

## **Partnering with Chinese Iron and Steel Industry for Success**

**(2020 年力拓和中国的合作共赢)**

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Conference Topic: Commodity Investment following Dual Circulations in 2021

Mysteel Iron Ore Annual Conference, 11:30-12:00, 3<sup>rd</sup> Dec, Xiamen, Fujian Province

### **Slide 1 - Partnering with Chinese Iron and Steel Industry for Success**

Good morning, honored Deputy Secretary General Mr Shi, Chairman Li, colleagues, ladies and gentlemen. My name is Sheng Chen, and I'm responsible for Rio Tinto's iron ore business in China.

China is our largest and most important market as well as a critical partner. It is a great honour to be here today to speak at this important industry forum about Rio Tinto's cooperation with China in 2020, and meet with old and new friends in a conventional face-to-face manner.

2020 has been an eventful year. Witnessing how China rebounded impressively from the challenges associated with the global health threat has been one of the greatest moments. This display of resilience is what makes today possible. It is at times like these, that our partnership becomes even more valuable. I would like to acknowledge and thank the government authorities, our customers and business partners for the way you have supported Rio Tinto throughout the years.

### **Slide 2 - Cautionary and supporting statements**

Before I continue, I'd like to draw your attention to the cautionary statement included in this slide.

### **Slide 3 - Rio Tinto is committed to product quality and production to support strong market demand**

Since 1966, Rio Tinto's Australian iron ore operations in the Pilbara have shipped more than six billion tonnes to customers globally. This October, we have reached a new milestone with China - since our first ever iron ore shipment to China in 1973, we have now shipped more than 3 billion tonnes of iron ore to China to support its economic development and

modernization of the society. And we remain as committed as ever to our customers' needs for consistent, high quality product and services.

This year, in the face of unprecedented challenges of COVID-19, we have delivered a good operational performance across most of our assets, particularly in iron ore, catching up on cyclone impacts, planned maintenance activity, and continuing to adapt to new operating conditions as we learn to live with COVID-19.

In the first 9 months of 2020, we have produced 247Mt of iron ore from Pilbara, which was 2% higher than the same period of 2019. Production guidance for the whole year remains unchanged – we are well on track to deliver between 324-334Mt this year.

We are not only trying to satisfy today's market, but also investing significantly to ensure we have a strong pipeline to sustain the quality of our products well into the future. First ore from the Robe River Joint Venture sustaining production is expected in 2021. Our US\$2.6 billion investment in Gudai-Darri will come online in early 2022, becoming the most technologically advanced mine in the Pilbara. Once complete, the mine is expected to have an annual capacity of 43 million tonnes and will sustain existing production in our Pilbara iron ore system.

#### **Slide 4 – Stable PB quality to support the demand for consistency as base load**

Our flagship Pilbara Blend products have produced for 14 years since it was first launched in 2006. Pilbara Blend Fines is the world's most recognised brand of iron ore and is the largest, most consistent, and most liquid iron ore product in the market today. Pilbara Blend is highly valued by our customers and forms the base load of the sinter blend for many steel mills in China.

Throughout this year the quality of our Pilbara Blend products has been as consistent as ever. This doesn't come easy. We have heard the market clearly that the consistency of quality of PB is what they care the most. To achieve this, we have separated the PB with lower quality and introduced a product called SP10 to protect our Pilbara Blend products' quality and consistency. SP10 has inherited the good sintering properties and reducibility of the Pilbara Blend, improved iron-making productivity and costs. We are very appreciative that SP10 has been widely used in some of China's biggest blast furnaces (over 5000m<sup>3</sup>), and that customers hope to use more in the future. SP10 has been proved to balance well between iron making feasibility and overall VIU.

### **Slide 5 - Supporting healthy iron ore price formation**

Iron ore prices that accurately reflect market fundamentals rely on a healthy and mature market for iron ore. The iron ore market has developed significantly from the annual benchmark system to a liquid physical spot and derivatives market supported by several Price Reporting Agencies.

We see the continued maturing of the iron ore market to be a positive development for the industry. We will play our part to ensure that this market continues to develop in a robust way, and in a way that appropriately represents the transactions that are entered into between producers, traders and consumers alike.

This year, we have increased our volume on both COREX and Global Ore iron ore spot trading platform to support better price formation, and we will continue to play an active role to support the formation of an open, liquid and transparent market.

### **Slide 6 – Sharing operational best practice: lump rescreening**

We want to be China's iron ore supplier of choice. To be able to do that, we spend a great amount of time working with our customers to understand their operations, and together developing on-the-ground solutions to the challenges they face today and into the future. Before COVID-19, our Iron Ore sales and marketing teams undertake an average of four technical or commercial visits to our customers every working day – that is more than 1,000 face to face interactions every year. And I am very proud to say that we have maintained strong momentum with our Chinese partners while managing the pandemic impacts.

We have a number of technical engagements and partnerships with our customers. These focus both on the shorter term – such as improvements in the current use of our iron ore products, and also the longer term where we conduct joint research and development work to improve iron ore performance in iron-making.

One excellent example was a joint work program conducted in 2019 with a steel mill customer in the southern China on lump rescreening.

PB Lump product is one of the flagship products that has been widely used in China's burden mixes, due to its very consistent high quality, direct charge and no need for sinter, and good reducibility. It will play an even more important role when China is striving for decarbonatization.

However, everywhere I visit, customers keep telling me two key opportunities to improve. The first one is that fine-in-lump ratio is high, especially when customers have to tranship the products into inland areas. They asked me why they are getting all the PB fines even though what they had purchased was PB lump. The second one was that it's difficult to screen, especially in wet season. For the fine-in-lump issue, we have established a dedicated taskforce in our port screening operations in Australia, to ensure a very strict control of the fine-in-lump ratio when it was loaded onto a vessel. Customer feedback on this improvement was very positive. In fact some customers were even indicating that the FIL is too low and asked if they could get more fines in PB lump when lump premium was quite low.

We wondered where all those curious requests were coming from. We realized what happened after paying visits to customers. Some smart customers have figured out that the chemical properties of the fines in PBL is different with the conventional PBF. It has a much lower alumina, at around 1.5%, lower phos, at 0.08%, and a higher iron, at 62.4% or above. After sintering, it becomes a low alumina product with high VIU and has a very similar composition as some of the most expensive low alumina products in the market.

This has also been confirmed by our visits to Japanese steel mills. They never complain about FIL in PBL. On the contrary, they use screens with bigger holes to screen more fines from the PBL, and use it at a fixed percentage of around 6% in the sintering process. This has been proved to be a very cost-effective way to make the best use of PBL.

#### **Slide 7 - Lump rescreening Improvement: +4% lump ratio in burden mix**

On the second opportunity, Rio Tinto is very happy to help, as we screen hundreds of millions tonnes of iron ore in the Pilbara each year. We brought our screening experts to customer's screen house, check and measure the system, and gave suggestions to customers. Immediate actions suggested include reducing water ingress during lump handling, improving the feeder to distribute lump ores more evenly on the screen panels, and increasing elasticity of screen panels to improve screening performance. Medium term actions include increasing G force, increasing vibrating amplitude to strengthen screening efficiency, adding belt weight meters to monitor the screening efficiency of screening, and building new screening system.

In the cooperation with one of the industry-leading steel mills in China on the lump screening optimization, the customer has seen 4% increase in the overall burden mix with no change in coke consumption, which has led to 3% of hot metal cost improvement. Currently this customer has been using 19% of lump ratio on yearly average.

We have been replicating the success with this customer to more than 15 customers across China, and trying to help customer to use this greener iron ore source more effectively.

#### **Slide 8 - Technical Forum for experts to enlighten each other**

Every two years, over 200 experts from the iron and steel industry in China, Japan, Korea will attend our Iron Ore Technical Forum. We have successfully hosted 12 such forums over the last two decades. The forum provides an important platform for the iron and steel industry to exchange ideas on the latest technical advancement and share experience of using Rio Tinto products. The lump screening programme was one of the great outcomes of our 2019 Changbaishan Technical Forum. And it is these types of win-win partnerships with our customers that will strengthen our mutual success into the future.

#### **Slide 9 - Best practice sharing with customers on safety**

Safety is one of our core values. Over the past six years we also hosted annual Health, Safety, and Environment Forum for our Chinese suppliers. We believe all incidents and work-related health risks are preventable, so we can concentrate on identifying, understanding, managing and, where possible, eliminating these. Last year, we extended the forum to include our steel mill customers so we can work together to address our common challenges in improving safety performance in our businesses.

We understand the equal importance to both ourselves and our customers. We invited our safety experts from our operations as well as research institutes, to demonstrate our safety culture and best practices. Participants had the chance to go to the safety park to enhance the first-hand knowledge on how to work even safer.

#### **Slide 10 - Supporting RMB spot market through portside trading**

To better serve the China market, we have established portside trading operations to sell Rio Tinto iron ore directly from Chinese ports in 2019. Portside trading of iron ore is transacted in RMB, which allows us to serve customers who procure in RMB. In building a presence in Chinese ports, we are better placed to work with Chinese mills, responding quickly to changing market conditions with the ability to blend different iron ore products at the port to provide the market with products of high VIU.

#### **Slide 11 – RTBF blending at Dalian port**

We now have operational presence at 12 ports in China. Since our first deal in October 2019, we have sold more than 5 million tonnes directly from Chinese ports, and provided service to more than 80 new customers.

Lengthening our supply chain increases our optionality and we have already demonstrated the commercial value of having the ability to blend at ports with an IOC and SP10 blend creating a new product Rio Tinto Blend Fines ('RTBF') that fits nicely with demands for mid-grade ores.

Let me show you a video of our blending operation at Dalian port. [play video]

In addition to providing better optionality for customers in North-eastern China, our partnership with Dalian Port to blend within a bonded area also allows us to offer RTBF product to customers across Asia, using Dalian Port as a transshipment hub.

### **Slide 12 – Automation and digitalization to support mine to market agility**

Rio Tinto has been operating at 330Mt level for a few years. One of the biggest contributors is automation across our whole value chain. We started our automation journey in 2006. At the end of 2019 we had 183 autonomous trucks and 26 autonomous drills in service. Our autonomous drill fleet is the largest and most technically advanced in the world.

Our automated trucks operate at 15 per cent lower cost than an equivalent manned one. And our drills have unlocked a 25 per cent increase in productivity and a 40 per cent improvement in equipment utilisation.

Today, our flagship remote operations centre in Perth can have as many people working in it as one of our mines, but they run all our 16 mines.

Connecting the value chain from mine to market, underpinned by innovation and technology, is a key priority for us. And we are exploring and sharing new ways of utilising automation together with our partners in China.

### **Slide 13 - Portside business is greatly enabled by our WeChat Mini-app**

To complement our portside sales activities and to enhance the buying experience, we have taken a pioneering step to launch the portside WeChat mini-app this year. The application will provide our customers the flexibility to purchase iron ore from Chinese ports, and receive

commercial documentations via their mobile phones. The process will be simple, cost effective, and most importantly, secure.

This project has been widely acknowledged by the market and the team was rated as one of the most innovative in-house legal teams by Financial Times for the exquisite design of the project.

To date, we have already sold over 1Mt through the mini-app. I hope our potential customers in this room will enjoy their experience of transacting through our mini-app, as with our other portside customers.

#### **Slide 14 - Enhancing customer experiences through pioneering digital innovations**

As part of a broader strategy to improve customer experiences through technology and innovation, we have also trialled with China Baowu's Baosteel the first paperless deal in the iron ore industry transacted in Chinese Renminbi (RMB), using blockchain technology. Following Baowu's transaction, we have also completed blockchain transaction with Nanjing Steel and Shenglong Steel.

The transactions demonstrate Rio Tinto's commitment in utilising digital innovation to improve the efficiency and security of cross-border finance trade flow, which also provides significant benefits over traditional paper-based processes when delivery of physical documentation is challenging. From the acceptance of key commercial terms through to payment and delivery, the seamless and uninterrupted transaction enhances the customer interface and service delivery experienced by Rio Tinto customers.

#### **Slide 15 - Our approaches to climate change include working to lower emissions both internally and externally with industry partners**

Partnerships with our customers do not only help our customer to optimise the use of our products. Importantly for Rio Tinto, they help us to better understand the challenges faced by the steel industry and our customers, and provide us with deep insights into how the steel industry will continue to evolve. These insights are critical for Rio Tinto as they shape our future investments, ensuring the products we supply and the solutions we provide are aligned with future market expectations.

COVID is perhaps the greatest challenge the world has faced in a decade, but challenges like climate change may pose even greater risks to humanity in the long term.

This year we set a new ambition on climate – to achieve net zero emission by 2050. Our new climate target is to reduce our absolute emissions by 15% and emissions intensity by 30% both by 2030. Overall, our growth between now and 2030 will be carbon neutral. To support these targets, we announced a \$1bn fund for investment in climate related projects over the five years to 2025.

### **Slide 16 - Partnering with Tsinghua and Baowu on climate change**

We recognise that no business can make a meaningful contribution on its own, and that's why we are collaborating with our partners around the world to be part of the solution – our partner with Tsinghua and Baowu are great examples.

In 2019, we partnered with China Baowu and Tsinghua University to develop and implement new methods to reduce carbon emissions and improve environmental performance across the steel value chain. We are working closely with Baowu on identifying investment opportunities in low-carbon steelmaking projects and researches of our common interest.

Two weeks ago, we have further strengthened its partnership with China's Tsinghua University, signing a new partnership agreement and committing a further 30 million yuan (\$4.5 million) over the next five years to support research projects of at the Tsinghua-Rio Tinto Joint Research Centre for Resources, Energy and Sustainable Development.

The partnership will continue to focus on sustainability issues, particularly those that support Rio Tinto's 2050 net zero carbon emissions strategy and the company's collaboration with China Baowu to reduce carbon emissions across the steel value chain.

### **Slide 17 - Pioneering partnership for a shared future**

It is a pioneering partnership and one that goes beyond the normal supplier/customer relationship. There is more we can do. And must do. As partners to deliver greater value for all.

This is even more important right now in times of challenge. Ultimately it is about friendship and trust. We are appreciative of the respectful relationships we have built here in China, that see us through the tough times and the good times.

Thank you.