us

	FY2016		FY2017		FY2018		8M2019	
	International purchase	Domestic purchase	International purchase	Domestic purchase	International purchase	Domestic purchase	International purchase	Domestic purchase
	tonne		tonne		tonne		tonne	
Wet weight of tantalum and niobium ores	1,277.8	261.2	1,617.4	771.6	2,541.5	415.4	1,218.5	262.2
Total	<u>1,539.0</u>		<u>2,389.0</u>		<u>2,956.9</u>		<u>1,480.7</u>	

Our total purchase amount of tantalum and niobium ores

	FY2016		FY2017		FY2018		8M2019	
	International purchase	Domestic purchase	International purchase	Domestic purchase	International purchase	Domestic purchase	International purchase	Domestic purchase
	RMB million		RMB million		RMB million		RMB million	
Purchase amount of tantalum and niobium ores	119.9	6.9	170.9	50.1	325.6	48.2	156.3	27.2
Total	<u>126.8</u>		<u>221.0</u>		<u>373.8</u>		<u>183.5</u>	

Content of pentoxide in tantalum and niobium ores purchased by us

	FY2016		FY2017		FY2018		8M2019	
	tonne	%	tonne	%	tonne	%	tonne	%
Tantalum pentoxide	118.8	7.7	179.1	7.5	231.5	7.8	134.8	9.1
Niobium pentoxide	543.7	35.3	779.2	32.6	1,287.1	43.5	662.6	44.7
Total	<u>662.5</u>	<u>43.0</u>	<u>958.3</u>	<u>40.1</u>	<u>1,518.6</u>	<u>51.3</u>	<u>797.4</u>	<u>53.8</u>

The production process for pentoxide products includes the following principal steps:

- *Ore grinding.* Tantalum ores and niobium ores are transported into a grinding machine to be ground into tiny particles.
- *Decomposition.* The tiny particles are then transported into a decomposer to undergo chemical reactions with hydrofluoric acid and sulphuric acid, where tantalum and niobium particles are dissolved into solution. Waste water produced during this process contains fluorine and can be used for the production of potassium fluorosilicate.
- *Pulp extraction.* The solution is then extracted in a pulp extraction tank, where tantalum and niobium are extracted by extraction agents and loaded organic phase containing tantalum and niobium is produced. Waste liquid produced during this process can be used for recycling of tin to produce tin concentrate and tin hydroxide, and fluorine to produce potassium fluorotitanate and potassium fluorosilicate.
- *Extraction.* The loaded organic phase containing tantalum and niobium undergo another extraction process, where liquid tantalum and liquid niobium are separately produced by removing impurities. Waste water produced during this process can be used for recycling of tungsten to produce tungsten acid, and fluorine to produce potassium fluorosilicate.

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- *Neutralisation and precipitation.* The liquid tantalum and liquid niobium are pumped into two separate neutralisation tanks to be neutralised by adding ammonia, where tantalum hydroxide and niobium hydroxide are produced separately.
- *Cleansing and filtration.* Tantalum hydroxide and niobium hydroxide are cleansed by adding diluted aqua ammonia to absorb fluorination. Solid-liquid separation is then conducted through a pressure filter, where a filter cake of hydroxide is produced.
- *Drying and calcination.* The filter cake of hydroxide is then transported into a converter for drying and calcinations, where industrial grade and high-purity tantalum pentoxide and industrial grade and high-purity niobium pentoxide are produced at a temperature of 800°C.

Unlike the production of tantalum pentoxide and niobium pentoxide, the production of potassium heptafluorotantalate does not require calcination.

The production feeds in the whole process include hydrofluoric acid, sulphuric acid, sec-Caprylic alcohol, potassium chloride, ammonia and water. The facilities and equipment include grinding machines, decomposers, pulp extraction tanks, neutralisation tanks, pressure filters and converters.

PROCESSING SERVICES

During the Track Record Period, we also provided processing services for processing tantalum ores and niobium ores supplied by our customers into pentoxide products and potassium heptafluorotantalate. Our sales volume for processing services was approximately 251.1 tonnes, 134.2 tonnes, 93.0 tonnes and 25.2 tonnes for FY2016, FY2017, FY2018 and 8M2019, respectively. Our revenue generated from processing services amounted to approximately RMB18.2 million, RMB14.3 million, RMB10.6 million and RMB4.0 million, respectively, accounting for approximately 8.4%, 4.7%, 2.1% and 1.0% of our total revenue, respectively, for the same years/period. Our average selling price for processing services was approximately RMB72,600 per tonne, RMB106,600 per tonne, RMB114,300 per tonne and RMB157,500 per tonne for FY2016, FY2017, FY2018 and 8M2019, respectively. The decrease in our revenue from the provision of processing services was mainly because we allocated our production capacity to focus more on production for sale of products than for processing services in view of the higher average price for sale of products than that for processing services.

PRODUCTION FACILITIES

Production facilities for pentoxide products and potassium heptafluorotantalate

As at the Latest Practicable Date, we had a single production plant on our self-used land located in Yingde, Guangdong Province, with a total site area of approximately 113,265 sq.m.. We are in close proximity to several major national and provincial expressways and ports, connecting us with the major cities in Guangdong Province, as well as enabling us to ship our products and procure our principal raw materials overseas through the South China Sea. Our favourable location and convenient access to a variety of transportation infrastructures allow us to effectively market and sell our products to customers in Guangdong Province and surrounding provinces, and to control the transportation costs for selling our products to customers in other parts of China and overseas.

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According to the CIC Report, it is expected that the production volume of pentoxide products (including high-purity tantalum pentoxide and high-purity niobium pentoxide) in the PRC would continue to grow primarily due to the increasing market demand from various downstream industries. Given that (i) we were the largest producer of tantalum- and niobium-based hydrometallurgical products in China, holding 35.8% of the market share in terms of total annual production volume for external sales for FY2018; and (ii) the utilisation rate of our production lines for pentoxide products was approximately 87.4% for FY2018, we expect (i) the increasing demand for our pentoxide products would be in line with the expected growth of the market size in terms of sales; and (ii) the market size of downstream industries of tantalum pentoxide and niobium pentoxide would continue experiencing growth.

With a view to meeting the market demand for tantalum pentoxide and niobium pentoxide, we commenced the construction of four new production lines for pentoxide products in our existing production facilities in 2017, and expanded our estimated production capacity of pentoxide products from approximately 804 tonnes for FY2017 to approximately 1,282.5 tonnes for FY2018 to approximately 1,800 tonnes for the year ended 31 December 2019. Our estimated production capacity of high-purity tantalum pentoxide and high-purity niobium pentoxide increased from approximately three tonnes per year and approximately 153 tonnes per year for FY2017 to approximately 60 tonnes per year and approximately 228 tonnes per year for FY2018 and the year ended 31 December 2019, respectively. In view of the relatively low utilisation rate for the production line for potassium heptafluorotantalate (as compared to the production lines for pentoxide products) for FY2016 and FY2017, we did not increase the estimated annual production capacity of potassium heptafluorotantalate during our production lines expansion in 2017.

As at the Latest Practicable Date, our production facilities had nine production lines for pentoxide products and potassium heptafluorotantalate. The following tables set forth the utilisation rates of our production lines by product type during the Track Record Period:

<u>Pentoxide products</u>	<u>FY2016</u>	<u>FY2017</u>	<u>FY2018</u>	<u>8M2019</u>
Estimated production capacity ⁽¹⁾ (tonnes)	804	804	1,282.5	1,200
Actual production volume (tonnes):	771.6	922.5	1,121.5	876.6
Production volume for sale of products ⁽²⁾ (tonnes)	608.1	820.2	1,040.0	863.0
Production volume for provision of processing services (tonnes)	163.5	102.3	81.5	13.6
Utilisation rate ⁽³⁾ (%)	96.0	114.7	87.4	73.1
<u>Potassium heptafluorotantalate</u>	<u>FY2016</u>	<u>FY2017</u>	<u>FY2018</u>	<u>8M2019</u>
Estimated production capacity ⁽¹⁾ (tonnes)	207	207	207	138
Actual production volume (tonnes):	107.3	108.5	199.5	59.0
Production volume for sale of products ⁽⁴⁾ (tonnes)	45.6	84.0	181.5	47.2
Production volume for provision of processing services (tonnes)	61.7	24.5	18.0	11.8
Utilisation rate ⁽³⁾ (%)	51.8	52.4	96.4	42.8

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Notes:

- (1) For FY2016, FY2017 and FY2018, the estimated production capacity for each product was calculated based on 300 working days per year with 24 working hours per day. For 8M2019, the estimated production capacity was calculated on a pro-rata basis of the estimated production capacity for the year ended 31 December 2019.
- (2) The production volume of pentoxide products includes the pentoxide products we engaged third-party metallurgy companies to process into processed products such as niobium powder, niobium bars and tantalum carbide, which in aggregate amounted to approximately 1.6 tonnes, nil, 10.1 tonnes and 26.5 tonnes, respectively, for FY2016, FY2017, FY2018 and 8M2019.
- (3) Utilisation rate is derived by dividing the actual production volume for the relevant year/period by the estimated production capacity for the relevant year/period.
- (4) The production volume of potassium heptafluorotantalate includes the potassium heptafluorotantalate we engaged third-party metallurgy companies to process into processed products, namely tantalum bars, which amounted to approximately 12.1 tonnes, 14.5 tonnes, 33.8 tonnes and 13.1 tonnes, respectively, for FY2016, FY2017, FY2018 and 8M2019.

The utilisation rate of our production lines for pentoxide products increased from approximately 96.0% for FY2016 to approximately 114.7% for FY2017 and exceeded 100%, mainly because we reduced the frequency of equipment maintenance and increased the number of production days to fulfil our orders during FY2017. The utilisation rate of our production lines for pentoxide products decreased from approximately 87.4% for FY2018 to approximately 73.1% for 8M2019, mainly because (i) our estimated production capacity for 8M2019 further increased as a result of the expansion of our production lines, which increased our estimated production capacity for pentoxide products from approximately 804 tonnes for FY2017 to approximately 1,282.5 tonnes for FY2018 to approximately 1,800 tonnes for the year ended 31 December 2019; and (ii) in February 2019 our production facilities were closed for 25 days for general maintenance, despite our actual production volume of pentoxide products for 8M2019 exceeded that for 8M2018.

The utilisation rate of our production line for potassium heptafluorotantalate increased from approximately 52.4% for FY2017 to approximately 96.4% for FY2018, mainly driven by the purchase by Customer F for a large volume of potassium heptafluorotantalate, which accounted for a majority of our sale of potassium heptafluorotantalate by volume for FY2018. Customer F procured its raw materials through an online tendering system. Customer F's purchase for potassium heptafluorotantalate increased for FY2018 because we were awarded contract for the sales of potassium heptafluorotantalate for several months. The utilisation rate of our production line for potassium heptafluorotantalate decreased from approximately 96.4% for FY2018 to approximately 42.8% for 8M2019, mainly driven by the significant decrease in sales orders for potassium heptafluorotantalate from Customer F.

Facilities for waste material recycling

As at the Latest Practicable Date, we could produce six types of recycled products using our waste material recycling facilities, including:

- *Tin concentrate* is the ore concentrate produced by conducting preliminary processing of tin ores, and can be used by tin metallurgy companies to produce tin ingots.
- *Tin hydroxide* ($\text{Sn}(\text{OH})_4$), also known as stannic hydroxide, is white or light yellow solid powder at room temperature, and can be used for the production of pigments, pesticides and tin ingots.
- *Tungsten trioxide* (WO_3), also known as tungstic anhydride, is white or light yellow solid powder at room temperature. Tungsten trioxide is widely used for the production of x-ray screen phosphors, fireproofing fabrics and gas sensors.
- *Tungsten acid* (H_2WO_4), is tungsten trioxide in hydrated form, and can be used to produce tungsten powder, which is widely used in the petrochemical industry as additives.
- *Potassium fluorosilicate* (K_2SiF_6) or *sodium fluorosilicate* (Na_2SiF_6), is white, odourless and tasteless crystal substance or powder, and can be used for the production of preservatives and insecticides. It is also a raw material for production of glass.
- *Potassium fluorotitanate* (K_2TiF_6), is a colourless crystal substance, and can be used as: (i) catalyst to produce polypropylene; (ii) a raw material to produce aluminium titanium boron alloy; and (iii) a raw material to produce potassium fluoroaluminate that is expected to be increasingly used as additives in aluminium metallurgy industry to save energy costs.

Our recycled products are produced by processing the waste water produced during our production process of pentoxide products and potassium heptafluorotantalate and the type of recycled products that could be produced depends on the impurities contained in the waste water. For FY2016, FY2018 and 8M2019, we mainly sold three types of recycled products, namely tin hydroxide, potassium fluorosilicate and tungsten acid, to our customers. For FY2016, the revenue generated from sale of recycled products amounted to approximately RMB2.2 million, accounting for approximately 1.0% of our total revenue. We did not generate any revenue from sale of recycled products for FY2017 mainly due to our small production volume of recycled products. For FY2018, the revenue generated from sale of recycled products amounted to approximately RMB3.7 million, accounting for approximately 0.7% of our total revenue. For 8M2019, the revenue generated from sale of recycled products amounted to approximately RMB10.1 million, accounting for approximately 2.5% of our total revenue. We did not sell any tin concentrate and tungsten trioxide during the Track Record Period, mainly because of the small production volume of these products.

Our plan to extend our production and sales to downstream products

We plan to extend our production and sales to downstream products by setting up new production facilities to produce downstream tantalum-based products, such as tantalum powder and tantalum bars. For details, please refer to the paragraph headed “Our business strategies — Extend our production and sales to downstream products” in this section.

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Major asset and equipment

As at the Latest Practicable Date, we had the following major machinery and equipment at our production facilities:

Machinery	Major function	Origin	Number of unit(s)	Approximate estimated average age (years)	Approximate estimated remaining useful lives (years)
Ammonia-nitrogen tower system (氨氮塔系統)	Recycling of ammonia	China	1	10	2.9
Vertical automatic pressure filter (全自動立式壓濾機)	Filtration	China	1	10	8.8
Gas converter (燃氣轉爐)	Drying of pentoxide	China	1	10	8.8
Exhaust gas treatment system (廢氣處理系統)	Exhaust gas treatment	China	1	10	9.0
Inductively coupled plasma mass spectrometry (電感耦合等離子體質譜儀)	Product analysis	United States	1	10	2.5
Diesel generator	Back-up electricity supply	China	1	10	7.8

We carry out repair and maintenance of our major machinery and equipment whenever necessary. We also carry out routine repair and maintenance of our machinery and equipment during Chinese New Year holidays every year. For FY2016, FY2017 and FY2018, our production facilities were closed down for ten days, two days and seven days, respectively, for general maintenance. Since we needed to test the machinery acquired during the expansion of our production facilities and the total production volume of pentoxide products and potassium heptafluorotantalate increased by approximately 28.1% from approximately 1,031.0 tonnes for FY2017 to approximately 1,321 tonnes for FY2018, our Directors considered that it was necessary to have a longer downtime than the past years for testing of new machinery and routine repair and maintenance in February 2019, our production facilities was closed for 25 days during 8M2019 for general maintenance. During the Track Record Period and up to the Latest Practicable Date, there had been no major disruption of our business operation due to machine or equipment failure.

RESEARCH AND DEVELOPMENT

We place significant emphasis on research and development. To advance our research and development capabilities, we have established a research and development department, which, as at the Latest Practicable Date, comprised 11 employees. Our research and development department is led by our executive Director and chief executive officer, Mr. Wu, and our vice president, Mr. Zhong Yuelian, who have over 30 and 25 years of experience in the tantalum and niobium metallurgy industry, respectively. In addition, two of our senior engineers and an industrial analysis engineer also participate

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in our research and development projects. The table below sets forth the qualifications of Mr. Wu and Mr. Zhong Yuelian as well as the employees who participate in our research and development projects:

Name	Qualification	Authority granting the qualification	Education background	Major	Approximate years of experience in our industry
Wu Lijue (吳理覺)	Senior engineer ^(Note)	China Non-ferrous Metal Industry Corporation	Bachelor's degree	Powder metallurgy	30
Zhong Yuelian (鐘嶽聯)	Senior rare metal metallurgical engineer ^(Note)	Human Resources and Social Security Department of Guangdong Province	Bachelor's degree	Physical chemistry of metallurgy	25
Yuan Ningfeng (袁寧峰)	Senior engineer ^(Note)	Human Resources Department of Ningxia Hui Autonomous Region	Bachelor's degree	Non-ferrous metallurgy	25
Yuan Hui (袁慧)	Industrial analysis engineer	Human Resources and Social Security Department of Guangdong Province	Diploma	Non-ferrous metallurgy	25
Shi Bo (石波)	Metallurgical engineer	Human Resources and Social Security Department of Guangdong Province	Bachelor's degree	Non-ferrous metallurgy	20
Ding Zhongyao (丁忠耀)	First-level/Senior technician	The Ministry of Human Resources and Social Security, PRC	Diploma	Administrative management	20
Wu Meihui (吳美慧)	Assistant chemical analysis engineer	Yingde Municipal Human Resources and Social Security Bureau	Diploma	Industrial analysis and testing	5
Li Chao (李超)	Assistant chemical engineering engineer	Yingde Municipal Human Resources and Social Security Bureau	Bachelor's degree	Applied chemistry	4
Ma Kunpeng (馬昆鵬)	Bachelor's degree	Hunan University of Technology	Bachelor's degree	Chemical engineering and technology	3
Huang Jungui (黃俊貴)	Bachelor's degree	Zhengzhou Institute of Light Industry	Bachelor's degree	Electrochemical Engineering	1
Dai Yun (代雲)	Senior engineer ^(Note)	Human Resources and Social Security Department of Yunnan Province	Bachelor's degree	Non-ferrous metallurgy	Newly joined the industry
Cheng Yun (程昀)	Doctoral degree	Central South University	Doctoral degree	New energy materials and devices	Newly joined the industry
Deng Chaoyong (鄧朝勇)	Doctoral degree	Central South University	Doctoral degree	Material science and engineering	Newly joined the industry
Xie Yong (謝勇)	Bachelor's degree	Jishou University	Bachelor's degree	Applied chemistry	Newly joined the industry
Li Bin (李斌)	Master's degree	Taiyuan University of Science and Technology	Master's degree	Ferrous metallurgy	Newly joined the industry
Li Shifeng (李石鳳)	Master's degree	Central South University	Master's degree	Organic chemistry	Newly joined the industry

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Note: In order to be accredited as a senior engineer, an individual has to satisfy the academic qualification and working experience requirement set by the accrediting authority. For example, the requirements for obtaining a senior engineer qualification from the Human Resources and Social Security Department of Guangdong Province include: (i) professional work experience with a doctoral degree and with over two years being in the position of an engineer after obtaining an engineer qualification; (ii) professional work experience with a bachelor's degree or above and with over five years being in a position of an engineer after obtaining the qualification of an engineer; or (iii) over 20 years of professional work experience with an associate degree and with over five years being in a position of an engineer after obtaining the qualification of an engineer. A senior engineer qualification represents extensive knowledge about the industry, strong innovative capability, and contribution to major engineering or technological projects.

The table below sets out the number of senior engineers in the top five players in the PRC tantalum- and niobium-based hydrometallurgical products market in terms of total annual production volume for external sales in 2018, according to the CIC Report:

Ranking	Enterprises	Number of senior engineers
1	Our Group	3
2	Company One	11
3	Company Two	1
4	Company Three	9
5	Company Four	0

In addition to our in-house research and development personnel, we have established a science and technology personnel workstation at our production facilities during the Track Record Period. During the period from April 2015 to April 2018, we received assistance of four senior engineers from Guangzhou Research Institute of Non-ferrous Metals (廣州有色金屬研究院). During the period from March 2018 to March 2019, we received assistance from two senior engineers and one technician with a PhD degree in non-ferrous metallurgy from Institute for the Comprehensive Utilisation of Resources of Guangdong Province (廣東省資源綜合利用研究所). We also established collaborative relationships with research and academic institute and company in China to develop innovative metallurgical technologies during the Track Record Period. As at 31 August 2019, we had eight on-going in-house research and development projects and one cooperative project with research and academic institute in China. For FY2016, FY2017, FY2018 and 8M2019, we incurred approximately RMB8.4 million, RMB12.2 million, RMB22.7 million and RMB14.3 million, respectively, on research and development, representing approximately 3.9%, 4.0%, 4.4% and 3.6% of our total revenue for the same years/period, compared to the industry average of 1.5%, according to CIC. For more information, please refer to the paragraph headed "Our competitive strengths" in this section.

For FY2016, FY2017, FY2018 and 8M2019, we incurred approximately RMB8.4 million, RMB12.2 million, RMB22.7 million and RMB14.3 million, respectively, on research and development, representing approximately 3.9%, 4.0%, 4.4% and 3.6% of our total revenue for the same years/period. During the Track Record Period, our research and development expenses mainly consisted of costs relating to remuneration of our research staff, intellectual property management and application for government funding.

Through our research and development efforts, we have been able to continuously improve the purity levels of tantalum pentoxide and niobium pentoxide, develop niobium pentoxide with different physical properties to be applied in different industries, and enhance our capabilities in recycling waste materials for environmental protection, such as recovering different tin and tungsten resources from waste water. As at the Latest Practicable Date, we could produce six types of recycled products, and we have registered two patents in China regarding recycling tin and tungsten from waste water. As a result of our efforts, we owned 24 patents in China relating to production equipment and process as at the Latest Practicable Date. In addition, as at the Latest Practicable Date, we had filed 16 patent applications pending registration with the competent authorities in China. We intend to focus our

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research and development efforts on: (i) improving the techniques for processing tantalum ores and niobium ores; (ii) developing pentoxide products with high purity levels and special physical properties; (iii) developing new products; and (iv) recycling and utilising waste materials.

Generally by the end of each year, we set out our research and development plan and approve new research and development projects for the coming year, based on our production and market demand. For FY2016, FY2017 and FY2018, there were seven, ten and six in-house research and development projects respectively. As at 31 August 2019, we had eight in-house research and development projects on hand and the following table sets forth the key terms of such in-house research and development projects:

Project	Valid term	Cost arrangement
Research and development on new extraction technology (萃取新工藝研究)	January 2019 – December 2019	● Total expected cost: RMB1.5 million
Technical research on recycling fluorinated waste water (含氟鹼性廢水資源化治理技術研究)	January 2019 – December 2019	● Total expected cost: RMB1.5 million
Technical research for recycling waste acid and acidic waste water (酸性廢水廢酸回收技術研究)	January 2019 – December 2019	● Total expected cost: RMB0.8 million
Technical research on the preparation and application of fluoride salt product from fluorine-containing acidic waste water (含氟酸性廢水制取氟鹽產品技術研究與應用)	May 2018 – December 2019	● Total expected cost: RMB1.8 million
Electrochemical synthesis and efficient purification technology of electronic grade of tantalum (niobium) alkoxide (電子級鉬(鈮)醇鹽的電化學合成與高效純化技術)	September 2018 – August 2023	● Total expected cost: RMB33.0 million
Technical research on the production of high purity niobium pentoxide from tantalum — niobium alloy and its application (鉬鉬鐵合金制取高純氧化鈮生產工藝研究與應用)	January 2018 – December 2019	● Total expected cost: RMB3.0 million
Technical research on production process of high value-added fluoride salt from acidic-waste water containing fluorine and its application (含氟酸性廢水制取高附加值氟鹽生產工藝研究及應用)	January 2018 – December 2019	● Total expected cost: RMB4.0 million
Technical research on the comprehensive treatment for decomposition of waste gas (分解廢氣綜合治理工藝研究)	January 2018 – December 2019	● Total expected cost: RMB4.0 million

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In addition to our in-house research and development capabilities, we also established collaborative relationships with research and academic institute and company to develop innovative metallurgical technologies. As at 31 August 2019, we had one cooperative project with a research and academic institute in China. The following table sets forth the key terms of such collaborative arrangement:

Organisation	Project	Valid term	Cost arrangement
Institute for the Comprehensive Utilisation of Resources, Guangdong General Research Institute for Industrial Technology (Guangdong Research Institute of Non-ferrous Metals)* (廣東省工業技術研究院 (廣州有色金屬研究院) 資源綜合利用研究所)	Research on techniques for recycling of waste water produced during the tantalum- and niobium production process, and the industrialisation of such technique (鈮鈮工業廢水資源化治理技術研究與產業化)	October 2015 – September 2019	<ul style="list-style-type: none"> RMB3.0 million of government grants to be allocated between us and the institute as to 60% and 40%, respectively

CUSTOMERS, SALES AND MARKETING

Our Customers

Our customers are primarily: (i) metallurgy companies which utilise our products for further production and/or engage us in providing processing services; and (ii) trading companies which resell our products and/or engage us in providing processing services. The following table sets forth the number of our customers by metallurgy companies and trading companies and their respective revenue contribution for the years/periods indicated:

	FY2016				FY2017				FY2018				8M2018				8M2019			
	Number		Revenue		Number		Revenue		Number		Revenue		Number		Revenue		Number		Revenue	
		%	RMB'000	%		%	RMB'000	%		%	RMB'000	%		%	RMB'000	%		%	RMB'000	%
Metallurgy companies	54	62.8	139,487	64.1	63	68.5	194,274	63.2	74	77.1	381,206	74.1	67	79.8	282,097	81.1	63	73.3	332,285	82.9
Trading companies	32	37.2	77,954	35.9	29	31.5	113,086	36.8	22	22.9	133,512	25.9	17	20.2	65,718	18.9	23	26.7	68,501	17.1
Total	86	100.0	217,441	100.0	92	100.0	307,360	100.0	96	100.0	514,718	100.0	84	100.0	347,815	100.0	86	100.0	400,786	100.0

During the Track Record Period, we mainly sold our products to customers in the PRC, as well as customers in the United States, Japan, South Korea and European countries. According to the CIC Report, overseas customers located in the United States, Japan, South Korea and European countries purchase pentoxide products from PRC suppliers instead of purchasing from suppliers closer to them, or from suppliers located in African and South American countries, mainly because: (i) China has been, and is expected to be, the largest manufacturing base in the global tantalum and niobium metallurgy industry. The production volume of tantalum- and niobium-based hydrometallurgical products in the PRC accounted for approximately 58.6% of that of the global market in 2018, and is expected to increase to approximately 65.1% in 2023, mainly driven by the expected growth in production capacity and technological upgrades of leading PRC tantalum and niobium metallurgy companies; (ii) Chinese hydrometallurgical companies contributed over 75% of global shipment of tantalum- and niobium-based hydrometallurgical products sold externally to downstream industries in 2017; and (iii) as confirmed by CIC, the PRC producers of tantalum- and niobium-based metallurgical products have been able to continuously provide high-quality products at globally competitive prices, primarily because they successfully optimised production efficiency and achieved economies of scale by improving their manufacturing technologies and production capacity.

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The following table sets forth the breakdown of our total revenue by geographic location of our customers for the years/periods indicated:

	FY2016		FY2017		FY2018		8M2018		8M2019	
	RMB'000	%	RMB'000	%	RMB'000	%	RMB'000	%	RMB'000	%
The PRC	173,898	80.0	260,503	84.8	462,827	89.9	331,969	95.4	361,352	90.2
The United States	19,990	9.2	21,875	7.1	19,995	3.9	2,275	0.7	22,286	5.5
European countries ⁽¹⁾	18,279	8.4	13,796	4.5	19,365	3.8	7,497	2.2	4,439	1.1
Others ⁽²⁾	5,274	2.4	11,186	3.6	12,531	2.4	6,074	1.7	12,709	3.2
Total revenue	217,441	100.0	307,360	100.0	514,718	100.0	347,815	100.0	400,786	100.0

Notes:

- (1) During the Track Record Period, we sold our products to different European countries, including Austria, France, Luxembourg and the United Kingdom.
- (2) Others included Hong Kong, Japan, South Korea and Taiwan.

We had a total of 12 overseas customers which are trading companies during the Track Record Period. The following table sets forth certain information of these overseas trading companies:

	<u>Background</u>	<u>Place of incorporation</u>	<u>Major market area</u>	<u>Year of establishment</u>
Company A	Represents two companies under the same group, which principally engaged in trading specialty chemicals, metals, plastics and food additives	The United States	The United States	2007 and 2013
Company B	Principally engaged in trading non-ferrous metals and ferro alloys	France	EU	2003
Company C	Principally engaged in trading non-ferrous metallurgical pentoxide products	Hong Kong	Japan	2015
Company D	Principally engaged in trading copper-, aluminium-, nickel-, zinc- and lead-based alloys	Belgium	EU	1968
Company E	Principally engaged in trading plastics	Korea	Korea	2000
Supplier D	A group of companies, including a company incorporated in Luxembourg in 1986, principally engaged in sourcing, trading, marketing and distribution of metals, minerals and industrial raw materials	Luxembourg	EU	1986

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	<u>Background</u>	<u>Place of incorporation</u>	<u>Major market area</u>	<u>Year of establishment</u>
Company F	Principally engaged in trading of pentoxide and iron alloy	Luxembourg	EU	No public information
Company G	Principally engaged in trading minerals and non-ferrous metallurgical products	Hong Kong	EU	1994
Customer H	Principally engaged in trading minor metals such as niobium, tantalum and tungsten	The United States	EU and North America	1990
Company H	Principally engaged in trading metals	The United States	The United States	1983
Company J	Principally engaged in trading metallurgical products	Japan	Japan	No public information
Company K	Principally engaged in trading metallurgical pentoxide products	Republic of the Marshall Islands	EU	2013

We had a total of nine customers in China which are trading companies whose transaction amount was over 1% of our revenue in any year or period during the Track Record Period. The following table sets forth certain information of these trading companies whose transaction amount was over 1% of our revenue in any year or period during the Track Record Period:

	<u>Background</u>	<u>Registered capital</u>	<u>Year of establishment</u>
		RMB million	
Customer K	A group of companies, including Jiangsu Rongyao New Material Ltd.* (江蘇鎔耀新材料有限公司) which principally engaged in the production and trading of metallurgical products and raw materials	37.5	2003
Company Z	Principally engaged in the trading of tantalum- and niobium-based processed products	2.0	2013
Company L	Principally engaged in the trading of pentoxide products	5.0	2006
Company M	Principally engaged in the trading of metallurgical products and hard alloy products	1.9	2008
Company N	Principally engaged in the trading of metallurgical products and hard alloy products	0.5	2011

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	<u>Background</u>	<u>Registered capital</u> RMB million	<u>Year of establishment</u>
Zhuzhou Tuobang Import and Export Company Ltd.* (株洲拓邦进出口有限公司)	Principally engaged in the trading of metallurgical products and raw materials	0.5	2013
Customer F	A group of companies, including a company listed on the Shenzhen Stock Exchange, and its principal business included the production of processed tantalum- and niobium-based metallurgical products	440.8	1999
Liling Shengyu New Material Co., Ltd.* (醴陵市盛裕新材料有限公司)	Principally engaged in the trading of non-ferrous metals, rare metals and chemical products	0.9	2017
Company O	Principally engaged in the trading of metallurgical products	5.0	2010

Many of our customers have long-term relationships with us. The following table sets forth the number of our repeated and new customers and their respective revenue contribution for the years/ periods indicated:

	FY2016				FY2017				FY2018				8M2018				8M2019			
	Number		Revenue		Number		Revenue		Number		Revenue		Number		Revenue		Number		Revenue	
		%	RMB'000	%		%	RMB'000	%		%	RMB'000	%		%	RMB'000	%		%	RMB'000	%
Repeated customers	54	62.8	192,209	88.4	58	63.0	219,705	71.5	64	66.7	484,599	94.1	61	72.6	333,812	96.0	70	81.4	377,564	94.2
New customers	32	37.2	25,232	11.6	34	37.0	87,655	28.5	32	33.3	30,119	5.9	23	27.4	14,003	4.0	16	18.6	23,222	5.8
Total	86	100.0	217,441	100.0	92	100.0	307,360	100.0	96	100.0	514,718	100.0	84	100.0	347,815	100.0	86	100.0	400,786	100.0

For FY2016, FY2017, FY2018 and 8M2019, revenue generated from our five largest customers amounted to approximately RMB97.5 million, RMB161.7 million, RMB321.0 million and RMB233.2 million, respectively, accounting for approximately 44.9%, 52.6%, 62.4% and 58.2% of our total revenue for the same years/period, respectively. None of our Directors, their close associates or our Shareholders (who, to the best knowledge of our Directors, owned more than 5% of our issued share capital) had any interest in any of our five largest customers during the Track Record Period. During the Track Record Period, some of our major customers were also our suppliers. For more information, please refer to the paragraph headed “Raw materials, utilities and suppliers — Entities that were both customers and suppliers” in this section. During the Track Record Period, save as disclosed in this prospectus, our Directors confirm that we did not have any other past or present relationships or transactions with any of our customers, and their respective subsidiaries, shareholders, directors, senior management or any of their respective close associates, apart from the sales and purchases of goods and/ or provision of processing services.

Sales and Marketing

Our sales and procurement department is responsible for the domestic sales and overseas sales. Our sales representatives regularly conduct market research and analysis and liaise with potential and existing customers to ascertain the customer's needs and expectations, which are taken into account when we formulate our research, production and sales strategies to develop and produce products to meet such demand. We secure new customers through referrals from existing customers, attending relevant trade conferences and searching on certain electronic trading platforms. Further, we promote our products through advertising. We strategically develop and maintain customers in various industries and locations to mitigate customer concentration and further minimise any potential effect on us caused by the economic downturn of certain industries and areas. During the Track Record Period, we sold a majority of our products to customers in China. We directly sold our products to overseas customers, most of which are trading companies and in turn resell our products to overseas companies, which are end-users of our products. We also directly sold our products to a limited number of overseas end-use customers. We do not consider the overseas trading companies as our sales agents because they do not distribute our products to their customers on our behalf. As a result, there are no significant differences in pricing terms, actual sales arrangement and actual payment arrangement for our sales to overseas trading companies and overseas end-use customers. The overseas trading companies are also not subject to any pricing requirements or guidelines prescribed by us because they are not acting as our sales agents and we do not see or treat them differently from overseas end-use customers. According to the CIC Report, it is an industry norm for the producers of tantalum- and niobium-based metallurgical products in China to sell their products to both overseas trading companies and end-use customers. Those trading companies typically resell tantalum- and niobium-based metallurgical products to overseas companies, which are end-users of such products without international procurement channels to directly purchase from producers in China, at an estimated profit margin ranging from 5.0% to 10.0%.

The following table sets forth the breakdown of our revenue and gross profit by types of our overseas customers for the years/periods indicated:

	FY2017				FY2018				8M2018				8M2019							
	Revenue		Gross Profit		Revenue		Gross Profit		Revenue		Gross Profit		Revenue		Gross Profit					
	RMB'000	%	RMB'000	%	RMB'000	%	RMB'000	%	RMB'000	%	RMB'000	%	RMB'000	%	RMB'000	%				
Overseas customers																				
Trading companies	34,763	79.8	8,225	79.3	34,934	74.6	10,506	82.0	37,965	73.2	11,320	76.3	10,512	66.3	3,697	74.5	21,370	54.2	3,557	45.0
End-use customers	8,780	20.2	2,150	20.7	11,923	25.4	2,299	18.0	13,926	26.8	3,525	23.7	5,334	33.7	1,268	25.5	18,064	45.8	4,352	55.0
Total from overseas customers	43,543	100.0	10,375	100.0	46,857	100.0	12,805	100.0	51,891	100.0	14,845	100.0	15,846	100.0	4,965	100.0	39,434	100.0	7,909	100.0

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We generally enter into sales agreements with our customers, including customers which are trading companies, on an order-by-order basis. The agreements include the pricing terms, specifications of product, packing requirements and delivery terms. We set forth below a summary of the key terms of the sales agreements we entered into with our domestic and overseas customers, including overseas end-use customers and overseas trading companies, during the Track Record Period:

- *Pricing.* Prices of our products are determined based on the required product specifications, purchase volume, market price of the products and transportation costs.
- *Delivery arrangements.* For domestic customers, we generally make transportation arrangements to deliver our products to places designated by our customers. Risk of damage or loss relating to the products passes to the customers as soon as such products are delivered to their warehouses. Under our export sales agreements, we sell our products: (i) on a cost, insurance and freight, or CIF, basis if our customers choose sea shipping. We are responsible for the costs of shipping our products to the port designated by our customers and purchasing insurance policies. Risk of damage or loss relating to the products passes to the customers after they are shipped to the designated port; or (ii) on a cost and freight, or CFR, basis if our customers choose air freight. We are generally responsible for the costs of shipping our products to Guangzhou Airport. Risk of damage or loss relating to the products passes to the customers after they are accepted by the carrier designated by our customers.
- *Credit term and payment method.* For domestic sales, we are usually paid by way of bank transfer or bank acceptance bills within seven to 30 days after delivery. For overseas sales, we are generally paid by way of telegraphic transfer immediately upon or within 15 days after the presentation of relevant shipping documents or within 60 days after delivery. For certain new customers, we would make delivery arrangements upon receiving full payment of the contract price.
- *Inspection.* We are required to provide products that meet the specifications stipulated in our sales agreements, which generally refer to the prevailing industry standards and/or our customer's standards. When the products are delivered to the customer's delivery address, the customer may inspect the products, including quantity and quality, within the specified period. If the customer does not raise any objection within such period, we will be deemed to have made satisfactory delivery of our products based on the sales agreements.
- *After-sale complaints and services.* If the customer raises any question regarding the quality of our products, we will assess the sample of the products taken prior to the delivery against the product specifications to verify the veracity of such complaints. If our products have quality issues, we will be responsible for compensating the customers for their losses based on the provisions in the sales agreements. Generally, our sales agreements require the parties to first make all efforts to resolve disputes amicably in the event that a dispute arises. In terms of after-sale services, our sales staff would collect feedback from our customers regarding our products. During the Track Record Period, we did not experience any material sales return on any of our products. For our sales to trading companies including overseas trading companies, we do not have any control over our products, including the applications

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of our products, or such trading companies once our products are sold to them, and we are not obliged to monitor their performance. These trading companies are not subject to any pricing requirements or guidelines prescribed by us because they are not acting as our sales agents and we do not see or treat them differently from end-use customers. Generally, once we have sold our products to our customers who are trading company, all risks are passed to them and they are not entitled to any recourse from us if they fail to sell our products to their customers.

The following tables set forth certain information of our five largest customers during the Track Record Period:

Rank	Customer	Typical credit term and payment method	Revenue generated from the customer RMB'000	Approximate % to total revenue	The year of establishing relationship with us	Also a supplier during the Track Record Period
<i>FY2016</i>						
1.	Yanling Jincheng Tantalum & Niobium Co., Ltd.* (炎陵縣今成鈮鈿有限公司) (Note 1)	30 days; by bank acceptance bills or bank transfer	31,530	14.5	2012	A supplier for FY2017, FY2018 and 8M2019
2.	Guangxi Non-ferrous Limu Mining Co., Ltd.* (廣西有色栗木礦業有限公司) (Note 2)	30 days; by bank acceptance bills or bank transfer	22,949	10.6	2011	A supplier for FY2016, FY2017 and FY2018
3.	Jiujiang Zhisheng Xincailiao Ltd.* (九江致勝新材料有限公司) (Note 3)	30 days; by bank acceptance bills or bank transfer	16,652	7.7	2015	No
4.	Zhuzhou Tuobang Import and Export Company Ltd.* (株洲拓邦進出口有限公司) (Note 4)	30 days; by bank transfer	15,004	6.9	2014	A supplier for FY2016
5.	Customer E (Note 5)	30 days; by bank transfer	11,317	5.2	2011	A supplier for FY2016, FY2017 and 8M2019
	Five largest customers in aggregate		97,452	44.9		
	All other customers		119,989	55.1		
	Total revenue		217,441	100.0		

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Rank	Customer	Typical credit term and payment method	Revenue generated from the customer RMB'000	Approximate % to total revenue	The year of establishing relationship with us	Also a supplier during the Track Record Period
<i>FY2017</i>						
1.	Customer F (Note 6)	30 days; by bank acceptance bills or bank transfer	66,162	21.5	2012	A supplier for FY2016
2.	Liling Shengyu New Material Co., Ltd.* (醴陵市盛裕新材料有限公司) (Note 7)	60 days; by bank acceptance bills or bank transfer	47,079	15.3	2017	A supplier for FY2017
3.	Yanling Jincheng Tantalum & Niobium Co., Ltd.* (炎陵縣今成鉬鈮有限公司) (Note 1)	60 days; by bank acceptance bills or bank transfer	23,863	7.8	2012	A supplier for FY2017, FY2018 and 8M2019
4.	Customer H (Note 8)	5 days of bill of lading; by telegraphic transfer	12,786	4.2	2016	No
5.	Changsha Weihui High-tech New Materials Co., Ltd.* (長沙偉徽高科技新材料有限公司) (Note 9)	7 days; by bank acceptance bills	11,778	3.8	2012	No
	Five largest customers in aggregate		161,668	52.6		
	All other customers		145,692	47.4		
	Total revenue		307,360	100.0		
<i>FY2018</i>						
1.	Customer F (Note 6)	30–60 days; by bank acceptance bills or bank transfer	139,192	27.0	2012	A supplier for FY2016
2.	Yanling Jincheng Tantalum & Niobium Co., Ltd.* (炎陵縣今成鉬鈮有限公司) (Note 1)	60 days; by bank acceptance bills or bank transfer	72,990	14.3	2012	A supplier for FY2017, FY2018 and 8M2019
3.	Liling Shengyu New Material Co., Ltd.* (醴陵市盛裕新材料有限公司) (Note 7)	30 days; by bank acceptance bills or bank transfer	53,697	10.4	2017	A supplier for FY2017
4.	Customer J (Note 10)	7 days; by bank transfer	35,172	6.8	2014	No
5.	Customer H (Note 8)	5 days of bill of lading; by telegraphic transfer	19,969	3.9	2016	No
	Five largest customers in aggregate		321,020	62.4		
	All other customers		193,698	37.6		
	Total revenue		514,718	100.0		

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Rank	Customer	Typical credit term and payment method	Revenue generated from the customer RMB'000	Approximate % to total revenue	The year of establishing relationship with us	Also a supplier during the Track Record Period
8M2019						
1.	Yanling Jincheng Tantalum & Niobium Co., Ltd.* (炎陵縣今成鈮鈿有限公司) (Note 1)	60-90 days; by bank acceptance bills or bank transfer	110,269	27.5	2012	A supplier for FY2017, FY2018 and 8M2019
2.	Customer K (Note 11)	30 days; by bank transfer	51,429	12.8	2018	No
3.	Customer F (Note 6)	30-60 days; by bank acceptance bills or bank transfer	29,007	7.3	2012	A supplier for FY2016
4.	Liling Shengyu New Material Co., Ltd.* (醴陵市盛裕新材料有限公司) (Note 7)	90 days; by bank acceptance bills or bank transfer	24,906	6.2	2017	A supplier for FY2017
5.	Customer L (Note 12)	30-60 days; by bank acceptance bills or bank transfer	17,636	4.4	2017	No
	Five largest customers in aggregate		<u>233,247</u>	<u>58.2</u>		
	All other customers		<u>167,539</u>	<u>41.8</u>		
	Total revenue		<u><u>400,786</u></u>	<u><u>100.0</u></u>		

Notes:

- Yanling Jincheng Tantalum & Niobium Co., Ltd.* (炎陵縣今成鈮鈿有限公司) is a company established in the PRC in 2011, with a registered capital of RMB30 million. The principal business of Yanling Jincheng Tantalum & Niobium Co., Ltd. included the production of processed tantalum- and niobium-based metallurgical products.
- Guangxi Non-ferrous Limu Mining Co., Ltd.* (廣西有色栗木礦業有限公司) is a company established in the PRC in 2004, with a registered capital of approximately RMB328.8 million. The principal business of Guangxi Non-ferrous Limu Mining Co., Ltd. included the production of tantalum pentoxide, niobium pentoxide and processed pentoxide products, and mining business. The controlling equity holder of Guangxi Non-ferrous Limu Mining Co., Ltd. declared bankrupt in September 2016, following its failure in debt restructuring in the six months prior to the declaration of its bankruptcy. Subsequent to the bankruptcy of its controlling shareholder, Guangxi Non-ferrous Limu Mining Co., Ltd. ceased to be our customer but remained as our supplier. During the Track Record Period, we experienced good market demand for our products, and therefore, we were able to take up more orders from other customers after Guangxi Non-ferrous Limu Mining Co., Ltd. ceased to be our customer. Our Directors believe such incident has no material implications on our financial performance going forward, primarily because: (i) our Directors consider that, Guangxi Non-ferrous Limu Mining Co., Ltd. had not been materially affected by such incident as its other shareholder, which held 49% equity interest in Guangxi Non-ferrous Limu Mining Co., Ltd., was in sound business operation and financial conditions; and (ii) Guangxi Non-ferrous Limu Mining Co., Ltd. has settled trade receivables that came due with us in full since September 2016. As at the Latest Practicable Date, we did not have any trade receivables due from Guangxi Non-ferrous Limu Mining Co., Ltd..
- Jiujiang Zhisheng Xincailiao Ltd.* (九江致勝新材料有限公司) is a company established in the PRC in 2008, with a registered capital of RMB3.5 million. The principal business of Jiujiang Zhisheng Xincailiao Ltd. included the production of processed tantalum- and niobium-based metallurgical products and other metallurgical products.
- Zhuzhou Tuobang Import and Export Company Ltd.* (株洲拓邦進出口有限公司) is a company established in the PRC in 2013, with a registered capital of approximately RMB0.5 million. The principal business of Zhuzhou Tuobang Import and Export Company Ltd. included the trading of metallurgical products and raw materials.

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5. Customer E represents two subsidiaries of a company and such subsidiaries are companies established in the PRC in 1971 and 2006, respectively, with a registered capital of RMB100 million and approximately RMB3.1 million, respectively. The principal business of Customer E included the production of processed tantalum- and niobium-based metallurgical products and trading of metallurgical products and raw materials.
6. Customer F represents a group of companies, including a company listed on the Shenzhen Stock Exchange. According to public records, the revenue of such listed company amounted to approximately RMB1,095.5 million for FY2018. The principal business of Customer F included the production of processed tantalum- and niobium-based metallurgical products. The revenue generated from Customer F decreased significantly in 8M2019 mainly attributable to the significant decrease in sales orders from Customer F for potassium heptafluorotantalate and niobium pentoxide. Customer F procured its raw materials through an online tendering system. Customer F had invited tenders for significantly smaller amount of potassium heptafluorotantalate and niobium pentoxide in 8M2019 as compared with that of 8M2018. As such, while we adopted similar tendering strategies in both periods, we were awarded contracts for supply of smaller amount of potassium heptafluorotantalate and niobium pentoxide in 8M2019. According to Customer F, it adjusted its sales strategies from time to time and its demand for potassium heptafluorotantalate and niobium pentoxide would fluctuate depending on the types of products that they focused on. In the four months ended 31 December 2019, Customer F invited tenders for similar amount of potassium heptafluorotantalate and larger amount of niobium pentoxide as compared with that in the four months ended 31 December 2018.
7. Liling Shengyu New Material Co., Ltd.* (醴陵市盛裕新材料有限公司) is a company established in the PRC in 2017, with a registered capital of RMB0.9 million. The principal business of Liling Shengyu New Material Co., Ltd. included the trading of non-ferrous metals, rare metals and chemical products. Liling Shengyu New Material Co., Ltd. was newly established on 19 April 2017 and commenced business with us mainly because its then chairman, who had served in one of our existing customers, Zhuzhou Hard Alloy Group Co., Ltd.* (株洲硬質合金集團有限公司), which is a subsidiary of a company listed on the Shenzhen Stock Exchange, is a long-time acquaintance of Mr. Wu. Our revenue generated from Zhuzhou Hard Alloy Group Co., Ltd. amounted to approximately RMB3.9 million, RMB5.6 million, RMB1.9 million and nil for FY2016, FY2017, FY2018 and 8M2019, respectively. We decided to establish a relationship with this new customer primarily due to: (i) its highly recognised senior management team, which has accumulated extensive industry experience and good credit history before joining Liling Shengyu New Material Co., Ltd.; (ii) our Directors considered that it had sound business operation since its incorporation; and (iii) one of its affiliated company, Zhuzhou Tuobang Import and Export Company Ltd., which is the wholly-owned subsidiary of one of its controlling shareholders, is also one of our customers having good credit history and long-term cooperative relationship with us. Our revenue generated from Zhuzhou Tuobang Import and Export Company Ltd. amounted to approximately RMB15.0 million, RMB4.0 million, nil and nil for FY2016, FY2017, FY2018 and 8M2019, respectively. For the same reasons, we granted a credit term of 60 days for FY2017 to Liling Shengyu New Material Co., Ltd. even though it is a newly established company with short operating history. We conducted credit assessment of Liling Shengyu New Material Co., Ltd. in accordance with our internal control policy by members of our production department, finance department and sales and procurement department, and such credit term was approved by Mr. Zhong Yuelian and Mr. Wu, who we consider to have sufficient experience and expertise in analysing the credit condition of our customers based on our knowledge of their financial position and our industry experience. For more information on their experience and qualifications, please refer to the section headed “Directors and Senior Management” in this prospectus. As at the Latest Practicable Date, all account receivables in relation to our transaction with Liling Shengyu New Material Co., Ltd. for FY2017, FY2018 and 8M2019 have been settled.
8. Customer H is a company incorporated in the United States in 1990. The principal business of Customer H included the trading of minor metals such as niobium, tantalum, and tungsten.
9. Changsha Weihui High-tech New Materials Co., Ltd.* (長沙偉徽高科技新材料有限公司) is a subsidiary of Hunan Boyun New Materials Co., Ltd., a company listed on the Shenzhen Stock Exchange (stock code: 002297). According to public records, the revenue of Hunan Boyun New Materials Co., Ltd. amounted to approximately RMB509.4 million for FY2018. The principal business of Changsha Weihui High-tech New Materials Co., Ltd. included the production and sale of high-tech materials.
10. Customer J is a company established in the PRC in 1999, with a registered capital of USD7.1 million. The principal business of Customer J included the production of tantalum and niobium-based metallurgical products.
11. Customer K represents a group of companies, including Jiangsu Rongyao New Material Ltd.* (江蘇鎔耀新材料有限公司), which is a company established in the PRC in 2003, with a registered capital of RMB37.5 million. The principal business of Customer K included the production and trading of metallurgical products and raw materials.
12. Customer L is a company established in the PRC in 2017, with a registered capital of RMB11.8 million. The principal business of Customer L included the research and development, production, process and sales of non-ferrous metals and the compounds of the same.

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Pricing Policy

Our pricing policy and factors are primarily adjusted on the basis of market changes. The specifications of our products also affect our pricing, as products with higher quality can normally be sold for higher prices. Other factors that may affect our pricing may include general economic condition, our production costs, including costs of raw materials, labour and factory overheads, and the market supply and demand for the same or competing products.

RAW MATERIALS, UTILITIES AND SUPPLIERS

Tantalum ores and niobium ores are the principal raw materials that we use to produce our products. The following table sets forth the breakdown of our purchases by geographic location of our suppliers for the years/periods indicated:

	FY2016		FY2017		FY2018		8M2018		8M2019	
	RMB'000	%	RMB'000	%	RMB'000	%	RMB'000	%	RMB'000	%
The PRC	29,660	19.8	80,907	32.1	112,040	25.6	68,169	23.0	62,699	28.6
Hong Kong	50,352	33.7	62,657	24.9	70,604	16.1	43,468	14.7	64,571	29.5
South American countries ⁽¹⁾	36,557	24.4	57,780	23.0	113,113	25.8	80,056	27.0	51,259	23.4
European countries ⁽²⁾	11,623	7.8	29,281	11.6	71,591	16.4	69,890	23.5	21,074	9.6
African countries ⁽³⁾	17,922	12.0	19,539	7.8	57,749	13.2	25,332	8.5	13,399	6.1
The United States	3,454	2.3	1,587	0.6	—	—	—	—	102	0.1
Asian countries ⁽⁴⁾	—	—	—	—	12,555	2.9	9,688	3.3	5,920	2.7
Total purchases	149,568	100.0	251,751	100.0	437,652	100.0	296,603	100.0	219,024	100.0

Notes:

- (1) During the Track Record Period, we purchased our raw materials from different South American countries, including Brazil.
- (2) During the Track Record Period, we purchased our raw materials from different European countries, including Luxembourg, Switzerland, Belgium and Austria.
- (3) During the Track Record Period, we purchased our raw materials from different African countries, including Nigeria, Seychelles, Sierra Leone, Ethiopia and the Democratic Republic of the Congo.
- (4) During the Track Record Period, we purchased our raw materials from different Asian countries, including South Korea, Singapore, Thailand, Malaysia, India and United Arab Emirates.

The following table sets forth the breakdown of our purchases by nature for the years/periods indicated:

	FY2016		FY2017		FY2018		8M2018		8M2019	
	RMB'000	%	RMB'000	%	RMB'000	%	RMB'000	%	RMB'000	%
Tantalum ores and niobium ores	126,840	84.8	220,970	87.8	373,778	85.4	262,681	88.6	183,489	83.8
Others ^(Note)	22,728	15.2	30,781	12.2	63,874	14.6	33,922	11.4	35,535	16.2
Total purchases	149,568	100.0	251,751	100.0	437,652	100.0	296,603	100.0	219,024	100.0

Note: Others mainly include processing services for processed products and consumables for our production.

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The following table sets forth the breakdown of the source of our purchases of tantalum ores and niobium ores by geographic location for the years/periods indicated:

	FY2016		FY2017		FY2018		8M2018		8M2019	
	RMB'000	%	RMB'000	%	RMB'000	%	RMB'000	%	RMB'000	%
The PRC	7,038	5.5	51,839	23.5	48,167	12.9	34,247	13.0	20,273	11.1
African countries ⁽¹⁾	77,740	61.3	100,648	45.5	194,536	52.1	133,299	50.8	98,603	53.7
South American countries ⁽²⁾	39,602	31.2	59,751	27.0	120,460	32.2	87,231	33.2	63,988	34.9
United States	2,460	2.0	—	—	—	—	—	—	—	—
Others ⁽³⁾	—	—	8,732	4.0	10,615	2.8	7,904	3.0	625	0.3
Total purchases of tantalum ores and niobium ores	<u>126,840</u>	<u>100.0</u>	<u>220,970</u>	<u>100.0</u>	<u>373,778</u>	<u>100.0</u>	<u>262,681</u>	<u>100.0</u>	<u>183,489</u>	<u>100.0</u>

Notes:

- (1) African countries from which we purchased tantalum ores and niobium ores during the Track Record Period mainly included Rwanda, Ethiopia, Sierra Leone, Nigeria, Burundi, Liberia, Madagascar, the Democratic Republic of the Congo and Zimbabwe.
- (2) South American countries from which we purchased tantalum ores and niobium ores during the Track Record Period mainly included Brazil and Colombia.
- (3) Others from which we purchased tantalum ores and niobium ores during the Track Record Period mainly included Malaysia and Thailand.

For FY2016, FY2017, FY2018, 8M2018 and 8M2019, our purchases of tantalum ores and niobium ores amounted to approximately RMB126.8 million, RMB221.0 million, RMB373.8 million, RMB262.7 million and RMB183.5 million, respectively, representing approximately 84.8%, 87.8%, 85.4%, 88.6% and 83.8% of our total purchases for the same years/periods, respectively. For FY2016, FY2017, FY2018, 8M2018 and 8M2019, our purchases of tantalum ores and niobium ores from trading companies amounted to approximately RMB34.1 million, RMB95.2 million, RMB232.6 million, RMB154.7 million and RMB132.5 million, respectively, representing approximately 26.9%, 43.1%, 62.2%, 58.9% and 72.2% of our total purchases of tantalum ores and niobium ores for the same years/periods, respectively. Other raw materials we use in our production process include a variety of chemicals, such as hydrofluoric acid, sulphuric acid and liquid ammonia. We also procure packaging materials to pack our products.

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During the Track Record Period, we purchased tantalum ores and niobium ores from suppliers mainly located in the PRC, Hong Kong, Luxembourg, Sierra Leone and Brazil, which were either mining companies or trading companies, and the ores supplied were mainly from mines in the PRC, Brazil, Nigeria and Sierra Leone. During the Track Record Period, our Group purchased tantalum ores and niobium ores originating from Burundi, the Democratic Republic of the Congo and Zimbabwe, and these countries are subject to various targeted sanctions programme. The costs of purchasing tantalum ores and niobium ores originating from Burundi, the Democratic Republic of the Congo and Zimbabwe amounted to approximately RMB7.0 million, RMB13.9 million, RMB67.2 million, RMB54.9 million and RMB4.9 million for FY2016, FY2017, FY2018, 8M2018 and 8M2019, respectively, representing approximately 4.6%, 5.5%, 15.4%, 18.5% and 2.2% of our Group's total purchases for the same years/ periods, respectively. For the associated risk, please refer to the paragraph headed "Risk Factors — Risks relating to our business and industry — We could be adversely affected as a result of our purchase from certain countries that are, or become subject to, economic sanctions administered by the United States, the European Union, the United Nations, Australia and other relevant sanctions authorities" in this prospectus. As advised by Hogan Lovells, our Company's legal advisers as to International Sanctions law, our Group's business activities during the Track Record Period would not expose us to material sanctions risk and consequently, and no filings in respect of non-compliance with International Sanctions are required.

Our production process requires a stable and sufficient supply of utilities, primarily electricity and water. We obtain electricity supply from regional power grids, and water supply from local public utility companies. We use water in our production process. During the Track Record Period, we did not experience any material shortage of power or disruption in our water supply that caused a material adverse impact on our production.

We have maintained stable business relationships with some of our major suppliers for a period of more than three years. We take into consideration various factors in our supplier selection process, including price, quality, chemical composition analysis report on ores, origin of ores, payment terms, and timeliness of delivery.

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We plan our procurement of raw materials monthly based on our annual sales target and annual production capacity as well as market conditions. We generally enter into procurement contracts on an order-by-order basis. The contracts set out details such as the specifications and quality standards of raw materials, price, quantity, payment obligations, delivery method and termination clauses. During the Track Record Period, we did not experience any material disputes with our suppliers, nor any major price fluctuations or shortages in the supply of raw materials to us. During the Track Record Period, we did not have any hedging arrangement against fluctuations in prices of raw materials. Our Directors consider that we are generally able to substantially pass on increase in purchase costs to our customers. We set forth below a summary of the key terms of the procurement contracts we entered into during the Track Record Period:

- *Pricing.* Prices of raw materials are determined based on the required product specifications and in line with market conditions.
- *Credit term.* We generally make first payment accounting for 70% to 90% of the contract price upon receiving the bill of lading, and settle the remaining balance upon receiving the required quality testing certification provided by an independent testing company to our satisfaction.
- *Delivery arrangements.* Raw materials are generally delivered to our production facilities or designated delivery sites by our suppliers via seagoing vessels and/or trucks. Delivery costs incurred or damages arising from such delivery are generally borne by our suppliers.
- *Payment.* We usually make payment to our suppliers by way of telegraphic transfer.
- *After-sale complaints.* Generally, where the tantalum ores and niobium ores fail to meet the specifications stipulated in our procurement contracts, we are entitled to a price discount or may reject the entire batch of tantalum ores and niobium ores.

For FY2016, FY2017, FY2018 and 8M2019, purchases from our five largest suppliers amounted to approximately RMB107.8 million, RMB133.1 million, RMB234.8 million and RMB143.0 million, respectively, accounting for approximately 72.1%, 52.9%, 53.7% and 65.3%, respectively, of our total purchases. For the same years/period, purchases from our largest supplier amounted to approximately RMB34.6 million, RMB56.4 million, RMB112.8 million and RMB49.2 million, respectively, accounting for approximately 23.1%, 22.4% and 25.8% and 22.5%, respectively, of our total purchases. None of our Directors, their close associates or our Shareholders (who, to the best knowledge of our Directors, owned more than 5% of our issued share capital) had any interest in any of our five largest suppliers during the Track Record Period. During the Track Record Period, some of our major suppliers were also our customers. For more information, please refer to the paragraph headed “Entities that were both customers and suppliers” in this prospectus.

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The following tables set forth certain information of our five largest suppliers during the Track Record Period:

Rank	Supplier	Principal origin of ores supplied by the supplier	Typical credit term and payment method	Purchases by us from the supplier RMB'000	Approximate % to total purchases	The year of establishing relationship with us	Also a customer during the Track Record Period
<i>FY2016</i>							
1.	Mineracao Taboca S.A. <i>(Note 1)</i>	Brazil	Cash against documents; by telegraphic transfer	34,609	23.1	2015	No
2.	Supplier B <i>(Note 2)</i>	Sierra Leone	Cash against documents; by telegraphic transfer	26,767	17.9	2014	No
3.	CNC Construction (Hongkong) Limited <i>(Note 3)</i>	Nigeria	Cash against documents; by telegraphic transfer	23,584	15.8	2015	No
4.	Supplier D <i>(Note 4)</i>	The Democratic Republic of the Congo/ Nigeria/Brazil	Cash against documents; by telegraphic transfer	11,623	7.8	2015	A customer for FY2016, FY2018 and 8M2019
5.	Supplier E <i>(Note 5)</i>	Nigeria	Cash against documents; by telegraphic transfer	11,255	7.5	2014	No
		Five largest suppliers in aggregate		107,838	72.1		
		All other suppliers		41,730	27.9		
		Total purchases		<u>149,568</u>	<u>100.0</u>		
<i>FY2017</i>							
1.	Mineracao Taboca S.A. <i>(Note 1)</i>	Brazil	Cash against documents; by telegraphic transfer	56,408	22.4	2015	No
2.	CNC Construction (Hongkong) Limited <i>(Note 3)</i>	Nigeria	Partly prepayment and partly cash against documents; by telegraphic transfer	25,529	10.1	2015	No
3.	Ganzhou Junxing Non-ferrous Metals Co., Ltd.* (赣州市駿星有色金属有限公司) <i>(Note 6)</i>	South-east Asia	Partly prepayment or against delivery and balance against VAT invoice; by bank transfer	22,304	8.9	2015	A customer for FY2016
4.	West African Union Company (SL) Limited <i>(Note 7)</i>	Sierra Leone	Cash against documents; by telegraphic transfer	15,380	6.1	2016	No
5.	Supplier D <i>(Note 4)</i>	The Democratic Republic of the Congo/ Nigeria/Brazil	Cash against documents; by telegraphic transfer	13,483	5.4	2015	A customer for FY2016, FY2018 and 8M2019
		Five largest suppliers in aggregate		133,104	52.9		
		All other suppliers		118,647	47.1		
		Total purchases		<u>251,751</u>	<u>100.0</u>		

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Rank	Supplier	Principal origin of ores supplied by the supplier	Typical credit term and payment method	Purchases by us from the supplier RMB'000	Approximate % to total purchases	The year of establishing relationship with us	Also a customer during the Track Record Period
FY2018							
1.	Mineracao Taboca S.A. <i>(Note 1)</i>	Brazil	Cash against documents; by telegraphic transfer	112,775	25.8	2015	No
2.	Supplier H <i>(Note 8)</i>	Brazil/Nigeria/ Ethiopia/ Zimbabwe	Partly prepayment and balance against copy of bill of lading or cash against inspection; by telegraphic transfer	53,788	12.3	2017	No
3.	Specialty Metals Resources SA <i>(Note 9)</i>	Burundi	Cash against documents; by telegraphic transfer	27,035	6.2	2017	No
4.	Jiangxi Hongye Chemical Industry Ltd.* (江西鴻業化工有限公司) <i>(Note 10)</i>	N/A	40 days; by telegraphic transfer	20,772	4.7	2010	No
5.	Ganzhou Junxing Non-ferrous Metals Co., Ltd.* (贛州市駿星有色金屬有限公司) <i>(Note 6)</i>	South-east Asia	Partly prepayment or against delivery and balance against VAT invoice; by telegraphic transfer	20,474	4.7	2015	A customer for FY2016
		Five largest suppliers in aggregate		234,844	53.7		
		All other suppliers		202,808	46.3		
		Total purchases		<u>437,652</u>	<u>100.0</u>		
8M2019							
1.	Mineracao Taboca S.A. <i>(Note 1)</i>	Brazil	Cash against documents; by telegraphic transfer	49,222	22.5	2015	No
2.	Supplier H <i>(Note 8)</i>	Brazil/Nigeria/ Ethiopia/ Zimbabwe	Partly prepayment and balance against copy of bill of lading or cash against inspection; by telegraphic transfer	47,358	21.6	2017	No
3.	Ganzhou Junxing Non-ferrous Metals Co., Ltd.* (贛州市駿星有色金屬有限公司) <i>(Note 6)</i>	South-east Asia	Cash against inspection; by telegraphic transfer	15,805	7.2	2015	A customer for FY2016
4.	Supplier K <i>(Note 11)</i>	Nigeria/ Columbia/Sierra Leone/ Madagascar/ Rwanda	Cash against inspection; by telegraphic transfer	15,422	7.1	2018	No
5.	CRONIMET Central Africa AG <i>(Note 12)</i>	Rwanda/Brazil	Partly against bill of lading and balance against inspection; by letter of credit or telegraphic transfer	15,151	6.9	2017	No
		Five largest suppliers in aggregate		142,958	65.3		
		All other suppliers		76,066	34.7		
		Total purchases		<u>219,024</u>	<u>100.0</u>		

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Notes:

1. Mineracao Taboca S.A. is a company incorporated in Brazil in 1969, with a registered share capital of approximately Brazilian Real 2,135.3 million and is a subsidiary of Minsur SA, a company listed on Lima Stock Exchange (stock symbol: MINSURI1). The principal business of Mineracao Taboca S.A. included the mining and sale of ores and production of processed tantalum- and niobium-based metallurgical products.
2. Supplier B is a company incorporated in Hong Kong in 2013, with a share capital of HK\$10,000. The principal business of Supplier B included the sale of ores.
3. CNC Construction (Hongkong) Limited is a company incorporated in Hong Kong in 2007, with a share capital of HK\$10,000. The principal business of CNC Construction (Hongkong) Limited included the sale of ores.
4. Supplier D represents a group of companies, including a company incorporated in Luxembourg in 1986, with a share capital of approximately US\$9.0 million. The principal business of Supplier D included the sourcing, trading, marketing and distribution of metals, minerals and industrial raw materials.
5. Supplier E is a company incorporated in Nigeria in 1989, with an issued share capital of Nigerian Naira 100,000. The principal business of Supplier E included the trading of ores.
6. Ganzhou Junxing Non-ferrous Metals Co., Ltd.* (贛州市駿星有色金屬有限公司) is a company established in the PRC in 2015, with a registered capital of RMB15.0 million. The principal business of Ganzhou Junxing Non-ferrous Metals Co., Ltd. included the trading of tin, tungsten, niobium and tantalum.
7. West African Union Company (SL) Limited is a company incorporated in Sierra Leone in 2014, with an issued share capital of Sierra Leonean Leone 100 million. The principal business of West African Union Company (SL) Limited included the trading of ores.
8. Supplier H represents two companies with the same controlling shareholder, incorporated in Hong Kong in 2008 and 2012 respectively, with share capital of HK\$10 and USD28.5 million respectively. The principal business of Supplier H included the trading of ores.
9. Specialty Metals Resources SA is a company incorporated in Belgium in 2007, with a share capital of EUR1.0 million. The principal business of Specialty Metals Resources SA included the mining, trading and marketing of cobalt, copper, nickel, tungsten and tantalum intermediates and end products.
10. Jiangxi Hongye Chemical Industry Ltd.* (江西鴻業化工有限公司) is a company established in the PRC in 2008, with a registered capital of RMB15.0 million. The principal business of Jiangxi Hongye Chemical Industry Ltd. included the production and trading of hydrofluoric acid.
11. Supplier K is a company incorporated in the BVI in 2013. The principal business of Supplier K included the sale of ores.
12. CRONIMET Central Africa AG is a company incorporated in Switzerland in July 2008, with a share capital of Swiss Franc 8.5 million. The principal business of CRONIMET Central Africa AG included the trading and distribution of ores.

During the Track Record Period, we purchased from trading companies in addition to directly from mining companies, because some mining companies sell ores exclusively to trading companies mainly due to their lack of capital and need to obtain financing from trading companies, which leads to a limited supply of tantalum ores and niobium ores from mining companies. The pricing terms were negotiated on a case-by-case basis and there was no significant pricing difference between purchases from trading companies and from mining companies although trading companies resell tantalum ores and niobium ores at an estimated margin ranging from 10% to 20%, because the prices of tantalum ores and niobium ores are rather transparent in the market where both mining companies and metallurgical companies that purchase the ores can track the latest price.

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Entities that Were Both Customers and Suppliers

During the Track Record Period, we sold some of our products to, and purchased some of our processed products or raw materials from, the same entities (“**Overlapping Customers**”). They are either: (i) trading companies engaged in the trading of metallurgical products and ores; or (ii) metallurgy companies who utilise our pentoxide products and potassium heptafluorotantalate for the manufacturing of processed products. We plan our procurement of raw materials and processed products according to our production plan and market conditions. We generally select the supplier for each of our purchases taking into consideration, among others, the quality, price and quantity of the raw materials and processed products we intend to purchase. Under similar circumstances, our suppliers may also purchase from us. According to the CIC Report, it is not uncommon for trading companies and metallurgy companies to engage in both of: (i) the sale of metallurgical raw materials and products to producers of metallurgical products like us; and (ii) the purchase of metallurgical products from producers of metallurgical products like us.

As confirmed by our Directors, (i) negotiations of the terms of our sales to and purchases from the Overlapping Customers were conducted on an individual basis and the sales and purchases were neither interconnected nor inter-conditional with each other; (ii) during the Track Record Period, the products we purchased from the Overlapping Customers were not sold back to them, and vice versa; and (iii) the terms of transactions with the Overlapping Customers are similar to those with our other customers and suppliers. We were under no obligation to purchase from the Overlapping Customers, and vice versa.

The following tables set forth certain information of our transactions with the Overlapping Customers during the Track Record Period:

Entity	Background	Customer domicile	Registered share capital	Year of establishment	Major goods purchased by us	Amount of purchases for the years/period RMB'000	Major goods sold by us	Amount of revenue for the years/period RMB'000
<i>FY2016</i>								
Customer E	Represents two subsidiaries of a company, which are principally engaged in the production of processed tantalum- and niobium-based metallurgical products and trading of metallurgical products and raw materials	PRC	RMB100 million and RMB3.1 million	1971 and 2006	Processing for processed products	916	Niobium pentoxide and potassium heptafluorotantalate	11,317
Guangxi Non-ferrous Limu Mining Co., Ltd.* (廣西有色采礦業有限公司)	Principally engaged in the production of tantalum pentoxide, niobium pentoxide and processed pentoxide products, and mining business	PRC	RMB328.8 million	2004	Tantalum ores and niobium ores	1,736	Tantalum pentoxide, niobium pentoxide, and potassium heptafluorotantalate	22,949
Zhuzhou Tuobang Import and Export Company Ltd.* (株洲拓邦進出口有限公司)	Principally engaged in the trading of metallurgical products and raw materials	PRC	RMB0.5 million	2013	Tantalum ores and niobium ores	3,461	Tantalum pentoxide and niobium pentoxide	15,004
Company A	Represents two companies under the same group, which are principally engaged in the trading of specialty chemicals, metals, plastics and food additives	The United States	No public information	2007 and 2013	Tantalum ores and niobium ores	2,461	Tantalum pentoxide and tantalum carbide	6,789
Ganzhou Junxing Non-ferrous Metals Co., Ltd.* (贛州市駿星有色金屬有限公司)	Principally engaged in the trading of tin, tungsten, niobium and tantalum	PRC	RMB15.0 million	2015	Tantalum ores and niobium ores	1,502	Niobium pentoxide and processing services	515

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Entity	Background	Customer domicile	Registered share capital	Year of establishment	Major goods purchased by us	Amount of purchases for the years/period RMB'000	Major goods sold by us	Amount of revenue for the years/period RMB'000
Customer F	A group of companies, including a company listed on the Shenzhen Stock Exchange, which are principally engaged in the production of processed tantalum- and niobium-based metallurgical products	PRC	RMB440.8 million	2012	Tantalum ores and niobium ores	106	Niobium pentoxide and processing services	5,613
Supplier D	Principally engaged in sourcing, trading, marketing and distribution of metals, minerals and industrial raw materials	EU and the United States	N/A	N/A	Tantalum ores and niobium ores	11,623	Niobium pentoxide	5,081
Company M	Principally engaged in the trading of metallurgical products and hard alloy products	PRC	RMB1.9 million	2008	Potassium heptafluorotantalate	84	Niobium pentoxide and processing services	2,647
FY2017								
Liling Shengyu New Material Co., Ltd.* (醴陵市盛裕新材料有限公司)	Principally engaged in the trading of non-ferrous metals, rare metals and chemical products	PRC	RMB0.9 million	2017	Tantalum ores and niobium ores	1,626	Tantalum pentoxide and niobium pentoxide	47,079
Customer E	Represents two subsidiaries of a company, which are principally engaged in the production of processed tantalum- and niobium-based metallurgical products and trading of metallurgical products and raw materials	PRC	RMB100 million and RMB3.1 million	1971 and 2006	Processing for processed products	1,098	Niobium pentoxide and potassium heptafluorotantalate	8,868
Company Y	Principally engaged in the development and production of target materials	PRC	RMB10.0 million	2011	Tantalum ores and niobium ores	96	Tantalum pentoxide, niobium pentoxide and niobium powder	2,976
Company R	Principally engaged in the trading of non-ferrous metals, ores, and construction materials	PRC	RMB10.0 million	2014	Tantalum ores and niobium ores	7,246	Tantalum pentoxide	24
Company P	Principally engaged in the development and production of alloy and non-ferrous metals	PRC	RMB63.5 million	2007	Tantalum ores and niobium ores	4,145	Processing services	316
Yanling Jincheng Tantalum & Niobium Co., Ltd.* (炎陵縣今成鎢鈮有限公司)	Principally engaged in the production of processed tantalum- and niobium-based metallurgical products	PRC	RMB30.0 million	2011	Processing for processed products	2	Tantalum pentoxide and niobium pentoxide	23,863
Company X	Principally engaged in the sale and production of non-ferrous metal and processed metals	PRC	RMB18.0 million	2011	Niobium pentoxide	884	Processing services	746
FY2018								
Company Y	Principally engaged in the development and production of target materials	PRC	RMB10.0 million	2011	Tantalum ores and niobium ores	67	Niobium pentoxide	6,447
Company U	Principally engaged in sourcing and trading ores	PRC	RMB3.0 million	2016	Tantalum ores and niobium ores	7,697	Processing services	4,157
Company T	Principally engaged in producing ferro alloys and carbides	Austria	EU6.7 million	1994	Tantalum ores and niobium ores	78	Niobium pentoxide	3,228
Company W	Principally engaged in producing hard alloy materials	PRC	RMB2,123.0 million	1980	Processing for processed products	1,543	Processing services	1,851
Company S	Principally engaged in producing processed non-ferrous metals	PRC	RMB30.0 million	2005	Processing for processed products	3,823	Tantalum pentoxide	1,724
Company V	Principally engaged in the sale of metallic materials	PRC	RMB0.5 million	1998	Tantalum ores and niobium ores	113	Processing services	963
Company Q	Principally engaged in the sale of hardware metals	PRC	RMB12.0 million	2002	Other consumables	505	Recycled products	167

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Entity	Background	Customer domicile	Registered share capital	Year of establishment	Major goods purchased by us	Amount of purchases for the years/period RMB'000	Major goods sold by us	Amount of revenue for the years/ period RMB'000
Supplier D	Principally engaged in the sourcing, trading, marketing and distribution of metals, minerals and industrial raw materials	EU and the United States	N/A	N/A	Tantalum ores and niobium ores	17,176	Niobium pentoxide	2,060
Yanling Jincheng Tantalum & Niobium Co., Ltd.* (炎陵縣今成鉭鈮有限公司)	Principally engaged in production of processed tantalum- and niobium-based metallurgical products	PRC	RMB30.0 million	2011	Processing for processed products	4,341	Tantalum pentoxide and niobium pentoxide	72,990
8M2019								
Company Q	Principally engaged in the sale of hardware metals	PRC	RMB12.0 million	2002	Other consumables	708	Recycled products	4
Company Y	Principally engaged in the development and production of target materials	PRC	RMB10.0 million	2011	Tantalum ores and niobium ores	55	Niobium pentoxide	4,936
Customer E	Represents two subsidiaries of a company, which are principally engaged in the production of processed tantalum- and niobium-based metallurgical products and trading of metallurgical products and raw materials	PRC	RMB100 million and RMB3.1 million	1971 and 2006	Processing for processed products	1,279	Potassium heptafluorotantalate	14,326
Yanling Jincheng Tantalum & Niobium Co., Ltd.* (炎陵縣今成鉭鈮有限公司)	Principally engaged in production of processed tantalum- and niobium-based metallurgical products	PRC	RMB30.0 million	2011	Processing for processed products	1,537	Tantalum pentoxide and niobium pentoxide	110,269

For FY2016, FY2017, FY2018 and 8M2019, our gross profit margin attributable to the Overlapping Customers was approximately 19.8%, 25.4%, 32.2% and 25.3%, respectively.

TRANSFER PRICING ARRANGEMENT BETWEEN ZHIYUAN NEW MATERIAL AND XITE HONG KONG

The transactions

During the Track Record Period, Zhiyuan New Material purchased raw materials from its immediate holding company, Xite Hong Kong. Zhiyuan New Material was principally engaged in the production and sale of tantalum- and niobium-based metallurgical products. Xite Hong Kong was principally engaged in sale of tantalum- and niobium-related materials. Upon the initiation by Zhiyuan New Material, Xite Hong Kong made purchases from third-party suppliers for onward sales to Zhiyuan New Material. The raw materials purchased by Xite Hong Kong from third-party suppliers were generally delivered to the production facilities of Zhiyuan New Material or designated delivery sites by the third-party suppliers via seagoing vessels and/or trucks.

For FY2016, FY2017, FY2018 and 8M2019, the purchases by Zhiyuan New Material from Xite Hong Kong amounted to nil, nil, approximately HK\$61.4 million and HK\$114.2 million, respectively.

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Commercial rationale

During the Track Record Period, our purchases were mainly denominated in USD. In addition, some of our suppliers may generally require prepayment of approximately 70% to 90% with the remainder to be settled upon delivery of the tantalum ores and niobium ores. Our Directors believe that the purchases by Xite Hong Kong and the onward sales to Zhiyuan New Material can utilise the strength that no foreign exchange control policies are applied in Hong Kong. Starting from the first quarter of 2018, Xite Hong Kong began to purchase raw materials from third-party suppliers for onward sales to Zhiyuan New Material. Considering that this purchase and onward sales arrangement was in the initial stage, during the Track Record Period Xite Hong Kong mainly obtained the required amount of USD from Zhiyuan New Material for settlement of purchases. Going forward, we expect that Xite Hong Kong will finance its purchases by external financing. Subsequent to the Track Record Period, in December 2019, Xite Hong Kong obtained a banking facility of USD10 million which is restricted for the purpose of purchases only.

Potential tax exposure

Zhiyuan New Material is a High-tech Enterprise and can enjoy a preferential tax deduction of corporate income tax by 10% (i.e. an effective corporate income tax rate of 15%) in the PRC; and Xite Hong Kong is subject to Hong Kong profits tax with tax rate of 16.5%.

In accordance with the relief provision in the Associated Enterprises Article of the Double Tax Agreement between China and Hong Kong, the tax paid in Hong Kong in respect of income derived from sources in Hong Kong by Xite Hong Kong shall be allowed as a credit against the China tax imposed.

We have engaged our Tax Adviser to review the transactions between Zhiyuan New Material and Xite Hong Kong (the “**Covered Transactions**”) and estimate the potential tax liability that may be imposed on Xite Hong Kong by benchmarking the profit margin ranges derived from comparable companies during the Track Record Period.

Given the functional profile of the parties involved in the transactions, the transactional net margin method was selected as an appropriate transfer pricing analysis methodology. Our Tax Adviser advised that, based on the Covered Transactions during the Track Record Period, the Covered Transactions have not been effected on an arm’s length basis, and the Hong Kong tax authorities may make upward transfer pricing adjustments to the taxable profits of Xite Hong Kong chargeable to Hong Kong profits tax. Our Tax Adviser estimated the total potential tax liabilities of Xite Hong Kong under Hong Kong profits tax may be adjusted upwards by approximately HK\$233,000 and HK\$550,000 for the 18-month period ended 31 December 2018 and 8M2019, respectively, based on the benchmarking of comparable companies for the 2016 to 2018 period from the transfer pricing perspective. Our Tax Adviser further advised that it is more likely than not that corresponding downward profit adjustments would be applied to the taxable profits of Zhiyuan New Material chargeable to Enterprise Income Tax by the China tax authorities as potential double tax relief obtained by Zhiyuan New Material in China and the potential additional tax payable of Xite Hong Kong under Hong Kong profits tax would be offset, and estimated that the net tax exposure of Hong Kong profits tax of our Group amounted to approximately HK\$21,000 and HK\$50,000 for the 18-month period ended 31 December 2018 and 8M2019, respectively, for the Covered Transactions from the transfer pricing perspective.

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As advised by our Tax Adviser, according to the functional profile of Xite Hong Kong and Zhiyuan New Material and the benchmarking analysis performed, it is remote that the China tax authorities would apply upward profit adjustments to the taxable profits of Zhiyuan New Material with respect to the Covered Transactions from the China transfer pricing perspective. In addition, as at the Latest Practicable Date, our Directors were not aware of any inquiry, audit or investigation by any tax authority in the PRC or Hong Kong with respect to the transactions between Zhiyuan New Material and Xite Hong Kong.

Mr. Dixon Y. T. Co, the legal advisers to our Company as to Hong Kong law, is of the view that in respect of the Covered Transactions before 13 July 2018, it is very unlikely that any additional tax under section 82A of the Inland Revenue Ordinance (Cap 112 of the Laws of Hong Kong) would be imposed on Xite Hong Kong considering (i) section 82A(1D) of the Inland Revenue Ordinance does not apply to the Covered Transactions before 13 July 2018; (ii) the taxable profits in respect of the Covered Transactions before 13 July 2018 were not substantially different from the taxable profits at arm's length as estimated by our Tax Adviser; and (iii) there was no understatement of taxable profits other than from the transfer pricing perspective, and having considered the relevant Departmental Interpretation and Practice Notes issued by the Inland Revenue Department that it was not the Inland Revenue Department's policy to charge additional tax on pure transfer pricing issue prior to the enactment of section 82A(1D) of the Inland Revenue Ordinance. In respect of the Covered Transactions after 13 July 2018 and up to 31 August 2019, Xite Hong Kong may be liable to additional tax under section 82A(1D) of the Inland Revenue Ordinance for an amount of up to approximately HK\$0.2 million. Our Directors are of the view that this amount is immaterial to our operations, as a result, no provision has been made in our consolidated financial statements.

To ensure future compliance with the relevant laws and regulations in Hong Kong and the PRC in relation to the transfer pricing arrangement between Xite Hong Kong and Zhiyuan New Material, we have adopted, or expect to adopt before Listing, the following measures:

- Regular monitoring of deviation of the profit margin in respect of the transactions between Xite Hong Kong and Zhiyuan New Material by our finance department;
- Record keeping including transaction data and relevant documents;
- Engage a tax adviser on transfer pricing to conduct annual update of benchmarking analysis; and
- Engage a tax adviser on transfer pricing to perform transfer pricing assessment and prepare transfer pricing report when the transaction amount between Xite Hong Kong and Zhiyuan New Material exceeds RMB200 million or HK\$220 million.

Our Tax Adviser has reviewed the above measures and advised that (i) regular monitoring of deviation of the profit margin in respect of the transactions between Xite Hong Kong and Zhiyuan New Material could ensure that any deviation from the arm's length price could be identified in a timely manner and further adjusted based on the benchmarking analysis conducted to comply with the arm's length principle; (ii) conducting regular update of benchmarking analysis could ensure that our Group ascertains the best reference point (e.g., the arm's length price) for conducting our inter-company transactions; and (iii) annual update of benchmarking analysis conforms with the requirements of Departmental Interpretation and Practice Notes 59 and the Organisation for Economic Co-operation and

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Development Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations. As such, our Tax Adviser is of the view that the above measures are effective in ensuring that the transfer pricing arrangement between Xite Hong Kong and Zhiyuan New Material is conducted at arm's length and supporting our Group's position in case of any query or audit by the relevant tax authorities.

INVENTORIES

Our inventories included raw materials, work-in-progress and finished products. We store our inventories in our warehouse, which is located at our production plant in Yingde, Guangdong Province. We generally purchase tantalum ores and niobium ores from our suppliers to produce our products. We strive to maintain optimal inventory levels to meet our production capacity and sales plans. As at 31 December 2016, 31 December 2017, 31 December 2018 and 31 August 2019, our inventories amounted to approximately RMB25.9 million, RMB75.7 million, RMB162.7 million and RMB90.1 million, respectively.

We monitor our inventory levels and make provisions in accordance with our accounting policy. Our production department and finance department also perform inventory counts on a monthly basis.

Please refer to the paragraph headed "Financial Information — Description of certain line items in the consolidated statements of financial position — Inventories" for details regarding analysis of our inventory balances and inventory turnover days during the Track Record Period.

MARKET AND COMPETITION

According to the CIC Report, the PRC tantalum- and niobium-based hydrometallurgical products market is competitive and relatively concentrated, with around 15 market players and the top five players accounting for 82.9% of the market share in terms of total annual production volume for external sales in 2018. We were the largest producer of tantalum- and niobium-based hydrometallurgical products in China for FY2016, FY2017 and FY2018 in terms of total annual production volume for external sales. Our total production volume of pentoxide products and potassium heptafluorotantalate was approximately 878.9 tonnes, 1,031.0 tonnes and 1,321.0 tonnes for FY2016, FY2017 and FY2018, respectively, accounting for approximately 30.0%, 31.5% and 35.8% of the market share in China for FY2016, FY2017 and FY2018, respectively.

According to the CIC Report, there are certain major entry barriers for the tantalum and niobium metallurgy industry, including substantial capital investment required to set up the production facilities, product quality requirements from customers, environmental protection requirements, availability of raw materials and regulatory approvals. Please refer to the section headed "Industry Overview" in this prospectus for further details.

AWARDS AND RECOGNITIONS

Since 2012 and up to the Latest Practicable Date, we have been accredited as a High-tech Enterprise (高新技術企業). We received various awards, including Yingde Science and Technology Progress Award Second Prize (英德市科學技術進步獎勵二等獎) awarded by Yingde Municipal People's Government* (英德市人民政府), and Qingyuan Excellent Enterprise (清遠市優秀企業) awarded by Qingyuan Enterprise Association* (清遠市企業聯合會), Qingyuan Entrepreneur Association* (清遠市企業家協會) and Qingyuan Daily Office* (清遠日報社).



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During the Track Record Period, we also received the following major awards and recognitions:

<u>Year of grant</u>	<u>Award or recognition</u>	<u>Issuing institution/authority</u>
2016	Qingyuan Science and Technology Progress Award Second Prize (清遠市科學技術進步獎勵二等獎)	Qingyuan Municipal People's Government* (清遠市人民政府)
2018	Guangdong Innovative Enterprise (廣東省創新型企業)	Guangdong High-tech Enterprise Association* (廣東省高新技術企業協會)
2019	Guangdong Excellent Enterprise in 2018 (2018年廣東省優秀企業)	Guangdong Provincial Enterprise Confederation* (廣東省企業聯合會) and Guangdong Provincial Association of Enterprise (廣東省企業家協會)

During the Track Record Period, our high-purity tantalum pentoxide was accredited as a high-tech product (高新技術產品) by Guangdong Science and Technology Department* (廣東省科學技術廳). Our high-purity niobium pentoxide and potassium heptafluorotantalate were also accredited as high-tech products by Guangdong High-tech Enterprise Association* (廣東省高新技術企業協會).

INTELLECTUAL PROPERTIES

As at the Latest Practicable Date, we owned 19 utility model patents and five invention patents and had filed 16 patent applications in the PRC. We also possess know-how and proprietary knowledge related to our products and technologies, which are crucial to our business operations. In addition, we have registered one trademark “ 廣東省科學技術廳” and applied for registration of one trademark “ 廣東省科學技術廳” in Hong Kong. At the same time, we have registered one trademark in the PRC. For more information, please refer to the paragraph headed “Further information about the business of our Company — 8. Intellectual property rights of our Group” in Appendix VI to this prospectus.

We have adopted some intellectual property protection measures to manage the applications, operations and maintenance of our intellectual property rights. Through such measures, we protect our intellectual property rights by entering into confidentiality and non-competition agreements with our key employees, developing codes of communication relating to the intellectual property rights as well as assigning varying levels of access to such information. Moreover, the academic and research institutes with which we have established collaborative relationships are subject to confidentiality clauses under the relevant collaborative agreements, which would protect our proprietary information.

During the Track Record Period and as at the Latest Practicable Date, we were not involved in any threatened or pending disputes or legal proceedings regarding intellectual property rights that may have a material and adverse effect on our business.

INFORMATION TECHNOLOGY

We rely, to a large extent, on our information systems for daily operations, especially our operation management information system. Our information systems enable us to record financial data, analyse our historical financial performance and monitor our financial conditions. From time to time, we procure new or upgrade existing information systems based on our business needs. During the Track Record Period, we did not suffer any major information technology system failures or related losses.

QUALITY CONTROL

We have a quality control department to ensure that our products and raw materials meet our quality standards. Our quality control team has experience in the tantalum and niobium metallurgy industry and relevant training in quality control.

We have in place a stringent quality control system for the entire production process, from procurement of raw materials to inspection of finished products. We first obtained ISO 9001 certification in June 2012 for the production of our products, demonstrating that our quality control system meets recognised international standards of quality assurance. We have adopted and implemented standards and procedures to ensure that our industrial grade tantalum pentoxide, high-purity tantalum pentoxide, industrial grade niobium pentoxide, high-purity niobium pentoxide and potassium heptafluorotantalate meet the applicable PRC national standards issued by MIIT and NDRC, namely YS/T 427-2012, YS/T 547-2007, YS/T 428-2012, YS/T 548-2007 and YS/T 578-2006, respectively, before delivery. The following is a summary of key quality control measures that we have implemented throughout our operations:

- *Inspection of raw materials.* We have a set of procedures for selecting and monitoring our suppliers to ensure that the raw materials we use are of high quality. Our quality control department inspects each batch of raw materials on a sampling basis before acceptance to ensure their compliance with the specifications stipulated in our procurement contracts and industry standards. Generally, if the raw materials fail to meet the specifications stipulated in our procurement contracts, we are entitled to a price discount or may reject the entire batch of such raw materials.
- *Process control.* Our quality control department undertakes consistent quality tests and inspections during the production process to ensure that our work-in-progress complies with the required quality standards. Defective products identified by such tests and inspections will generally not be further processed and will be returned to the production process for reprocessing or will be disposed of. Our quality control professionals maintain records that detail such tests and inspections.
- *Inspection of finished product samples.* Prior to delivery of finished products, our quality control department performs a set of routine inspections on finished product samples by examining their physical appearance and conducting chemical composition analysis. Any finished products that do not pass our quality tests and inspections will be reprocessed in accordance with our internal control procedures and policies.
- *Machinery and equipment management.* Our machinery and equipment management department conducts checks, repairs and maintenance of our production facilities, whenever necessary, to ensure their stable, safe and reliable operation.

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Based on these quality control measures, we would be able to provide our customers with high-quality products. During the Track Record Period, we did not experience any material sales returns by our customers nor receive any product liability or other legal claims in connection with the quality of our products.

ENVIRONMENTAL MATTERS

We are committed to environmental protection. Our operations primarily generate waste gas, waste water, noise and solid waste, which could potentially be harmful to the environment and health of local residents as well as our employees in case of improper handling. For details, please refer to the paragraph headed “Risk Factors — Risks relating to our business and industry — Our business operations are subject to risks relating to hazardous chemicals and potential accidents arising from our operations, and other unforeseen risks” in this prospectus. Therefore, we strictly comply with national and local environmental laws and regulations applicable to our production and research facilities, including but not limited to those related to air pollutant emission, acid pollution, noise pollution, and waste water and solid waste discharge. For details, please refer to the paragraph headed “Regulatory Overview — PRC Laws and Regulations relating to environmental protection” in this prospectus. We first obtained ISO 14001 certification in July 2013 for the production and related management activities of our products, demonstrating the recognition for our sustained efforts in environmental protection.

The local competent authorities conduct regular or random inspection of our operations regarding the compliance with various environmental protection laws and regulations. In addition, to ensure that our operations observe the relevant environmental laws and regulations, we have implemented the following measures:

- We have installed environmental protection equipment on our existing production plant, aimed to minimise the impact on the environment from our production. We process the waste gas and waste water generated during our production process by our environmental protection equipment before discharging the same into the air or as sewage. Acidic waste gas is processed by condenser and leaching tower to neutralise the acid contained, while alkaline waste gas is processed by water screen duster to remove dust contained (if applicable) and leaching towers to neutralise the alkaline contained. For waste water, we remove the ammonia contained in waste water using the ammonia-nitrogen treatment tower and we also recycle the fluoride contained in the waste water, then lime is added to neutralise the acidity of the waste water before recycling or release.
- We cooperated with qualified third-party entities for the disposal of our hazardous solid waste during the Track Record Period. Other solid waste is disposed at designated landfill sites in our production facilities.
- We monitor, through on-site facilities, to ensure that we satisfy the relevant PRC environmental laws and regulations on air pollutant emission, acid pollution, noise pollution, and waste water and solid waste discharge.

Pursuant to the environmental acceptance approval issued by competent authorities in December 2006, we constructed our production facilities with an annual processing capacity of 600 tonnes of tantalum ores and niobium ores. In November 2016, we obtained a reply from Yingde Environmental Protection Bureau approving the environmental impact assessment to expand our annual processing

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capacity from 600 tonnes of tantalum ores and niobium ores to production capacity of 2,000 tonnes of pentoxide products. During the period between January 2014 and November 2016, we continuously expanded our annual processing capacity of tantalum ores and niobium ores as a result of the improvement in our production techniques. However, we did not resubmit the environmental impact assessment for approval before expanding our annual processing capacity of tantalum ores and niobium ores. For details, please refer to the paragraph headed “Compliance and legal proceedings — Non-compliance” in this section. As advised by our PRC Legal Advisers, save as disclosed above, we had complied with all applicable environmental laws and regulations in the PRC during the Track Record Period in all material respects. As at 31 August 2019, we had not received any notification or warnings and had not been subject to any material environmental claims, lawsuits, penalties or disciplinary actions. We incurred approximately RMB0.1 million, RMB0.5 million, RMB4.2 million and RMB2.3 million for FY2016, FY2017, FY2018 and 8M2019, respectively, relating to our compliance with applicable environmental laws, regulations and policies. We estimate our expenses relating to environmental protection matters will be approximately RMB8.4 million for the year ended 31 December 2019.

OCCUPATIONAL HEALTH AND SAFETY

We have implemented stringent safety measures at our production facilities to ensure compliance with applicable regulatory requirements. Our production department is responsible for the supervision and inspection of production safety at all stages of our production process to minimise the possibility of work-related accidents or injuries, as well as the maintenance of the appropriate licences and permits required in our operations. We conduct periodic inspections of our equipment and machinery to ensure their safety and suitability for our operations. We also conduct regular training sessions for employees on safety procedures and accident prevention, and have implemented a series of policies and procedures to address, among others, occurrence of fires, accident prevention and handling, and emergency response. We first obtained OHSAS 18001 certification in July 2013 for the production and related management activities of our products, demonstrating the recognition for our sustained efforts in relation to occupational health and safety.

The production process of tantalum- and niobium-based metallurgical products involves the handling and processing of hazardous chemicals, such as sulphuric acid and hydrofluoric acid. Improper handling of these chemical materials or wastes can result in pollution and accidents. We have in place designated warehouses and storage tanks for the storage of raw materials and products that are hazardous substances. These warehouses and storage tanks are equipped with safety and firefighting systems and equipment in accordance with relevant PRC laws and regulations. We have also installed detection and auto-alarm systems in our production facilities to ensure timely discovery of any leakage, and cameras covering all areas of our plant to allow our management or fire department to efficiently identify the accurate location of any incident, and direct the rescue accordingly. We also have a designated materials management department overseeing the strict management of our material storage activities, including maintaining a ledger on raw materials and products. In addition, we also provide our employees with gas masks, rubber gloves, chemical protective clothing and require all employees to wear when handling relevant chemical materials.

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During the Track Record Period, no material accidents involving any personal injury or property damage were reported to our management and we were not subject to any claims, lawsuits, penalties or disciplinary actions arising from any material accidents involving personal injury or property damage that have had a material adverse effect on our business, financial condition and results of operations.

EMPLOYEES

We believe that our long-term growth depends on the expertise and experience of our employees. We primarily recruit our personnel through campus recruiting, career fairs, recruitment websites and internal recommendation. We provide regular training programs to our employees, including, among others, introductory training, safety training and technical training, to enhance their skill and knowledge.

The following table sets forth the number of our employees by function as at the Latest Practicable Date, all of whom were located in the PRC:

	<u>Number of employees</u>
Production	114
Finance	11
Research and development	11
Machinery and equipment management	19
Sales and procurement	13
Quality control	24
Administrative and human resources	27
General manager	<u>1</u>
Total	<u><u>220</u></u>

The salaries of our employees depend mainly on their position, nature of work and results of their annual performance evaluation. For employees of our PRC subsidiary, we made contributions to social insurance funds, including pension, medical, unemployment, maternity and occupational injury insurance, and housing provident funds for our employees in accordance with applicable PRC laws and regulations. The local bureau of social insurance in Yingde, Guangdong Province, has confirmed that we had complied with PRC social insurance laws and regulations during the Track Record Period in all material respects. The relevant housing funds management centre has confirmed that we had not been penalised under PRC housing fund management laws and regulations during the Track Record Period.

We have established a labour union that aims to protect our employees' legal rights, assist us in attaining our economic objectives and encourage employees to participate in management decisions. During the Track Record Period, we did not experience any material labour disputes with our employees.

PROPERTIES

Self-used land in the PRC

As at 31 August 2019, we occupied our self-used land with a total site area of approximately 113,265 sq.m. in Yingde, Guangdong Province, China. As at the Latest Practicable Date, we: (i) had obtained the land use right certificates for the land with a total site area of approximately 91,402 sq.m.,

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representing approximately 80.7% of the total site area of our self-used land; and (ii) have not obtained the land use right certificates for the remaining land with a total site area of approximately 21,863 sq.m., representing approximately 19.3% of the total site area of our self-used land. For further details of the part of our self-used land with defective titles, please refer to the paragraph headed “Compliance and legal proceedings — Non-compliance” in this section.

During the Track Record Period, we did not obtain the land use right certificates for part of our self-used land with a total site area of approximately 71,335 sq.m., of which we had obtained the land use right certificates for such land with a total site area of approximately 49,472 sq.m. as at 31 August 2019. If we had obtained the relevant land use right certificates for such part of our self-used land with a total site area of approximately 71,335 sq.m., in addition to the land transfer fee, we would have incurred amortisation of land lease payments of approximately RMB0.4 million for each year during the Track Record Period.

Our PRC Legal Advisers are of the view that we will have the right to occupy, use, transfer, lease, mortgage or otherwise dispose of such land use rights in accordance with applicable PRC laws and regulations once we have obtained the relevant land use right certificates.

Leased land in the PRC

As at 31 August 2019, we leased one parcel of land adjacent to our self-used land in the PRC with a total site area of approximately 133,333 sq.m. in Yingde, Guangdong Province, China, which was not used for production and did not house any building. When we acquired our self-used land in the PRC from the Qiaotou Town People’s Government, such land was leased to us under the same agreement at an annual rent of RMB48,000. The landlord of such leased land in the PRC was an Independent Third Party and it had obtained certificate of forest right for such land. At the material times, we decided to lease such piece of land because it is adjacent to our existing production facilities and we would like to preserve the flexibility and potential to expand our existing production facilities at relatively insignificant rental cost. As advised by our PRC Legal Advisers, according to the applicable PRC laws and regulations, if we wish to use such leased forest land for non-forestry construction use, we have to go through examination and obtain approval from competent authority. On the other hand, according to the 10th Five-Year Plan of Guangdong Province for the Protection of the Environment stipulated in 2001 that required strengthening of urban environmental management and increasing of urban greening space, the Qiaotou Town People’s Government required us to reserve part of our land in or around our production facilities for greening at the time of signing the lease. As at the Latest Practicable Date, such leased land was used as a greening zone and we had not formulated any plan to use such leased land for production or construction of any building and had not submitted any application to the competent authority for the use of such leased land for production or construction uses. This lease has a term of 20 years and will expire in June 2031. As advised by our PRC Legal Advisers, the lease is valid within the 20 years from the effective date and may be renewed at the end of the lease term.

Self-used buildings in the PRC

As at the Latest Practicable Date, we occupied 17 buildings with a gross floor area of approximately 27,996 sq.m. in China. As at the Latest Practicable Date, we: (i) had obtained the building ownership certificates for 13 of these buildings with a gross floor area of approximately 20,381 sq.m., representing approximately 72.8% of the gross floor area of our self-used buildings; and (ii) had

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not obtained the building ownership certificates for the remaining four buildings with a gross floor area of approximately 7,615 sq.m., representing approximately 27.2% of the gross floor area of our self-used buildings. For further details of the part of our self-used buildings with defective titles, please refer to the paragraph headed “Compliance and legal proceedings — Non-compliance” in this section.

During the Track Record Period and up to the Latest Practicable Date, we had not been penalised by any PRC competent authorities regarding safety condition of buildings with defective titles. Our Directors confirm that the safety condition of these buildings with defective titles was in compliance with the relevant PRC laws and regulations in all material respects during the Track Record Period and up to the Latest Practicable Date, as we have passed the requisite construction completion inspection and fire control assessments, obtained the construction completion acceptance records and have applied for the building ownership certificates.

Our PRC Legal Advisers are of the view that there is no legal impediment for us to obtain such building ownership certificates according to the confirmation letters issued by the relevant competent authorities, and we will have the rights to occupy, use, transfer, lease, mortgage or otherwise dispose of such building ownership certificates in accordance with applicable PRC laws and regulations once we have obtained the building ownership certificates.

Jones Lang LaSalle Corporate Appraisal and Advisory Limited, an independent valuer, valued our property interests in the PRC at approximately RMB59.5 million as at 31 December 2019. The text of the valuation report, valuation summary and valuation certificates in connection with its valuations are set out in Appendix IV to this prospectus. Except for the property interests in the valuation report, no single property interest that forms part of our non-property activities had a carrying amount of 15% or more of our total assets as at 31 August 2019.

Leased buildings in the PRC

As at the Latest Practicable Date, we leased four office spaces for administrative purposes in Panyu, Guangdong Province, China, with an aggregate gross floor area of approximately 643 sq.m.. The term of such leases expires on 31 December 2022. We have duly registered all the lease agreements with the relevant regulatory authorities. As at the Latest Practicable Date, our landlord had not obtained the relevant building ownership certificates because the real estate developer of such buildings did not provide the necessary information for applying for the building ownership certificate on time. Our Directors believe, and our PRC Legal Advisers have advised us that, our business and results of operations will not be adversely and materially affected as such buildings are used for office purposes and we do not foresee any difficulty in finding alternative leased buildings, if necessary, within a short period of time. It would take approximately one day to relocate such four offices to alternative leased buildings. As advised by our PRC Legal Advisers, we have the right to use the leased buildings according to the lease agreements. The tenancy agreements for the leased buildings in the PRC were entered into by Zhiyuan New Material with our connected person. For details, please refer to the section headed “Connected Transactions” in this prospectus.

Leased property in Hong Kong

As at the Latest Practicable Date, we leased a property situated at Workshop E, 7th Floor, Derrick Industrial Building, No. 49 Wong Chuk Hang Road, Hong Kong (the “**Hong Kong Workshop Unit**”) with a gross floor area of approximately 1,979 square feet as our workshop and principal place of

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business in Hong Kong. The Hong Kong Workshop Unit was leased at nil rental for the period from 16 June 2019 to 15 July 2019 and at a monthly rental of HK\$35,000 for the period from 16 July 2019 to 15 July 2021. The tenancy agreement for the Hong Kong Workshop Unit was entered into by Xite Hong Kong with our connected person. For details, please refer to the section headed “Connected Transactions” in this prospectus.

INSURANCE

We take out property insurance for our equipment and machinery, as well as automobile insurance for our vehicles. These insurance policies cover the risk of damage arising from natural disasters and certain accidents, such as fire and explosion, as well as vehicle damage due to accidents. Most of our insurance policies are subject to standard deductions, exclusions and limitations. We are also required by PRC social insurance laws and regulations to make contributions for social insurance funds for our employees. Consistent with customary practice in China, we do not take out any product liability insurance relating to claims or liabilities that may arise from any defects of our products.

We believe that our insurance coverage is in line with industry practice in China, including with respect to the terms and coverage of the insurance policies. However, there is no assurance that the insurance policies we maintain are sufficient to cover all of our operational risks. For details, please refer to the paragraph headed “Risk Factors — Risks relating to our business and industry — Our insurance coverage might not be adequate to cover all the risks” in this prospectus.

RISK MANAGEMENT AND INTERNAL CONTROL

We are exposed to various risks during our operations. For more information, please refer to the section headed “Risk Factors” in this prospectus. We have established risk management systems consisting of relevant policies and procedures that we believe are appropriate for our business operations, including the production and sale of our products, administration of daily operations, financial reporting and recording, fund management, quality control, and compliance with applicable laws and regulations on environment protection, production safety and anti-bribery.

Our Board oversees and manages the overall risks associated with our operations. We have established an audit committee to review our financial reporting policies and internal control system. The audit committee consists of three members, namely Mr. Lau Kwok Fai Patrick, who serves as chairman of the committee, Mr. Zhong Hui and Mr. Yin Fusheng. For the qualifications and experience of these committee members, please refer to the section headed “Directors and Senior Management” in this prospectus.

In order to improve our corporate governance and to prevent the recurrence of non-compliance incidents in the future, we have adopted, or expect to adopt before Listing, a series of internal control policies, procedures and programs designed to provide reasonable assurance for achieving objectives such as effective and efficient operations, reliable financial reporting and compliance with applicable laws and regulations. Highlights of our internal control system include the following:

- Our Directors and senior management attended a training session on 6 August 2019 in relation to the relevant requirements of the Listing Rules and duties of directors of companies listed in Hong Kong.

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- We have adopted various policies to ensure compliance with the Listing Rules, including those in relation to continuing connected transactions and information disclosure.
- We have implemented internal control policies in relation to financial management.
- We have implemented a series of internal rules and regulations in relation to our business operations, including those in relation to the management of our quality control, occupational health and safety, production and procurement.

We have also established the following internal control measures to ensure compliance with all applicable laws and regulations after Listing:

- Our management and employees will consult with an external legal counsel concerning legal risks and compliance matters.
- Our administrative and human resources department established a regular consultation mechanism to identify, prevent and rectify any potential non-compliance matter in the future, including but not limited to, whether our business operation involves state secrets.
- Our Board will ensure that relevant land use right certificates and building ownership certificates are obtained, which will be supervised by the audit committee.
- Our Board will ensure that all relevant certificates are obtained and that environmental impact assessments are conducted before the completion of any expansion project, which will be supervised by the audit committee.

Our sales are primarily denominated in RMB whereas our purchases of tantalum ores and niobium ores were primarily denominated in USD. If the USD appreciates against RMB, the cost of our purchase would become higher and adversely affect our profitability. For the associated risk, please refer to the paragraph headed “Risk Factors — Risks relating to our business and industry — Our sales were primarily denominated in RMB whereas our purchases of tantalum ores and niobium ores were primarily denominated in USD. Fluctuations on exchange rates between RMB and USD may have a material and adverse impact on our financial condition and profitability” in this prospectus. We have developed foreign exchange risk management measures to manage our exposure to foreign exchange risk in relation to USD. These measures were formulated by our finance department and have been reviewed by our internal control consultant, which include: (i) the head of our sales and procurement department is required to report to the head of finance department the expected annual level of purchase of raw materials based on our annual sales target and annual production capacity as well as market conditions; (ii) the head of finance department is required to make a periodic or ad hoc (if necessary) analysis of the exchange rate fluctuation of USD/RMB; (iii) if the head of finance department considers it necessary to enter into forward currency contracts to manage our foreign currency exposure, the head of finance department should follow our internal policies on forward currency contracts as disclosed below; and (iv) the reasons giving rise to the foreign exchange gain or loss recorded for the quarter should be submitted to our Board and the audit committee for review and monitoring purposes.

During the Track Record Period, we entered into certain forward currency contracts, which were all settled as at 31 August 2019, to manage our foreign currency exposure. For the associated risks, please refer to the paragraphs headed “Risk Factors — We may not successfully mitigate our exposure

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to foreign exchange risks through forward currency contracts” and “Risk Factors — If we hold derivative financial instruments in the future, such derivative financial instruments may materially and adversely affect our financial condition and results of operations” in this prospectus. We have implemented a set of internal control and risk management measures to manage our risks related to such forward currency contracts. These measures were formulated by our finance department and have been reviewed by our internal control consultant, which include: (i) before making a proposal to enter into forward currency contracts, the head of finance department is required to evaluate our cash flow and operational needs and capital expenditures; (ii) according to our internal policies, regardless of the investment size, a proposal to enter into forward currency contracts must first be reviewed by the head of finance department. After the head of finance department approves the proposal, the proposal then has to be approved by the committee for forward currency contracts led by Mr. Zhong Yuelian; and (iii) if the investment exceeds 30% of the audited net assets of the last financial year, the proposal must be approved by our Chairman.

During the Track Record Period, Zhiyuan New Material purchased raw materials from its immediate holding company, Xite Hong Kong. Upon the initiation by Zhiyuan New Material, Xite Hong Kong made purchases from third-party suppliers for onward sales to Zhiyuan New Material. We have adopted certain internal control measures in relation to transfer pricing to ensure future compliance with the relevant tax laws and regulations in Hong Kong and the PRC. For details, please refer to the paragraph headed “Transfer pricing arrangement between Zhiyuan New Material and Xite Hong Kong” in this section.

We have engaged an internal control consultant, RSM Consulting (Hong Kong) Limited, to review our internal control policies including entity-level controls, compliance monitoring controls, financial and accounting procedures, sales procedures and recovery of trade receivables, cash management procedures, procurement procedures, production procedures, inventory management procedures, intellectual property protection, human resources management procedures, fixed asset management procedures, tax management procedures (including transfer pricing) and other general control measures. Our internal control consultant performed the work and put forward recommendations based on the review of our internal control policies.

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The material findings and recommendations by our internal control consultant are as follows:

<u>Material internal control review findings</u>	<u>Recommendations</u>
During the Track Record Period, we did not obtain land use right certificates for part of our self-used land in the PRC, building ownership certificates for some of our self-used buildings in the PRC and submit environmental impact assessment for approval in time.	<ul style="list-style-type: none">● We should provide additional training to our management and staff on compliance with the applicable laws and regulations in the PRC.● We should establish an internal monitoring mechanism to identify, prevent and rectify any potential non-compliance in the future, including (i) our administrative and human resources department should be responsible for, and our Board should oversee, the application for the relevant certificates etc.; (ii) a proposal must be submitted to our Board when we plan to expand the production capacity; and (iii) the audit committee should be responsible for overseeing the implementation of relevant internal control measures.
During the review period, we failed to implement the budgetary control in accordance with our comprehensive budget management system policy.	<ul style="list-style-type: none">● We should prepare comprehensive annual budget plan in accordance with our comprehensive budget management system policy.● Our finance department should perform an analysis on the variance between the budget and the actual figures and suggest follow up actions.

We have implemented rectification and improvement measures, as the case may be, in response to the findings and recommendations by our internal control consultant; our internal control consultant has also completed procedures to follow up on the actions we took in relation to our internal control system.

Our internal control consultant conducted a follow-up review in June 2019 and August 2019 of the remedial actions taken by us to address the findings of the internal control review process, and noted that we had considered their recommendations and also taken the necessary remedial actions to address our internal control deficiencies and weaknesses. After the follow-up review, the internal control consultant was satisfied that there is no material deficiencies in the adequacy and effectiveness of our Group's risk management and internal control systems. In addition, our Directors confirm that our Company will periodically evaluate the effectiveness of, and ensure the compliance with the risk management and internal control policies and procedures, in particular, to make sure our employees will adhere to such policies and procedures. Our Directors are not aware of any significant deficiencies in the internal control design or material impediment for our employees to comply with the enhanced risk management and internal control policies and procedures. We did not receive any additional recommendations from the internal control consultant as at the Latest Practicable Date. Based on above, our Directors are of the view that our Group's risk management and internal control policies and procedures are effective.

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COMPLIANCE AND LEGAL PROCEEDINGS

Certificates, Licences and Permits

According to the relevant PRC laws and regulations, we are required to obtain and maintain different certificates, licences and permits to operate our business. As advised by our PRC Legal Advisers, during the Track Record Period and up to the Latest Practicable Date, we had obtained all the requisite certificates, licences and permits from relevant regulatory authorities with respect to our operations. We are required to renew such certificates, licences and permits from time to time. As advised by our PRC Legal Advisers, such certificates, licences and permits were lawfully obtained and effective within the approved period of validity.

The following table sets forth details of our material certificates, licences and permits, which are held by Zhiyuan New Material:

<u>Certificate/Licence/Permit</u>	<u>Granting authority</u>	<u>Grant date</u>	<u>Expiry date/ Renewal date</u>
Business Licence	Qingyuan AIC	18 January 2018	20 April 2026
Guangdong Pollutant Discharge Permit (廣東省污染物排放許可證)	Qingyuan Ecology and Environment Bureau Yingde Branch* (清遠市生態 環境局英德分局)	2 August 2019	31 December 2020
Work Safety Licence (安全生產許可證)	Qingyuan Emergency Management Bureau* (清遠市應急管理局)	19 April 2019	21 April 2022
Hazardous Chemicals Registration Certificate (危險化學品登記證)	The Chemical Registration Center of the Ministry of Emergency Management* (應急管理部化學品登記中心)	18 March 2019	17 March 2022
Water Drawing Permit (取水許可證)	Yingde Water Supplies Bureau* (英德市 水務局)	31 August 2016	2 September 2021
Special Equipment Use Registration Certificate (Stationary pressure vessel — Liquid ammonia storage tank) (特種設備使用登記證 (固定式壓力容 器 — 液氨貯罐))	Qingyuan Quality and Technology Supervision Bureau* (清遠市質量技術監督局)	4 July 2012	April 2022
Special Equipment Use Registration Certificate (Stationary pressure vessel — Steam intermediate tank B1) (特種設備使用登記證 (固定式壓力容 器 — 蒸汽過濾罐B1))	Qingyuan Quality and Technology Supervision Bureau* (清遠市質量技術監督局)	4 July 2012	April 2021
Special Equipment Use Registration Certificate (Stationary pressure vessel — Steam intermediate tank B2) (特種設備使用登記證 (固定式壓力容 器 — 蒸汽過濾罐B2))	Qingyuan Quality and Technology Supervision Bureau* (清遠市質量技術監督局)	4 July 2012	April 2021

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<u>Certificate/Licence/Permit</u>	<u>Granting authority</u>	<u>Grant date</u>	<u>Expiry date/ Renewal date</u>
Special Equipment Use Registration Certificate (Stationary pressure vessel — Steam intermediate tank C) (特種設備使用登記證 (固定式壓力容器 — 蒸汽過濾罐C))	Qingyuan Quality and Technology Supervision Bureau* (清遠市質量技術監督局)	4 July 2012	April 2021
Special Equipment Use Registration Certificate (Stationary pressure vessel — Ammonia intermediate tank A1) (特種設備使用登記證 (固定式壓力容器 — 氨過濾罐A1))	Qingyuan Quality and Technology Supervision Bureau* (清遠市質量技術監督局)	4 July 2012	April 2021
Special Equipment Use Registration Certificate (Stationary pressure vessel — Ammonia intermediate tank A2) (特種設備使用登記證 (固定式壓力容器 — 氨過濾罐A2))	Qingyuan Quality and Technology Supervision Bureau* (清遠市質量技術監督局)	4 July 2012	April 2021
Special Equipment Use Registration Certificate (Stationary pressure vessel — Ammonia intermediate tank A3) (特種設備使用登記證 (固定式壓力容器 — 氨過濾罐A3))	Qingyuan Quality and Technology Supervision Bureau* (清遠市質量技術監督局)	4 July 2012	April 2021
Special Equipment Use Registration Certificate (Steam production boiler — WNS2-1.25-YQ) (特種設備使用登記證 (蒸汽鍋爐 — WNS2-1.25-YQ))	Qingyuan Quality and Technology Supervision Bureau* (清遠市質量技術監督局)	4 July 2012	May 2021 (internal)/ July 2020 (external)
Special Equipment Use Registration Certificate (Steam production boiler — WNS2-1.0-Y) (特種設備使用登記證 (蒸汽鍋爐 — WNS2-1.0-Y))	Qingyuan Quality and Technology Supervision Bureau* (清遠市質量技術監督局)	4 July 2012	May 2021 (internal)/ July 2020 (external)
Special Equipment Use Registration Certificate (Elevator — MH5-28.3A3) (特種設備使用登記證 (電動葫蘆門式起重機 — MH5-28.3A3))	Qingyuan Quality and Technology Supervision Bureau* (清遠市質量技術監督局)	30 October 2012	July 2020
Special Equipment Use Registration Certificate (Motor vehicle — CPC30E-3) (特種設備使用登記證 (場(廠)內專用機動車輛 — CPC30E-3))	Qingyuan Quality and Technology Supervision Bureau* (清遠市質量技術監督局)	25 December 2013	July 2020
Special Equipment Use Registration Certificate (Elevator — LD5T-7.9m) (特種設備使用登記證 (電動單樑起重機 — LD5T-7.9m))	Qingyuan Quality and Technology Supervision Bureau* (清遠市質量技術監督局)	28 October 2015	September 2021
Special Equipment Use Registration Certificate (Motor vehicle — CPC30) (特種設備使用登記證 (場(廠)內專用機動車輛 — CPC30))	Qingyuan Quality and Technology Supervision Bureau* (清遠市質量技術監督局)	9 March 2016	July 2020

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<u>Certificate/Licence/Permit</u>	<u>Granting authority</u>	<u>Grant date</u>	<u>Expiry date/ Renewal date</u>
Special Equipment Use Registration Certificate (Pressure vessel — Liquid ammonia storage tank) (特種設備使用登記證 (壓力容器 — 液氨儲罐))	Qingyuan Quality and Technology Supervision Bureau* (清遠市質量技術監督局)	8 November 2016	August 2022
Special Equipment Use Registration Certificate (Pressure pipelines — Industrial pipelines) (特種設備使用登記證 (壓力管道 — 工業管道))	Qingyuan Quality and Technology Supervision Bureau* (清遠市質量技術監督局)	11 November 2016	30 September 2020
Customs Declaration Registration Certificate (報關單位註冊登記證書)	Qingyuan Customs (清遠海關)	12 June 2016	N/A
Certificate of Registration of the Unit of Self-inspection (出入境檢驗檢疫報檢企業備案表)	Qingyuan Customs (清遠海關)	29 June 2018	N/A

Legal Proceedings

We may from time to time be involved in legal, arbitration or administrative proceedings in the ordinary course of our business. During the Track Record Period and up to the Latest Practicable Date, there were no legal, arbitration or administrative proceedings ongoing, pending or threatened against us or any of our Directors, which could have a material and adverse effect on our financial conditions or results of operations.

Non-compliance

Except for the non-compliance incidents disclosed below, we are advised by our PRC Legal Advisers that, during the Track Record Period and up to the Latest Practicable Date, we had complied with the relevant PRC laws and regulations in all material respects.

Non-compliance incident	Legal consequences and maximum penalty	Current status	Remedies and internal control measures
<p>1. During the Track Record Period, we did not obtain the relevant land use right certificates for part of our self-used land with a total site area of approximately 71,335 sq.m., representing approximately 63.0% of the total site area of our self-used land.</p> <p>Among such land, the land with a total site area of approximately 26,342 sq.m. and representing approximately 23.3% of the total site area of our self-used land (“Land I”) was primarily used to house certain of the production facilities for our major products, namely pentoxide products and potassium heptafluorotantalate, and part of our comprehensive recycling workshop (綜合回收車間) (with the remaining part of these facilities housed in Land III, as described below).</p> <p>Among the remaining land with a total site area of approximately 44,993 sq.m. and representing approximately 39.7% of the total site area of our self-used land: (i) the land with a total site area of approximately 13,669 sq.m. and representing approximately 12.1% of the total site area of our self-used land (“Land II”) was not used for production; and (ii) the land</p>	<p>Our PRC Legal Advisers have advised us that, under the relevant PRC laws and regulations, for the land we have occupied and used historically without obtaining the land use right certificates, we may be subject to a fine of up to approximately RMB2.1 million and/or suspended from occupying and using the land.</p> <p>Further, in June 2019, we obtained a confirmation letter from the relevant competent authority. According to such confirmation letter, since the establishment of Zhiyuan New Material, there has been no investigation, punishment nor possible investigation, punishment on Zhiyuan New Material due to any major violation of the applicable PRC laws, regulations, rules, normative documents and relevant policies on land management, and Zhiyuan New Material has no major violations of applicable PRC laws and regulations. As such, our PRC Legal Advisers advised that it is unlikely that the revenue from our production and operation will be confiscated because of the land we have occupied and</p>	<p>We have been communicating with relevant competent authorities to apply for the land use right certificates for such land and made progress towards obtaining the land use right certificates, and had obtained the land use right certificates for the land with a total site area of approximately 49,472 sq.m. during the Track Record Period and up to the Latest Practicable Date.</p> <p>For Land I, we obtained the land use right certificates on 6 September 2017 for a land transfer fee (土地出讓金) of RMB4,985,000 which had been paid in full by us.</p> <p>For Land II, we obtained the land use right certificates on 10 November 2017 for a land transfer fee of RMB2,600,000, which had been paid in full by us.</p> <p>For Land III: (i) for part of the self-used land with a total site area of approximately 9,461 sq.m., we obtained the land use right certificates on 4 December 2018 and 27 December 2018, respectively, for a land transfer fee of RMB1,850,000 in total which had been fully paid by us; (ii) we expect to obtain the approval for the use of urban construction land of approximately 21,863 sq.m. from the relevant competent authority by December 2020 (including completing the local government’s approval and the land in issue by June 2020; and (ii) further completing the acquisition of the land by our Group and obtaining the relevant land use certificate by December 2020; (iii) the competent authority will issue the relevant listing announcements for right to use the state-owned construction land; (iv) we will enter into the contracts for assigning the right to use the state-owned construction land with the relevant competent authority; and (v) we expect to pay the total estimated amount of the land transfer fee of approximately RMB4.3 million).</p>	<p>We had formulated internal control policies in connection with this non-compliance incident, including but not limited to: (i) our administrative and human resources department is responsible for, and our Board will oversee, the application for relevant land use right certificates; and (ii) our audit committee of the Board will be responsible for overseeing the implementation of relevant internal control measures.</p> <p>We had designated Mr. Liu Honggang (劉宏剛) (“Mr. Liu”), head of our administrative and human resources department, who is familiar with the relevant administrative procedures, to oversee the process of applying for the relevant land use right certificates and implementation of corresponding internal control policies.</p> <p>For general enhanced internal control measures to prevent recurrence of non-compliance incidents, please refer to the paragraph headed “Risk management and internal control” in this section.</p>

Non-compliance incident	Legal consequences and maximum penalty	Current status	Remedies and internal control measures
<p>with a total site area of approximately 31,324 sq.m. and representing approximately 27.7% of the total site area of our self-used land (“Land III”) was used to house the remaining part of our comprehensive recycling workshop and was not used for production.</p> <p>The non-compliance occurred mainly because of our unfamiliarity with the regulatory requirements for obtaining the land use right certificates.</p>	<p>used during the Track Record Period without obtaining the land use right certificates, and that our risk of being penalised by the relevant government authorities due to such matter is remote.</p>	<p>Our PRC Legal Advisers also confirm that as the remaining part of Land III with a total site area of approximately 21,863 sq.m. was not primarily used for production, our production and business operation will not be adversely and materially affected if we fail to obtain the relevant land use right certificates.</p> <p>Our Directors are of the view that these defective titles are not individually or collectively crucial to our business operation based on the great progress we have made towards obtaining the land use right certificates. As a result, no provision has been made in our consolidated financial statements.</p> <p>In the event that the relevant competent authorities impose any fines or penalties on us, our Controlling Shareholders agree to indemnify us for all claims, actions, demands, proceedings, judgments, losses, liabilities, damages, costs, charges, fees, expenses and fines suffered or incurred by us due to such non-compliance.</p>	

Non-compliance incident	Legal consequences and maximum penalty	Current status	Remedies and internal control measures
<p>2. During the Track Record Period, we did not obtain the building ownership certificates for 13 buildings with an aggregate gross floor area of approximately 16,678 sq.m.. Among these 13 buildings,</p> <p>(a) five buildings with an aggregate gross floor area of approximately 8,414 sq.m. (“Building Group I”) were used as: (i) production workshops to house certain of our facilities for pentoxide products and potassium heptafluorotantalate production; (ii) comprehensive recycling workshop to house our waste material recycling facilities; and (iii) warehouse to store liquid ammonia (液氨). Except for part of the comprehensive recycling workshop, all such buildings were erected on Land I. For our comprehensive recycling workshop with a gross floor area of 3,465 sq.m., approximately two-thirds was on Land I and the remaining one-third was on Land III;</p>	<p>Our PRC Legal Advisers have advised us that, under the relevant PRC laws and regulations: (i) for the buildings we have put into use historically without environmental assessments, we may be subject to a fine ranging between 1% and 5% of the total investment of the construction project, and/or suspended from using the buildings; (ii) for the buildings that we have put into use historically without passing fire control assessments, we may be ordered to make a correction within a prescribed time limit and be fined not more than RMB5,000 and/or temporary suspension of the usage of the relevant buildings; (iii) for the construction work carried out without the construction planning permit, the relevant competent authorities at or above the county level may order the cessation of construction. If the impact on the planning caused by such construction can be eliminated, the relevant competent authorities may order the construction entity to rectify such impact and impose an additional fine</p>	<p>For the three buildings used as production workshops to house certain of our facilities for pentoxide products and potassium heptafluorotantalate production in Building Group I, we had obtained all of these building ownership certificates as at the Latest Practicable Date, with cost of RMB2,370.0 which has been paid in 2017.</p> <p>For our comprehensive recycling workshop with gross floor area of 3,465 sq.m. and the warehouse with gross floor area of 310 sq.m. in Building Group I, we have applied for the building ownership certificate. Subject to the final approval procedures of the relevant competent authorities, we expect to obtain the building ownership certificate for the comprehensive recycling workshop and the warehouse by the end of December 2020.</p> <p>For the six buildings in Building Group II, we have obtained the building ownership certificates for four buildings with an aggregate gross floor area of approximately 3,324 sq.m. on 27 February 2018, with cost of RMB5,108.3 which has been paid in February 2018; and the remaining two buildings which were mainly used as warehouse with an aggregate gross floor area of approximately 1,100 sq.m. had been removed as at the Latest Practicable Date.</p> <p>For the two buildings in Building Group III, we expect to obtain the building ownership certificates by the end of December 2020.</p> <p>Our Directors are of the view that the costs we incurred for the buildings with defective titles would not materially differ from that we would have to pay if these buildings did not have defective titles.</p> <p>On 29 May 2019, 21 June 2019 and 16 July 2019, we obtained confirmation letters from relevant competent authorities confirming that they: (i) have not imposed any</p>	<p>We had formulated internal control policies in connection with this non-compliance incident, including but not limited to: (i) our administrative and human resources department is responsible for, and our Board will oversee, the application for relevant building ownership certificates; and (ii) our audit committee of the Board will be responsible for overseeing the implementation of relevant internal control measures.</p> <p>We had designated Mr. Liu, head of our administrative and human resources department, who is familiar with the relevant administrative procedures, to oversee the process of applying for relevant building ownership certificates and implementation of corresponding internal control policies.</p> <p>The remaining two buildings of Building Group I and two buildings of Building Group III with defective titles are mainly used as comprehensive recycling workshop and warehouse. As at the Latest Practicable Date, we had not relocated the materials and machinery in such buildings to rectify the non-compliance mainly because (i) we expect to obtain the building ownership certificates for these buildings by the end of December 2020; (ii) our PRC Legal Advisers confirming their Opinion as mentioned above; and (iii) the confirmation letters dated 29 May 2019, 21 June 2019 and 16 July 2019, respectively confirming that the competent authorities: (a) have not imposed any fines or penalties up to the date of such confirmation letters; (b) will not require us to demolish such buildings with defective titles; and (c) will assist us in the process of obtaining relevant building ownership certificates. If we were</p>
<p>(b) six buildings with an aggregate gross floor area of approximately 4,424 sq.m. (“Building Group II”) were erected on the land for which we have obtained the land use right certificates. These six buildings are used as dormitory, maintenance workshop, storage space and office; and</p>			

Non-compliance incident	Legal consequences and maximum penalty	Current status	Remedies and internal control measures
<p>(c) two buildings with an aggregate gross floor area of 3,840 sq.m. (“Building Group III”) were erected on the land for which we have obtained land use right certificates. These two buildings were used as comprehensive recycling workshop and storage space.</p>	<p>of not less than 5% but not more than 10% of the construction cost. If such impact cannot be eliminated, the relevant competent authority may order the construction entity to demolish the buildings or structures, and confiscate the buildings or structures or any income illegally earned from such buildings or structures; and/or impose a fine of not more than 10% of the construction cost; and (iv) for construction work carried out in the past without the construction work commencement permit, the relevant competent authorities may order the construction entity to rectify within a prescribed period and/or impose a fine of not less than 1% but not more than 2% of the contract price of the project.</p>	<p>finer or penalties up to the date of such confirmation letters; (ii) will not require us to demolish the buildings with defective titles; and (iii) will assist us in the process of obtaining relevant building ownership certificates. Our Directors were of the view that, these defective titles are not individually or collectively crucial to our business operation based on these confirmation letters. As a result, no further provision has been made in our consolidated financial statements.</p>	<p>required by the competent authorities to demolish or re-construct such buildings, the total estimated demolition and relocation costs for demolishing the part of the buildings in Building Group I which are erected on the part of Land III (which we have not yet obtained land use right certificates) and relocating the materials and machinery in such buildings to our buildings nearby are approximately RMB0.1 million and it would take up to 15 days for the relocation.</p>
<p>The non-compliance was mainly because: (i) we did not obtain land use right certificates for the land on which Building Group I was erected, and did not apply for the construction planning permits and construction work commencement permits for Building Group II which were used for non-operational purposes; and (ii) our unfamiliarity with the regulatory requirements for obtaining the building ownership certificates.</p>	<p>Our PRC Legal Advisers confirmed that: (i) according to a confirmation letter that we obtained in June 2019 from the relevant competent authority, there has been no punishment on the construction project of Zhiyuan New Material, and the relevant authority will assist Zhiyuan New Material to complete the relevant procedures related to obtaining the building ownership certificates and will not demolish the buildings with defective titles. As such, the possibility that we will be required to demolish the buildings with defective titles without obtaining the requisite permits and certificates is remote; and (ii) there will be no legal impediment for us to obtain the relevant building ownership certificates according to the confirmation letters issued by relevant competent authorities ((i) and (ii) together are referred to as the “Opinion”).</p>	<p>For general enhanced internal control measures to prevent recurrence of non-compliance incidents, please refer to the paragraph headed “Risk management and internal control” in this section.</p>	<p>In the event that the relevant competent authorities impose any fines or penalties on us, our Controlling Shareholders agree to indemnify us for all claims, actions, demands, proceedings, judgments, losses, liabilities, damages, costs, charges, fees, expenses and fines suffered or incurred by us due to such non-compliance.</p>

Non-compliance incident	Legal consequences and maximum penalty	Current status	Remedies and internal control measures
<p>3. During the period between January 2014 and November 2016, we had been continuously expanding our annual processing capacity of tantalum ores and niobium ores to a level exceeding 600 tonnes, which was specified in the environmental acceptance approval issued by competent authorities in December 2006 (the “2006 Environmental Approval”). We failed to re-submit the environmental impact assessment for approval before expanding our annual processing capacity of tantalum ores and niobium ores.</p> <p>The non-compliance was mainly due to</p> <ul style="list-style-type: none"> (i) the improvement in our production techniques, enabling us to process tantalum ores and niobium ores without constructing new facilities; and (ii) our unfamiliarity with the relevant environmental regulatory requirements. 	<p>As advised by our PRC Legal Advisers, according to the Law of the People’s Republic of China on Environmental Impact Assessment (中華人民共和國環境影響評價法), failure to re-submit the environmental impact assessment report for approval regarding a major change to the project scale or the production techniques may lead to a fine of not less than 1.0% but not more than 5.0% of the total investment of the construction project and, as a result, we may be imposed a fine ranging between approximately RMB21,000 to RMB1.1 million and may also lead to an order requesting us to restore the relevant project to its original conditions.</p>	<p>We had obtained a reply from Yingde Environmental Protection Bureau approving the environmental impact assessment to expand our annual processing capacity from 600 tonnes of tantalum ores and niobium ores to production capacity of 2,000 tonnes of pentoxide products on 30 November 2016.</p> <p>Our PRC Legal Advisers are of the view that, as the limitation period of two years for imposition of administration disciplinary measures in relation to this non-compliance has lapsed as at the Latest Practicable Date, our Group is unlikely to be imposed any fine or penalty in relation to this non-compliance.</p> <p>In the event that the relevant competent authorities impose any fines or penalties on us, our Controlling Shareholders agree to indemnify us for all claims, actions, demands, proceedings, judgments, losses, liabilities, damages, costs, charges, fees, expenses and fines suffered or incurred by us due to our non-compliance.</p>	<p>We have internal control policies in connection with this non-compliance incident in place, including but not limited to: (i) a proposal must be submitted to our Board when we plan to expand the production capacity; (ii) our administrative and human resources department is responsible for, and our Board will oversee, the process of obtaining relevant environment assessment certificates; and (iii) our audit committee of the Board will be responsible for overseeing the implementation of relevant internal control measures.</p> <p>For general enhanced internal control measures to prevent recurrence of non-compliance incidents, please refer to the paragraph headed “Risk management and internal control” in this section.</p>
	<p>Our Directors are of the view that based on the confirmation, such non-compliance incident will not materially and adversely affect our financial conditions or results of operations. As a result, no provision had been made in our consolidated financial statements.</p>		

BUSINESS

The aforesaid non-compliance incidents did not involve any intentional misconduct or act of dishonesty or fraudulence on the part of our Directors. Our Directors are of the view, and the Sole Sponsor concurs, that such non-compliance incidents do not impugn the integrity and competency of our Directors under Rules 3.08 and 3.09 of the Listing Rules, or the suitability for listing of our Company under Rule 8.04 of the Listing Rules, because: (i) we were unfamiliar with the relevant regulations and laws, and there was no intentional misconduct or act of dishonesty or fraudulence on the part of our Directors in connection with such non-compliance incidents; (ii) we have worked with the relevant competent authorities and have considered the feedback from them with the intention to obtain valid titles to the relevant land and buildings as soon as practicable, as well as comply with applicable environmental laws and regulations, and we had obtained a reply from Yingde Environmental Protection Bureau approving the environmental impact assessment to expand our annual processing capacity from 600 tonnes of tantalum ores and niobium ores to production capacity of 2,000 tonnes of pentoxide products on 30 November 2016; (iii) no fines, penalties or administrative sanctions have been imposed on us based on the confirmation letters we received from the relevant competent authorities; (iv) we have adopted the rectification and preventative measures to rectify the status and to prevent the recurrence of any such non-compliance incidents; and (v) we have implemented enhanced internal control procedures regarding the non-compliance incidents.