Good evening and good morning everybody. Welcome to Rio Tinto’s 2021 results presentation and thank you for joining us. Today’s presentation is virtual but we hope to see many of you face to face in the next few days.

Our Chief Executive, Jakob Stausholm and Chief Financial Officer, Peter Cunningham will go through a presentation which will be followed by a Q&A session.
Cautionary and supporting statements

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I would like to draw your attention to the cautionary statement, which contains important information on the basis on which this presentation has been prepared.

Now, let me hand over to Jakob and Peter.
Thank you Menno. Good morning and good evening from Sydney.

I would like to acknowledge the Gadigal people of the Eora Nation as the Traditional Custodians and pay my respects to Elders past, present and emerging. I extend that respect to all Aboriginal and Torres Strait Islander peoples.
When I presented my first results as Chief Executive last February, I set out four key objectives to make Rio Tinto an even stronger company.

- To become the best operator
- To strive for impeccable ESG credentials
- To excel in development; and
- To strengthen our social licence.

This is what we have done and I’m proud to say we have made progress against each objective.
In October we launched a new strategy, including more ambitious climate targets. We also set out how Rio will:

- Grow in commodities that facilitate and benefit from the energy transition
- Decarbonise our assets and value chain; and
- Maintain our tight capital allocation enabling us to pay attractive dividends.

Achieving our objectives and delivering the strategy are entirely aligned.

We are all focussed on execution but as I have stated before it is a multi year journey. However, even after 12 months and only four months after our Capital Markets Day there is tangible progress.
Today’s results highlight the underlying strength of our business. We achieved a third consecutive year of zero fatalities, which we have never achieved before.

We realise this record disappears the moment we let down our guard. Having our people return home safely, each day, remains our first priority and we continue to focus on this. I’d like to take this opportunity to sincerely thank our people for their commitment, resilience and sacrifice during another COVID constrained year. They have done a superb job, I am very proud.
Turning to our financials.

Our results were very strong. They demonstrate both the quality of our assets and the strength of our business model. We are ’firing on all cylinders’ in terms of our financial performance. Each of our four product groups were highly profitable, achieved significant EBITDA growth and double digit return on capital employed, and delivered strong free cash flow. Our iron ore business continues to be the primary contributor, but we also benefited from an increased contribution from the other three product groups. Not least Aluminium that recorded 20% Return On Capital Employed in the second half of 2021 up from just 3% during 2020. In aggregate we achieved the strongest financials in our history with EBITDA of $38 billion and net earnings of $21 billion.

A highlight for me comes when you compare today’s results with our performance during a similar period of strong demand and high commodity prices a decade ago. In 2021 we converted a far higher proportion of strong commodity prices into earnings. And subsequently because of our strict capital allocation we converted the earnings into far higher free cash flow. This enabled us to declare record dividends of
$16.8 billion, a 79 per cent pay-out ratio.

This performance reflects our tight cost control, disciplined capital allocation and the fact that our balance sheet is the strongest it has been for at least 15 years.

In the past year, we have made important and significant shifts in how we engage, how we see ourselves and what really matters to us. We have become more humble and better listeners. Both internally and externally… as we extract the full learnings from Juukan Gorge.

Developing relationships which go beyond just agreements and that can deliver mutual prosperity.

What Bold and the team achieved in Mongolia is a perfect example of what can be mutually achieved. Combining our operating and development know-how with genuine relationships, unlocks valuable opportunities.

Looking ahead, we see a positive outlook for all our commodities. This is driven by the global energy transition, which is creating new demand for our
products, and near term Chinese policies that are becoming more growth focused. While the current global macro-economic environment is strong, there are significant geopolitical and economic uncertainties. For example surrounding Ukraine.

Rio Tinto has demonstrated that we are able to continue to perform in uncertain times due to our very robust assets. That is why we remain highly competitive when demand and prices are low and benefit in full in periods of tight supply and demand balances.
Evolving our culture

Living our values: Care, Courage, Curiosity

Creating a safe, respectful and inclusive work environment

Implementing all 26 recommendations from the Everyday Respect report; visible shift in attitudes and behaviours over the last 12 months

Empowering the front line through Rio Tinto Safe Production System

Different mindset, controlled risk-taking to grow

Leadership development training

When I became Chief Executive I also committed to improve our culture. This goes well beyond operational safety. It is about how we care for our people. How we become a less hierarchical and more humane organisation and how we unleash the potential of each individual. We are not wasting time and have introduced measures and frameworks to strengthen the business and empower our people. We have rolled out our new values of Care, Courage and Curiosity. And we are investing in our people.
Through the Rio Tinto Safe Production System, we will empower our people to achieve consistent operational excellence and unlock real and sustainable improvements.

In March last year, we commissioned Liz Broderick to conduct a thorough review of our culture. The findings of her comprehensive report are very disturbing and confronting.

But in order to improve we had to identify the extent of our problems. We will implement the report’s recommendations in full, building on the changes already put in place to make Rio a safer, more inclusive and more respectful place to work. At the heart of all our efforts, from changing our culture to operational excellence, is trusting and respecting our employees, becoming less hierarchical and empowering people.

To make a real difference across the business, we are driving outcomes, not just setting targets. This applies across all four objectives. However, let me now hand over to Peter, who will examine our strong set of
financials in detail.
Thank you, Jakob. Good morning and good evening everyone. Let’s start by taking a look at the numbers.
### Record financial results

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<thead>
<tr>
<th></th>
<th>2021</th>
<th>2020</th>
<th>Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidated sales revenue</td>
<td>63.5</td>
<td>44.6</td>
<td>+42%</td>
</tr>
<tr>
<td>Underlying EBITDA</td>
<td>37.7</td>
<td>23.9</td>
<td>+58%</td>
</tr>
<tr>
<td>Underlying earnings</td>
<td>21.4</td>
<td>12.4</td>
<td>+72%</td>
</tr>
<tr>
<td>Net earnings</td>
<td>21.1</td>
<td>9.8</td>
<td>+116%</td>
</tr>
<tr>
<td>Underlying ROCE</td>
<td>44%</td>
<td>27%</td>
<td>n/a</td>
</tr>
<tr>
<td>Cash flow from operations</td>
<td>25.3</td>
<td>15.9</td>
<td>+60%</td>
</tr>
<tr>
<td>Capital expenditure</td>
<td>7.4</td>
<td>6.2</td>
<td>+19%</td>
</tr>
<tr>
<td>Free cash flow</td>
<td>17.7</td>
<td>9.4</td>
<td>+88%</td>
</tr>
<tr>
<td>Total dividend</td>
<td>16.8</td>
<td>9.0</td>
<td>+87%</td>
</tr>
<tr>
<td>Total dividend per share ($)</td>
<td>10.40</td>
<td>5.57</td>
<td>+87%</td>
</tr>
<tr>
<td>Net cash / (debt)</td>
<td>1.6</td>
<td>(0.7)</td>
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We’ve announced a record set of results following strong global demand for all our major commodities. The 42% increase in revenue was driven by price, in particular iron ore. Aluminium and copper were also significant contributors. Importantly, we maintained our financial discipline throughout 2021, achieving underlying EBITDA of $37.7 billion and operating cash flow of $25.3 billion after record taxes and royalties of $13 billion.

Free cash flow of $17.7 billion was after $7.4 billion
of capital expenditure and a $1.1 billion temporary working capital outflow, reflecting increased China portside trading inventories and supply chain disruptions. Underlying earnings rose to $21.4 billion which lifted our return on capital to 44%. This enabled us to declare total dividends of $16.8 billion for the full year. Net earnings was also a record although we did have some exceptional items, notably the $500 million increase in the closure provision for ERA, where we have taken the mid-point of ERA’s guidance, recognising 100% of the increase.

Let’s now take a look at our key markets.
Iron ore prices rose to record highs with China importing well above one billion tonnes and consumption in the rest of the world largely recovering to pre-COVID levels. The steel intensity of the recovery lifted global crude steel production by almost 100Mt to a record of almost two billion tonnes.

Global scrap generation also improved, but high-cost iron ore supply was required to balance the market. This did taper off in the second half as prices declined.
Aluminium and copper prices rallied to multi-year highs on firm recovery in global demand and supply challenges. Looking forward, we’re encouraged to see continued momentum in our markets but fully alert to potential disruption from new COVID variants and geopolitical tensions.

Let’s now take a closer look at the drivers.
Unsurprisingly, commodity prices were by far the biggest movement, boosting EBITDA by $17.5 billion in aggregate.

In past cycles, higher prices have given rise to significantly higher costs, often wiping out up to a third of the price gains and resulting in painful adjustments later on. This year, the cost variance was more modest, reflecting our intense focus on cost control throughout the cycle, with the $1.1 billion impact mainly due to fixed cost inefficiencies from lower volumes. This meant that we converted most of
the price benefit into higher EBITDA.
...and strong conversion of earnings into cash flows

Our cash conversion was also strong, with record operating and free cash flow and continued focus on capital discipline, which has not been the case in previous cycles. However, we are not satisfied with our operational performance and recognise that it will take time to turn it round – a multi-year journey, in fact.
Let’s look at each division, starting with Iron Ore.

The team did a great job keeping the assets running and delivered record underlying EBITDA of $28 billion and a 76% margin.

In the first half, we experienced challenging operating conditions from prolonged wet weather, heritage management and tying in 90 million tonnes of replacement mines as well as bringing on Gudai-Darri. Our production performance certainly improved in the second half but the tie-ins were delayed due to labour shortages and COVID
restrictions. These were compounded by a high amount of project rework as we were unable to carry out quality assurance at steel and equipment manufacturers. Overall, this led to a 3% reduction in shipments.

Inventory levels at China portside increased, with higher volumes of lower quality SP10 and constrained availability of high-grade blending stocks. These are now being drawn down in line with market demand.

Our unit cash costs in 2021, at $18.60 per tonne, were marginally above guidance, with higher input prices for contractors, explosives and energy. The work index also increased, with vital improvements in cultural heritage protection leading to a redesign of our blasting practices and longer haul distances to protect heritage sites.

There are three key drivers of unit costs in 2022. The most significant is a full year impact of higher input prices, which increased significantly in the second half of 2021.

The second is around making the necessary investment in asset reliability, with increased maintenance on our processing plants. We are also targeting further investment in our heritage and
environment teams and continuing to invest at an increased level in studies for the next set of mines. These are conscious decisions which will strengthen us for the future.

The third is further increases in the work index driven by a rise in waste movement and longer haul cycles. We expect to partly offset this through efficiency gains with around 80% of our haul truck fleet fully autonomous.

Overall, around half of the increase to $19.50 to $21 per tonne is driven by market factors and the remainder by the work index and longer term investment to improve our operating performance.

But overall, let’s not lose sight of the fact that we achieved very strong financials, with operating cash flow of $19 billion and free cash flow of $15 billion. Let’s now take a further look at 2022.
Setting up Pilbara iron ore for stronger performance

First train loaded from mobile crushing and screening at Gudai-Darri with first production from main plant expected for Q2 2022, subject to COVID-19 constraints

Commissioning and ramp up of brownfield mines ongoing, impacted by supply chain quality issues in particular, Mesa A wet plant

Expect elevated quantities of SP10 until mid-year. Pressures to ease with ramp-up of Gudai-Darri and replacement mines. SP10 will then decrease in the medium term

Studies being progressed for new mines*: Western Range, Bedded Hill Top and Hope Downs 2 and Brockman Syncline 1. Delivering system capacity alongside RTSPS** initiatives to improve efficiencies across the network

Modernising agreements across all Traditional Owner partners. Heads of Agreements are currently being drafted with two Traditional Owner groups to define principles of partnership and co-management

Sustaining capex unchanged at $1.5bn. Investing to improve asset health and reliability

Expanding our tenure for potential wind and solar sites

*Commissioning from 2025 subject to approval | **Rio Tinto Safe Production System

We expect the first half to remain challenging, with first production from Gudai-Darri in the second quarter and the ongoing ramp-up of the replacement mines.

We have experienced some quality issues at the Mesa A wet plant and rectification work is under way but until this is complete, we will continue to be constrained in the Robe River system. As a result, we expect to see elevated quantities of SP10 until mid-year.

In the second half, pressure on the system will ease,
with Gudai-Darri ramping up and replacement mines fully operational. We then expect SP10 to gradually decrease.

We are advancing the studies that will enable us to operate within our medium-term capacity guidance of 345 to 360 million tonnes per year and also making progress with the modernisation of agreements with Traditional Owner partners.

Just last week we agreed a new social, cultural heritage plan with the Yinhawangka people. This enables us to progress the approvals process for Western Range, one of the key replacement mines in the 2025 to 2026 period.
Aluminium
Outstanding financials with free cash flow more than doubling

Substantial increase in FCF to $2.3bn, and more than double EBITDA on stable metal operations, higher sales prices and heightened demand for value-added product (VAP)

Gradual restart at Kitimat in 2022 following strike action, production uplift weighted to H2

Bauxite operations struggled with system stability following severe wet weather in Q1 2021 and equipment reliability

ELYSIS joint venture successfully produced aluminium at industrial scale with no direct greenhouse gas emissions

Investment of $87m for 16 new smelting cells at AP60 smelter to increase its annual production by 45%

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Moving onto Aluminium, where we had our best financial performance ever, benefiting from the stronger pricing environment and higher premiums for primary metal, to deliver EBITDA of $4.4 billion. This flowed through to both operating and free cash flow, which, at $2.3 billion, was more than two and half times the 2020 level, with all four PacAl smelters making a robust contribution.

Aluminium production was only 1% lower despite Kitimat operating at 25% capacity following the
strike which commenced in July. While agreement was reached in October, it will take time to clean and repair the pots with a gradual restart late in the second quarter of 2022 and full capacity reached in December.

Our underlying EBITDA margin was 38% for the full year with return on capital employed hitting 20% in the second half of the year. Overall, ROCE averaged 16% for the year, up from just 3% in 2020. And we are set to benefit further from price momentum this year, with aluminium close to an all-time high, 12% higher than in the second half of 2021. This underlines why we believe this is the premier global integrated aluminium business.

We continue to work on finding solutions to reduce our carbon footprint. The Elysis inert anode technology will be an important contributor. We made significant progress in 2021 with first aluminium produced at the R&D Centre in Quebec and construction of larger commercial-scale prototype cells under way at our Alma smelter.
Copper

Strong financial results despite COVID-19 and other challenges

Operating metrics

<table>
<thead>
<tr>
<th>2021</th>
<th>2020 comparison</th>
<th>2022 guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper realised price</td>
<td>424c/lb</td>
<td>+ 50%</td>
</tr>
<tr>
<td>Production – mined copper</td>
<td>494kt</td>
<td>- 7%</td>
</tr>
<tr>
<td>Production – refined copper</td>
<td>202kt</td>
<td>+ 30%</td>
</tr>
<tr>
<td>Unit cost</td>
<td>82c/lb</td>
<td>- 26%</td>
</tr>
</tbody>
</table>

Financial metrics ($bn)*

<table>
<thead>
<tr>
<th>2021</th>
<th>2020 comparison</th>
<th>2022 guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross product sales</td>
<td>7.8</td>
<td>+ 58%</td>
</tr>
<tr>
<td>EBITDA</td>
<td>4.0</td>
<td>+ 90%</td>
</tr>
<tr>
<td>Margin (integrated operations)</td>
<td>55%</td>
<td>+ 9 pp</td>
</tr>
<tr>
<td>Operating cash flow</td>
<td>2.6</td>
<td>+ 168%</td>
</tr>
<tr>
<td>Capex (excl. EAU's)</td>
<td>1.3</td>
<td>- 20%</td>
</tr>
<tr>
<td>Free cash flow</td>
<td>1.3</td>
<td>+ 289%</td>
</tr>
<tr>
<td>Underlying ROCE</td>
<td>14%</td>
<td>+ 6 pp</td>
</tr>
</tbody>
</table>

On to Copper. At $4.0 billion, underlying EBITDA was up 90%. The stronger market environment was the key driver – by $2.2 billion.

We also benefited from higher sales volumes of refined metal at Kennecott and temporarily higher gold grades at Oyu Tolgoi. These compensated for lower volumes at Escondida, where ongoing measures in response to COVID-19 continued to impact workforce availability. C1 unit costs, at 82 cents per pound, were down 26%, which was mainly volume related, in particular the higher gold grades
at Oyu Tolgoi, which are set to reverse in 2022.

Free cash flow was positive at $1.3 billion, after paying $400 million to the Mongolian Tax Authority in relation to disputed items for 2013 to 2018 and $1.3 billion of investment, mainly in the Oyu Tolgoi underground.
Entering into a binding agreement to acquire the Rincon lithium project in Argentina

IOC – favourable pricing but labour and equipment availability impacted production

RBM resumed operations in August following stabilisation of security situation

QMM in Madagascar operating well and delivering consistent production, construction launch of solar and wind power plant. Unplanned maintenance and equipment reliability issues at RTFT

Diavik – became sole owner in November, strong price recovery following pandemic-related build-up of demand and low inventory

Turning to Minerals. An important addition to the business was the $825 million acquisition of the Rincon lithium project in Argentina last December. It is set to be a long life, low-cost asset that will shape our Battery Materials portfolio. We’re targeting completion in the first half.

Demand conditions were strong across all sectors, but we did have some operational challenges. Titanium dioxide production was 9% lower, with community disruptions followed by curtailment of operations at RBM in South Africa for around three
months coupled with an extended ramp-up period, as well as unplanned maintenance at RTFT in Canada.

At IOC, labour and equipment reliability issues impacted production, but a 68% increase in pellet prices boosted the financials.

Our QMM operations in Madagascar continue to perform well, with production up by nearly 30%, and decarbonisation progressing to plan. Boron’s performance also improved, following some major planned maintenance. Diamond production rose in line with our 100% ownership of Diavik and we also benefited from a sharp recovery in prices.

Overall, EBITDA of $2.6 billion was up 52%, while operating cash flow increased to $1.4 billion and free cash flow to $0.8 billion.
Disciplined allocation of capital remains at our core

1 Essential capex
   Integrity, Replacement, Decarbonisation

2 Ordinary dividends

3 Iterative cycle of...

You have seen our capital allocation slide many times before. Our disciplined approach is unchanged.

We will also apply the same rigour to our decarbonisation projects. These deliver a range of economic outcomes but in aggregate are value accretive at a very modest carbon price.
Moving on to our capital forecast. This is consistent with our October Seminar.

We still expect a disciplined increase in our capital expenditure over the coming years. In 2022, it will be around $8 billion and between $9 and $10 billion in 2023 and 2024, which includes the ambition to invest up to $3 billion in growth each year.

But it is highly dependent on opportunities being available. It’s not a commitment or pre-determined
budget: if we cannot develop or find value-accretive options then we will simply not spend the money but will follow our well-established capital allocation framework. The recent news at Jadar does mean that we are likely to be at the lower end of the range in 2023.

Our best estimate of investment to decarbonise the business stands at $7.5 billion until 2030, which includes around $1.5 billion over the next three years. Sustaining capital at $3.5 billion a year, includes $1.5 billion for Pilbara iron ore, subject to ongoing inflationary pressure.

Replacement capital is also unchanged at $2 to $3 billion a year. We are seeing some increases in the Pilbara projects of up to 15% mainly due to the longer timeframes but these remain within the boundaries of our overall guidance.

Lastly, it’s just worth reiterating that any M&A, such as Rincon, is in addition to this.
At our Seminar, we disclosed our plans for decarbonising the business, with a trebling of the target by 2030. We believe this will safeguard the integrity of our assets over the longer term, reduce the risk profile of our cash flows and therefore protect our cost of capital.

Our focus over the next three years is on repowering the Pilbara where we currently spend around US$150 million per year on gas. We are now focused on expanding our tenure for wind and solar sites for the
installation of 1GW of renewables. We believe this could replace up to ~80% of the cost and support the diesel transition. It will abate about one million tonnes of CO2, one third of our carbon emissions from the Pilbara.

Reaching a 15% reduction by 2025 is not going to be easy: it requires a lot of planning and quick execution. The full electrification of our Pilbara system, set to commence later this decade, including trucks and rail, will require further gigawatt-scale renewables combined with advances in fleet technologies.

Across the group, we are looking at multiple opportunities to decarbonise the business – we have included some of these as appendices. One such example is at the Queensland Alumina Refinery where the installation of heat recovery equipment could reduce the steam required for heating by up to 50% and eliminate 115 thousand tonnes of CO2 emissions per year by 2024.

Let’s now take a look at the balance sheet.
Net debt turned into net cash of $1.6 billion at the end of December. But let’s not forget that this is just one point in time: today we have made a $7.7 billion dividend commitment, which we will pay in April, moving us back into net debt territory. We also have a $1 billion Australian tax payment in June with respect to 2021 and $825 million for Rincon. This financial strength allows us to reinvest for growth, accelerate our own decarbonisation and continue to pay attractive dividends in line with our policy.
Finally, onto shareholder returns.

Our policy is tried and tested and has resulted in record returns. Over the last six years we have consistently exceeded the 40 to 60% range, with an average pay-out ratio of 74%. Going forward, we have indicated our ambition of investing more in growth, but you should not expect us to hoard cash – we will continue to return any excess as we have in the past.

The record earnings and cash flows in 2021 and
continued strength of our balance sheet mean that we have declared our highest ever full year dividend of $16.8 billion. This includes the final ordinary of $6.7 billion and final special of $1 billion and brings the payout ratio to 79%.

With that, let me pass back to Jakob.
Thank you Peter.

I am convinced that the four objectives I set a year ago are the right ones.

We have made tangible progress on each one on the back of a significant volume of work.

In October we launched a new strategy aligned with
these objectives. This set out a long-term approach to make Rio Tinto a stronger, more relevant company, and to secure future shareholder returns.

We have put in place the right structures and frameworks, creating an organisation that is people-centric.

We have established centres of excellence in Communities and Social performance and in energy efficiency and development, to name a few.

In some areas it will take time to make a lasting difference. But we have already achieved notable successes.

The start of underground mining at Oyu Tolgoi and the acquisition of Rincon, are two stand-out examples. They are both driving our strategy implementation, are aligned with our objectives, and will benefit our shareholders for decades to come.
Respect for people, communities and environment at our heart

- Launched the Everyday Respect initiative and engaged an external expert review on workplace culture. We are working to create safe, inclusive and respectful workplaces
- Acknowledging and modifying mindsets and behaviours: Leadership Development Program, Safe Production System and Cultural awareness training (>22k trained in 2021)
- >1,500 Indigenous employees and contractors working across our Australian business: $50m investment over 5 years to attract, retain and grow Indigenous professionals
- Harnessing Indigenous traditional and ecological knowledge at Resolution: partnering with Western Apache Tribal elders to restore culturally important Emory Oak trees in Arizona. Tribal Monitor Programme provides direct input from impacted Native American Tribes
- Constructive and considered relationship with Puutu Kunti Kurrama and Pinikura (PKKP) leadership and Rio Tinto Iron Ore
- Landmark co-management process: Social, Cultural and Heritage Management Plan with Yinhawangka Aboriginal Corporation for the Greater Paraburdoo Iron Ore Hub Proposal

We have also addressed how we engage with stakeholders.

We had become too transactional. Relying too much on agreements at the expense of developing proper, mutually-beneficial relationships.

I am determined that Rio becomes a more inclusive and diverse place to work, where people live our values, feel empowered to challenge decisions and
speak up freely if something doesn’t feel right.

There is a lot of work underway including making our camps and villages safer.

It also means increasing diversity, including gender diversity and lifting indigenous representation. We are investing $50 million to retain, attract and grow Indigenous professionals and leaders in our Australian business. We are already seeing real improvements in this area.

We are also strengthening our Communities and Social Performance work. Taking a different approach to how we engage and operate.

We have made progress in resetting relationships and agreements with Traditional Owners, including the Puutu Kunti Kurrama and Pinikura Peoples.

We are proud to have agreed on our first co-designed Social, Cultural and Heritage Management Plan in the
Pilbara. This is with the Yinhawangka Aboriginal Corporation and enables us to move forward with the Western Range project in a way that reflects the views and wishes of the Traditional Owners of the land.

To reinforce and embed this approach, we are rolling out enhanced cultural awareness training for all employees. This will promote better, more informed decisions while improving relationships and outcomes for Traditional Owners, Indigenous communities and employees.

And to support and guide our work we have established an Australian Advisory Group. It will have a key role in being a sounding-board for Rio Tinto on policies and positions that are important to our Australian business.
Building sustained operating improvement

Safety always our priority

Rio Tinto Safe Production System initiated at five pilot sites focusing on sustainably unlocking capacity across the system and improving production rates

We are already seeing returns in the first year of rollout* including a significant improvement at the Kennecott concentrator since the July deployment compared to the previous 12 months performance

A significantly larger programme is planned for 2022, subject to COVID-19 constraints, focused on highest-value deployments with the RTSPS rollout of up to 30 deployments at 15 sites as well as up to 80 rapid improvement (Kaizen) projects which aim at improving targeted bottlenecks

Examples of initiatives in 2022 include: Pilbara: increasing plant throughput, reducing wait for feed at primary crushers, reduction in material handling losses. Aluminium: improved productivity at the smelter pots, improved flow rates, energy efficiency, optimised caustic consumption at refineries

*See Appendix for further details (slides 33-34)

Turning to our operational performance. The safety, health and wellbeing of our people remains our number one priority. I’m proud of our performance in this area. We work hard at this every day and are becoming more sophisticated in monitoring, evaluating and addressing risks.

While being the best operator is in our DNA, we won’t restore that instantly, it is a multi-year journey.
However, through the Rio Tinto Safe Production System we will safely unlock real and sustainable improvements. Let me stress, this is not about stripping out costs. It is about sustainably unlocking capacity and improving operational stability. It is operator-led, targeting bottlenecks and inefficiencies.

We are focussed on having our leaders understand it’s important to empower their frontline and for the frontline to recognise they can now make their job, safer, simpler, faster, cheaper, smarter, better. It’s a galvanising programme that will deliver tangible benefits and we are pursuing it with rigour.

The results we are seeing from the initial pilot sites after only half a year’s deployment confirmed the potential of this initiative. For example, Kennecott’s concentrator asset utilisation ratio improved 3.5 per cent compared to the previous 12 months. And at West Angelas, drilling utilisation rates improved by 12 per cent – equivalent to 1,000 additional metres per day.

We will look to replicate best practice and significantly
ramp up the RTSPS rollout in 2022.
The world will have to massively transform to combat climate change and undertake an unprecedented energy transition. Mining is bound to play a vital role. I attended COP26 in Glasgow last year to engage with governments and other partners on the critical role we are playing.

We must start by addressing our own footprint.

Rio Tinto is amongst the biggest electricity users in
the Western world. We also have significant land holdings. This provides a great opportunity, but also comes with responsibility and an obligation. But if we do it well, we can make a real difference. This will also lead to new business opportunities.

Our new climate targets are underpinned by an intention to invest $7.5 billion. We will be disciplined and these investments will, in aggregate, be value accretive at modest carbon prices. They will also safeguard the long-term cash flows of our assets and help us maintain an attractive cost of capital.

We are mobilising the organisation, identifying various opportunities to decarbonise our assets and invest in renewable power. For example, we are developing engineering plans for one gigawatt of Pilbara renewables and we are working with suppliers and technology providers on ways to convert from diesel powered trucks and trains to battery powered fleets.

With various partners we are working on a number of potential technologies to decarbonise our value
chains.

Our Elysium joint venture with Alcoa, supported by Apple and the Governments of Canada and Quebec, is the most advanced. Last year we produced aluminium with zero direct carbon emissions at fairly large scale. At our Alma smelter in Quebec we are now scaling up to full commercial size cells in 2023 and commercialisation of this ground-breaking technology remains on track from 2024.

This is even more exciting when you consider the prospect of combining Elysium with renewable power like we have in Canada, Iceland, New Zealand and Tasmania.

At the same time we are exploring a number of pathways to produce green steel, exploring green hydrogen based DRI in Canada and Australia and developing partnerships with BlueScope, Baowu, Nippon Steel and Posco as we look to decarbonise the entire value chain.
These types of partnerships are key to cracking the code on emissions. We also need allies in government and industry associations to join us to in making the energy transition happen.
But it isn’t just about decarbonising our business and value chains. There is also a huge opportunity for Rio Tinto.

All the materials we produce are fundamental for today, for the energy transition, and beyond. Including iron ore.

We are well-placed to grow in order to meet this demand. In the past year we have made progress on
various options, at different stages of development.

We have the ambition to double our growth capital to $3 billion a year from 2023 onwards as we develop new options. We are also looking at ways to bring projects on faster – always with a focus on value and capital discipline.

This starts with exploration, where Rio Tinto has consistently been a leader. We have a strong portfolio of exploration projects with activity in 18 countries across seven commodities.

We also have an attractive pipeline of other projects at various stages. We will ramp up production from Gudai-Darri this half and are advancing other Pilbara projects such as Western Range.

We are progressing Simandou, Resolution and Winu, to name a few.

Jadar is an amazing project, which we believe in, but
you will all have seen the challenges we are facing. We are disappointed by this development. We are exploring all options and remain willing to meaningfully engage with all stakeholders.

Finally, we demonstrated our willingness to grow through acquisitions, something Rio had not done for a decade. The addition of the Rincon project in Argentina brings growth in a commodity essential to the energy transition and with a very attractive outlook.

We will continue to look for additional opportunities but will only pursue ones that create value. We will not chase volume or commodities where there isn’t value or assets that don’t fit our portfolio.
Oyu Tolgoi Underground

Resetting the relationship between partners and increasing the value the project delivers for Mongolia

- Underground mining commenced on 25 Jan 2022 following comprehensive agreement reached with all partners. Sustainable production expected in H1 2023
- Capital forecast $6.9bn including $175m of known COVID-19 impacts to the end of 2021*
- Funding plan agreed and long-term power secured via Electricity Supply Agreement. Working with the Government to support long-term renewable energy generation
- One of the largest block cave mines. Globally competitive safety performance; highest water use efficiency per tonne, >90% average water recycling rate

*These estimates exclude any impacts of delays to work schedules caused by restricted approved budgets since the start of 2021. This impact, and the impact of any ongoing COVID-19 impacts will be assessed following the commencement of underground operations with further updates provided to the market in due course. Panels 1 and 2 studies will be ongoing throughout 2022. Further study work is also underway to assess the extraction methodology and ultimate recovery of the Panel 0 recoverable pillars.

But without a doubt the most significant development in terms of growth was resetting the relationship with the Government of Mongolia and Turquoise Hill.

One of the highlights of my career was to stand side-by-side with Prime Minister Oyun-Erdene as we commenced underground mining. It was the culmination of years of hard work and dedication to develop such a complex greenfield project.
I would like to thank the Prime Minister for his commitment to reaching this agreement, which also has the support of the Mongolian Parliament. It demonstrates to the world the attractiveness of Mongolia as an investment destination.

Together we have now unlocked the most valuable and complex part of the mine, with first sustainable production expected in the first half of 2023.

At peak production, Oyu Tolgoi is expected to operate in the first quartile of the cost curve and produce around 500,000 tonnes of copper per year from 2028 onwards. This additional copper will come on stream at a time when copper demand is expected to be robust.
So let me summarise.

In 2021 we set out four key objectives to make Rio Tinto an even stronger company.

We also set a clear strategy for the company to grow, decarbonise and maintain our strict capital allocation in order to pay attractive dividends.
We have made progress on a number of fronts and demonstrated how we are changing and strengthening Rio Tinto.

We did this while achieving strong financial results across all our product groups and we had our third fatality-free year in a row.

Our culture is evolving and improving but we must work even harder to strengthen relationships in a respectful way, both internally and externally.

We clearly have more to do and we will continue to work hard throughout 2022 and beyond.

But crucially our underlying business is strong and we have a clear strategy to make Rio Tinto even stronger for the long term.

We will now move to questions. Operator can we please open the lines.
ENDS
Appendices
Strong iron ore demand and tight supply despite H2 slowdown in China

- Despite weaker demand and mill operating restrictions during H2, China’s FY21 crude steel production exceeded 1Bnt for the second time in history. Demand recovery in the rest of world maintained its momentum.
- Combined shipments of the major low-cost producers remained below FY18 volumes for the third consecutive year.
- Less high-cost supply was needed to balance the market during H2 21, while prices declined 25% half on half.

1 Monthly average Platts (CFR) index for 62% iron fines | 2 Total seaborne suppliers annualised, reported at 100%. Sources: Rio Tinto, NBS, Kpler | YoY = change in annual average price

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Robust demand supports aluminium, copper and TiO$_2$

- Strong global demand recovery led by packaging, transport and building and construction
- Increase in global deficit on extensive power related smelter curtailments in China and Europe
- Lower global inventories supportive of high market and product premiums

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Aluminium$^1$ (+46% YoY)

- Exchange inventories declined to multi-year lows
- Demand grew strongly through 2021 with a pick-up in the rest of the world in H2
- Mine supply returned to growth, but many regions continued to face headwinds from lingering effects of COVID-19, workforce constraints and adverse weather conditions

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Copper$^2$ (+50% YoY)

- Strong end use TiO$_2$ demand and rising pigment prices supporting feedstock demand
- Supply chains remain tight, encouraging positive purchasing sentiment
- Tight high-grade supply amplified by production disruptions and project delays

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TiO$_2$ (chloride slag) (-2% YoY)

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Notes:

1 Average LME price. MWP = Mid-West premium | 2 Average LME price | YoY = change in annual average price. Sources: Rio Tinto
Already seeing returns from 2021 deployments; focus on highest-value in 2022

<table>
<thead>
<tr>
<th>Kennecott Concentrator</th>
<th>West Angelas Drill and Blast</th>
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<tbody>
<tr>
<td><strong>Flow</strong></td>
<td>**Pulse Survey</td>
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<tr>
<td>Addressing bottlenecks</td>
<td>Increase in team member sentiment towards “supportive leadership” and “becoming best operator”</td>
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<tr>
<td>20+ people upskilled</td>
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<tr>
<td><strong>Shutdown management</strong></td>
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<tr>
<td>Efficiently executing longer periods of downtime</td>
<td></td>
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<tr>
<td>20+ people upskilled</td>
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<tr>
<td><strong>Clean and inspect</strong></td>
<td><strong>Broken stock levels</strong></td>
</tr>
<tr>
<td>Maintaining clean and safe work environments</td>
<td>High grade accessible flattening at ~2.7 weeks, with overall stocks increasing to ~6 weeks</td>
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<tr>
<td>150+ people upskilled</td>
<td></td>
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<tr>
<td><strong>Centrelines</strong></td>
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<tr>
<td>Running equipment at base condition</td>
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<tr>
<td>20+ people upskilled</td>
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<tr>
<td><strong>Asset Utilisation Ratio</strong></td>
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<td>– Processing (%)</td>
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<td>(6 month average)</td>
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<td>Jan/21 73.4 (2021)</td>
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<td>Jul/21 69.9 (2020)</td>
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<tr>
<td>Jun/22 69.9 (2020)</td>
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<tr>
<td><strong>Deployment Start</strong></td>
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<td>4 weeks</td>
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<tr>
<td>Total 20+ people upskilled</td>
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<tr>
<td><strong>High-grade accessible</strong></td>
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<tr>
<td>Flattening at ~2.7 weeks, with overall stocks increasing to ~6 weeks</td>
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<tr>
<td><strong>Production drill effective utilisation</strong></td>
<td>Increase of 12% from baseline period</td>
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<td>150+ people upskilled</td>
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Kaizens delivering immediate value
Pilbara iron ore 2021 complete

Cape Lambert - Conveyors
- ‘Super Kaizen’ with 30 participants comprising representatives from Cape Lambert, Tom Price, Integrated Operations and Contractors
- Reduce pain points for operational and maintenance personnel in spillage and conveyor hygiene
- 206 ideas, 30 actions completed, 18 actions in progress

West Angelas
- To improve ‘clean up’ delays and rework that contributes significantly to drill standby losses
- Wait pattern reduced by ~15%
- 100 ideas and 11 quick wins completed
- Mine scorecard embedded in Leadership meetings

Yandi - Conveyors
- Cleaning of excessive material on conveyor undersides and build-up in key chutes, along with implementation of regular launder cleaning
- New yellow maintenance roller tags replicated in an app seamless digital integration
- 15% reduction in chronic events in first few months

Brockman 4 – Wait for Trucks (WFT)
- Demonstrated a reduction in WFT by 25% at Brockman 4
- Completed initiatives estimated at 350kt to 700kt increase of feed to crusher
- ‘Super Kaizen’ with 30 participants comprising representatives from Cape Lambert, Tom Price, Integrated Operations and Contractors
- Reduce pain points for operational and maintenance personnel in spillage and conveyor hygiene
- 206 ideas, 30 actions completed, 18 actions in progress
## Sustainability highlights

<table>
<thead>
<tr>
<th>2021 performance</th>
<th>Goals</th>
</tr>
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<tbody>
<tr>
<td><strong>People</strong></td>
<td>To maintain zero fatalities, and to eliminate workplace injuries and catastrophic events</td>
</tr>
<tr>
<td><strong>Safety</strong></td>
<td>- To improve diversity in our business by:</td>
</tr>
<tr>
<td><strong>Diversity</strong></td>
<td>- Increasing women in the business (including senior leadership) by 2% each year;</td>
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<tr>
<td></td>
<td>- Aiming for 50% women in our graduate intake, and 30% from places where we are developing new businesses</td>
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<tr>
<td><strong>Social</strong></td>
<td>To demonstrate local economic benefits from employment and procurement of goods and services by reporting yearly against a locally defined target</td>
</tr>
<tr>
<td><strong>Community</strong></td>
<td>To capture and manage community complaints effectively and reduce repeat and significant complaints each year</td>
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<tr>
<td></td>
<td>- These targets will be updated for 2022-2026</td>
</tr>
<tr>
<td><strong>Climate</strong></td>
<td>To achieve local water stewardship targets for selected sites by 2023</td>
</tr>
<tr>
<td><strong>Environment</strong></td>
<td>To disclose for all managed operations by 2023 their permitted surface water allocation volumes, annual allocation usage, and the estimated surface water allocation catchment runoff from average annual rainfall</td>
</tr>
<tr>
<td><strong>Water</strong></td>
<td>To achieve local water stewardship targets for selected sites by 2023</td>
</tr>
</tbody>
</table>

### People
- Zero fatalities at managed operations
- All injury frequency rate (AIFR) at 0.40 (target: 0.33)
- 25% of our Executive Committee were women, up 2% from 2020
- 21.6% of our workforce were women, up 1.5% from 2020
- 36.4% of Board roles were held by women, up 3.1% from 2020

### Social
- 95% (20 out of 21 asset groupings) have met their 2021 repeat complaints target
- 90% (19 out of 21 asset groupings) have met their 2021 significant complaints target
- 81% (17 out of 21 asset groupings) have met their 2021 locally set procurement target
- 53% (10 out of 19 asset groupings) have met their 2021 local employment target

### Climate
- The 2021 Scope 1 and 2 emissions were 31.1Mt CO2e – a reduction of 1.4Mt CO2e (4.3%) relative to our 2018 baseline
- Scope 1 and 2 targets were updated on 20 October 2021. Our new targets are: to reduce our absolute Scope 1 and 2 emissions by 15% by 2025 and by 50% by 2030
- Scope 3: We will engage with our direct customers, representing 75% of our iron ore scope 3. We will engage with all our bauxite customers to seek collaboration in alumina refining decarbonisation projects

### Environment
- The water stewardship targets have progressed well with the Group target, and 4 of the 8 asset-level targets remaining on track. Kennecott and Ranger site-based targets are at risk, but both are considered recoverable with additional focus
- To disclose for all managed operations by 2023 their permitted surface water allocation volumes, annual allocation usage, and the estimated surface water allocation catchment runoff from average annual rainfall
Accelerating current abatement projects

Our Marginal Abatement Cost Curve for Scope 1 & 2 emissions
(excl. Pilbara and Pacific Operations repowering, ELYSIS™, energy efficiency and carbon offsets)

As of 30 September 2021
MACC project*: Queensland Alumina Limited (QAL) boiler feed water heating

Project summary:
Boiler feed water heating project seeks to install heat recovery equipment to reduce waste energy by 50% displacing 1.6 PJ/pa of coal.

Business case overview:

<table>
<thead>
<tr>
<th>First abatement</th>
<th>2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abatement (2025)</td>
<td>115ktpa CO₂e</td>
</tr>
<tr>
<td>MACC (US$/tCO₂)</td>
<td>&lt;$0/t CO₂e</td>
</tr>
</tbody>
</table>

Details:
QAL operates three parallel high temperature digestion units, using ~25 PJ/pa of coal as boiler fuel. 12% of boiler steam is utilised for boiler feed water heating.

Approximately 50% of this waste steam can be captured by boiler feed water reducing the steam required for heating by ~50%.

*Marginal Abatement Cost Curve for Scope 1 & 2 emissions. Under assessment through the planning process. The project has a positive NPV at a carbon price of zero.
MACC project*: Rio Tinto Fer et Titane energy efficiency

**Project summary:**
Decrease natural gas and reductant consumption by various energy efficiency initiatives

**Business case overview:**

<table>
<thead>
<tr>
<th>First abatement</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abatement (2025)</td>
<td>&gt;32ktpa CO$_2$e</td>
</tr>
<tr>
<td>MACC (US$/tCO$_2$)</td>
<td>&lt;$0/t CO$_2$e</td>
</tr>
</tbody>
</table>

**Details:**
- Optimising operation parameters with lean indicators and new instrumentation to improve the process for rotary kiln at the Ore Preparation Plant
- Increase valorisation of the CO gas produced on site (by-product of the ilmenite smelting process) to displace natural gas at the Up-Graded Slag plant’s boilers
- More energy efficiency projects on the way to deliver more abatement in the coming years

*Marginal Abatement Cost Curve for Scope 1 & 2 emissions. Under assessment through the planning process. The project has a positive NPV at a carbon price of zero.
QMM construction on solar and wind power plant commenced

QMM has signed a 20-year power purchase agreement using renewable energy with CrossBoundary Energy to supply their mine operations in southern Madagascar.

~18,000 solar panels and four wind turbines will enable QMM to meet all of its electricity needs during peak periods and up to 60% of its annual electricity consumption, as well as to reduce its annual carbon dioxide emissions by more than 26kt.

The renewable power supply will reduce QMM’s heavy fuel oil purchases by up to 8.5kt per year.

The first unit, an 8 MW solar energy facility, will be operational in 2022. The 12 MW wind power facility will be completed in 2023.
We operate in three out of the eleven advantageous regions for renewable energy

**Advantaged positions**
Large power producer and consumer. Uniquely positioned in advantaged green energy locations – Pilbara, Quebec and Queensland

**Assets and people**
Long-life orebodies with superior orebody knowledge. Talented workforce

**Technology**
Metallurgy, geology, mining equipment, processing, energy

**Cash flow and balance sheet**
Disciplined capital allocation. Cash flow through cycle. Ability to invest and pay an attractive dividend – in line with our policy

*RES = Renewable Energy System*
Our products enable the energy transition and we need to be part of net zero value chains

<table>
<thead>
<tr>
<th>Iron ore</th>
<th>Customer partnerships</th>
<th>Technology partnerships and investments</th>
<th>2022 customer engagements</th>
</tr>
</thead>
</table>
| 365Mt CO₂e | - Baowu / Tsinghua (2019)  
- Nippon Steel (2020)  
- POSCO (2021)  
- BlueScope (2021) | Blast furnace optimisation  
Pilbara beneficiation  
Low-carbon research project  
H₂ DRI and melter  
H₂ DRI Canada  
Simandou | 28% of our customers have public targets and net zero ambition; We will engage with our direct customers, representing 75% of our iron ore scope 3 |

<table>
<thead>
<tr>
<th>Aluminium</th>
<th>ELYSIS™</th>
<th>Limited influence on power-related emissions</th>
<th>2022 customer engagements</th>
</tr>
</thead>
<tbody>
<tr>
<td>145Mt CO₂e</td>
<td>On track for zero emission technology to be available for installation from 2024</td>
<td>74% of our downstream aluminium value chain Scope 3 emissions are from our customers (and customer’s customers) use of electricity, predominantly in China</td>
<td>We will engage with all our bauxite customers to seek collaboration in alumina refining decarbonisation projects</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Shipping</th>
<th>Net zero by 2050 from shipping of our products</th>
<th>1 Improving existing vessels efficiency</th>
<th>2 Increasing use of transition fuels (LNG and biofuels)</th>
<th>3 Partnering for development of net zero fuels (green ammonia)</th>
</tr>
</thead>
</table>
| 8.6Mt CO₂e | Net zero vessels in our portfolio by 2030  
40% intensity reduction by 2025 | Five years ahead of IMO deadline | | |
Partnering to reduce the carbon footprint of our value chains

95% of Scope 3 emissions is from the processing of iron ore, bauxite and other products by our customers.

94% of these processing emissions take place at our customer facilities in China, South Korea, Japan and other countries that have pledged to be carbon neutral by around mid-century.

About 28% of our iron sales are directly to steel producers that have already set public targets for their Scope 1 and 2 emissions (our Scope 3), and have ambitions to reach net zero by around mid-century.

In 2022, we commit to engage with all our direct iron ore customers, representing approximately 75% of our iron ore sales and related Scope 3 emissions.
Climate and value chain: H1 2021 highlights

- Signed a charter agreement with Singapore’s ship management company Eastern Pacific Shipping for three liquefied natural gas dual-fuel Newcastlemax bulk carriers, to further reduce our scope 3 shipping emissions.

- Charge On Innovation Challenge, along with other Founding Patrons: BHP and Vale, and in partnership with Australia’s Mining Equipment, Technology and Services (METS) industry body Austmine.

- Partnership with the Australian Renewable Energy Agency (ARENA) to study whether hydrogen can replace natural gas in alumina refineries to reduce emissions.

- MoU with Schneider Electric to develop a circular and sustainable market ecosystem for both companies and their customers.

- MoU with POSCO, the largest steel producer in South Korea and one of the world’s leading steel producers, to jointly explore, develop and demonstrate technologies to transition to a low-carbon emission steel value chain.

- MoU with InoBat, a European battery technology and manufacturing company, to work together to accelerate the establishment of a “cradle to cradle” battery manufacturing and recycling value chain in Serbia.

- Joined Japan’s Green Value Chain Platform Network (GVC Network), a collaboration established by the Japanese Ministry of the Environment to lead transparent decarbonisation efforts in the country.
Climate and value chain: H2 2021 highlights

- **Carbfix partnership:** to implement a technology for capturing carbon and permanently storing it underground at our ISAL aluminium smelter in Iceland.

- **Department of Energy awarded $2.2m of funding to a Rio Tinto-led team to explore carbon storage potential at the Tamarack nickel joint venture in central Minnesota.**

- **MoU with BlueScope** to research and design low emissions processes for the steel value chain, including iron ore processing, iron and steelmaking and related technologies.

- **ELYSIS successfully produced aluminium without any direct greenhouse emissions** at its Industrial Research and Development Center in Saguenay, Canada.

- **Investment in Inobat Auto,** a European-based battery technology and manufacturing company. This investment will support the completion of InoBat’s research and development centre and pilot battery line.

- **Launched the construction of the solar and wind power plant at QMM ilmenite mine operations in Fort Dauphin, in southern Madagascar.**

- **Purchased four battery-electric trains** for use in the Pilbara, WA. Production is due to commence in 2023 ahead of initial trials in the Pilbara in early 2024.

- **Partnership with Komatsu** to fast-track the development and implementation of zero-emission mining haulage solutions, including haul trucks.

- **MoU with Caterpillar** for the development of their zero-emissions autonomous haul trucks for use at one of our Western Australian mining operations.

- **Partnership with Sumitomo** to study the construction of a hydrogen pilot plant at our Yarwun alumina refinery in Gladstone, Queensland, and to explore the potential use of hydrogen at the refinery.

- **Developed a new low-carbon steel process** that aims to replace coking coal with sustainable plant biomass when converting iron ore fines into steel.

- **Approval of a new solar farm and battery storage at Weipa QLD,** that will more than triple the local electricity network’s solar generation capacity.
Our focus areas for iron and steel decarbonisation

Future pathways for Pilbara iron ore

1. Blast furnace optimisation
   - Multiple projects

2. Pilbara beneficiation
   - Universities

3. Low-carbon research project
   - Pilbara pathway 1

4. H₂ DRI and melter
   - Pilbara pathway 2

5. H₂ DRI Canada
   - Project – study phase

6. Simandou
   - High-quality iron ore

Customer partnerships
We have a dedicated steel decarbonisation team
ELYSIS™ zero carbon metal meets new market demand

Strong market demand emerging

- **Q3 2020**: Apple’s 16” MacBook Pro is world’s first device manufactured using ELYSIS metal, delivered through Rio Tinto’s commercial network.

- **Q4 2020**: Rio Tinto supplied ELYSIS metal to AB InBev as part of partnership to produce their most sustainable can – piloted with Michelob ULTRA

- **Q2 2021**: Selected our Alma smelter in Saguenay-Lac-Saint-Jean, Quebec, for the first installation and demonstration of its inert anode technology at a commercial size of 450 kiloamperes (kA) and start of construction of the first prototype cells.

- **Q4 2021**: Successfully produced aluminium without any direct greenhouse emissions at its Industrial Research and Development Center in Saguenay, Canada
Mine project pipeline

High volume of environmental approvals for new mines

Studies being progressed. Commissioning from 2025:
- Western Range
- Bedded Hill Top and Hope Downs 2
- Brockman Syncline 1

Approvals timeline risk has increased

Capital Intensity ($/t Real 2021)

Completed projects
Projects in development
Projects in study stage

Completed projects
Projects in development
Projects in study stage

Studies being progressed. Commissioning from 2025:
- Western Range
- Bedded Hill Top and Hope Downs 2
- Brockman Syncline 1

Approvals timeline risk has increased

High volume of environmental approvals for new mines
Ongoing focus on quality and product mix

Consistent quality remains key for our Pilbara Blend. Demand remains strong, and will continue to underpin our product strategy.

Pilbara Blend quality maintained by:
- Blending different ore sources to tight specifications
- Producing lower quality products (including SP-10) as required
Shareholder structure

23% Rio Tinto Limited
Shares outstanding: 0.371bn

77% Rio Tinto plc
Shares outstanding: 1.247bn

100% Rio Tinto DLC
Shares outstanding: 1.619bn

Australia: 31.9% 
UK: 17.5% 
Europe (ex UK): 35.9% 
North America: 14.1% 
Asia: 14.8% 
ROW: 0.5%

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Strong commodity pricing driving EBITDA

Underlying EBITDA 2021 vs 2020
$ million

- Iron ore: 23,902
- Iron & Titanium: 17,464
- Diamonds: 0
- Copper: 0
- Aluminium*: 11,589
- Other, net: 161
- Aluminium includes alumina and bauxite and includes movements in market and other premia

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Lower volume in iron ore driven by weather, heritage management and delays in mine tie-in projects

Underlying EBITDA 2021 vs 2020

$ million

Underlying EBITDA 2021 vs 2020

Aluminium includes alumina and bauxite. Aluminium variance excludes profit impact of volumes lost related to Kitimat pot relining and ISAL preventative pot-line shutdown.

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Iron Ore
Strong pricing supports EBITDA

Underlying EBITDA 2021 vs 2020
$ million

- Our Pilbara iron ore shipments decreased by 3% compared with 2020. Shipments were impacted by lower mined production due to above-average rainfall in the first half of 2021, cultural heritage management and delays in growth and brownfield mine replacement tie-in projects.
- Underlying EBITDA of $27.6 billion was 46% higher than 2020, driven by higher prices ($10.3 billion), with a 45% rise in the monthly average Platts index for 62% iron fines adjusted to an FOB basis compared with 2020. This more than compensated for the impact from reduced shipments and rising unit costs.
- 2021 Pilbara unit cash costs, which were $18.6 per tonne (excluding COVID-19 costs of $0.5 per tonne), marginally exceeded guidance of $18.0 to 18.5 per tonne and compared with $14.8 per tonne in 2020 (excluding COVID-19 costs of $0.6 per tonne). Unit cost performance was driven by higher input prices including labour, explosives and energy, a 9% stronger Australian dollar, an increase in the mine work index, operational readiness costs for our growth and brownfield mine replacement tie-in projects and fixed cost inefficiencies from lower volumes.

- Our Pilbara operations delivered an underlying FOB EBITDA margin of 76%, compared with 74.0% in 2020.
- Gross product sales for our Pilbara operations included freight revenue of $2.7 billion (2020: $1.5 billion).
- We price the majority of our iron ore sales (77%) by reference to the average index price for the month of shipment. In 2021, we priced approximately 11% of sales with reference to the prior quarter’s average index (lagged by one month with the remainder sold either on current quarter average, current month average or on the spot market. We made approximately 72% of sales including freight and 28% on an FOB basis.
- We continue to increase our iron ore portside sales in China, with a total of 14.0 million tonnes in 2021 (2020: 5.5 million tonnes). We experienced increased inventory levels of Pilbara product at the port at December (2021: 8.8 million tonnes, 2020: 1.7 million tonnes), due to higher volumes of SP10 and constrained availability of high grade blending stocks in the fourth quarter.
Aluminium
Higher prices, recovery of VAP demand and volumes

Underlying EBITDA 2021 vs 2020
$ million

- In 2021, aluminium prices rallied to multi-year highs, following a firm recovery in global demand and extensive power-related supply disruptions in China, which led to a global market deficit.

- This rebound in sales prices, together with increased demand for value-added product (VAP), were the key drivers for our aluminium business to more than double underlying EBITDA and deliver a substantial increase in cash flow.

- Underlying EBITDA of $4.4 billion, which was 104% higher than 2020, benefited from the stronger pricing environment, in particular for primary metal and alumina, and higher product premiums for primary metal. This was only partly offset by the impact of stronger local currencies, lower bauxite and alumina shipments and cyclical cost inflation for coke, pitch and alloys. This increased our industry-leading underlying EBITDA margin to 38%.

- We achieved an average realised aluminium price of $2,899 per tonne, 49% higher than 2020 ($1,946 per tonne). This comprised the LME price, a market premium and a product (VAP) premium.

- The cash LME price averaged $2,480 per tonne, 46% higher than 2020, while in our key US market, the midwest premium duty paid increased by 119% to $584 per tonne (2020: $267 per tonne).

- Our VAP sales represented 50% of the primary metal we sold (2020: 43%) and generated product premiums averaging $230 per tonne of VAP sold (2020: $213 per tonne).

- We generated $3.6 billion in net cash from operating activities, reflective of the higher underlying EBITDA achieved, net of a $0.5 billion build in working capital, driven by the higher pricing environment and supply chain constraints.

- Free cash flow increased by 155% to $2.3 billion.

- Although we are broadly balanced in alumina, approximately 2.2 million tonnes of our legacy alumina sales contracts are exposed to a fixed linkage to the LME price. These contracts date back to 2005 or earlier, and the majority expire between 2023 and 2030.
Aluminium Value Chain
2021 Actuals

Mining
- Bauxite 54.3dmt (30%)
- Bauxite 37.6dmt (70%)

Refining
- Alumina 7.9mt (20%)
- Alumina 1.6mt (80%)

Aluminium
- Aluminium 3.2mt (100%)

Casting
- Casthouse Prodn
  - VAP
  - Non-VAP

RTA Intersegment

3rd Party Sales

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Higher prices, volume impacted by COVID-19

Underlying EBITDA 2021 vs 2020

- At $4.0 billion, underlying EBITDA was up 90%, with margins rising to 59%, driven by the strong recovery in prices and an improved smelter performance at Kennecott in the US.

- The improvement in our financial performance was primarily attributable to strong market conditions, with the copper price driven higher by renewed speculative interest, declining LME stocks, a weaker US dollar and COVID-related supply constraints.

- We also benefited from higher sales volumes of refined metal at Kennecott and temporarily higher gold grades at Oyu Tolgoi in Mongolia. These compensated for lower volumes at Escondida in Chile, where ongoing preventive measures in response to COVID-19 continued to impact workforce availability.

- Our average realised copper price increased by 50% to 424 US cents per pound, even before taking into account the provisional pricing benefit to revenues of $246 million in 2021, while the benchmark gold price rose just 2% to $1,799 per ounce.

- We incurred additional costs related to our response to COVID-19, higher energy costs and higher unit costs at Escondida due to lower concentrator throughput.

- We generated $2.6 billion in net cash from our operating activities, a 168% increase on 2020, from the same drivers as underlying EBITDA and a $0.8 billion increase in dividends from our 30% equity holding in Escondida to $1.4 billion, partly offset by a $0.4 billion tax payment in Mongolia.

- Free cash flow of $1.3 billion reflected the higher operating cash flow and high level of capital investment ($1.3 billion), mainly relating to the ongoing development of the Oyu Tolgoi underground project, where we have a 34% effective interest but fully consolidate on the basis of management control.

- Our copper unit costs, at $2 cents per pound in 2021, were 26% lower than in 2020, but marginally above guidance of 75 to 80 cents per pound. Lower throughput and grades at Escondida and higher royalties, in line with stronger prices, at Kennecott and Oyu Tolgoi were offset by higher production of copper and, in particular, gold at Oyu Tolgoi, driven by higher grades.
Strong pricing across portfolio supports EBITDA

- In 2021, we benefited from strong market conditions in particular for iron ore pellets and concentrate, but also for titanium dioxide pigment and borates, driven by global economic growth and underpinned by a robust construction market. We also saw a recovery in diamond prices following a pandemic-related build-up of demand and low inventory levels.

- Underlying EBITDA of $2.6 billion was 52% higher than 2020, primarily due to the strong pricing environment which more than offset the impact of lower volumes, which in turn drove up unit cash costs due to fixed cost inefficiencies.

- We generated net cash of $1.4 billion from our operating activities, and $0.8 billion of free cash flow, 28% and 19% higher than 2020, respectively, reflecting the strong pricing environment and higher dividends paid to holders of non-controlling interests at Iron Ore Company of Canada.

- The business continued to comply with government-imposed COVID-19 restrictions, notably in Canada, the US and South Africa. At our titanium dioxide business we experienced 9% lower production, as a result of community disruptions and subsequent curtailment of operations at Richards Bay Minerals (RBM) in South Africa for around three months coupled with an extended ramp-up period, as well as unplanned maintenance and equipment reliability issues at Rio Tinto Fer et Titane (RTFT) in Canada.

- On 18 November, we announced we had become the sole owner of Diavik Diamond Mine in the Northwest Territories of Canada, continuing its leading role in the Canadian diamond industry.
Other movements in underlying EBITDA

## Underlying EBITDA impact

<table>
<thead>
<tr>
<th>$ million</th>
<th>2020</th>
<th>FX/price</th>
<th>Energy &amp; Inflation</th>
<th>Volumes</th>
<th>Cash costs</th>
<th>E&amp;E</th>
<th>Non-cash</th>
<th>Other</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other operations</td>
<td>24</td>
<td>578</td>
<td>-91</td>
<td>37</td>
<td>-56</td>
<td>0</td>
<td>-102</td>
<td>-418</td>
<td>-28</td>
</tr>
<tr>
<td>Exploration &amp; Evaluation (net)</td>
<td>-250</td>
<td>-10</td>
<td>-5</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>5</td>
<td>-</td>
<td>-257</td>
</tr>
<tr>
<td>Other</td>
<td>-655</td>
<td>-158</td>
<td>-24</td>
<td>91</td>
<td>1</td>
<td>-28</td>
<td>42</td>
<td>190</td>
<td>-541</td>
</tr>
<tr>
<td>Total</td>
<td>-881</td>
<td>410</td>
<td>-120</td>
<td>128</td>
<td>-55</td>
<td>-25</td>
<td>-55</td>
<td>-228</td>
<td>-826</td>
</tr>
</tbody>
</table>

- Other operations include our 100% interest in the Gove alumina refinery (under rehabilitation), Rio Tinto Marine, and the remaining legacy liabilities of Rio Tinto Coal Australia. These include provisions for onerous contracts, in relation to rail infrastructure capacity, partly offset by financial assets and receivables relating to contingent royalties and disposal proceeds. From 1 January 2021, Uranium moved from Minerals to Other operations. From 1 January 2021, Argyle closure is reported as part of Other Operations.

- We have a strong portfolio of exploration projects with activity in 18 countries across seven commodities in early exploration and studies stages, reflected in our pre-tax central spend of $257 million. All projects have followed government COVID-19 requirements, while focusing on protecting the wellbeing and health of local communities.

- Pre-tax central pension costs, share-based payments, insurance and derivatives were a $110 million credit compared with a $117 million credit in 2020, mainly due to higher insurance recoveries in 2021 combined with slightly lower claims than in 2020, offset by derivative losses in 2021 of $97 million compared to gains of $45 million in 2020.

- On a pre-tax basis, restructuring, project and one-off central costs were 40% lower than 2020 mainly due to lower central provisions for closure costs.

- Other central costs of $613 million were 12% higher than in 2020 driven by stronger local currencies and inflation, along with increased costs associated with progressing our Communities and Social Performance and ESG objectives.
Debt maturity profile
31 December 2021 debt maturity profile*

Average outstanding debt maturity of corporate bonds extended to ~16 years following the bond maturity extension transaction undertaken in H2 2021 (~11 years for Group debt)

No corporate bond maturities until 2024

Liquidity remains strong under stress tests

In H2 2021, the $7.5bn back-stop Revolving Credit Facility was re-financed and now matures in November 2026. It has two additional one-year extension options

*Numbers based on December 2021 accounting value. The debt maturity profile shows $1.4 billion of capitalised leases under IFRS 16.

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# Pro-forma net debt reconciliation

<table>
<thead>
<tr>
<th>$ billion</th>
<th>2021</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reported net (cash)/debt</td>
<td>(1.6)</td>
<td>0.7</td>
</tr>
<tr>
<td>Australian tax top-up in June of following year</td>
<td>1.1</td>
<td>0.9</td>
</tr>
<tr>
<td>Proforma net (cash) debt</td>
<td>(0.5)</td>
<td>1.6</td>
</tr>
</tbody>
</table>
Group level financial guidance

<table>
<thead>
<tr>
<th>CAPEX</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Group</td>
<td>~$8.0bn</td>
<td>~$9.0 – 10.0bn</td>
<td>~$9.0 – 10.0bn</td>
</tr>
<tr>
<td>Sustaining Capex Group</td>
<td>~$3.5bn</td>
<td>~$3.5bn</td>
<td>~$3.5bn</td>
</tr>
<tr>
<td>Pilbara Sustaining Capex</td>
<td>~$1.5bn</td>
<td>~$1.5bn</td>
<td>~$1.5bn</td>
</tr>
</tbody>
</table>

- $0.5bn* per year to decarbonise our assets from 2022 to 2024
- Total decarbonisation investment of ~$7.5bn* from 2022 to 2030, predominantly in second half of decade
- Ambition to grow and decarbonise reflected in 2023-24 capex of ~$8-10bn excluding up to $3bn in growth spending, depending on opportunities
- Replacement spending $2-3bn per year

Effective tax rate: 30%

Returns: Total returns of 40 – 60% of underlying earnings through the cycle

*Estimated investment as of 31 Dec 2021. Marginal Abatement Cost Curves (MACC) and large decarbonisation projects will be updated regularly.
## Product group level guidance

<table>
<thead>
<tr>
<th>Product Group</th>
<th>2022 Production Guidance</th>
<th>2022 Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Iron Ore</strong></td>
<td>320 – 335Mt(^1) (100% basis)</td>
<td>$19.5-21.0/wmt (FOB), based on an Australian dollar exchange rate of $0.75</td>
</tr>
<tr>
<td><strong>Copper</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mined Copper</td>
<td>500 to 575kt</td>
<td>C1 Copper unit costs 130-150 US c/lb</td>
</tr>
<tr>
<td>Refined Copper</td>
<td>230 – 290kt</td>
<td></td>
</tr>
<tr>
<td><strong>Aluminium</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bauxite</td>
<td>54 – 57Mt</td>
<td>Modelling guidance provided for Canadian smelters only (see slide 63)</td>
</tr>
<tr>
<td>Alumina</td>
<td>8.0 – 8.4Mt</td>
<td></td>
</tr>
<tr>
<td>Aluminium</td>
<td>3.1 – 3.2Mt</td>
<td></td>
</tr>
<tr>
<td><strong>Minerals</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TiO(_2)</td>
<td>1.1 to 1.4Mt</td>
<td></td>
</tr>
<tr>
<td>IOC pellets and concentrate(^2)</td>
<td>10.0 – 11.0Mt</td>
<td></td>
</tr>
<tr>
<td>B(_2)O(_3)</td>
<td>~0.5Mt</td>
<td></td>
</tr>
<tr>
<td>Diamonds(^3)</td>
<td>5.0 – 6.0m carats</td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) Pilbara shipments guidance remains subject to risks around commissioning and ramp-up of new mines and management of cultural heritage.  
\(^2\) Iron Ore Company of Canada.  
\(^3\) Reflects 100% ownership of Diavik (previously 60%)
## Modelling EBITDA

### Underlying EBITDA sensitivity

<table>
<thead>
<tr>
<th></th>
<th>Average published price/exchange rate for 2021</th>
<th>US$ million impact on full year 2021 underlying EBITDA of a 10% change in prices/exchange rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper</td>
<td>422c/lb</td>
<td>543</td>
</tr>
<tr>
<td>Aluminium</td>
<td>$2,480/t</td>
<td>813</td>
</tr>
<tr>
<td>Gold</td>
<td>$1,799/oz</td>
<td>120</td>
</tr>
<tr>
<td>Iron ore realised price (62% Fe CFR freight-adjusted)</td>
<td>$143.8/dmt</td>
<td>3,605</td>
</tr>
<tr>
<td>A$</td>
<td>0.75US$</td>
<td>736</td>
</tr>
<tr>
<td>C$</td>
<td>0.80US$</td>
<td>285</td>
</tr>
<tr>
<td>Oil (Brent)</td>
<td>$70/bbl</td>
<td>111</td>
</tr>
</tbody>
</table>

Note: The sensitivities give the estimated effect on underlying EBITDA assuming that each individual price or exchange rate moved in isolation. The relationship between currencies and commodity prices is a complex one and movements in exchange rates can affect movements in commodity prices and vice versa. The exchange rate sensitivities include the effect on operating costs but exclude the effect of revaluation of foreign currency working capital.
Modelling aluminium costs

Canadian* smelting unit cash** cost sensitivity

<table>
<thead>
<tr>
<th>Input Cost</th>
<th>Impact a $100/t change on our 2021 Canadian smelting unit cash cost of $1,373/t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alumina (FOB)</td>
<td>$191</td>
</tr>
<tr>
<td>Green petroleum coke (FOB)</td>
<td>$25</td>
</tr>
<tr>
<td>Calcined petroleum coke (FOB)</td>
<td>$36</td>
</tr>
<tr>
<td>Coal tar pitch (FOB)</td>
<td>$8</td>
</tr>
</tbody>
</table>

* Canadian smelters include all fully-owned smelters in Canada (Alma, AP60, Arvida, Grande-Baie, Kitimat, and Latemore), as well as Rio Tinto’s share of the Becancour and Alouette smelters.

** The smelting unit cash costs refer to all costs which have been incurred before casting, excluding depreciation but including corporate allocations and with alumina at market price, to produce one metric tonne of primary aluminium.
### Capital return considerations

<table>
<thead>
<tr>
<th>Results for FY 2021</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>– Operating cash flow of $25.3 billion</td>
</tr>
<tr>
<td></td>
<td>– FCF of $17.7 billion</td>
</tr>
<tr>
<td></td>
<td>– Underlying earnings up 72% to $21.4 billion</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Long-term growth prospects</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>– Focused on Oyu Tolgoi</td>
</tr>
<tr>
<td></td>
<td>– Investing in replacing high quality assets in Pilbara, Kennecott and Zulti-South</td>
</tr>
<tr>
<td></td>
<td>– Ongoing exploration and evaluation programme – Winu</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Balance sheet strength</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>– Strong balance sheet with net cash of $1.6 billion</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>40-60 per cent of underlying earnings through the cycle</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>– Pay-out of 79% based on (i) Strong financial performance in 2021 (ii) strong balance sheet</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Balanced between growth and shareholder returns</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>– Defined growth pipeline and a strong balance sheet providing capacity for shareholder return</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Outlook</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>– Encouraged by growth prospects in the coming year</td>
</tr>
<tr>
<td></td>
<td>– Remain vigilant in relation to potential disruption from new COVID-19 variants and geopolitical tensions</td>
</tr>
</tbody>
</table>

---

1 Free cash flow is defined as net cash generated from operating activities less purchases of PP&E less lease principal payments plus sales of PP&E
Oyu Tolgoi delivers substantial economic value to Mongolia

FDI
OT accounts for one-third of Mongolia’s GDP; 70% of Foreign Direct Investment

Jobs
Country’s largest private-sector employer, workforce of 12,000 is >96% Mongolian

Taxes
Since 2010, OT has spent US$13.4bn in-country in the form of salaries, payments to Mongolian suppliers, taxes and other payments to the Government of Mongolia. Since 2010, OT has paid US$3.6bn in taxes, fees and other payments.

Local spend
$4.1bn on national procurement spend since 2010; National procurement spend is 71% of total spend. 864 suppliers of which 540 are national businesses.

Source: World Bank
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<table>
<thead>
<tr>
<th>Rio Tinto Group</th>
<th>Oyu Tolgoi and Turquoise Hill(^{(1)})</th>
<th>Proforma Rio Tinto Group (excluding OT and TRQ)(^{(2)})</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dec-21 YTD US$m</strong></td>
<td><strong>Dec-20 YTD US$m</strong></td>
<td><strong>Dec-21 YTD US$m</strong></td>
</tr>
<tr>
<td>Consolidated sales revenue</td>
<td>63,495</td>
<td>44,611</td>
</tr>
<tr>
<td>Profit after tax for the period</td>
<td>22,575</td>
<td>10,400</td>
</tr>
<tr>
<td>– attributable to owners of Rio Tinto (net earnings)</td>
<td>21,094</td>
<td>9,769</td>
</tr>
<tr>
<td>– attributable to non-controlling interests</td>
<td>1,481</td>
<td>631</td>
</tr>
<tr>
<td>Alternative performance measures (as per Financial Information by Business Unit)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Underlying EBITDA</td>
<td>37,720</td>
<td>23,902</td>
</tr>
<tr>
<td>Underlying Earnings</td>
<td>21,380</td>
<td>12,448</td>
</tr>
<tr>
<td>Cash flows from operations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital expenditure</td>
<td>35,367</td>
<td>22,416</td>
</tr>
</tbody>
</table>

Oyu Tolgoi (OT) and Turquoise Hill Resources (TRQ) are fully consolidated in the Rio Tinto accounts—Rio Tinto’s economic ownership is 33.5%. These tables are provided to be able to see the OT/TRQ accounts on a stand-alone basis.

1 Represents the amounts shown in the subsidiaries’ financial statements prepared in accordance with IFRS under Rio Tinto Group accounting policies, including fair value adjustments, and before intercompany eliminations.

2 Includes income and expenses arising in other Rio Tinto group companies from transactions with Oyu Tolgoi and Turquoise Hill.
## Group Balance Sheet

<table>
<thead>
<tr>
<th></th>
<th>Rio Tinto Group</th>
<th>Oyu Tolgoi and Turquoise Hill</th>
<th>Proforma Rio Tinto Group (excluding OT and TRQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dec-21 YTD US$m</td>
<td>Dec-20 YTD US$m</td>
<td>Dec-21 YTD US$m</td>
</tr>
<tr>
<td>Non-current assets</td>
<td>78,464</td>
<td>76,535</td>
<td>12,250</td>
</tr>
<tr>
<td>Current assets</td>
<td>24,432</td>
<td>20,855</td>
<td>1,129</td>
</tr>
<tr>
<td>Total assets</td>
<td>102,896</td>
<td>97,390</td>
<td>13,379</td>
</tr>
<tr>
<td>Current liabilities</td>
<td>(12,627)</td>
<td>(11,607)</td>
<td>(954)</td>
</tr>
<tr>
<td>Non-current liabilities</td>
<td>(33,679)</td>
<td>(33,880)</td>
<td>(4,085)</td>
</tr>
<tr>
<td>Total liabilities</td>
<td>(46,306)</td>
<td>(45,487)</td>
<td>(5,039)</td>
</tr>
<tr>
<td>Net assets</td>
<td>56,590</td>
<td>51,903</td>
<td>8,340</td>
</tr>
<tr>
<td>Equity attributable to non-controlling interests</td>
<td>5,158</td>
<td>4,457</td>
<td>5,039</td>
</tr>
<tr>
<td>Equity attributable to owners of Rio Tinto</td>
<td>51,432</td>
<td>47,054</td>
<td>3,494</td>
</tr>
<tr>
<td>Total equity</td>
<td>56,590</td>
<td>51,903</td>
<td>8,340</td>
</tr>
<tr>
<td>Alternative performance measures (as per Financial Information by Business Unit)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating assets</td>
<td>49,856</td>
<td>47,718</td>
<td>8,998</td>
</tr>
<tr>
<td>Net cash/(debt)</td>
<td>1,576</td>
<td>(664)</td>
<td>(3,504)</td>
</tr>
<tr>
<td>Equity attributable to owners of Rio Tinto</td>
<td>51,432</td>
<td>47,054</td>
<td>5,039</td>
</tr>
</tbody>
</table>

Oyu Tolgoi (OT) and Turquoise Hill Resources (TRQ) are fully consolidated in the Rio Tinto accounts. Rio Tinto’s economic ownership is 33.5%. These tables are provided to be able to see the OT/TRQ accounts on a stand-alone basis.

1 Represents the amounts shown in the subsidiaries’ financial statements prepared in accordance with IFRS under Rio Tinto Group accounting policies, including fair value adjustments, and before intercompany eliminations.

2 Rio Tinto plc has provided a guarantee, known as the completion support undertaking (CSU), in favour of the Oyu Tolgoi LLC project finance lenders. As 30 June 2021 and 31 Dec 2021, US$4.3bn of project finance debt was outstanding under the facility.
## Common acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td>Tonne</td>
</tr>
<tr>
<td>Mt</td>
<td>Million tonnes</td>
</tr>
<tr>
<td>Gt</td>
<td>Giga tonnes</td>
</tr>
<tr>
<td>tCO₂</td>
<td>Tonne of carbon dioxide</td>
</tr>
<tr>
<td>tCO₂e</td>
<td>Tonne of carbon dioxide equivalent</td>
</tr>
<tr>
<td>Pa</td>
<td>Per annum</td>
</tr>
<tr>
<td>PJ</td>
<td>Petajoule</td>
</tr>
<tr>
<td>Mtpa</td>
<td>Million tonnes per annum</td>
</tr>
<tr>
<td>CO₂</td>
<td>Carbon dioxide</td>
</tr>
<tr>
<td>GHG</td>
<td>Greenhouse gas</td>
</tr>
<tr>
<td>MACC</td>
<td>Marginal Abatement Cost Curve</td>
</tr>
<tr>
<td>Mwh</td>
<td>Megawatt hour</td>
</tr>
<tr>
<td>MW</td>
<td>Megawatt</td>
</tr>
<tr>
<td>GW</td>
<td>Gigawatt</td>
</tr>
<tr>
<td>RTSPS</td>
<td>Rio Tinto Safe Production System</td>
</tr>
<tr>
<td>ROCE</td>
<td>Return on capital employed</td>
</tr>
<tr>
<td>EBITDA</td>
<td>Earnings Before Interest, Taxes, Depreciation and Amortisation</td>
</tr>
<tr>
<td>CAGR</td>
<td>Compound annual growth rate</td>
</tr>
<tr>
<td>USD</td>
<td>United States dollar</td>
</tr>
<tr>
<td>Bn</td>
<td>Billion</td>
</tr>
<tr>
<td>NPV</td>
<td>Net present value</td>
</tr>
<tr>
<td>ESG</td>
<td>Environmental, Social, and Governance</td>
</tr>
<tr>
<td>IRR</td>
<td>Internal rate of return</td>
</tr>
<tr>
<td>R&amp;D</td>
<td>Research and development</td>
</tr>
<tr>
<td>VAP</td>
<td>Value-added product</td>
</tr>
</tbody>
</table>