

VALE S/A (VALE3)

Vale Day 2025

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Presentation Transcript

Thiago Lofiego: Hello everyone, I'm Thiago Lofiego, director of investor Relations at Vale. Thank you all for being here and welcome to the 2025 Vale Day.

Well, it's been an amazing year. Very positive accomplishments and today, not only we celebrate, but we look into the future. We're going to look into our main strategic pillars, our main numbers and the main levers that will take us to this brighter future.

For that, we're going to have our executive team, Gustavo Pimenta – our CEO, Carlos Medeiros – Chief Operating Officer, Rogério Nogueira – Chief Commercial Officer, Shaun Usmar – VBM CEO, Grazielle Parenti, our Chief sustainability Officer and last but not least, Marcelo Bacci, our CFO.

We'll go through the presentation, which will be followed by a Q&A session, which will be moderated by my colleague Luciana Oliveti. Gustavo, the floor is yours.

Gustavo Pimenta: All right. Thanks, Thiago. Good afternoon, everybody. It is a great pleasure for me and my team to be here today in London. This is my second day since I became the CEO, my fifth as part of the of the Vale family, for the first time now with my full team in place, so you're going to hear from them today.

I also want to recognize the presence of several of our board members here, in the name of our chairman Daniel Stieler.

Thank you for taking the time to come and see and hear a little bit about our story.

So, I would like to start with what is most important for us: safety.

When you look at our recent trajectory since 2020, the company has improved substantially in all of our safety metrics.

If you look at the total frequency injury rate, we are the lowest in the industry today.

This is a result of a series of initiatives we've taken to improve process, invest in new technologies, train our team – and the performance since then has been substantial.

We have also improved materially in one of the key metrics, the N2, which are the High-potential recordable injuries. They are 23% lower compared to last year, and we've been reducing that number over the last several years.

P events something very important for us. We've put more effort on this since the last three years, which are processed related events. Those are failures in our equipment that can lead to some financial loss, but in many circumstances can also lead to some safety issue.

So, we've been improving all of them. The journey is not done yet. There is still a lot of work for us to make Vale an accident-free organization, but I'm very happy with the progress to date.

2025, just a quick recap, has been an outstanding year for us. I remember last year we were in New York with Vale Day, and we made several promises to you and I'm very happy to be here today and tell you that we delivered on everything.

If you start with the operational performance, something that I'm very focused on with my team, we deliver at the top end of the guidance metrics on all of the indicators.

So, we're delivering at 335 million tons for iron ore, copper at around 370 kt, nickel at 175. Those are the expected numbers by the end of the year. So very strong progress.

We are also able to bring four critical projects online: Vargem Grande Capanema – remember we talked about three big projects in the iron ore space, the two of them we brought online and we are ramping up. We also brought two very critical projects in VBM: the Voisey's Bay expansion and also Onça Puma.

They were fundamental for us to lower the all-in costs of the nickel business, as you are going to see later in the presentation, on the balance sheet side, a lot of focus in terms of freeing up capital. So, for example, we sold a minority stake in our energy business by bringing a partner there and freeing up US\$1 billion of capital that we can then invest in things that will generate more, return more, attach it to our core businesses, so we monetize that stake.

We also made a series of improvements in CapEx. You see, one of the things we've been very focused is to make sure we are more efficient in terms of the capital deployment of the company. So, we started the year with the guidance of US\$6.5 billion for total CapEx, and we are delivering at US\$ 5.5. So, it's US\$ 1 billion in savings, and we are not leaving anything behind, neither postponing any relevant investment. We are just looking at the way we allocate capital more efficiently and this is generating substantial value.

Third element, very important, I think you've heard, if you've heard me say, in the last several years since I was the CFO, about the importance of us being focused on shareholder remuneration, and we've done this consistently over the years.

This year alone, we paid US\$3.4 billion. But last week we announced dividends of \$2.8 billion to be paid in 2026, out of which US\$ 1 billion in extraordinary dividends. That just reinforces our confidence in the performance of the business and in the market dynamics.

Third element, also very important, our Decharacterization program, the elimination program and the progress we've done to date. We had promised that by 2025, Vale would not have any dam in level three and we achieved. Forquilha was the last one, we lowered from level three to level two, and that's a very important achievement for us.

We have also advanced on the Reparation 80% complete in Brumadinho. Last year we signed Mariana and we've been fulfilling the commitments under both agreements as we agreed.

Just a snapshot on the Dam Decharacterization. We always present this slide, so I don't want to lose sight of this because it's important for our story.

We have eliminated about 60% of our upstream dams since we initiated the program and again, we no longer have any dam in level three at Vale.

As importantly, we had promised a few years ago that Vale in 2025 would be 100% in conformance with the GISTM, the Global Industry Standard for Tailing Management. And we achieved that this year. We are now 100% in conformance with the GISTM, very important achievement as well.

All of that is leading us to improve consistently the ESG rating from agencies for the company. As we sit here today, all of those metrics are better than they were before Brumadinho accident, right? If you look at 2018 vis a vis where we are today on the three agencies, we have improved substantially as a result of the work we have been doing.

But today, I want to talk a lot less about the past and a lot more about the future.

This one page summarizes our strategy and where we want to take the company towards.

There are three major themes in this page. One is the ambition. Second are the businesses that we want to focus on, and the third one are the levers.

So those are levers that either we master already or we should master in order to deliver on our long-term objectives, meaning operational excellence, safety, innovation. And you're going to hear a lot from my team in the next slides on several of those elements. I want to cover the two first elements of this page, the ambition and the businesses.

Back in 2010, Vale was the second largest mining company globally in terms of market cap. We are no longer at that position for many reasons, and I'm sure you guys have your own considerations for it, but I think we all agree that the company, despite the recent improvement in share performance, continues to be substantially undervalued vis a vis our intrinsic value.

And our goal then, our ambition, is to make sure that over the next several years we work, and we think in terms of capital allocation, in terms of decisions to make sure we create greater value per share vis a vis our competitors. I'm sure that by doing what we have laid out in terms of long term vision, we'll be able to achieve that.

The second element are on the businesses that we want to be focused on. After I took over, I asked my team: let's evaluate everything out there that eventually Vale should be considering alternative commodities. Should we consider X, Y, and z commodity that is not in our pipeline today? And after a very deep work, thoughtful work, looking at long term supply and demand macro indicators where we position vis a vis our competitive advantages.

Our conclusion was, our best bet and where we should be focused on, are on the assets that and the businesses that we already have and where we have competitive advantage, which are iron ore, copper and nickel.

In the iron ore space, what we want to do is to make sure we create the most profitable, competitive and efficient platform in the industry. I totally believe we can get to that point. You're going to see some of the actions that we are taking to take the company to really become the most profitable and competitive iron ore platform in the industry.

Copper, an enormous opportunity for us to unlock the potential. You're going to hear from Shaun the ability and the opportunity for us to double. Nobody has this in the industry, from the starting point that we have, to double the potential and eventually even going further than that. You're going to hear a lot of exciting news and learnings that the VBM team has achieved lately.

And Nickel, yes, very challenging market conditions, but we continue to have a very unique endowment there, right? Given where we are, the fact that we serve the US market and the Western Hemisphere, so continues to have a very substantial option value for us, and we're working to make this business as efficient as possible.

Why do I believe this is possible, and that future and that ambition is possible? Because we are building those based on our strengths.

First one that we always talk about is our endowment. I don't think anybody has the endowment that Vale has. If you look at Carajás particularly, we have the opportunity to grow at a higher-than-average rate compared to competitors with very limited capital intensity. This is sometimes overlooked. I think if you look at the industry today, one of the challenges is to bring projects online at decent capital intensity levels. We have an enormous competitive advantage on that, given where we are, given the infrastructure already built, and you're going to see some of the numbers later in the presentation.

So, the vision is that five years from now and we're going to ramp-up, we're going to be delivering 360 million tons and producing 360 million tonnes of iron ore with a better mix, which is very important to maintain the flexibility that Vale has to navigate through the cycle.

As I mentioned, we will double the size of the copper business in the next ten years. This year we had some already, some very good start with, for example, the preliminary license for Bacaba. We filed a few days ago for the preliminary license of Alemão. People who have been following us for a long period of time know that Alemão was there probably in Vale Day probably in 2007 or 2008, and we now finally took a very different approach, and we are very confident we'll be able to move that project along. This will allow us to continue to post sales volume growth year on year. Just this year we are growing 3%, which is sometimes, from my perspective, overlooked that Vale also has some growth with very limited capital intensity.

The other element is about the flexibility. This is just a picture we've shown to you during some of our roadshows and conversations. We have a very sophisticated supply chain and logistics in the iron ore. I would say irreplicable today. We built this over many, many decades, which

today give us enormous flexibility to navigate through this cycle. We have 20 Blending facilities distributed globally, you're going to hear from Rogério. This is what allowed us, for example, this year, to move our product offering in iron ore and capture incremental margin by changing the way we are offering our products. Sometimes we sell high silica, sometimes we concentrate, sometimes we blend. We can play along depending on the market conditions, and nobody has that capability. So, this is a unique competitive advantage and we will leverage that as we go along.

The third one is about efficiency. It's an element that you heard me saying every year: we are very focused on cost efficiency, but we want to do it right. We don't want to leave any liability for the future. So, we've been very thoughtful in looking into every lever that we have at the company. In the last two years, we reduced the cost between 6 and 16%. This is excluding any benefit of byproduct, otherwise these numbers would be substantially larger than that. Just this, this is on a comparable basis, just actual reduction in all-in. And we were able to deliver in all commodities by applying better planning in our mines, by innovating, by reducing overhead, by being more efficient with our process. So, we've been working very hard on cost efficiency, CapEx efficiency, because we know about the importance to be as lean as possible. And this will continue to be a key priority for me and my team.

Nickel, as I mentioned earlier on, challenging market conditions, but the team has been doing a tremendous job in terms of bringing the cost down. You've seen us delivering Q3 performance with 30% drop nickel cost, and you've seen the numbers that I have shown in the prior slide. It's been one of our priorities to make sure we drive the nickel business to a break-even point, late 2026 early 2027, so with sustaining CapEx we reach break-even. And as we look into the numbers and all the work that's Shaun and the team has been doing, we are very confident we'll be able to get there and keep an enormous option value that this portfolio has for us, given the unique position it has.

The last element here in terms of the strength, it is about our ability to innovate in the industry. Vale has been always very innovative about product offering, and we are taking this further by implementing a series of initiatives to become more efficient, more lean, putting AI. You're going to see one of the examples from Carlos Medeiros in our operations, our ability to anticipate failure, use better our equipment. There is a tremendous amount of potential here for us to lower the cost, be more efficient, be safer, and we're going to be very focused on that.

The last element in this page, just to close on this one is regarding the circular Mining. I'm very excited about this topic, especially for Vale. Today, we are producing 20 million tons out of reprocessing of tailings dams that we, over the years processed, and we still have very high Fe grade there. So, we are reprocessing those materials and we expected to deliver 10% of our production based on circular mining. This is important because you have low environmental footprint, lower cost and quicker time to market. So, this is something we'll be very focused on. Also, Base Metals is working on that. I think there is an enormous opportunity for us to continue to advance on this platform.

So just before I move to Carlos for his section, I just want to make sure I highlight the key takeaways from this initial remarks.

We'll continue to be very focused on operating consistently our assets. This is something we've heard loud and clear from you. It is important for us, and my team is extremely focused on making sure we get the most out of our assets.

Second, we'll see an enormous opportunity for Vale to grow again, especially in iron ore, as we already have a strong position, but we can have even a stronger position, but particularly on copper an enormous opportunity there.

And we're going to continue to focus on things like innovation and doing the right things to become a trusted partner to, at the end, being able to generate and deliver on that ambition, which is to create greater value per share for our shareholders in the coming years.

So, with that, I'd like to invite Carlos to cover the operational side.

Thank you.

Carlos Medeiros: Good afternoon. It's a pleasure to be here presenting Vale iron ore operations during Vale Day 2025.

Today, I'll be sharing how we are driving operational excellence, leveraging technology and prioritizing safety to deliver sustainable growth.

At Vale, we have managed to reduce our high-potential recordable injuries, or N2s, by 25% at Iron ore, strengthening our commitment towards an accident-free work environment.

We have also increased our near-miss report, or N3s, by eight times over the last two years, reinforcing our preventive mindset, which allows us to learn from incidents before they turn into accidents.

We have also reduced the process safety events of greater severity, or P events, by 25%. Thanks to our rigorous controls and open safety dialogs.

These results, they highlight our commitment towards the protection of our people and our assets.

Reliable growth is based on operational stability and the smart use of technology. We have managed to optimize our preventive maintenance scope and implemented a robust asset reliability strategy. Smart monitoring and engineering solutions help us mitigating critical and recurring failures. There is a steady decline on the amount of time dedicated to corrective maintenance, as a consequence of ongoing improvements each year. And these efforts combined have led us to produce 14 million tonnes more between January and October this year, compared to the same time frame in 2022.

You'll now watch a video highlighting some examples of efficiency and innovation in our operations.

[EFFICIENCY AND INNOVATION VIDEO]

Carlos Medeiros: Conceição II at Itabira has been selected as Vale's model plant. This project is a step change in iron ore processing because it has adopted several different technologies, such as AI, Gen-AI, image processing, digital twins, and a very sophisticated control system.

This plant is expected to start-up in late December this year. Production, as you saw and watched in the video, will be managed by a central control room where every process stage will be overseen. We have implemented layers of technology and at the end, 14,000 instruments will work simultaneously. The results so far are encouraging. So, for instance, daily production rate increased by 10%. Physical availability is up by 13% or points. Iron content in our waste is down 20%, and the best one, the amount of Direct Reduction feed production increased by 38%.

These results, although preliminary, make us believe that when this plant is fully operational, it will set a new benchmark for performance. This technology is being rolled out as we speak to Brucutu, and in 2027 it will be rolled out to Vargem Grande.

Another interesting example on how AI is helping Vale to solve problems is on the TML calculation. TML stands for Transportable Moisture Limit. This limit is crucial to us because if the cargo moisture exceeds the TML, it can liquefy and shift during the voyage, causing potentially the vessel to capsize. Through AI, the TML and the ore moisture can be calculated very accurately, and having this information beforehand helps us to have better adherence to our shipping plans, lower the demurrage cost and obviously, a much safer operation. By adopting these two, our shipments in Q1 in the north, our most critical area, have increased by 8% comparing Q1 this year against Q1 2023.

We have also enhanced Carajás Mining plan flexibility through a new product portfolio. These advancements have allowed us to eliminate the blending activity, and Rogério will give you more details during his presentation.

This also delivers a competitive C1 cash cost.

Ore Recovery has achieved optimal levels and the strip ratio has reduced by 4% when compared with the Mining plan prior the portfolio change.

This new portfolio has also allowed us to build a small buffer to cope with eventual licensing delays and supporting operational continuity and resistance.

I'll talk a little bit now about projects: in the beginning of 2025, the capital project implementation team was integrated into the operations organization.

This transition resulted in several beneficial outcomes for us.

A stronger project governance has led to a much closer collaboration between the project teams and the operations teams during the initial phases of project or project implementation, it has also led to an improved execution, particularly during the commissioning and the pre-operational stage, which obviously minimize the risk of us during the start-ups.

Our tie-ins, which are the connections between the new and the existing systems, are being much more effectively planned and as a matter of fact, this year we had four high complexity tie ins in our +20 project acts at S11D, and all of them executed successfully.

These actions, collectively, they contribute for a smoother commissioning and accelerated ramp-up ups.

Capanema and Vargem Grande 1 exemplify this great teamwork. Both lines are ramping up and are expected to support valid growth objectives during 2026.

Each facility was designed to produce 15 million tonnes per year, and the ramp-up will be fully concluded by the end of next year.

The +20 project at S11D is moving according to schedule and its completion is expected to be in December next year.

In the image, you can see the second long distance conveyor. We will have the loaded trials starting for this conveyor in the second quarter of next year. All the environmental permits have been obtained for this project.

The Compact Crusher project. You can see it here. Is also moving according to schedule, and we expect this to be finished also by the end of next year. This project will be the definitive solution for the jaspilite.

Once these operational constraint is removed, Vale will be able to process all the contact material in the mine, as well as handling more waste.

This slide shows our project portfolio for the short, medium and long term.

I would like to highlight the mid-term Serra Leste expansion and the N3 projects that because they combined will add 10 million tonnes per year in our northern system.

Our teams are now assessing whether Serra Leste can be further expanded.

Also, the Sohar concentration plant, which will be completed in the second half of 2027, on the tailings waste disposal areas. We have the tamandua pile, which that we're going to is going to be essential for our Brucutu Operations should be up and running in the beginning of 2028.

We have also plans for upgrading our Vargem Grande Tool and the Pico Process plants in the Vargem Grande site.

As you can see from the long term projects, Vale has plenty of optionalities to sustain long term growth.

Vale, as you are aware, consistently delivering on top of guidance. Recently our 2026 guidance of 335–345 million tons is influenced by market conditions rather than operational constraints.

It's important also to say that Vale does not depend on any new environmental license to deliver the target volume.

Vale is advancing safety and operational consistency through technology driven initiatives, strategic project execution, and enhanced flexibility to deliver reliable guidance.

Operational excellence remains an ongoing pursuit and steadfast commitment for scaling achievements to sustain long term growth by integrating people, process and technology into a robust organizational culture. Vale continues to deliver solid, safe and sustainable outcomes, paving the way for the future of Mining.

Thank you.

I'll hand over now to Rogério.

Rogério Nogueira: Thank you, Medeiros.

Good afternoon.

It's a pleasure to be here today.

It's a great opportunity for us to talk about the Iron ore market, also to talk about Vale as a strategy and the performance we have achieved so far.

Let's start by taking a view at our expectation for Crude steel Production for the years to come.

From 2025 to 2040, we expect a compounded annual growth rate of 1.2%. So this is a significant increase in Crude steel Production.

But, as you look at it, you will see that we have a view that there will be a gradual decline in Crude steel production in China, and it will be offset by an increase in Crude steel production in other regions, primarily India, Southeast Asia and the Middle East.

But when we translate this into demand for iron ore, seaborne supply, what we'll see is that the market is actually flattish.

China, as we've just talked about, we're expecting a decline of about 160 million tonnes of seaborne iron ore demand.

This is driven by the decline in crude steel production that we just mentioned, but also by the use of additional Scrap.

Conversely, you will see India, Southeast Asia and the Middle East increasing demand for seaborne iron ore.

It is less than one would expect when you looked into Crude steel production growth in these regions, primarily because India has a significant domestic supply, a significant domestic production of iron ore, and we also have other regions adding another 20 million tonnes.

But what I would like to call your attention to in this chart is that look at the green part of the bars.

There is going to be a significant increase in iron ore agglomerates, and extends for more need for higher grade iron ore.

Iron ore that's going to be used for decarbonizing the steel world.

Let's take a look at this, because sometimes we talk about these numbers.

But I would like to give you some evidence that this is really happening.

And it is really happening right now.

So we've actually putting here for you a view of the best proxy, which is the construction of electric cars furnaces, sort of along the, along the world.

And I also should say that I particularly have visited most of this in most of the regions that we have been to.

Let me give you just a couple of examples just to show that this is real. If you take Europe, for example, take Germany, all the large, all the major integrated steelmakers are really going towards electric arc furnaces and direct production: Rogesa, ThyssenKrupp, Salzgitter.

If you go to Austria, Voestalpine with electric arc furnaces in Linz-Donawitz. Sweden with SSAB with Stegra Boden, all under construction. If you go to the Netherlands, if you go think about Tata, electrical arc furnaces in IJmuiden together with shaft furnaces, a new electric arc furnace being built in Port Talbot.

If you go to Spain, you will see ArcelorMittal putting an electric arc furnace in Gijón. You will see Hydnum, which is a new start-up, looking to put in another electric arc furnace. Same in France where ArcelorMittal is putting electric arc furnace in Dunkirk and it is hybrid.

But that's not only in Europe. If you go to Asia, think about Japan, JFE, Nippon Steel and even Kobe, all are implementing constructing electric arc furnaces. In Korea, POSCO and Hyundai. If you go to the U.S., the traditional, SDI, Nucor putting new electric arc furnaces. And now with the acquisition of U.S. Steel by Nippon Steel, new electric arc furnaces being planned for replacing blast furnaces. You also have Hyundai announced a new electric arc furnace in Indiana. So you name it. If you go to Mexico, you have Ternium, Pesquería.

Anyway, I'm not even pointing here to China.

My point is that sometimes we hear people talking about the pace of decarbonization has changed. It has decelerated.

But the reality is, if you go bottom line, you see that these numbers here that I'm showing in this chart of electric cars furnaces, these numbers are real.

That means that the world is transitioning.

And it's very, very important for our strategy, as we'll talk about in a few slides.

But let's go back to Iron ore seaborne supply: we've done an exercise, a very simple exercise just to show this to you.

So we've taken the iron ore demand that we just shown previously and say: if we were to match iron ore supply with iron ore demand, what would the price what would iron ore price need to be for those to be matched?

And here we would like to tell you that the price that actually matches supply demand in the longer term is \$100 per ton.

In the longer term of iron ore.

I know that this number might surprise some of you, and it's not to say that there's not going to be volatility throughout the term.

Obviously, iron ore prices can come, can come down.

It can come up.

But longer term, if you are to match supply demand, our expectation throughout all the exercises in the knowledge that we have of the industry is that prices need to be structurally anchored at \$100 per ton.

Take, for example, 2025. The iron ore supply. What we calculate is that there will be from 2025 to 2030, a depletion of 230 million tons, which is based off of roughly 3.5% annual depletion rate.

Also, you have about 85 million tons of iron ore production that would be above that crash of \$100 per ton.

That would need to come out of the market.

And on the other hand, there are projects which will have incentive prices, which are below \$100 per ton, that will come back to the market.

That's how we believe.

And that's sort of the final equation that we believe that we will get to the \$100 per ton.

This is the number that we believe the long term will really match supply and demand in iron ore.

Last but not least, as the industry, as the quality of the iron ore producers downgrade, aluminum and silica will continue to be an important issue.

But I would like to call your attention to phosphorus.

We generally don't talk much about phosphorus, but phosphorus is becoming a critical issue because it is increasing under the existing reserves.

And as the world starts to produce more flat steel rather than rebar, phosphorus is becoming, and will be, a very important component of iron ores.

Let me stop here and move from the market to Vale.

So how do we think about our strategy and what role do we believe that we play?

First of all, we look into the short and we look into the long term.

But those are not a static. There is always a transition. There is always something in between.

In the short term, the bulk of the industry, the bulk of Steelmaking is coal based.

And what we're doing in this regard is optimizing our product portfolio to satisfy the existing prevailing Steelmaking routes.

But we also look into the long term as the industry decarbonizes.

How do we establish ourselves to be the pioneer in the decarbonization of Steelmaking?

And how do we create the most competitive supply chain that no one can copy us, that we will believe that we will be the player for the decarbonized world?

Obviously, there will be a transition, and those two worlds will need to live together throughout the years.

But let's, for the time being, focus on the short term.

And I would like to share with you some of the exercises that we have done this year in terms of portfolio optimization, leveraging on what Carlos Medeiros just mentioned.

So before presenting this chart, I'd like to highlight the following.

Over the past decades, you have heard Vale saying that our strategy is predicated on high grade iron ore.

We have done an extensive thinking about this, and we now have changed it.

It seems bad, but it's not.

We say we can produce high grade iron ore, but our strategy is predicated on flexibility.

If we need to produce lower grade ore, because this is what yields the best result in the value chain, that's what we're going to do.

But preserving the flexibility to go back and forth depending on market realities, depending on competitors reactions, depending on the mine's realities.

So that's what we have been doing.

So looking to if you look into this chart it reflects a little bit what we have done from 2023 to 2025.

Looked at in the very bottom of the chart, we have actually decreased the percentage of high grade ores that we are selling, and we shifted to sell more of premium mid-grade.

So when we say “premium” is because premium, we have a very positive relationship between alumina and silica, and we also reduced the amount of high silica ores.

We were only able to do that because we have a very sophisticated, very comprehensive supply chain that allows us to react very quickly and to adjust our offering very quickly.

In the next slides, I'll show you the kind of results that we've been able to achieve by adopting this new strategy.

But before we go there, I think there is one chart that we've covered extensively during our investor tour that I'm not going to get too much into the details, but the concept I would like to highlight here to you, in addition to Fe and Phos, there are two very important chemical elements that one needs to look at, which is alumina and silica.

And there are actually two factors in alumina and silica.

One is that the relationship between alumina and silica cannot be too high.

And the second one is that there is an optimum range of silica in the Sinter that the Blast furnace operator needs to operate with.

And the combination of those two variables, or those two goals, actually lead us to the shaded area in this chart that we call the ideal blast furnace zone, or the sweet spot.

So this is exactly where the blast furnace operator would like to operate.

And how they do that. They do that by blending different kinds of ores, trying to get the blend into that region with the maximum economic result.

But here, here comes the situation. If you go and look for a specific stand alone iron ores, very rarely you will find an iron ore that by itself would get into that position.

So what they do is that they need to blend. And that's why, for example, we have actually since 2015, we started to do some blending ourselves.

So for example BRBF which is illustrated here within the sweet spot is a blend of IOCJ with our high silica.

This year, as we've noticed that the market was actually not paying that much for our very high grade iron ore from Carajás. We started to migrate through the mine plans that Medeiros just talked about. Some of our IOCJ to this mid-grade iron ore here, which is a Ore that comes straight from the mine, actually is within the sweet spot for the blast furnace operator.

Last but not least, we've also taken this high Silica, Iron ore and started to concentrate not only Brazil but outside Brazil.

And I'll talk about the kind of flexibility one needs to have for this to happen.

But why have we done so?

Because these ores that I just highlighted, that I just talked about, IOCJ, which is a very low alumina Iron ore is a corrective Iron ore for alumina.

This word is high silica. Here is a corrected iron ore for the relationship between alumina and silica. So keep this in mind.

Now look into just exemplifying the kinds of words from our competitors, the Australian competitors. Okay?

They're all above this line, which represents the Crest for alumina silica. And they need to come down in order for them to come down. They need to have this corrective force that only Vale has in its portfolio.

So the whole idea of managing the portfolio is understanding the and managing the supply of this corrective divorce.

Once you can manage the supply of, this assures that you can eliminate ores.

If the market's not paying, the outcome is that they will increase its value.

So that's what we have done.

We've looked into the portfolio broadly, comprehensively understanding where our clients were, positioning their products so that we could maximize value.

Simply put, after making those changes, I'll just highlight to you the kind of results that we've achieved.

So once we started to think on this basis more comprehensively, we are able to achieve a premium improvement of \$3 per tonne on our mead grade iron ores.

This equates to, on an annualized basis, \$500 million. Just by purely changing our strategy.

And this is the kind of results that one can expect by managing appropriately its portfolio.

Well, in order to do that. As I said, we need to have capability in the supply chain.

One is the ability to concentrate, concentrate our high silica Iron ore.

And as you can see on the left hand side o the right hand side of this slide is that we are continuously increasing our capacity to beneficiate being it in China, being it in Brazil, being it in other regions.

The other thing that we are doing is actually increasing our not only concentration beyond 2026, but also increasing our blending capability and blending in China, in Europe, in the Middle East and India.

We are creating a very unique and sophisticated supply chain that allows us to allocate products and actually maximize the value by defining where our products are really wanted and where they're really paid for.

Just one point to highlight as you look into the right hand side of this slide.

Vale is the only major mining company that sells for the whole world. We cover all continents.

We sell in North America, South America, Middle East, North Africa, you name it.

So that allows us that capability allows us to really segment the market and place the products where they really need it.

Having said that, once we then define the amount of IOCJ, for example, that we want to have available standalone, we can choose where to sell it.

We can choose to sell it in in Europe, we can choose to sell it in the Middle East, we can choose to sell in the regions and in the clients that really pay for the right premiums.

And I should say the same applies for our Agglomerates.

Well, we won't have time to talk much about the medium to long term, which is actually where we're thinking about decarbonization.

And as I'm as I said in the beginning, we believe Vale is uniquely positioned to be the best mining player and the dominant player in a decarbonized world.

We've talked a lot about this Mega Hubs, but what are the Mega Hubs?

The Mega Hubs are large industrial complexes that were developing in selected regions, regions in which, for example, the Middle East, for example, in the Gulf of Mexico, for example, in the northern part of Brazil, regions in which you can bring together the production of HB Direct reduced iron (DRI), which is going to be the feed of the future green HB green Direct reduced iron (DRI) in regions where you have good logistics, good infrastructure, they have competitive natural gas, that you have competitive renewable energy that will allow us to produce green hydrogen and create large scale industrial complex that will be the basis for exporting green metallics to the world.

So this is the whole concept. But we want to do this first on an asset-light basis, mostly through partnerships. The reason being is because as we migrate towards that solution, there will be a lot of capital required and we need to find ways to do it very effectively through very, very reliable partners. And we're trying this model, as Medeiros just talked about in Oman for the first time, not only partnerships for asset-light, but they're also looking for developing technologies.

So selecting the good places, the partnerships and the technologies that will make decarbonization really economically viable. And the most important of these technologies is the briquetting technology.

I'm not going to get into too much detail, but I should tell you that for Direct Reduction, the results that we have achieved are outstanding. Most of our clients believe that this is the real breakthrough in the steel making industry for many, many decades. Just a couple of examples we are achieving compared to Pellets 4 to 5% higher metallization in DRI, we're getting over or about 50% increase in productivity.

Again, I'm not going to get into the details, but I should tell you that we are designing what we believe is going to be the most competitive supply chain for the decarbonized world.

So in conclusion, I think we're very comfortable that we are designing and developing this company to generate value through the cycle, not only on the existing processes, which are coal based through the maximization of value through the portfolio, the flexible portfolio, the portfolio adjustment, but also thinking about and creating the options for the future as we believe we're going to be the leading mining company in the Decarbonized world.

Thank you. I will hand to Shaun.

Shaun Usmar: Hello, good afternoon. It's a great pleasure to be able to provide an update for you today on our journey and our transformation at Vale Base Metals. I started this journey with this team 14 months ago with an incredibly compelling mandate at a world that now suddenly has discovered it needs critical minerals.

There's an underappreciated platform to be able to create truly a global champion. But it's a platform that has gone without realization for many years. We've talked about endowment. We've talked about growth.

So just to reconnect you fundamentally, and Gustavo touched on this, we have a low cost, multi-decade life copper operating platform at the moment with an incredible growth rate ahead of us that is organic and high return.

And, on the nickel business, it's polymetallic. It's in great jurisdictions. We ultimately have something here that the Western world is tapping out on, but it cannot be subsidized.

So the idea was to have something which we could get into the right part of the cost curves, to have a robust platform that has significant strategic significance. Thirteen mines

underground and open pit, five mills concentrators, two smelters and five refineries. It's a very broad, diverse, vertically integrated platform.

Importantly, we set about doing this in a big way with huge expectations. And I have to say, this is a tribute to my team. In this last year, I've participated in a lot of transformations in mining over the last 35 years. I've never personally been part of anything quite like this.

We had to change how we were doing things in order to achieve different results, and it started off with changing the model from a highly centralized, quite siloed organization that was working awfully hard into something where we had to reconnect people with a holistic view of business and allow our assets to see the same detail and data that we saw at the center.

To simplify that radically, to ensure we had the right controls and risk management, and to create an ecosystem where people were working together and where we could dynamically allocate capital and enhance performance at the center. And boy, it's been remarkable.

This time last year, I remember sharing with you that we were hoping to take out a significant amount of our overhead. We've achieved double that. I think transformations show that only one in four achieve their objectives.

I shared with you at the last quarter. We had a run rate this year of about US\$ 360 million of controllable cash improvement from that initiative. We're now at just over US\$ 400 million.

Our net debt this year is going to be US\$ 600 million. We're on track for better than the start of this year. It's an incredible performance from this team. But importantly, that lowered overhead has allowed us to reconnect with the essence of how we unlock value in a complex business like this.

I'm going to touch on a lot more of this in the coming slides. But the important thing in a period of potential chaos is ultimately to make sure we took care of our people. So, we use this as an opportunity to really prioritize our time with our people on the ground from a safety point of view, to make sure we did not achieve what we were seeking to achieve at their expense. And we actually invested more in risk management in this business while we were reducing overhead elsewhere.

Here's what we've done. For the first time in the history of this business, we're on track to achieve the top end of guidance in both copper and in nickel. But at the same time, we've lowered our all in cost guidance for two consecutive quarters.

Bear in mind the improvements we are making in this business typically lag about four months before they reflect in cost of goods sold. So Q1 was quite Q2. People went, "something's happening". Q3 it's not just a one hit wonder.

And we're focusing on continuing to deliver this performance. You'll see our revised guidances and you'll see our nickel over there that, the same thing. We've achieved a dramatic improvement in our all in cost, but we have further to go.

And bear in mind, this took place at a time of ramping up of Voisey's Bay as well as Onça Puma furnace two. And those who know the industry know that ramp-up ups never go to script. We were 20 to 30% ahead on our ramp-up at Voisey's Bay, which allowed us, for the first time in eleven years to achieve nameplate capacity recently at Long Harbour.

It's remarkable what those teams have done, and Onça Puma furnace two delivered on time 13% under budget. Salobo and Sossego, Sossego is achieved, it's, you know, at the end of its life has achieved nearly a 40% unit mining cost improvement with this model. Salobo is achieving new record capacities. It's remarkable.

It has been across the portfolio performance and you'll see as we go to next year that will continue. We have a 110 day downtime planned for Sossego next year, which shows the sort of modest increase in copper we expect next year.

And you'll see the focus for us on nickel is ultimately for us to fully ramp-up and stabilize those operations at Voisey's, Long Harbour and to continue to drive throughput through our fixed cost structure to dilute the overall value chain or the unit cost through the value chain.

We will hit this year just over 5 million tonnes through the mill in Sudbury, for example. First time since 2016 and we will continue to go further. This has to be competitive.

But here's the here's the sizzle. I'm very excited about this. And to me, this is the best kept secret in this industry. We've talked about it a lot. You've seen we've delivered this year. We're on track.

But really the projects that are primarily brownfields, lower risk with a lot of infrastructure are really setting us up now where we fundamentally got like a complete revamp of how we do life of mine planning and budgeting in this business.

We're on track, I think, with far greater levels of resolution for 420 to 500 in the five year time frame, and that's 700,000 tonnes in the 2035 timeframe.

We're looking to provide published technical studies for all our assets and all our projects. Early in the new year, SK-1300 compliant documents so that investors have what they need to form their own opinions with technical detail. We'll also look to try and coordinate investor days to give you what you need to form your own opinions.

But right now, the market doesn't believe us. It's flat. The investors that are out there are pretty much giving us no credit for this growth.

In a world that is underperforming is about a 6% underperformance in delivery for the sector in copper this year. We're an outlier as we are delivering and you'll see those growth rates compare incredibly favorably to the rest of the sector. That's the reason Gustavo is excited.

And I'll show you with what we're finding on exploration in this portfolio, this this portfolio, particularly in Pará, has not been drilled at depth.

We're finding incredible intersections. And there's a lot of brownfield opportunity on these existing projects in ore bodies. And that's before we factor in Hu'u.

Now the portfolio optimization, we're well advanced on our discussions on Hu'u as well as on Thompson. I will not be providing updates on those today. We hope to give you updates on those sooner. This is all about the organic pipeline.

The key thing this year with the fundamental change, we took away our project silo that we had and we reconnected it with the commercial side of our business. We had separate silos from an operating point of view and all report now to my Chief Operating Officer, who's awfully tired, flies a lot.

But what's happened with this is it's really broken down these barriers, and it's allowed us to look at first principles. How do we create value and diminish risk?

You'll see that dramatic increase or decrease here in capital intensity that has occurred over this period compared to the industry average. And so, in the interest of time, unfortunately I can't go into tons of detail here, but it's across the board pretty much, and it's quite remarkable.

That is translated into surprise, surprise, a significant improvement, like a drastic improvement in rates of return across here. Now that's partly through a range of issues as to how teams have looked, how they can actually remove overhead, look at individual specific rather than color by numbers approaches to the execution of these projects, and we'll touch on a bit more of that. We've also changed the sequence 118 now is 16 years sooner than we previously seen, because the risk reward we believe is more favorable.

Bacaba those of you who've been to these days for a while heard a lot about this. That photograph is with early works, pre-stripped. We've got our approvals for vegetation clearance for a 13 kilometer road. Early construction of the bridge, which is on the critical path, and you'll see the pre-stripped for the Pit. This is 13km from our Sossego infrastructure.

This is barely a project and it's really the now under our Chief Operating Officer and our General Manager at that site for execution. The CapEx is radically reduced. The overhead is radically reduced, and the model we're using allows us to potentially execute sooner.

We've fulfilled all the requirements for the license. It's on the governor's desk, and we're hoping to be able to announce something later this year. We're on track for the timeline we'd allocated previously, and you can see the returns.

Of course, Particle Flotation. We've done the detailed design now. These are, this is money for jam. It's Brownfield. It allows another nearly 30kt over at Salobo and brings us into that zone where we can operate in that two 220, 230 to 250 tonne per annum range in this. You'll see the returns. Again, they're well advanced and that's in the 2029 time horizon.

And this one I'm really excited about. We've talked about Alemão coming on at the back end of the decade. First quartile I mean, this is 140 koz of gold a year, let alone the sort of 70 to 80kt of copper.

In fact, what's really happened here with the reimagination of this is: it's a brownfield site, it was originally due to be a sublevel cave. They've relooked at it from first principles. It's now sublevel stope, smaller footprint, smaller tailings dam. The ability to access or perhaps a year sooner than we would have had with the prior design. A higher rate of return and designed for lower risk on licensing, which we submitted in November of this year.

And this one is a personal one. I'm very excited to announce it. We have a long way to go. I arrived in Canada in 2006 on the back of a hostile takeover of Falconbridge at Xstrata. I presented to Mark Cutifani and Murilo Ferreira a proposal for Sudbury synergies in December, just before Christmas of 2006, didn't work. We tried again, didn't work. Glencore and Vale tried, hasn't worked.

This is not a done deal, but we have an agreement here with Glencore now to be able to actually utilize existing infrastructure, which I was CFO of the business when we built that in 2007, 2008. It's the best shaft infrastructure in the Sudbury Basin. We're looking to lengthen that, develop an access ore bodies that neither party would be able to access otherwise. Copper rich, polymetallic, high return.

We need to do more of these, but let's start with one. And if we can do one, it should set the conditions to do more. And the industry needs more of this. This is high return critical minerals that can come at a much lower risk. I don't have to hire like, you know, create an ecosystem of workforce. We don't have to create a lot of infrastructure. There it is.

The best return, the best bang for the buck in the portfolio comes through the drill bit. My CTO just sent us photos of some drilling. We won't disclose where at this point. It is ridiculous, the intercepts that we're finding.

We have dynamically in the year, rather than be to the budget, we have allocated capital within the budget, but our highest return is through the drill bit and copper in Pará right now.

And you'll notice we've gone from 8 drills in operation in Pará to 23 this last year. We're doing over 60,000 meters of drilling. We'll look to increase that to over 100 and beyond. My constraint is not capital. It's how quickly we can get these things turning.

And you'll see with that, that is a significant reduction in drilling costs. We're drilling a lot at depth. And also the we're seeing and you'll see that one bubble on the end. We believe that given the open nature of a lot of these deposits at depth and on the slide, we're targeting perhaps 20% production upside potential post 2035 on an organic basis.

Here's a small example and what you'll see. So this is just to orient you as Sossego. That's below the Sequeirinho Pit. I mentioned, this is unexplored or underexplored at depth. First few drill holes, I mean, we're getting intercepts here, nearly 30Mt of 5% copper, you know, including

11Mt of 11%. Another drill result we received was over 20% copper of nearly 7%. We have a lot more to go in this, and I'm really excited about that.

And you'll see a significant amount of underground drilling, particularly here, because this is near exhaustion. Our ability perhaps to prove out things that are not in our plan could be an exciting update for us in the future.

So that's putting it all together. Our journey. I do think we'll reserve more detail for when we have the time, and once we publish those technical studies and can give you the information you need to populate your own models and form your own views. But there's more to come from that 700.

And nickel is about ensuring that we're in the money option in a strategically significant business. We've got father daughter operators underground in Sudbury that have been going for over four generations, or they're fourth generation miners there.

We've been in operations for over 100 years, but we cannot subsidize this. So the real focus has been on trying to target cash breakeven operationally by the end of next year. And for us to be able to that, have that flow through into cost of goods sold beyond that, importantly, 240 million of the savings that we've achieved so far are in the nickel business.

They've really stepped up: lower G&A, improved costs and capital, and there's more to go. We have a number of initiatives that we're pursuing rather than running according to a budget.

And importantly, as we look at nickel similar to iron ore, it's not about volume. We have the ability to crank up more volume, but it is about ensuring if you don't have the upstream, you don't have the contribution margins to make the returns you need through your vertically integrated downstream. And that has been a challenge.

We've been in decline with the mine feed. We're fixing that. We will run for the first time in the history now with two furnaces at Onça Puma, as well as be able to run at nameplate at Voisey's Bay. And we'll continue to go beyond in Sudbury so that we can actually ensure our competitiveness.

And I started with this, but I think it's an important thing. People remember things in the beginning, and they often remember things at the end. We're ending with safety.

And the real reason is I mentioned to you, you can imagine if you're taking hundreds of people out of the system at a time where you have to make sure that you can actually execute and that you can get the business reset for delivery. That is a very traumatic event for the organization.

At the same time, we've made sure that our safety numbers are there, and as our cultural indicators just in recent weeks, we're very proud to stand with some of our colleagues from across the business.

We received in Brazil. The Exame Award for the best large mining company in Brazil, for Salobo Sossego. And for the first time in the history of Vale Base Metals, be recognized as Canada's one of Canada's top 100 companies, something we didn't expect. And we're really, we're very proud to achieve. So I'll leave you with that.

That's us. This organization is now delivering. We're excited. We have an energized group of people. I think there's more opportunity as we do more drilling and we revamp our life of mine plans and our projects advance every year.

And on the nickel side, we're striving incredibly hard to be able to ensure that we have a strategically competitive asset for the future in the face of oversupply and all that improvement this year has meant that what you've seen in that outlook is fully self-financed at less than one times net debt to EBITDA. It wasn't that way a year ago, and it's quite remarkable.

So with that, thank you. I'll hand over to Graziella.

Grazielle Parenti: Thank you, dear. Hello everyone.

I'm very honored to be here today for my very first Vale Day, and also to share with you a very simple but also powerful message about how Vale sees sustainability.

For us, sustainability is not just a responsibility, it's really a business advantage. You could see the presentations of my colleagues here before, how we are tackling in different dimensions of it, and I'm going to go a little bit deeper on that.

For us, sustainability is business, value creation and shared value. But let me go deeper. And one thing we have been working as a new way of thinking, a new way of working on sustainability.

We are in a natural resource industry, so it's very important that we work to be a responsible operator, and also that we are able to protect climate and nature, but at the same time bringing people together.

This is the only way for us to be able to create business value, to improve people's lives, and also to have our social license to operate. These things are all together interconnected. They are not separate.

And I'm going to now show you a video where we can demonstrate a little bit of what we are doing for our climate and nature agenda.

[CLIMATE & NATURE VIDEO]

In this video, you could see some examples on how what we are doing to decarbonize our operations, what we are doing to reduce scope 1 and 3.

We have set up a target years ago to reduce 33% of it, and year to date we are about 81% achieved with alternatives like the ones we mentioned in the video. But it's important to

highlight that we are in Brazil, the land of biofuels. So there is not only way to decarbonize our operations, sometimes it's going to go electric, some time is going to be biodiesel or ethanol, and we are piloting and testing that to escalate this.

To reduce scope three, having scope three target was really Vale pioneering this agenda in the industry. And how we are doing that? Rogério mentioned a lot about how we have been doing to decarbonize the steel value chain, but the target was to reduce 15% by 2035, and today we are about 88% achieved.

For that, also, we were able to invest in their decarbonization activities: US\$1.7 billion in the last five years. And this has been proving that we are finding and developing technologies together with our partners to decarbonize the industry.

Moving to nature, Vale was one of the very first companies to report TNFD nature, the risks and impacts in our operations, and also nowadays, as we saw in the video, we protect around 1.1 million hectares across our geographies of native vegetation, but we want to go beyond that.

So we set up a target of 500 thousand hectares, and we are around one half of it. And a big player on the industry and the business of restoration and preservation of native vegetation.

Also, when we talk about nature, we have a partnership with ICMBio, as we said in the video, where we have worked to protect endangered and threatened species like the jaguar and many others. But also it's important that Amazon is so big, but there is a lot of science that we need to do that to be able to protect it.

So we have worked in our Institute of Technology in Vale and also with the national authority to sequence the genome of fauna and flora of the Amazon. This is critical for us to be able to work on the preservation.

But now let's talk about people. There is no success for business when you don't have people together with us, and we are able to identify that across our geographies. We had a lot of people still facing extreme poverty, and we should not accept that.

So years ago, we started to figure out how to do that. Because poverty, one thing we learned, it's not just about income. So we went to the market to find what is the right way to have a KPI in a long lasting impact.

And we are able to find a methodology from Oxford University professors, where we identified five dimensions of poverty. So yes, income, but also health, education, infrastructure and nutrition.

And the target was bold, 500,000 people out of poverty, a major city, a medium city. So nowadays, we start the program a little more than one year and a half ago. We are around 52,000 people already in the program and having a better life. We understand that now we are able to escalate that.

During COP 30 that was two weeks, two weeks ago in Brazil, in Belém, in Brazil. We were able to also launch a movement together against poverty, where we have around 27 partners, companies and organizations, NGOs together with us to move on that, to advance on this agenda, because we cannot do this alone.

And tomorrow in New York, at New York Stock Exchange, we'll be launching this initiative, also a fund there to have other companies, organizations that share the same purpose that we have to move on this.

And going to the third pillar, responsible operator, as I said, we are in a natural resource industry. So how we are able to do this, reducing impacts, generating value, but also building trust. We cannot do this alone.

So Gustavo mentioned in the beginning how we are proud about our circularity efforts. And I'm not going to repeat that, but it's important to say that Vale is very pioneer in this, including the circularity protocols around the world and reporting on this.

Also, it's not just about circularity, but about how you use the other resources we have, like fresh water. So year to date we have been reducing 31% of the use of fresh resources, fresh water resources.

And there is nothing, no business without people. So human rights is a non-negotiable principle. We have been conducting frequently due diligence about it and training and engaging suppliers and our value chain always following the UN Guiding principles.

And you don't build trust without communicating. So we have been active listening to our communities. We identified 170 top priority communities for us, and we establish a target of having 100% of specific plans for each of them to next year. Now, year to date, we are with 94% of plans and we have teams all across our geographies to put this in place.

What makes us very comfortable that we are in the right direction, confident also is that the people that according to our surveys, the people that interact, engage more with Vale are the ones that value more our presence and what we do.

And before moving to my friend Marcelo Bacci, I would like to share this picture which showed the simple people and the nice people that we have around us, and to reinforce the purpose of Vale, which is we exist to improve life and transform the future.

And we are not going to do this alone. We want to have other organizations that share the same value with us. Thank you.

Marcelo Bacci: Good afternoon everyone. It's a real pleasure to be here.

I was in Vale Day in New York last year when I was with the company for one day. I had started in the previous day, so now I have one year and one day, and I know a bit more about the company, so I feel a bit more comfortable today than one year ago.

But one year ago we were talking about the commodity cycles and how a company like Vale has to manage costs, CapEx, capital intensity and capital allocation to create value.

And today I'm back here to discuss the same topics with a different approach. And to tell you what we're doing and what we're going to do to continue to go in the right direction. So let's start with efficiency.

We've been able to over the years, keep reducing our fixed costs, which is a very important part of our cost structure. We are a business where fixed cost is about 60 to 70% of our total costs. So it's important to keep working on volumes, but also on the quantum of the fixed costs to deliver efficiency. And we were at the level of \$6.3 billion a few years ago. And we've been reducing and now we are closing this year with \$5.8 billion of fixed expenses, fixed spending, and going for 5.7 for next year. It is a daily effort to fight inflation with efficiency measures and we've been delivering. We have another important challenge in front of us for 2026.

Delivering that, we are going to have as a consequence in the iron ore business, a good C1 cash cost. As you see, we have a path towards getting to \$20 per ton as C1. We come from 22.3 in 2023.

We're going to close this year around 21.3, which is more or less at the center of the target that we established for the year. And we're guiding for a range of 20 to 21.5 for next year. We want to get to 20.

And in order to do that, we are continuing the efforts on efficiency to fight inflation, to fight the geological inflation.

And also we are counting with the additional volumes that we are producing in the new assets that are coming, that in the first moment they have a ramp-up, but after they will contribute positively to this equation.

That is on the C1 for Iron ore. If we look at the whole portfolio and if we look at the all-in costs, we have been delivering, and we will continue to deliver a very good performance. If you look at iron ore, we are closing this year with an all-in of \$55 per ton, and we are guiding for a range between 52 and 56 for next year, which is going to be delivered with the C1 that we just discussed.

Plus the portfolio strategy that Rogério and Carlos mentioned and also the long-term affreightment strategy that is contributing very positively to our cost performance this year.

In copper, we are closing this year close to \$1,000 per ton of All-in costs with a big help from the by-products. We are guiding for a range between 1000 and 1.5 for next year, assuming that gold prices are going to be lower next year. If we have the same gold prices we had this year, we're probably going to do even better than this year.

And nickel, we are closing at 13,000 roughly, and we're guiding for a better performance between 12 and 13.5 that will lead us to all in, including sustaining around 15 to 16. And the idea

is to reach the end of the year of next year with a sustainable operation in terms of cash flow in nickel at current prices.

But in order to do that, and in order to deliver the results and the returns that we expect, we also have been working very extensively on CapEx. One year ago, we were discussing long-term CapEx program of the company between 6 and \$6.5 billion per year. And we guided for a number around 6 billion for this year. We are finishing the year with 5.5 billion within the revised range of 5.4 to 5.7. And we are introducing the same range that we had this year for next year, 5.4 to 5.7 and below six as a long term guidance for CapEx.

We believe that we can do all the growth that we have discussed here, plus keeping our operations in very good level with less than 5 or \$6 billion per year, which is among the majors, the lowest CapEx program.

What we're going to see in the coming years in the Growth CapEx part is a growing participation of copper assets in the growth projects. Of course, to be able to deliver the growth that Shaun just mentioned to you.

In terms of our capital structure, a very important part of it is the commitments related to Samarco, Brumadinho and Decharacterization. And this is an important change that we're going to see in the coming years.

This year, we're going to close with \$4.2 billion of disbursements related to those three things, plus the incurred expenses related to those. Next year is going to be 2.6 billion and the year after that 1.9. And then it's going to come close to 1 billion and then below 1 billion.

So this, the performance that we are having here is allowing the company to create for the future a lot more capital flexibility that will enable us to have better decisions in terms of capital allocation.

Capital allocation for us is about balancing between the three things that we have to do with the cash flow that we generate.

We have to make new investments in order to sustain the company and grow the company. We have to strengthen our balance sheet to go through the cycles with a healthy financial situation. And we also have to remunerate properly our shareholder.

And we will continue to have in the coming years the same kind of approach that we have: making the necessary investments we have, and we're going to have the necessary cash flows to fund all the investments that we discussed here. And in terms of the balance sheet, we have established a range for the Expanded net debt between 10 and \$20 billion that gives us some flexibility also to invest more or less, depending on where, where the opportunities are.

But we want to keep on the balance sheet level, the expanded net debt between 10 and \$20 billion. I think in the next two years, this concept will continue to be the same and the range the same.

We're going to probably revise this when the payments of commitments will become lower and a lot smaller than today in two years time. But for the time being, we like the concept.

We're going to continue to take advantage of the opportunities the market offers from time to time for liability management but keeping a very close eye on having a very, very strong and robust balance sheet, because we know we are in a cyclical industry.

And in terms of shareholder returns, this year, we just announced for the beginning of next year \$1 billion of additional dividends. We are going to continue to do that when the balance sheet and the cash flow allow. And we are going to make sure that we have a superior cash flow, remuneration to our shareholder when compared to our industry.

We talked about cost and CapEx, we talked about capital allocation, and let's discuss value to conclude the presentation here.

And this first graph that we see here, we see that prior to 2019, Vale had a price to nav ratio very similar to our competitors. An average 3% discount. After 2019, that gap widened. And more recently we are getting to a lower number with an average of 10%. Today, we're close to 10%, but we still lag behind our competitors.

And on the other hand, if you look at that part of the table, you see that our free cash flow yield has been very good and is probably going to increase in the coming years, reaching two-digit levels.

So we have a situation here, which I think is a big opportunity. We have been delivering very good cash flow yields. We have been delivering growth, and we have a valuation that lags behind our competitors.

But in addition to the cash flow yields, there are some other things that we are doing that we will continue to do and some of them that we're going to start doing that we also contribute to deliver better returns to our shareholder.

The first one is the growth story. I need to emphasize what my colleagues here discussed the growth in copper, the continuous growth and the growth in iron ore, which is compatible with what's happening in the industry. This will mean that we'll continue to grow above the industry average. And this has to be an important element in terms of value creation.

Operational stability that will continue to deliver both the safety measures that we have here, the volumes and the costs. This is very important. We've been delivering and we will keep a very close focus on operational stability.

Cost and CapEx efficiency, which is a consequence of that. We've been, I think, delivering good, very good results and we have the focus of the organization on that. ESG credentials, Gustavo showed in his initial presentation that we've been evolving ESG ratings. This is bringing back to our investor base a significant number of investors that were blocked from investing in Vale.

We will continue with a focus on that, and this will all create the necessary environment and the elements for us to deliver superior shareholder returns and making everyone in this room and everyone online very happy with the investment in Vale.

So with that, I conclude here and I pass back to Gustavo.

Thank you.

Gustavo Pimenta: All right. So thanks Marcelo. It is dessert time. So we'll wrap up here and organize ourselves.

But I just want to close with the key takeaways. One I want to say is how proud I am of having built this team for me the best in the industry. And you've seen the consistent delivery that we've been able to achieve this year.

It's truly a result of the work that this team does, but also the 60,000 people, many of them connected, listening to us today.

We will be focused on, if I were to summarize the three main themes of today's presentations, we will continue to be highly focused on extracting most value from our assets, operating them efficiently, safely and make sure we deliver on the full potential of each one of those sites.

This will be fundamental for us to deliver above average free cash flow yield for the industry, and I'm very confident we'll be able to achieve that in the next following years.

Second, we will accelerate the growth agenda that Vale has put together where it makes sense for us to grow, because we do have some sort of competitive advantage, such as in iron ore, as I talked about, but also in the copper space that we are very excited.

You saw some of the numbers that's Shaun was able to share today. Very exciting.

All the information that we are getting from the team there, and we are going to be doing this by being a trusted partner, doing the right thing, being a good neighbor.

We are here for the long run, and we understand that's the only way for us to be able to have the license to operate is by operating the assets well, by bringing society with us in this journey.

So the sustainability conversation and journey that we embarked, it is for real at Vale, because we understand this is fundamental here for us to create long term value and again, have the license to operate.

With those three elements, I am sure we'll be able to deliver on my initial remarks on the ambition of generating above average per share value for our shareholder.

With that, I want to thank you all people here in London for coming and joining to listen to our story. Everybody connected as well.

We'll give a few minutes here to settle and then start the Q&A. Thank you very much.

Luciana Oliveti: Thank you again for joining us today. It's a real pleasure to be here with you. I'm Luciana Oliveti, Investor Relations Manager.

We will start our Q&A session now. We will take one question per person. So please if you have a question, just raise your hand. And at this moment, just say your name please. And also the company that you're representing.

I invite you to take the stage again, our CEO Gustavo Pimenta, please. And our executives, Carlos Medeiros, Grazielle Parenti, Rogério Nogueira, Marcelo Bacci and Shaun Usmar

My apologies, guys, I just need to have you in the right seat. So let's go. Let's start with Caio Ribeiro.

Caio Ribeiro: Thank you. Caio Ribeiro here from Bank of America. Thank you very much for the presentation. Very detailed, very thorough. Really appreciate the disclosure.

So my question is for Shaun. Shaun, I thought it was very interesting. You know, the transaction that you announced with Glencore to develop that potential copper project, and you did mention that, you know, if you achieve this, that could be, you know, a basis for additional things in the future. So I'm curious to see if you can expand a little bit further on that. I mean, there's this potential for, you know, a much bigger transaction there involving, you know, the full Canadian assets. So I'm wondering if eventually this could be a starting point for something that could lead to a joint venture, you know, a merger of the full Canadian assets with Glencore.

Thank you.

Shaun Usmar: Yeah. It's a common question which I get from investment bankers normally.

When I started this role last year, my first day was LME week and I met up with Gary Nagle, who I've known for 25 years. And at that point, I think it was very much in their minds, more a big business combination, which would have made sense. And I said to him, look, we need to live in the universe of the possible because it's clear businesses have tried for very long times to effect a combination.

Let's do the deal that can be done. And I know him well enough to say if, indeed we can't deliver, we'll be very upfront about that.

I do think coming into this role initially because I was here for of what is now their nickel business in Sudbury in Xstrata. I hadn't appreciated how far their business had evolved relative to our business. So their operating platform is very different. They've got Raglan up in the northern part of Canada. It's an incredible operation that provides a lot of feed, but Knierim is exhausted now. I think they're finished with Fraser this year, and then they still are bringing on their new mine in a pink depth.

We have five operating mines. We are investing in order to get that. As I mentioned in the presentation, to get our mines in order to feed and fill our infrastructure so that the unit cost can be competitive. And we'll continue to explore and to do that.

So I'll give you that background, because I do think people remember a time where like a Newmont Barrick transaction would be the way to go for Sudbury, like this big unitized combination.

I don't see that, but I do think there are other opportunities which could add value in the future. But it starts with one. So we need to land this transaction because as I mentioned in the presentation, the reality is just economically, Glencore don't have the ore that's required in order to create a viable, longer-term alternative on their own.

They have the infrastructure. They do have some, 30% or so of the reserves and resources they contribute, and we contribute the lion's share and the prospectivity.

It's a lovely marriage. We need to finally get it done and then we'll move on from there. So we just start with one.

Luciana Oliveti: Next question.

Daniel Sasson: Thank you so much, Daniel Sasson from Itau BBA. My question actually goes to Medeiros.

If you could tell us a little bit about what's embedded in your guidance projections in terms of cost and volumes for the mid-to-long term. Vale has done a great job in taking care of a lot of the overhangs, it had to the story over the past 12, 18 months.

Maybe something that is still missing is the cave decree and in your view, Medeiros, what would be the main challenges if you do not get the cave decree signed?

How are you guys preparing the company for this potentially challenging situation? Right. And do you think that what would be more at risk? Your guidance for volumes, the 360, or guidance for costs.

Thank you so much.

Carlos Medeiros: Well, today with what we have in our hands are projects like the Serra Leste expansion and the N3 projects that I mentioned that combined can add 10 million ton per year of production capacity.

And we are fairly optimistic that Serra Leste could go further than 4 million. How further? We don't know yet. And we'll probably bring the news in the 1 or 2 conference calls. I think we should be ready to say.

But between these two projects, plus some other possibilities in Minas Gerais, they provide you, at least for the foreseeable future, medium term, the peace of mind that we can hit the 360.

Now, take into account that, like Marcelo Bacci mentioned, our business is a fixed cost business basically. You know, hitting this volume, we should also be capable of addressing as well the desired cost.

So I think for now, this would be our thinking.

Gustavo Pimenta: Daniel, if I can add just a point because this is an important: changing the way we see planning for Vale and we change it in the last couple of years.

So the numbers you're seeing here do not account for the caves decree. So everything was modeled based on what we have, or we have high likelihood of getting. And what the team started to do is to think about plans B, C, such as the ones that Carlos mentioned, for us to be able to, in any scenario, be able to deliver. So the confidence on these numbers these days are substantially larger than we were a few years ago.

Now, if the caves come, it's going to be great. It's going to give us more flexibility.

Luciana Oliveti: Next question Lucas.

Lucas Laghi: Hi everyone. Thank you for the presentation. I have a question on Base Metals as well for Shaun. A very insightful presentation on incremental returns for the project that you guys are aiming.

I think it became clear that your focus is on increasing ROIC over time and return on capital would be kind of a focus and a priority for the division going forward. I would just like to better understand how should we think of the timing for such ROIC expansion over time, because I think it's clear that we should see ROIC levels by 2030, way higher than the level that we're seeing right now for Base Metals. But just thinking of the timing, I mean, is there any significant room for ROIC improvement, considering a better utilization of your asset base?

Or should we think of this return increase over time, mostly coming from the ramp-up of future growth projects with higher marginal ROIC, given the low intensity of such projects as you guys mentioned?

So just to think of this return perspective going forward, if it is only a 2030 story or if you should start to see the benefits of such better utilization of your asset base already in the short term.

Thank you.

Shaun Usmar: Yeah, it's it's. A great question.

And I suppose the way I think about it is a tale of two cities in some ways, the best of times and the worst of times. Copper is the best of times, nickel not so much. And so I think the nickel story is one that provides, at this time in the cycle, the discipline to get the portfolio in shape, not just in nickel, but also having that tension in copper, which is quite useful organizationally.

Our ROIC, as you'd expect in our copper business is substantial. I do think one thing I get with investors, though, where they talk about sustaining capital in the nickel business, is it is an apples and oranges conversation.

A lot of governments talk about vertical integration. We produce a concentrate that that gets shipped off, and other people then go and convert that into high purity outside of Canada.

So the idea that we've got a business that's vertically integrated in nickel with those smelters and refineries and all that infrastructure versus something where we're producing concentrate is a different level of sunk capital and capital intensity as you start thinking about those segments, let alone the revenue profiles or the price profiles over time.

Primarily our challenge, though, is ROIC often it has to look at the balance sheet and it has to do an accounting calculation. I think our challenge here is a simple one. And it goes back to that slide seven or whatever it is.

Firstly, I don't think that the market can take us seriously if we don't hit and deliver our guidance consistently. The premium valuations and multiples in the sector come with that.

And the next piece for us is making sure that ultimately, like we've done with our growth and I can't share it with you unfortunately, in any detail today, but we've fully revamped our life of business planning, understanding that we're not here to just mother assets, we're here to create value. And so that evolution, as we also do the advancements on projects and do further work on the drill bit, I expect that we'll see NPV grow over time on a similar set of macro assumptions, and that will continue to evolve through execution.

So to your point, if anything, we're going to was mentioned earlier on, accelerate the amount of spending in copper over time which on an accounting basis, in the short term we should see, you know, lower returns before we see the actual revenue and that kick in on that. Whereas in nickel, it's largely a story of the sunk capital that's in there. The replacement value of that is insane.

So we have a job to do to actually generate, firstly, get to cash flow break even as quickly as possible. And I think the way you compete and generate those returns through the cycle is low leverage, be in the money option and then when you do get the price recovery that you have, the tons of metal that you can generate your return at that time.

So that's how I think of it.

Gustavo Pimenta: And Lucas, if I can also add on this one.

If you look at next, next couple of years, including next year, we are posting an improvement in the EBITDA potential of this business. So we are growing on both in terms of volumes, lower costs. So the overall return on invested capital for this business next year has already an improvement. There is more to take from these assets and that's what the team is working on.

So I wouldn't expect to get this by 2030 only, I think we can get a lot of value between now and then.

Luciana Oliveti: Thank you. Next question.

Carlos De Alba: Thank you very much, team. And great presentation.

Gustavo, maybe just continuing with the discussion on Base Metals.

There was recently discussions in the press that Vale might have talked to a Canadian producer, a Canadian based company, on something, a JV or some combination in the base metal business. How do you see right now?

Based Vale Base Metals fit in the portfolio as you deliver on all these fantastic growth opportunities in copper and improving the cash flow generation in the nickel business?

And maybe if you could provide some color, why these potential combination did not materialize.

Gustavo Pimenta: Well, I won't comment on that. Who is party X?

I don't know, but what I what I can say is that, you know, the job that Shaun and the team are doing is exactly what we expected that the team would do when we did the carve-out. Remember when we talked about the carve-out a few years ago, we had a vision that this business operating in a more autonomous way, would create value, by operating the assets better, by being able to bring people from the industry.

Base Metals is very different from iron ore in terms of the operations, project development and we were only talking about VBM IPO for years, turnaround, IPO for years. Remember that.

So today we are sitting in a better position because we are extracting more value from the assets. And I think we can get even more than that. That's what's Shaun covered in his presentation.

The focus now is not only to continue to expand on this operational excellence theme, but also to accelerate growth. We don't think we get any credit on our shares because people don't believe we can grow this business. And I think it's fair to say that because if you go back to Vale Day 2008, 2009, many of these projects that we're talking about now, they were there already. And 15 years later we are not able to do.

I think it's now it is different. It is different because this team understands better the endowment. I think we put a dedicated management team with the right incentives to only focus on this platform, and over time, this is going to pay off, right?

As we are seeing already, a particular transaction needs to create value and needs to add to that long term vision that Vale will have a broader diversified with a growing share, particularly in copper.

If we can answer that and deliver a transaction that can get to that point, there are a lot of considerations, as you can imagine, we will certainly entertain.

We are talking to many of the players about opportunities. We are out there. Indeed, discussing transaction and opportunities for us to accelerate that future of having more exposure to copper volumes, and we will continue to do so.

Today we think most of the value that we have is on unlocking the endowment. Nobody has this endowment. So if we are able to bring projects at 20 plus IRRs in copper, consistently over the years, I'm sure we will create a lot of value and we're going to get some recognition for it. It doesn't mean we're not going to talk to people to see if there is a way to get bigger, faster.

Again, looking at value, if there is no value proposition, we won't do just for the sake of growing.

Luciana Oliveti: Thank you. Next question.

Amos Fletcher: Thanks. Amos Fletcher from Barclays.

Kind of a follow up to that question. I just wanted to ask for an update on your thinking on the future capital structure of Vale Base Metals, whether an IPO is still the central aim or your preference is to retain ownership of the business, given the growth profile you set out.

Gustavo Pimenta: Yeah, we like very much the exposure to the business today. So our intention is that we continue to have exposure, especially because of this potential growth that we see. The carve-out give us optionality to do other things. I think that was one of the reasons why we did the separation, but we like the exposure and a lot of the growth, as you could see, is in Carajás, where we see a lot of synergies with our existing operations, both in VBM but also in the iron ore space.

Luciana Oliveti: Next question.

Marina Calero: Good afternoon, Marina Calero from RBC. I have a question for Shaun.

You've talked about today the potential to double your copper production. Can you talk a bit more about the main constraints that you have today to achieve that? And what are the what is the different approach that you're taking to resolve those?

Shaun Usmar: Yeah, I think as you'd appreciate, my numbers might be stale, but I think the average time from discovery to first ore and copper mines these days have been something like 20 years. And all governments that certainly we've been dealing with as a priority are finding ways to see what they can do to reduce the bureaucratic burden and to ensure, though, that there's still the requisite standards from an environmental and social perspective. And we obviously support that.

So I just pay tribute to certainly the Vale team and Gustavo specifically, who's done a lot in this last year to really help us enhance our social license and help us on that pathway with our team

to improve that particular component, because I think it's the soft issues more, more so than the technical ones.

There's a proud tradition of, let's say, overruns and all sorts in the sector, and particularly on very large projects. We are focusing explicitly on those, because those are things that we believe that are more in our control, as I try to demonstrate there through 2030, in particular. There are projects, but they're basically brownfield projects. Alemão is a bit more so. But the risk profile is very different to if I was having a chat to you about whether I got a deal for you, \$6 billion up in the Andes, it's going to be great. So, you know, we have the infrastructure, an underappreciated asset from my perspective as well. The workforce is perhaps the most almost irrationally exuberant and loyal that I've seen in the industry. Just like they love wearing the shirt, they love the association. And that talent of engineers and others that we essentially utilize throughout, and we see this in Indonesia as well. You know, it's actually an underappreciated differentiator.

So to answer your question, I think the work the team has done in the CTO, in combination with my COO, the operators stepping up and really wanting to show what they can do, is creating an energy, I use Vinicius as an example with Sossego.

Usually, the end of life is like really challenging because the bottom of pits, they're very congested, but the work that he's done with engineers to actually help them improve their time on machinery, the utilization, the availabilities, dramatically lowering its cost structure, he brings that into the projects.

So, when you think Brownfield those demonstrated capabilities enhance our ability to unlock value, not just in our technology centers, but really with our operators that will execute. It comes down to the soft components. And I think we're better now than we were a year ago. And we'll continue to focus on that.

Luciana Oliveti: Thank you.

Fiona Perrott-Humphrey: Fiona Perrott-Humphrey from Rothschild's. Can I move to the market for Iron ore? Very good presentation indeed. Lots of granularity. Could I ask for your views on two trends that we see now. One of them is the new ore coming out of Simandou and where that fits in and what it might do?

And the second one is the geopolitical tensions between China and the West, and what that seems to be doing to some customer relationships between China and a certain big competitor of yours?

Rogério Nogueira: I think Simandou is it's probably the most important change in the industry as we know it. The point being is that Simandou will come to the market gradually. The expectation, the general market expectations that Simandou will come with 20 million tonnes only in 2026, and it will take up until the end of the decade to get to 120 million tonnes. In the meantime, I think we expect that depletion will offset some of this additional volumes that will come with the Simandou. This is from a volume point of view, from a quality point of view, Simandou is a very high-quality Iron ore. It has a very high Fe content. But that diagram,

alumina silica diagram that I just shown in the presentation. It's very similar to our IOCJ. So despite the fact it's low alumina, it has a very high alumina to silica ratios and it needs to be blended with other kinds of Iron ore so that it gets into the ideal, I would say the sweet spot for blast furnace operators.

So, for example, if you just blend it with iron ore from Australia, you sort of get some of the Fe benefits, but you won't get the alumina silica benefits. So they still need to blend with some other different kinds of ores. And that's then going back to what we're talking about. Once there is a new product coming into the market, our ability to move and shape what we are supplying can, help us reposition the relative values of iron ores. So Simandou is really very important, but we feel that Vale is probably in a unique position to sort of counterbalance the entry of Simandou.

The second question, in relation to the geopolitics, I think the point is on a global basis, I don't know. Iron ore and Steel would still be produced. The question is where it's going to be produced.

Now with the US under the 232 Section, with Europe with no tariffs and quotas, 50% tariffs and 50% new quotas, we believe that a lot of the Chinese exports, which are currently actually going to these markets, they're going to decrease, China will decrease the level of exports and more steel is going to be produced in Europe, in the US, in South America. So there's going to be a rebalancing of where steel is going to be produced. Interesting, for us at least, these markets, which are closer to the western side, are markets which are more favorable for Vale. And not only that, once you need to have Europe going back and increasing its production, they will need more productivity. In that sense, it is better demand for agglomerates such as pellets. It is better demand for higher grade iron ores.

So all in all, I think we see a stable market in terms of demand. It's just with the repositioning, with more demand for higher grade iron ores closer to where Vale is. So the ultimate, the ultimate result, we believe, is going to be positive for Vale.

Luciana Oliveti: Thank you, next.

Myles Allsop: Yeah, thanks. It's Myles Allsop, UBS. Thanks for the presentations.

I'm probably one of the biggest developments that we haven't really talked about today is the cash returns that we've started that process of returning cash to shareholder if you're right that iron ore holds \$100, you'll have more decisions to make around cash returns. Maybe. How should we think about it? Between dividends versus buybacks? And should we expect every quarter if net debts or Expanded net debt debt is below 15 is potentially a check and a post?

Marcelo Bacci: Well, thank you for the question. I think the decision is more on a semiannual basis than rather than on a quarterly basis, given the volatility and the and the seasonality that we have. But on every half year, the analysis that we do, I think the most important KPI to track is the Expanded net debt. So, if we are below 15 or trending below 15, we have better conditions to pay cash returns.

The decision between dividends and buybacks. I think at this point, this year, specifically this year, we have an important change coming on taxation of dividends in Brazil that favored declaring dividends right now, that would be exempt. So that's why 100% of the additional amount this year was allocated to dividends. For the coming years, we can expect a more balanced approach between dividends and buybacks.

Luciana Oliveti: Next question.

Lucas Laghi: Thanks for the follow up opportunity. So, my question is linked to to Myles's question and it's just to discuss the Expanded net debt range policy, right. In light of this drop of the non-financial liabilities proportion within the expanded net debt concept over the next few years, when do you think would be the appropriate time to potentially consider a revision of that expanded net debt range policy? And could that come, hand in hand, with a change in your dividend policy or, you know, perhaps adopting a more robust buyback program?

Thank you.

Marcelo Bacci: I think as I mentioned in the presentation about the commitments this year of 26 and 27, we still have combined \$4.5 billion of commitments to be paid. So it's important at this point to keep the expanded net debt concept. I think the timing for a revision would be more towards the end of 27, and I think at that point, the difference between the expanded net debt and financial net debt would be very small. So that would be maybe the ideal timing for discussing coming back to the original concept.

And at this point, we have not discussed any potential change in the dividend policy as a consequence of that. But I think the chances of revising the net debt rule are present and will be present in two years time.

Luciana Oliveti: Next question.

Daniel Sasson: Thanks for the follow up opportunity. Shaun, Rogério mentioned that he thinks that the \$100 per tonne level for Iron ore price is not sustainable given supply and demand dynamics. I'm just curious about what do you consider to be long term copper prices, or how do you think about them in order to approve new expansion projects, and specifically about the expansion projects in your presentation it was super clear, the low CAPEX intense per ton for your projects, the opportunity that you have there, what are the maybe the bottlenecks for you to accelerate that expansion? Or is there any chance, because it doesn't seem to be a CAPEX problem, right? Bacci is there, he would be happy to give you money to for those accretive projects. Are there any chances that you could speed up those volume increases expected to 2035?

Shaun Usmar: Short answer is yes. You know, we're obviously not guiding that way. The work that our team has done, even this year is very much centered around what are the you saw, 118, when we actually stepped back and we look at fresh eyes, we look at execution methodology, redesigning our surface footprint, the quantities, the volumes, the amount of earthworks, displacement we have to do. All of that feeds through into how you think about risk and reward as we move forward.

So, the team is fundamentally doing that. And I mentioned before, we're looking we're well advanced on these 200-page documents because the market hasn't seen our assets and also hasn't seen some of these projects in any detail. So, we'll be working with the Vale team to look to publish those in the new year, to equip the teams to do that.

But I also think as we start looking and we get the drill results we're seeing, I think you're going to see an iteration not just in the possibilities that it unlocks, because, as you'd appreciate when you've been looking for shallow open pits and turns out the drill results are just received on my call earlier are deep, but they're really good. I think there's a possibility to look at even further organic growth in the future, which I think is very exciting. And, you know, the social piece is that barrier. So, it's we have four core pillars in our business. Emily leads it for us.

It is embedded now in our operators frameworks, and we're making sure that the incentives and how they think about the social value we bring over and above just the financial value is there. We're at the early stages, but I do think that it's not good enough to just see it on a screen, as a department. It has to be embedded and it is. So it's core to our strategy.

And sorry, on your first.

Daniel Sasson: Prices.

Shaun Usmar: Oh yeah. Yeah, there's a reason I forgot that one.

Look, I wouldn't at this stage I've been my last business was essentially investing in the mining space. And I usually try to understand from a long-term capital allocation point of view, how do we reflect our views on pricing relative to where the market is? Usually, it's not great to bet against the market, but having said that. I think when you've got such a buffer and you're executing, it gives you a lot of flexibility and freedom, we have to get our operating costs low. We're in the right end of the curve and there's no copper price scenario that I see in any of the punters out there, that would actually detract from the sort of returns in the investment that we're looking at. It is not a capital constraint, we're one times, less than one times net debt to EBITDA. So I don't have to go to a much yet. And, you know, I think the copper price, if anything, has asymmetry to the upside. And the reason is the sector is struggling to deliver like the inducement price, you can do that math. It's. I don't understand it.

Gustavo Pimenta: And Daniel, if you look at the health IRR that we were able to show, I think that gave us a lot of buffer to navigate even substantially lower prices. Right. So that gives us confidence to move ahead with those projects, even at lower prices.

Marcelo Bacci: And those were calculated with prices below the spot. So, there's still.

Luciana Oliveti: Thank you everyone. Time for one final question. Thank you.

Carlos De Alba: Thank you very much. Carlos, you have been, I guess, doing a great job on the Iron ore business because not a lot of questions there, right?

But maybe if you think about going forward, what aspects you still would like to really focus on delivering a sustainable strong performance with safety that you think maybe you didn't explore as much in the presentation and that you see that is achievable in the next two years?

Carlos Medeiros: Well, I believe that our next steps in terms of performance, first, there is still room for further stabilizing our production. In other words, meaning, I mean, with the existing assets, I truly believe that we can still produce a bit more provided, you know, some conditions are satisfied. And my team and I are working on it. So, I believe there is still room for that.

Second, the briquette comes high on my list. So, we've been making progress in the briquette line, but we're still not there yet. There is a fundamental milestone for us at the rear end with a new dosing system there. We have been producing great Direct Reduction quality, and I think we just now have installed the fourth briquette machine in the same line. So, I believe this with our new mix that should be around by October, November next year, would be the final step for the briquetting line.

Besides all this, there is important work to be carried out for us to gain more productivity in our in our railways and ports. You know how to do more with, with the existing assets. And during this year we revisited the operational model at our ports and we are taking important steps to debottlenecking, particularly the Tubarão port. And we managed in both railways to reduce our cycle time.

This is key for us to cope with the additional volume I believe will be coming up from the northern system as well as from the Southeastern System and the model plants that you saw today, because I think these will be a really a breakthrough in high quality feed being produced in different quantities. So historically, we used to have our split as 50% Direct Reduction and 50% Blast furnace. Now, without the plant being fully operational, we are running at 75-25 and there were weeks that we are running at 90% Direct Reduction. So what's going to be when it's fully operational? I don't know, what I'm sure is that with the technology support, I don't know what the limit is, but what I do know is that we'll be capable of producing substantially more high value added products in our processing plants like Conceição II, Vargem Grande and Brucutu. And this will have an important financial contribution to Vale results. I think it's pretty much in these areas.

Luciana Oliveti: Thank you very much. With that, we conclude our Q&A session. Thank you everyone and our management team and the board members will be available for those in person here in the next 30 minutes. Gustavo.

Gustavo Pimenta: Thank you very much. Thanks again for your interest. Everybody connected here. It's been a pleasure. Now, I think you understand why I'm so optimistic about the future. Thank you again. Have a great day.