

## Rio Tinto Iron Ore Investor Tour

### Q&A transcript Iron Ore Investor Tour, Perth

18 June 2018

\*\*Check against delivery\*\*

**Chris Salisbury (Rio Tinto Iron Ore chief executive):**

Now to questions. For the purposes of the webcast could you please wait until we get a microphone to you and can I also ask you to state your name and organisation before asking your question?

**Question:**

Maybe starting on a slightly more challenging track, could you talk us a little bit through the headwinds that you face on costs that you have to cycle against - you mentioned a few during the presentation - and maybe touch on haul distance, strip ratio and below water table in a bit more detail so we can understand better what you are fighting against?

**Chris Salisbury:**

Yes, sure. We have got two categories of headwinds, those which are internal which are things like haul length, and particularly haul length is increasing, and we have nominated that as about 10 per cent.

That is actually more significant to us across this planned period than strip ratio; strip ratio in fact is fairly constant over the next 5 years as we bring new mines on and tail off older mines. So they are the sort of internal headwinds.

In addition, of course, below water table material, something around 35 per cent of our production comes from wet plants and that will increase over time as we continue to move below the water table further. Then the external headwinds, there are the obvious ones, eg. diesel and I have talked about that.

We are seeing contractor rates tightening and we have probably seeing that tighten more markedly over the last 6 months.

We did flag it in December but it is definitely starting to bite. And we are seeing some skills in the market also tighten. So they are the things that are coming at us.

But of course we talked about the 4,500 initiatives that we have in the pipeline. Some of those are productivity related but even if they are productivity related they will have a cost efficiency associated with them, others are pure cost reductions and I cited a few of those examples today. But there are literally thousands of those, everything from almost tens of dollars to millions of dollars, depending on the level of the organisation they are coming from.

I'd have to say we have also got several hundred million dollars of ideas in the pipeline directly that could turn into cost improvements, but it is getting more difficult. Over the last few years we have demonstrated a track record of continuing to reduce our costs in light of the headwinds, but that is becoming increasingly difficult. But we continue to strive to both reduce and contain costs.

**Question:**

A question on sustaining capex and, as you said at the start, it's moved up and down into the trough at about 2 bucks a tonne and you have given us some good guidance over the next 3 years. But how can we think about the value over volume approach with you guiding us towards 340 Mt or something of that nature?

What does that number look like longer term given the options you've got – is it a \$4 a tonne number or is it sort of higher over time?

**Chris Salisbury:**

Look, as I've talked about, we have benefited from the rapid expansion over the last 10 years. We bought a brand new set of kit. So we have benefited from that not only in maintenance operating costs but in sustaining capex costs.

We do have structural things we need to do: we need to build more tailings dams. Some of the very kit we've had for decades, for instance, the Paraburadoo stackers. We're in the process of actually not just overhauling them but replacing because they have got to the end of their service life.

We will update the market periodically but we have seen that step-up because we are entering into a period where some of those things need doing from a cyclical point of view, but if you think about it structurally we are not expecting to see any structural changes.

There will be from time to time different cycles that we're having to move through. Look, we've given the capex guidance for the next 3 years and am not expecting to see radical structural shifts in that over time.

---

**Question:**

Both Simon and Chris mentioned there was more of a customer focus approach with the Pilbara operations being more responsive to market changes.

Firstly, I just wanted to understand the time-lag between when an opportunity arises from when the marketing team, sees an opportunity, to then how it progresses to the operations and finally to market?

And secondly, what percentage of the product mix are we talking about, how much flexibility is in this, is it more about a 1 per cent change or a 5 per cent change?

**Chris Salisbury:**

Look, I'll go first and perhaps get Simon's comments. But traditionally, let's face it, this business has pushed material to the port and then tells Sales and Marketing to move it. Okay, so that's been our traditional approach.

What we are attempting to do is create a flexible system and the pieces we need to do that is not only good knowledge of our customers and intelligence about the market and we then need the flexibility within the production system and we talked a lot, each of my team talked about their part in creating that.

In terms of facts and specifics, I'll hand over to Simon to talk around the timeframes that we seen and, given that this is new, how we are evolving our way into it.

But Simon, do you want to make some comments?

**Simon Farry (Rio Tinto Vice president, Sales and Marketing):**

I'll probably just go back to an example, which I called out in the presentation, which was bringing forward our lump supply to market during periods of higher premium.

When we did that at the back end of last year, really for the first time, it took some time to get the system moving, but what I would say today is that it's almost instantaneous.

We can now see in Singapore, where we have our lump in the system, where there is room in stockpiles to move up or down and therefore how much product we can move forward into the market. So of course that might take a few days to move through the system and another 2 weeks to get to market, but in terms of the decision making it's made on the day.

---

**Question:**

Just to follow up on that, you're the second biggest iron ore producer in the world, if you have got this fast flexibility to respond, for example to a higher lump premium does that mean we should think that premiums and discounts are going to become more stable over time because you are responding and smoothing it out or, in other words, are you a market maker or are you still a price taker on alumina, lump?

**Simon Farry:**

Pilbara fines is the benchmark product, and that's the great benefit of the product.

It's the largest, most consistent, most liquid product, and it forms the benchmark for the 62 indices.

As the market cycles you'll see some periods of time where other products will be favoured, and at other times other products will be discounted, and it depends on effectively the mass balance in the market at the moment.

Last year we saw heavy silica discounts. Going into this year on the back of the market losing some lower alumina products, the mass balance for alumina is out, and therefore you have seen premiums and discounts for alumina content come into the market. But, most importantly for us, those premiums and discounts are around the benchmark product, which is Pilbara Blend Fines.

**Chris Salisbury:**

Can I just add another example. If you look at what we are doing say with our Yandi product, which is only placing it with customers who value it, and which are able to do because of some of the flexibility we have now built into our Yandi mine, you could argue we are forming a price there because we are only selling it to those customers who truly value it, not placing it on the spot market.

So that's another example I think of where we want to get to and to be able to respond even more so and more dynamically.

**Question:**

I just want to talk a little bit more about the whole market in China and what you sort of proposed.

You are talking about mills being bigger, they want to I guess put better quality in, but then on the other hand you talk about high grades disappearing due to blending, Chinese iron ore mines disappearing, so there is less high grade available.

So just how does it all play out?

They want better quality but the market is mature and you are only going to add maybe 20 Mt to get to the 360 Mt if the market will take it, so there is no more high grade coming. So even though the mills want to move there it doesn't appear there is anything to move to.

Am I missing something or just how do you think this plays out?

**Simon Farry:**

Look, I think you are right but I think that's good news.

I don't think it is that mills will not use low grade, they will use it at a price that presents value for them, and I think that's the key.

Quite frankly right now in the market you are seeing some reasonably steady off take of low grade but it's requiring today's sustained level of discount for that product to be used on a value basis.

---

**Question:**

So maybe as a follow up, where would you put the marginal player today then?

It sounds like it's better to have the bigger discount because then the marginal player needs a higher price. So where do you see that marginal player in the market now with the discounts where they sit?

**Simon Farry:**

Sorry, could you just repeat that question please? Are you talking about the marginal player in terms of the steel mill?

---

**Question:**

No, marginal iron ore supplier, the bigger the discount the better the index has to be for him to breakeven.

Who would you say is the marginal player and where is he on the curve at the moment with the discounts where they are?

**Simon Farry:**

I won't mention names here of the marginal players, but I think you have seen pretty clearly over the last 6-8 months that the discount has been fairly steady and you have seen some smaller players exit the market, and you have seen other perhaps larger players being able to stay above cost.

**Question:**

Then would that be today's price, the clearing price, in the market for that marginal player?

**Simon Farry:**

I can't comment obviously on the other players, but right now you are seeing stability in the market.

You have seen stability in the iron ore price for the last few months really and a very stable level of discount, and at that point you have seen what's happened in the low grade sector with the low grade producers.

---

**Question:**

And you wouldn't want to change that balance then, would you?

Hence the value over volume strategy?

**Simon Farry:**

Correct.

---

**Question:**

Just on the rail, it looks like there are lots of plans of being able to get where you need to get to, but when you look at the pie charts on the slide, the orange and the blue ones, it is still about 80 per cent I guess on average to be delivered.

Could you talk a bit about what the risks are, the main risks, you see to this roll out over the next 18 months and what we should be watching for?

Then just a quick question on the attendant trains, are those still having to stop for labour changeover? Have you really been able to run yet fully without any stops?

**Chris Salisbury:**

I will ask Ivan to comment in detail, but really I think the purpose of that chart was to show where there is still upside potential.

We are talking about Autohaul®, we are talking rail cycle time improvements, we are talking about adding more consists and so on, a number of those things are already underway.

But really I think what we are trying to demonstrate there is there is so much upside available in the network and we do want to add more capacity, such that the rail network exceeds either our mine or port capacity in time.

So really that graph was more a depiction of there is a lot of upside opportunity, but how much?

We will go after it of course if it's productivity led and we get for next to nothing but any further capital investment would be a value proposition.

Ivan, do you want to talk in more detail to that?

**Ivan Vella (Rio Tinto Managing director, Rail, Port & Services)**

Look, the blue segment in those pie-charts is what we delivered in 2017 and that really is a reference point. The orange includes work that's in flight right now, some of which is already delivered to this point this year and ongoing and future potential with considerable upside.

Those charts don't include the direct capacity delivered through Autohaul®, so gives you a rough indication of the other pieces to the puzzle.

In terms of risks, we probably look at it a bit differently.

We have in the last 18 months really dug into our rail system to find those opportunities and Autohaul® gives us a perspective on what's the faster and most efficient, cost efficient, way of delivering that extra capacity. And to Chris' point, the focus is to lift that above our ports so that we can then run the system in a different format.

To your question with regard to Autohaul®, in attended mode, yes, the train has a driver on it still, in supervision, and that means we do have to stop for a driver change which means that the majority of the benefit from Autohaul® is not delivered yet. That will come now as we start to move into driverless operations.

**Chris Salisbury:**

Which we said we will do over the next few weeks now that we have regulatory approval to do so.

---

**Question:**

First off on Yandi, you sort of made a comment about putting the product to the customer at the highest value, and you've got one of your peers about to drop out - 80 Mt of Yandi capacity over the next few years - so what sort of opportunity does that open up in the market to get lesser discounts or a premium for Yandi?

And just back on the cost issue, there seems to be a bit of doubt around the issue, but are there enough productivity improvements to offset those cost pressures in 2018? And going into 2019, when you do get the benefits of those Autohaul® benefits coming through, is that enough to offset those cost pressures, but it's not enough in 2018 in terms of the productivity improvements?

**Chris Salisbury:**

I will take the cost one first. I am being evasive in a way because I think we are seeing inflation move pretty rapidly.

We have seen inflation flow back into the system over the last 6 months; probably at a faster rate than we even expected, to be honest, in December. So we are not going to stop focusing on trying to drive costs down but, as I was saying to you, it is getting more difficult to do that.

Just on Yandi, look, we love our Yandi product and we know that customers who buy it from us do as well, so in fact tightening of supply of Yandi we think is a good thing because we have got customers who have set their whole process up around that particular product.

Simon, you might want to talk to that in a bit more detail?

**Simon Farry:**

You've covered that one fairly well to be honest, Chris.

As Chris said, we will just continue to supply our Yandi product to those customers who value it the most; we will continue the deep technical engagement we have with those customers and if the market gets tighter, well, the market will be tighter.

---

**Question:**

Chris, thanks for the presentation. A question for Simon, to draw you back to your comments that obsolete scrap consumption might double in the next 5 years.

But crude steel production in China has been reported up about 5 per cent year to date yet pig iron production is actually still reported down, so that implies a lot more growth I think in scrap consumption.

Is there something in particular about this year or the base last year that's meant you've had a big pick-up in steel being produced from scrap and does that present a risk do you think going forward to iron ore requirement in China?

**Simon Farry:**

It's very much in line with the presentation.

There will be ups and downs and we are seeing it growing. For example, 2017 and going into this year we have seen a big step-up in the use of scrap in blast furnaces, or the BOFs, the converters.

Now that level is getting close to reaching what we would consider a global benchmark level, similar to the way the amount of scrap is being consumed in BOFs in Europe or Japan, say, for example.

So we have seen a big pick-up there.

We also talked a little bit about EAF. I can share with you, and maybe later in the day, a number of anecdotes about different customers and how they are effectively under utilising their EAFs; they are probably running across the board at about 60 per cent capacity utilisation.

We should remember the other important thing is that, roughly speaking, about 40 per cent of what's going into the EAFs is pig iron rather than scrap.

Look, logically as we see it scrap usage, scrap supply and scrap demand, will continue to grow.

It is coming from a low base, it will be a slow burn for the near to medium term.

**Question:**

I just wanted you to elaborate on the whole market-led approach.

You've told us today you could produce 360 Mt, so is that about being able to place the volumes and, if it is more than that, can you elaborate on the sort of pricing and margin indicators that you look at?

**Chris Salisbury:**

For a start we have a value over volume premise so everything we are talking about here has got to be against that backdrop.

What we did say, is we want to increase the capacity of our rail network, such that it is not the bottleneck and, in fact, exceeds the capacity of our port and potentially our mine system, so that any interruptions or changes to train schedule do not affect our ability to respond quickly to market demand.

So we want to be able to produce the right product to the right customer at the right time. That is sort of the first piece.

Secondly, what we have said is that we will have the capacity, and I stress the capacity, it is not about production guidance, but we will have the capacity by the end of 2019 with Autohaul® and the other rail productivity improvements, Silvergrass and the mine improvements, such that we can have a productive system operating at 360 Mt by the end of 2019.

But again, how we deploy that capacity will be driven by a focus on producing the right products at the right volume to meet the demands of our market and customers.

---

**Question:**

Chris, still on the value over volume strategy, my understanding of it today was your very good technical explanation for how you best optimise what customers need, when, and making sure that your system is set up to be flexible around delivering that.

My question to you, is how big does the market's need for volume period to figure into your value over volume question and given you said you're like mine to market in 2 or 3 weeks for Yandi or lump if the market needed it, if the market all of a sudden decided it didn't need 30 Mt and the price fell by 7 bucks or something what do you do?

**Chris Salisbury:**

Sorry, what do we do?

---

**Question:**

Do you respond to that and how do you respond to that?

**Chris Salisbury:**

You are absolutely right in that we need to build the flexibility of the system to start with, such that we have the capability to both surge but also remove volume from the market.

We need both of those.

To do that of course, to remove volume, you also will reduce or remove the fixed cost, so we need to do that as well. And that's part of us developing the system, automation and technology is part of that, market signals, our ability to respond flexibly, move our people around the system, all of that is part of that overall production system.

But the simple answer to your question, if there was the opportunity for a quarter, a month, to increase a particular product and grab the higher margins that's applicable for that product for that period, we'd do so.

But of course value over volume also suggests that if prices come out, demand falls, we should be reducing volume as well.

---

**Question:**

I was just going to ask is there a read-across do you think for the inflationary pressures you discussed with the overall capex level which we should expect for Koodaideri? Thanks.

**Chris Salisbury:**

Yes, that's a very good question.

Look, we are seeing tightening of the market for the typical civil and construction contractors as well.

We are actually in quite an odd period to be honest; we haven't been in the market for the last 6 months in terms of major construction activity.

The next project will be soon, we will be back in the market so we will have a better idea, but I would expect we will see some inflation evident in that market as well.

---

**Question:**

This is a market question for Simon.

Do you have any insights in what's going on in the Indian market?

They have hit record production rates but we are not seeing, as you shown in your chart, Indian supplies coming out.

What's going on there and is that a risk in the future that we see Indian exports back in the market?

And then a follow on to a previous question, I didn't really understand your answer there.

You have just put a cost curve up showing your bottom of the cost curve but why if the iron ore price fell \$7 a tonne would you pull tonnes out and make companies like Fortescue Metals Group money staying in the market?

**Chris Salisbury:**

I think what I was saying is if there is a specific requirement, if we saw lump premiums fall off, why would we necessarily continue to push lump into the market, if we have got the opportunity to flex our production in order to be able to do that, in the same way as we increase lump production when lump premium are high?

That was really what I was talking about, not necessarily dropping everything but, look, if that the true value over volume equation when you take into account balancing capex, operating costs and products, then that's is what we would do.

Perhaps Simon, you will take the other question?

**Simon Farry:**

Your question on India, look, we keep a watching brief on India.

At the moment I would describe us as being opportunistic in India in terms of our supply to that market. We engage from time to time both technically and commercially with the steel mills in India, but it's really a watching brief.

I suspect it will present opportunities in the longer term, but right now it is a very price sensitive market.

It doesn't value necessarily the products that we produce, or are certainly not willing to pay, so therefore it is opportunistic.

But are we active on the ground there to ensure if things change in India we are there? Yes, for sure.

**Question:**

How do you see the supply line for iron ore in the future?

Is there a risk that Indian exports come back into the market at some stage given that their production rates are so high and at the moment it seems like of tax driven that they are not exporting?

**Simon Farry:**

Yes, there are usually different reasons why there are interruptions from India, not all that often predictable, but do we see it as a big risk for us? No, not for future supply.

---

**Question:**

Iron ore prices have been very stable lately at around \$65 a tonne and Vale recently commented they expected price to remain quite a range down in trade and then a more stable manner going forward.

Do you agree with that?

Largely driven by the outlook for what you are seeing in China but also the supply response from yourselves, Vale and BHP to almost manage the market, if you like, with this flexible approach to you supplying iron ore.

Then I just want to ask about Rio's approach to automation for drill rigs and the trucks, and maybe that's a question for Kellie.

Are they OEM supplied or are they designed in house as a retro-fitted or designed in? Thank you.

**Chris Salisbury:**

Simon, do you want to talk to the price outlook?

**Simon Farry:**

Yes, I think I touched on that one slightly earlier.

You are in a space now where we have seen the discount levels effectively sort of normalise; despite more usage of low grade the discounts haven't really changed, and you have also seen the exit of some of the marginal lower grade producers.

So that to an extent has probably put a cushion on the market and as a result we are seeing some stability in the medium grade or the 62 per cent index.

Look, there is always going to be volatility driven by all sorts of factors but effectively from our view we see those, the discounts, for the lower grade product as being sustained at around that level, hence having a cushion under the 62 per cent price.

**Chris Salisbury:**

Just before I go to Kellie about the second part of the question about in-house and so on, I'd just make a comment that I think everyone leaps to the automation and technology as trucks, trains and drills.

I'd also ask Kellie perhaps to comment a bit about some of the stuff that's hidden below the surface that I think is in fact more interesting and potentially more game-changing, particularly some of the stuff we are putting into Koodaideri.

So Kellie, do you want to have a crack at that?

**Kellie Parker (Rio Tinto Managing director, Planning, Integration and Assets):**

Yes, thanks Chris.

If I understand the question, it's what do we own and what is an OEM solution.

The first thing is that being pioneering in automation in mining we have learnt a lot and it is actually really important to hold on to your data and maintain your data.

This is why we have built MAS, which is where we gather all the data from the mine machines and that's where we see how we can leverage digital twinning.

So it will collect all the data from when we start to build the plant at Koodaideri, but then you will be able to simulate what a plant could do with plant parameters in real time, so holding on to that data is incredibly important.

The second thing we have learnt is that it is really important to incentivise vendors and OEMs because they also are on a technology journey and it will be better for the industry if they are incentivised.

So the changes that we have seen in the trucks are quite significant, we have now got two players and we need to see that across all of the different types of machines. But what we will always own and operate is our data.

**Chris Salisbury:**

I think it is the same with the drills as well.

There are some pieces there which are, if you like, standard kit, but the piece around the data and the interpretation and how we use that information, particularly for instance with the closed loop to the drill blast cycle, the closed loop, that is propriety.

That's something that we think is very important to protect.

---

**Question:**

Could you talk a little bit please about what the mine capacity is right now today and where it might be in a year's time assuming a full ramp up of Silvergrass?

But then maybe explore a little bit further.

You mentioned how ASEAN countries are becoming increasingly important. These are new markets: Indonesia, Malaysia and Vietnam I think, and then perhaps maybe India after that.

So with a view to future growth in the market and all this flexibility that you building into the system now, that seems to me to be more short-term and immediate gains over the next 2 years, very opportunistic gains in the system, but where could the mine capacity be in 3 years' time and what might it need to be in 5 years' time and how much flex are you actually going to have in your mines?

**Chris Salisbury:**

Okay, I'll take it in a couple of steps.

In terms of production guidance for this year, we've reiterated that guidance; it's 330-340 Mt. Obviously we will have a chance to review that as part of the first half results/ second quarter operations report.

I think Matt outlined quite well what are the steps in terms of achieving the 360 Mt nameplate capacity in the mines firstly.

We've talked about the ramp-up of Silvergrass and that ramp-up is going quite well. I think we've achieved a quarter at about 15 Mt of the 21 Mt we need to achieve from that system overall.

Of course Matt also outlined I think that we need to creep capacity on a number of other mines in order to sustain a 360 Mt capacity.

We've talked about both of those being achieved by the end of 2019, so at that point we will have the capacity then – how we deploy it is obviously a value over volume question.

I will ask Simon to talk about prospects. I think you had two questions there, one is around what are the prospects for future supply to some of these other economies?

And I'll get him to talk to that.

But, in terms of your question to mine capacity, in fact it's a question I think of production capacity.

What we want to do is again increase rail capacity, such that it's greater than our port capacity and in fact deepen our mine capacity, such that we can respond dynamically should the market conditions do that.

We illustrated I think today a number of small examples, whether it's been lump production, how we have managed Yandi production, and I would say that's the short to medium term.

The longer term goal is a much more flexible system such that we can respond quarter by quarter, month by month to market demands and products. So that's the sort of more the medium to longer term and in a much more dynamic way.

**Question:**

But I'm kind of wondering if the 360 Mt is going to be selling yourself short within 3 years' time given how long it takes to develop new mines?

We talk about 360 Mt as if it's a maximum mine capacity.

How much flexibility are you going to have in the medium term to be designing above that and does that mean that Koodaideri could actually be built as a 70 Mt operation rather than a 30 Mt or 40 Mt?

**Chris Salisbury:**

So again trying to pick that off in a couple of bites.

I think Ivan explained quite well that we've actually got a lot of upside capability within rail.

We have also seen that we can operate the ports at 360 Mt and beyond and we think with more focus there is a lot of capacity available from that.

In terms of further, if you are talking about adding, spending capital to add mine capacity, we would like to think we can stretch the mines through productivity first, to be honest, because rail has been the bottleneck.

To be brutally honest, I don't think we have had the opportunity to stretch the legs of what we have already got installed in the mines and we think there is a reasonable productivity prospect there.

But to your question around Koodaideri, we are putting in Phase 1 at Koodaideri at 40 Mt, that's the option we are studying, but on Kellie's chart today she also outlined that we have got Phase 2 already underway in terms of studies and that has a capability of up to 70 Mt or even beyond.

So we do have capital options as well to increase capacity should we think that's appropriate through a value over volume equation, and that just to the markets.

**Simon Farry:**

In terms of specifically on South East Asia, we see roughly speaking about 30 Mt of iron ore demand growth in the next I think it around 7 years or so.

Look, if there is value there for us which we believe there is, we will grab it. We are very well positioned geographically.

A lot of the capacity being built, particularly in Malaysia and Indonesia is Chinese funded, so we have got already deep relationships with some of the people who are investing in those steel mills.

The work we have done with both China and East Asia steel mills over the years, or over the decades in fact, we have got a technical solution pretty well prepared for the types of mills they are producing.

So from our perspective there will be value there for us, and again from a diversification perspective point of view it's quite a nice add-on to our portfolio as well.

**Chris Salisbury:**

Look, I am conscious that a number of us are going to be together for in fact the next 3½ days so we might take one more question now and then look to wrap up, then a number of us will join for dinner and so on afterwards.

So do we have one?

---

**Question:**

There has been a lot of discussion about structural discounts, and also if you say the discounts are structural then the premiums for high grade are structural as well.

Have you looked at or is there any potential to actually do anything beyond the 62 per cent product range, like certain other producers talk about upgrading the quality of their product?

Is there any potential in the portfolio to target the demand for higher grade iron ore?

**Chris Salisbury:**

Look, we regularly re-test our product strategy and we believe the right answer today is the Pilbara Blend, the aggregated product, for a number of reasons because the Pilbara Blend provides the right sweet spot of iron and other gangue forming minerals.

I think that's an important part because sometimes people just focus on iron content and I think what we have tried to demonstrate today that the overall mix is important and we know the Pilbara Blend is demanded by the customers, they like its consistency because of the way we produce it, and that's a unique advantage.

We regularly test product strategy; I think Kellie talked about that.

Thousands of production runs we look at.

Should we disaggregate?

Should we add products together?

How does that fit with what we are seeing in the market?

And the answer today is Pilbara Blend and that's the base of our strategy. With that, I'll just wrap up today. We will now end the webcast.

(End of Q&A Session)