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Tronox Holdings Plc (TROX)

Investor Day

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MANAGEMENT DISCUSSION SECTION

Jennifer Guenther

Vice President-Investor Relations, Tronox Holdings Plc

Good morning, and welcome to Tronox's 2022 Investor Day. It's great to see so many of you here in person with us in New York, especially given the weather. We really appreciate you joining us. For those joining via webcast, we're also glad to have you virtually and we hope you can hear and see everything clearly.

I'd also like to extend a special welcome to two of our board members who've joined us here in person, Ilan Kaufthal, and we also have another one, I think he's going through the rigorous security process for the stock exchange, so he will be joining us, Stephen Jones as well. Thank you both for being here today.

My name is Jennifer Guenther. I am the Vice President of Investor Relations for Tronox. Today, we will be sharing with you our long-term strategy and how this clearly differentiates Tronox, not only as a TiO2 company, but more broadly. We will also share with you how our differentiation is driving our expectations for continued, robust financial performance. We've put a lot of work into these materials to help educate the financial community and improve transparency. We will also be providing updated long-term goals. I hope today will be very valuable to you all.

Turning to the next slide, I'd like to start off today with a safety briefing. At Tronox, as you'll hear several times today, we always begin with safety to keep it top of mind for our employees. In fact, it's our first core value at Tronox and one that we strive to live through every day. There is a safety team on staff here at the Stock Exchange who are staffed at all times, and we'll provide instructions in case of an emergency. If an alarm does sound, please stand by and listen to – for instructions from the safety team while they investigate. They will keep us informed.

It's always a good practice to identify emergency exits anywhere you are, particularly when you're somewhere new or unfamiliar to yourself. If it is necessary to evacuate, I call your attention to the exit door in the back of the room and also to my right. There are three exits, emergency exits, from this floor. The preferred exit is fire tower A, which is found in the elevator lobby you came through, through the back door, and we would be escorted through by the fire warden. The second preferred exit is out the back room and just down the hall to the right. The third exit from a preference standpoint is through these doors to my right, or your left, down the hall and to the left.

The rest of the procedures on this slide are generally good practices in an emergency: walk briskly, do not run; use elevators, do not use stairs; be cautious when opening doors, feel the handle with the back of your hand to make sure it's not hot before you grab it; in the stairwell, stay to the right, let emergency personnel come up the left; exit the building, make sure you move at least 150 feet away; and do not re-enter without an all-clear. We genuinely hope that we will not have to put these procedures into practice, but we did want to make sure you all are oriented in case there is an emergency.

Additionally, we've provided masks to all attendees. They are not required to be worn, but if it makes you feel comfortable, please feel free to wear them. There's also hand sanitizer located throughout the room for your use. Restrooms are through the back door, men's is to the right, women's is just straight and on your left. If you need anything today, please feel free to reach out to myself or my team member, Barbara Granata, who's here in the front, we can assist you with anything you might need.

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Going to the next slide, as always, a friendly reminder that we will be making forward-looking statements in today's presentation. So please familiarize yourself with the disclaimer on the screen. These forward-looking statements are subject to various risks and uncertainties, including but not limited to the specific factors summarized in our SEC filings. This information represents our best judgment based on what we know today. However, actual results may vary based on these risks and uncertainties, and we make no obligation to update or revise any forward-looking statements.

In addition, we will be referencing certain non-US GAAP financial terms that we use in the management of our business and believe are useful to investors in evaluating the company's performance. Reconciliation to the nearest US GAAP terms can be found in the appendix to today's presentation.

Turning to slide 5, today, you will have the opportunity to hear from seven other members of our executive team. We will begin with an overview by Jean-François Turgeon and John Romano, our Co-CEOs. For some of you, it will be the first time you're getting a chance to meet JF and John in person and see how their experience, knowledge and approach to running Tronox together really is a positive differentiator.

Their session will be followed by a review by Missy Zona, our Chief Sustainability and Human Resources Officer, of our sustainability efforts. You will then hear from Jeff Engle, our Head of Commercial, who will provide an overview of our commercial approach and how this positions us to win. We will hold our first Q&A session after Jeff's presentation, and we'll take questions from both the in-person audience, as well as questions that come through the webcast.

After the Q&A session, we'll take a short bio and refreshment break. After the break, we will resume with a review by Russ Austin, our Head of Operations, on how we are transforming our operations with our operational excellence program. John Srivisal, who heads Business Development and Finance, will follow Russ with a presentation on investing in our assets to discuss our key capital projects.

And finally, Tim Carlson, our CFO, will review our robust financial performance, which I suspect many of you have already peeked at, but you will have the chance to hear from Tim on the drivers and path to achieving our new long-term targets. JF and John will then close the presentation before our second Q&A session. For both Q&A sessions, we will be taking questions in the order they come, and you can submit questions any time through the webcast for those who are listening virtually.

With that, I'm happy to welcome JF and John to the front.

John D. Romano

Co-Chief Executive Officer & Director, Tronox Holdings Plc

Thank you, Jennifer.

Jean-François Turgeon

Co-Chief Executive Officer & Director, Tronox Holdings Plc

Thank you, Jennifer, and good morning, everyone. We're very happy to be here with you today for our Investor Day. I'm Jean-François Turgeon, but you can call me JF. I'm the Co-CEO along with my colleague and friends John Romano. Tronox mine and the earth's minerals and process key material like titanium oxide, zircon, iron that are essential to make paint and quality of life product. Without TiO2, the world we lived in would be very different.

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About me, I'm Canadian. This explain the funny accent. I joined Tronox in 2014, and before that, I work 24 years – 25 years for Rio Tinto, the mining company. I start in their TiO2 business and I was leading the TiO2 Industrial Mineral Division when I moved to Tronox. So, I have spent 33 years of my life working in TiO2. At the end of 2020, John and I started as Co-CEO of Tronox. You may wonder how does it work having two CEO. All true, John and I are separate individual, we function and we work as one. When making important decision, we discuss, we review all aspect beforehand and agree to the best outcome for Tronox. This make it easy for us and it makes the dynamic of us working together very easy.

And on that, I will let another TiO2 expert, as passionate as me, talk to you about this industry. John?

John D. Romano

Co-Chief Executive Officer & Director, Tronox Holdings Plc

Thanks, JF, and good morning, everyone. And again, we'd like to thank you for joining us for what is now our second Investor Day, and we're all very excited to be here with you today to share the progress that we've made and the plans that we have to continue transforming Tronox into what we believe will be a long-term investment for all of you.

So as JF said, my name's John Romano and I'm the other Co-CEO of Tronox. And again, that may sound a little bit unorthodox, Co-CEOs, but JF and I have been working together for many years. We have a great working relationship and we each bring our own unique strengths that contribute to the work that we do together to set the strategy and drive the direction of the company. And since we came together in this role late in 2020, the company has been performing very well. But ultimately, we'll be judged based on the results that we generate for you moving forward.

So just a little bit about me, I started with the company back in 1988 as an accountant and over the years, I've transitioned into a variety of different roles in sales and marketing and strategy. So, this is my 34th year with the company, and I've seen Tronox evolve significantly over that 34-year period. But I've never been at a point in time in my career where I've been more confident about our transformation and the direction of that transformation with regards to our earnings potential as I do today. And JF and I are very proud to be leading that transformation, and we're aligned on every aspect of our strategic plan. And over the course of the next several hours, we'll spend some time with you reviewing some of the details that are pertinent to that plan.

So, today you're going to hear – if we go to the next slide – you're going to hear a lot about differentiation in all of our presentations and that's because we truly believe that Tronox is differentiated from our competition. We're the world's largest vertically integrated TiO2 producer with a history of strong, sustainable financial performance and growth. And in 2019, when we completed the acquisition of Cristal, that was a big part of that transformation. And since that acquisition, we have a proven track record of execution and delivering on our commitments.

And Tronox really does carry some significant differentiators that set us apart from our peers, namely our vertical integration and the diversification of our product portfolio, which is further supported through innovation and technology in both product and process development. And this enables us to continue to reduce our costs, optimize our product offering, and improve our margins. And our employees, they are absolutely a big part of our differentiation, and they're unwavering in their commitment to safety, sustainability and operational excellence. And quite frankly, those three things have been the catalysts that have allowed us to continually outperform on our ESG, operational and financial targets.

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And finally, over the last several years, we've been very focused on rapidly paying down our debt to strengthen the balance sheet while maintaining disciplined capital allocation and at the same time generating meaningful cash flow to support long-term growth and returns for our investors.

So with that as a backdrop, we're now going to transition on to two very important elements of our strategy, and that is our people and our values and our commitment to safety, and JF is going to walk us through that.

Jean-François Turgeon

Co-Chief Executive Officer & Director, Tronox Holdings Plc

Thanks, John. At Tronox, we firmly believe that living our value unleash our full potential and set us apart from our competitor. All of our team member are trained to work with an outward mindset. This is part of our culture to help people work better together. We are committed as a leadership team and as a company to this strategy, and it impact everything we do as we work together to deliver safe, quality, low cost, sustainable ton.

First and foremost, we are focused on operating safely and responsibly across all our site, from our mining operation and our plant, to our office building. We set high expectation for ourselves and each other and our share accountability start from the senior leadership team onward. It has enabled us to outperform across our entire business and create value for our stakeholder. This is evident in the safety, sustainability and financial performance of our global operation. Together, when we live and field our value, every minute, hour and days, we are able to accomplish great thing. And talking about great thing, I will move to the next slide.

We lead with safety, and it is our first priority and one of our fundamental value and a way of life at Tronox. Our uncompromised focus on safe, reliable and responsible operation has allow steady improvement in our safety performance. But we're always striving to be safer with zero injury, zero incident and zero harm. And I can tell you one thing, a safe operation is a performing operation. With a rigorous approach to safety, including the safety of our people and process safety, we analyze every incident and we learn from those so we can continuously improve our operation.

So, with that important point behind us, John will now talk about the transformation of Tronox and how this transformed the TiO2 industry.

John D. Romano

Co-Chief Executive Officer & Director, Tronox Holdings Plc

Thanks, JF. So, as JF said, safety has and will continue to be core to the way we operate. But since we acquired Cristal back in 2019, the company has gone through some significant transformation with regards to certain elements of our business, particularly in the area of synergies where we exceeded our 2020 synergy targets by more than 103%. And in 2022, we actually achieved our 2022 synergy targets more than two years ahead of time. And that same year, we launched Project newTRON, which has and will continue to be transformative to the company, and we're going to spend a lot more time detailing out some of the benefits of newTRON a little bit later in the presentation.

So, 2021 was one of our best years on record with records across several aspects of our business, starting with safety, where we had one of our best years ever. And it was the 10th year in a row where our employee plus contractor total injury rate was lower than the prior year, which is a significant step forward on our journey to zero harm for our organization.

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We raised the bar on our ESG initiative by setting aggressive targets and a goal to be carbon neutral by 2050, and we returned more value to shareholders through an increased dividend and announced a significant share repurchase program. While all that's in the past, 2022 is proving to be a milestone year for Tronox as well.

In the first quarter of this year, we achieved our 20th quarter of consecutive EBITDA margin north of 20% and an average of 25% over that same time period. And we're on track to continue that same path moving forward. We reached our lower interim debt target of $2.5 billion. We guided to an EBITDA in 2022 of north of $1 billion and added an additional 25% to our dividend, returning even more value to shareholders.

Our operations that we're working with Tasnee in Saudi Arabia, Jazan assets, started producing its initial slag. We're now using that slag to make TiO2 pigment at our plant in Yanbu, which is in Saudi Arabia.

And finally, we advanced our accelerated greenhouse gas emissions targets just one year after setting our initial targets due in part to a project for renewable energy in South Africa, where that one project will reduce our CO2 emissions in South Africa by more than 30% by the end of 2023. And this has really created some excitement around the organization to look for more opportunities to make significant cost-effective step changes in our CO2 emissions. And there's a lot of really good work going on in that area.

So, if we can turn to the next slide, you can see how all of the transformative actions that we've taken since 2019 has created a larger, more diversified company that's better able to weather macroeconomic challenges. The combination of these two companies significantly improved our global footprint, which has allowed us to better serve our customers now with regional operations on six continents. We more than doubled our capacity of TiO2 and added an additional 35% to our zircon capacity. We optimized our vertical integration to 85%, ensuring supply for our own use and for our customers. And at this level of vertical integration, we'll be able to continually run our smelters at full capacity through a range of macroeconomic conditions, which has further supported our margin stability initiatives.

In 2021, we grew our EBITDA – our revenue to $3.6 billion, and we've established a clear path to $4 billion in 2022, while significantly paying down our debt and achieving our leverage of 2.5 times. And as a result, Tronox is now a stronger company than it was in 2019, and we're confident that that positive upward trend will continue.

Jean-François Turgeon

Co-Chief Executive Officer & Director, Tronox Holdings Plc

The transformation John just talked about for Tronox to become the world largest vertically integrated TiO2 company and the second largest producer of zircon, a co-product of mining TiO2. With a wide geographic footprint and approximately 6,500 employee around the world and a well-balanced customer base with just about 1,200 customer, Tronox is truly a global leader. Vertical integration, product mix and geographic footprint are key element that differentiate Tronox apart and will be foundational to the company long-term financial performance.

Environmental, social, governance, ESG, it's very important today in order to be a successful business. Tronox has always been focused on ESG initiative, taking responsibility to be a good global citizen. Throughout our operation, our teams strive to make positive impact on the environment and the community around us. As you can see from some of the highlight on this slide, our reduction in carbon intensity, our community investment, and in our governance. I mean, operating responsibly is not an option in our view. It is the way we do it at Tronox. It's how we earn the privilege to operate. Tronox have concrete example that show that ESG is something that we're not just talking about, but we make it a reality.

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We recently publish our Sustainability Report. Missy will cover in more detail today, but we invite you to review it in your own time. It cover a lot of the ongoing, important project and effort at Tronox and that is we're very proud of all that work. A concrete example of this commitment is our new mine in Australia, Atlas Campaspe. It will be powered by green energy. You will see in the report that we are significantly increasing the reduction on our target.

And I'm now going to turn it back to John so you can outline our strategy.

John D. Romano

Co-Chief Executive Officer & Director, Tronox Holdings Plc

So, we're going to talk a lot about our strategy today, and I mentioned it in my opening comments, and that JF and I were aligned on every aspect of that strategy and producing safe, quality, low cost, sustainable tons for our customers is a core part of that strategy. And our five strategic pillars are dedicated to that which has enabled us to be an advantaged global TiO2 producer.

So our first pillar is foundational, which is our pursuit to be the lowest cost producer of high quality pigment, while focusing on investments that optimize our margins so that we can continue generating returns above our cost of capital. Now, the second and third pillars drive our distinct advantage, specifically, our vertical integration, which enables us to run our feedstock assets at full capacity, which is a significant cost advantage, because we internalize all of that feedstock for our own use; and maintaining our leading global footprint to support our customer-focused approach, which is centered around margin stability, along with the additional profit contribution from zircon and other products. Together, these elements of our strategy enable us to realize enhanced stability, optimize our margins, and minimize our risks.

And our fourth pillar is our focus on being a TiO2 leader to drive continuous improvement in our product portfolio while leveraging technology enhancements such as newTRON to ensure that we're optimizing our business model for the future. And our fifth pillar, our people, our culture and our capabilities. And this is what's going to allow us to execute on that strategy, and you're meeting some of the additional people on our team today. We brought more of them in, and they're a core part of that strategy. And we've spent a lot of time focusing on our people, because if we don't have the support of the right team, we won't have the ability to meet our commitments. So, our strategy, it drives our ability to leverage our unique portfolio, retain and attract the right people, and optimizes our assets to secure our position as the most adaptable, resilient TiO2 producer with industry-leading financial performance.

Jean-François Turgeon

Co-Chief Executive Officer & Director, Tronox Holdings Plc

John talked about our strategy and the fifth pillar of that strategy being our people, culture and capability. One of Tronox's key strength is the experienced management team that are all passionate about everything in our strategy, and achieving our long-term plan and goal. Our leader, some of who have been with Tronox, our predecessor company, for over a decade have significant industry expertise and the core executive team has largely been in place since 2019 when the company transformation initially began.

They are a group of expert in their field that work with an outward mindset to achieve the best outcome for Tronox. I could tell you a lot about all of them, but even better, they're all here with you and with us, several are presenting today, all of them will be available at the break and at lunch so you could mingle and get to know them directly.

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We are also fortunate to be guide by a board of director with deep expertise in subject that are critical to the company success, such as mining and chemical, as well as the geographic area in which we operate. Our board member reflect the value that I spoke about at the beginning of this presentation. They are a group of diverse people, from experience to gender to ethnicity, who honor our responsibility to create value for our stakeholder through safe and effective operation.

One of example of the execution of how we work with this group of people is the strategy and the elaboration of newTRON. Their advice help us focus on our value – on creating value from this and reducing the risk on this project. The same apply for our discussion on ESG. John will now cover how this experience group of people has allowed Tronox to transform the TiO2 landscape.

John D. Romano

Co-Chief Executive Officer & Director, Tronox Holdings Plc

So, you're going to see this chart a little bit later in the presentation when Jeff Engle presents, but we wanted to take a minute and highlight how the TiO2 industry has gone through some significant change over the last several years. So, the dark blue line in this chart is our volume index and the light blue line is our pricing index over that same time period. And you can see how the volume over this 10 year period has remained pretty consistently volatile, but pricing has become much less volatile, specifically over the last three years – three to five years. And we believe that our margin stability initiatives have played a significant role in shaping this shift away from volatility to more stable pricing and margins for Tronox, while providing more stable cost and supply for our customers.

Now, the shift is also [ph] constructive (00:26:46) with a structural supply shortage of high grade feedstock and ilmenite, due in part to a lack of investment in that part of the business from other participants, which has led to ilmenite prices well above $400 per metric ton, plus the increased freight and materials costs, which has led to help support the trend towards higher pricing starting at the beginning of 2021. And this structural supply shortage of feedstock has now really highlighted the value of our vertical integration and our customers have come to recognize that value, which has helped us with the execution of more long-term global contracts, which will secure our volumes well beyond 2022.

So, if we can turn to the next slide, you can see on this slide, as I referenced earlier, that Tronox has now delivered 20 consecutive quarters of adjusted EBITDA. And since the fourth quarter of 2020, we've consistently been above 25%. And we're on track to continue this trend. And I'll expand on that point a little bit later when we give you our financial outlook, but this is a great example of the work that the company has done to transform our business through our commercial projects and our capital projects so that we can continue to reinvest in the business across a variety of economic environments.

Jean-François Turgeon

Co-Chief Executive Officer & Director, Tronox Holdings Plc

This performance set Tronox apart. As you can see from the EBITDA margin and the free cash flow conversion on this chart, Tronox business model is clearly differentiate with a high degree of vertical integration unmatched by our peer. Our costs are lower with the feedstock that we produce internally by $300 to $400 per ton compared to market price, with additional upside from our co-product like zircon and pig iron and favorable tax attribute. This has support a high EBITDA margin and a consistent free cash flow conversion over time.

Moving to the next slide, at our first Investor Day in 2019, Tronox introduced long-term financial target. Today, we have largely met those target, delivering on several of them early. As in the case of the Cristal synergy, first on

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this slide, you can see that we have delivered $243 million two years ahead of the expected time. We have also reduced our debt and net leverage. And as John and I mentioned early in the year, we were very excited about paying down our debt, and we have paid $1 billion recently.

With respect to our financial target for 2020, the goal were met in 2021, one year later than expected. All of that is to say that we are executing against our commitment and our target. And John will introduce to you our new target for 2025.

John D. Romano

Co-Chief Executive Officer & Director, Tronox Holdings Plc

So, today, as JF said, we're introducing our financial targets for 2025 and we're excited about these targets and we believe they represent achievable targets, but one that will require focus and executing on our strategy to deliver on. And Tim's going to spend some more time detailing these out a little bit later in the presentation, but we wanted to give you a preview.

So, for adjusted EBITDA for 2025, we're planning to deliver in the range of $1.3 billion to $1.5 billion with margins above 30%. And JF and I are confident that we can execute on these targets. From a capital expenditure perspective, we're expected to be in the range of $250 million to $300 million on a normalized basis after projects like newTRON and vertical integration for growth have been completed.

We expect this business to generate significant free cash flow in the range of $750 million to $850 million, and we'll deploy this cash across our capital priorities that I'll review with you here in a few minutes, but one of those capital priorities will be to reduce our debt. And today, we're setting a new net leverage ratio of 1 to 1.5 times, with a target to be less than $2 billion by the end of 2025. Now, these debt targets are aligned with our strategy to continue to de-leverage our balance sheet while preserving our ability to return cash to shareholders through dividends and share repurchases.

And as a final note, these numbers do not include the Jazan asset, which provide additional opportunity to provide returns for the company, and JF is going to touch on Jazan here in the next couple of slides.

Jean-François Turgeon

Co-Chief Executive Officer & Director, Tronox Holdings Plc

Our confidence in our ability to meet these financial goals is underpinned by investment in several grow enabler project. We expect return of more than 25% from ongoing reinvestment in our base business and potential opportunity in other innovative market that supports sustainability like carbon capture and investment in rare earth extraction. The continued implementation of newTRON, our project to standardize and automize Tronox, is expected to generate significant run rate saving through optimized operation across the business. And finally, favorable tax attribute from our global footprint and investment in key capital project such as mining extension, product development and potential processing capacity extension will enable Tronox to maintain its advantage vertically integrated over the long term period.

Turning to the next slide, I want to circle back on Jazan, one of those grow enabler project. In 2019, when we closed the transaction with Cristal, we carve out the Jazan smelter from the broader Cristal transaction, as the new smelter technology has not yet been proven to work. The smelter at that time had not produced any significant amount of product. We agreed to loan Tasnee $125 million to modify the plant and support it technically. We signed a separate agreement stating that if Tasnee is able to achieve sustainable operation, we

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would acquire the Jazan site for the $125 million that we have loan and the assumptions of the $322 million of debt.

Just for comparison, investing in an asset like Jazan today would cost well over $1 billion. I can tell you from this picture. I'm happy to report that the modification we made on the furnace and our technical support has allowed the site to start producing slag and iron. We've been successfully using the slag at our pigment plant in Yanbu at a time when feedstock is in short supply for the TiO2 industry.

Jazan is expected to be the next step for Tronox to grow its vertically integrated position if it continue to prove successful. Jazan open up the possibility to use ilmenite that would not be usable without smelting. In the coming month, we will continue to evaluate the operation of the plant to validate its ability to reach sustainable operation and ultimately how best we would optimize the asset in Tronox portfolio. Jazan will allow Tronox to grow while maintaining the advantage of vertical integration.

John Srivisal will discuss more on Jazan later in the presentation this morning.

John D. Romano

Co-Chief Executive Officer & Director, Tronox Holdings Plc

So, the last thing we want to touch on before we wrap up this portion of the presentation is our capital deployment. We plan to focus our capital allocations across three key areas: growth, returns and the balance sheet. So, growth will be supported through capital expenditures on key initiatives like newTRON and capacity expansions to maintain our vertical integration.

And while our company will have greater capital requirements for the next several years to support the growth initiatives we have going on now, our normalized CapEx will be in the range of $250 million to $300 million from 2025 onward. And our hurdle rate for that capital will be 25% at a minimum, but most of our projects are achieving much greater numbers than that. And Tronox will also to continue to evaluate strategic acquisition opportunities as long as they support and are in line with our long-term strategy. And returning value to shareholders through dividends will remain a priority for Tronox and will be evaluated annually along with share repurchases. And Tronox still has $275 million remaining under its current share repurchase program through February of 2024.

And finally, I mentioned it before, I'll highlight it one more time. We're going to continue paying down our debt, with a new net leverage ratio of 1 to 1.5 times and a goal to reduce our debt below $2 billion by the end of 2025.

JF, wrap up?

Jean-François Turgeon

Co-Chief Executive Officer & Director, Tronox Holdings Plc

We want to reiterate a few key point. Tronox is a world-class operator with a clear demonstrated track record of execution and strong competitive differentiator, including our 85% vertical integration. Tronox's transformation has transformed the TiO2 industry. The company is truly differentiated to enable success and we are fully committed to living our value to operate safely and sustainably through operational excellence. And we will continue to invest for profitable growth. We're excited about where Tronox is heading and we think you will be too, after you had the chance to hear from more of our executive team this morning.

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And with that, I'd like to welcome our Senior Vice President and Chief Sustainability and HR Officer, Melissa Zona. Missy, as you will see, is passionate about sustainability and people. We could not have chosen a better leader to progress those important element of our business. Missy?

Melissa Hammonds Zona

Senior Vice President, Chief Sustainability & Human Resources Officer, Tronox Holdings Plc

Thank you, JF. Good morning, everyone. My name is Missy Zona and I am the Chief Sustainability and Human Resources Officer for Tronox. And like JF, I have a very noticeable Northern accent. To clarify, it's a Northern Alabama accent. I joined the company in 2018 and have nearly 25 years of experience in the specialty chemicals and now mining sectors. And I currently lead the strategic [audio gap] (00:39:10) portfolio of global functions, including ESG, human resources, communications and more. In all of these, I value investing in high-performing people, investing in talent and leading in a way that compels the organization to consistently exceed high expectations.

I began my career in operations initially as a unionized chemical operator at a specialty chemicals company, and then I crossed over to serve as the company's liaison during a high profile legacy environmental site. That became the basis, that operations became the basis that encompassed background and leadership, issues management, safety and environment, cultural transformation and engaging stakeholders.

Today, decades later, I look at these experiences and how they converge to become the basis of Tronox's broad sustainability platform. It's the aspects of our business that are designed to preserve our privilege to operate around the world every day. And that requires trust, integrity, engagement and action. The joy of this work is that I get to give voice to the 6,500 people of Tronox and sharing their successes within our broad view of sustainability with you today.

I believe you'll see that in our 2021 Sustainability Report that was released this week, truly captures the spirit of Tronox. But to us, it's more than a collection of great works, data points and high expectations. It showcases the heart of who we are. The enthusiasm that surrounds the elements of this platform have created remarkable momentum, and throughout the day, you're going to see how that energy and the commitment to sustainability is embedded throughout our organization.

Now, as I walk through these five points with you today, you're going to see that sustainability is a natural way of work for us because we know that that integrated approach is how it supports our priority to grow our business and do so in a way that creates lasting value for you and all of our stakeholders, and we do that while earning that privilege to operate, I spoke about, every single day.

Today, I'm going to talk through our commitments, the intentional investments that align with our goals, and that empowering sense of purpose in our work that builds our long-standing positive impacts in the communities, challenges us to find improvements with sustainable outcomes, and realizing that leading with safety and investing in our people is what brings all of what you'll here today to life. A mindset of sustainability has long been part of our ways of working at Tronox and across all aspects of our business, because we know that the mark we leave behind goes well beyond the minerals that we mine and the pigment that we manufacture.

Our vertical integration starts with mining the earth, which means our connection is commitment to seeing it flourish. So, we truly start our operations with the end in mind. JF reviewed our values with you and we hold each other accountable to them as our commitment to one another individually and as a whole because these values and this culture is how we protect one another and exceed our own high expectations. So, when you saw that strategy slide that John Romano put up and the pillar that notes that people, culture and capabilities are one of

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our advantages, I'm telling you it's true. You'll see it today, it's a differentiator and it's made a difference in our sustainability platform, and it's what's enabled us to push ourselves even further.

Our values reiterate our expectations of work, that unwavering focus on operating safe, reliable and responsible facilities, that honor it is to be trusted with your trust to run this company and do it so responsibly. We act with integrity, we're decisive, we are actioning our values and we build a diverse and talented workforce with shared accountability. By living these values, JF said, that we unleash our full potential, and this momentum is the reason we've been able to outperform and accelerate the goals you'll see today.

These were initial targets that we set for last year. And the emissions target was done so with a clear line of sight in what our first steps were going to be toward achieving carbon neutrality in 2050. Let's add that factor that's unique to Tronox that I spoke about, and that's the people. You'll be hearing more about them today, what we can do, and it's why we're here today, updating and accelerating this emissions target. But I'm going to walk through that target in just a moment.

Talking through our other goals, the second one marks our intention to reduce the amount of waste to external landfill. We intend to reduce that 15% by 2025 and 25% by 2030, with the goal of zero waste to external landfill by 2050. For that safety goal, we're always targeting zero: zero injuries, zero incidents, and zero harm. We do this by building capabilities in our plants, our people and our processes, and we strive to work in a way that compels people to lead with safety in all aspects of what we do. And I'm confident throughout the day you're going to hear our Tronox mantra repeated, and that's our goal to produce safe, quality, low cost, sustainable tons. And we start with safe because that's what sets the standard for all the successes that follow.

And our social goal when we talk about our people, our goal is to build a workplace that's even more representative of our local communities with improved gender balance and diversity and where all people feel valued, represented and respected. To achieve these targets, we know we've got to make intentional, purposeful investments in our people, projects and products. So, you've heard me talk about people. We strive to foster a high performance culture, applying an outward mindset which you'll hear even more about today, and living those values while providing a safe, inclusive work environment for our employees. In our communities, we strive to be valued contributors of our local economies, and we also operate while respecting and preserving the cultural heritage with our indigenous communities.

We invest in products that help us meet our targets. This may range from clean energy to investments in circular economy projects and water conservation. You're going to hear from Russ Austin later today, and he is going to talk about a project we call newTRON. He's going to use terms like APC and the things that we're doing to drive operational efficiencies. Know that when he's telling you about those successes, many of them also had positive sustainability outcomes. And finally, we're investing and developing products that help our customers meet their own sustainability goals. And that means that we're looking at technologies of the future.

So not only are we committed to manufacturing our products in a way that protect our people and the planet, but we know that our products are actively contributing to a cleaner world. We see interesting opportunities and growth, creating products that help solve climate-related problems, including how our titanium chemicals business is used in catalysts that allows power plants and diesel trucks to reduce their own emissions. And we even have new paint on the horizon that are actively cleaning the air.

And you've likely heard us use words when we talk about our products like bright and brilliant, and we use those properties and whiteness comes from TiO2 in paints and coatings. That alone can help reducing overall energy use simply by reflecting heat. So, as we mature on this journey of sustainability, the progress we know we're

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going to make, another very unique advantage of our vertical integration is the control that we have over our own carbon emissions footprint. So, we see a very real and tangible pathway and how we can offer low carbon and even carbon neutral products to our customers. We're also benefiting from a circular economy projects, finding reuses and new uses for our byproducts. It's going to help us make that ESG goal that we've set for our waste and will also generate additional value.

Now let's look at what's enabling us to deliver significant results ahead of plan and confidently raise that bar. As I said about our business, we start with the end in mind and we've set our aspirational goal to achieve carbon neutrality by 2050. Now, these last three columns, I can simply sum up quite easily and that is the power of our people, that special ingredient no one else has and it gives you a glimpse of what we can do.

Last year, with the focus on ensuring we had more robust and substantive reporting, we earned the Platinum Rating by EcoVadis for our sustainability reporting. This is reserved for the top 1% of the 85,000 companies that EcoVadis evaluated. It was a significant advancement toward the two years previous where we were awarded the Silver rating, and it validates just how deeply sustainability and corporate social responsibility are within our operations and our culture. But most importantly, our people are passionate about work, both in their communities and at home.

And as a mother of four, and I've spent my entire career in the chemical industry, it's very hard to explain when they ask that question, mom, exactly what do you do at work and what do you make? Because I can't go buy a bottle labeled Tronox and show it to them. But when I have this Sustainability Report, and we collect the great works that this company does, this platform gives us the ability to showcase what we're doing, the positive impacts we're having as a business, and the unique touch that we have in the world. That is something I can show to my family. It's something I can show to my community and we can show to customers.

We do all of this for the benefit of today and for the generations to come. We get to spotlight the brilliance of our teams and ways they build pride in what we do, showcasing that great work. And like I said early, and you'll hear today, unleashing that full potential. But it goes beyond designing that mine of the future. It's more than planting thousands of trees. It's a legacy we can be proud of and know that we're building a better tomorrow. This platform is the convergence of positive culture, high expectations and inspired talent. And in just one year, their outperformance has forced us to revisit and accelerate our greenhouse gas emissions targets.

So, when you look at this target, we set an aspirational goal to achieve carbon neutrality by 2050. Our interim goal was to reduce 15% by 2025 and 35% by 2030. Today, as a result of the passion and momentum of an organization, we've identified more opportunities to reduce emissions and bring additional hybrid energy to our operations. This gives us confidence we will meet and exceed those old emissions targets well advance of schedule. And for Tronox, when we set this out, it quickly became more than a goal. It became our values in action. And for the Tronox, I know, that means pushing beyond our own high expectations and accomplishing great things.

These first year successes; just in the past year, with a reduction of 5% in the solar project that we recently announced for South Africa, knowing that that's going to have a reduction of 13% by 2024, we know that we had to meaningfully accelerate our intensity targets for the coming years. We've now accelerated that to be a 35% reduction by 2025 and 50% by 2030. This is a significant step forward in our sustainability journey, and I'm telling you, it's only the beginning. We started greenhouse gas mapping processes in all of our world regions. Even today, I have already reviewed a project advancement for South Africa. And I'm telling you, there's more to come. So, for us, I'll say it again, when the people are motivated to drive change, get ready, hold on, because everything is bound to happen just the way we hope and even more.

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Another important environmental target that we'll talk about is reducing our waste to external landfills. Our approach to meeting this target is focused on circular economy and how we can reduce waste by finding reuses. Some examples may be road mix, construction materials, and even the recovery of rare earths. We're targeting a reduction of 15% by 2025 and a 25% by 2030; of course, the goal being zero waste to landfills by 2050. For us, we know that to get to that 2050 goal, we are going to focus on the full recovery and recycling of our waste. And as I said, a circular economy is not only environmentally advantageous. We know that it'll ultimately bring value to our business.

So now, let me step back over into safety. We talked about safety already a few times this morning. And not only is it ingrained in that operations part of what we do, it's in all that we do. Tronox values an uncompromising focus on safety and its intention is simple; achieve zero injuries, zero incidents, and zero harm. And as JF said, a safe organization is a performing organization. We work continuously to foster a culture of safety across the organization, building our people, building safety in our processes, people and operations. And we link safety performance to our compensation, but we do that while investing in human and organizational performance that's going to support and deliver safety outcomes for that already strong safety performance. And I'd be remiss if I didn't mention the significant accomplishment in the organization, over the course of the past two plus years in a COVID environment, we safely ran our plants reliably, and also had the two safest records in the history of the organization.

Now, back over to the role of leading people. Our goal and our strength, we believe, is the diversity of our organization and global workforce. And Tronox is committed to building teams that represent the communities in which we operate, comprised of people with varying backgrounds, experiences, perspectives and more. Our goal is to be an organization where leaders foster and encourage diversity, equity and inclusion, where all people feel respected and included. This enables our teams to excel and thrive, quite frankly, of challenges where we are today and we know it builds the successes we'll get to share with you in the future. Across the company, we've launched programs to evaluate pay equity to ensure that we are attracting and retaining high-performing diverse talent, and we do so with the support from the very highest levels.

As an extension of our people, let's go into the communities in which we operate. These are the communities, we all call home, and we are combining our global vision with local actions. Tronox values the engagements and interests we have with our communities, and team members from around the world in our operating locations engage with local communities. As a matter of fact, 100% of our sites have active community engagement plans. This allows us the opportunity to, not only share updates about our business, but understand what the needs are and how we can respond to them with our local communities, such as investing in infrastructure and education. And, of course, as a business rooted in science and engineering, we know to invest in our future. That means that we invest in STEM education. We have a long-standing commitment to supporting equitable and accessible education across all of our operations in the communities in which we operate. We do this through donation, scholarships, internships, job shadowing and more. We have pockets of brilliance across the organization, many you'll find in that Sustainability Report I spoke about.

But one long-standing example – you'll see that there was a recent IT donation we had made of a computer lab, but one that I'm really proud of that we have in the Sustainability Report is a long-term relationship with a school on the West Coast of South Africa. It's the only technology school near our operations, where our partnerships and donation allowed for the resources to teach math, science and mechanical technology. Many more of those little brilliant gems that we have to offer, again, in our Sustainability Report. And the success of what I've been able to show you today comes from the governance and commitment and support that we have for sustainability from the very top, because it's strongly backed by our board of directors and our leadership team.

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We've taken significant steps over the course of the past two years. And in the past year, we've made some great achievements relative to linking our annual incentive plan to that carbon emissions target, outperforming our expectations for 2021. We formed a Global Sustainability Committee (sic) [Global Sustainability Council] (00:55:50) and that's comprised of the senior most executives of the company, as well as our internal experts. And we've published several important policies and reports, including our Supplier Sustainability policy, and our first report on labor and human rights. Underpinning all of our sustainability efforts is our commitment to public accountability, which brings integrity and transparency to our platform. In 2021, we joined the UN Global Compact, which addresses the fundamental responsibilities for corporations in areas of human rights, labor, environment and more. Also defines the 17 Sustainable Development Goals. Ten, you'll see here, are the ones that, we believe, Tronox can make the most valuable impact on.

And with the Sustainability Report that was published this week, we are now fully aligned with the Task Force on Climate-Related Financial Disclosures and the Sustainability Accounting Standards Board which is TCFD and SASB. Finally, we proactively provide our disclosures to third parties, such as MSCI and EcoVadis, which provides stakeholders, like you, with that third-party view and gives you an idea of our resilience toward the long-term ESG risks, our performance, and how we are committed to advancing environment, labor, human rights, ethics, and sustainable procurement.

So, when I go back to these five points that I'd hoped I would have covered for you today, I hope that you walk away with a deeper understanding of how strong our long-standing commitment to sustainability is. It's embedded in all of our ways of work and we've got the best teams focused on how we're going to continue to exceed high expectations. So when the team today shows you what can be accomplished, because we all have big goals, you know that the talented people that live these values are going to deliver great things. We know our long-term targets are ambitious, but they allow us to make a positive impact, while delivering value for you and our other stakeholders. At the beginning, I said, the joy of this work is being the voice of 6,500 people, but the honor of this work is being part of an organization that lives its values and culture, and is leading in a way that produces those safe quality, low-cost sustainable times.

And with that, I'll turn the floor to Jeff Engle, our Senior Vice President of Commercial and Strategy.

Jeff Engle

Senior Vice President-Commercial & Strategy, Tronox Holdings Plc

Thank you. Thank you, Missy. And good morning, everyone. As Missy said, I'm Jeff Engle, Senior Vice President of Commercial and Strategy. I've been very fortunate to work across many different roles in this company, including research and development, strategy; and now, various roles through sales and marketing in this great management team. Before I jump into the commercial deck, others have talked a little bit about this idea of the outward mindset. And in my 21 years at Tronox, this has been one of the difference makers for us. Tronox, this has been one of the difference makers for us. Now, to me, the outward mindset is all about others. In other words, do everything we can, I can to help out my colleagues, my friends, to meet their goals, all for a better Tronox. Missy earlier – just now talked about producing a better tomorrow and, therefore, it's also my focus to produce a better tomorrow.

But, for today, I'm very excited to share with you how Tronox is strongly positioned to win, both now and over the longer term. First, we have delivered on our commitments to change the TiO2 industry through our integration with Cristal, as well as our margin stability program. Second, Tronox has structural competitive advantages, like our global footprint and our vertical integration that sets us apart from our peers, especially in this market where we find ourselves in a net short feedstock position. Third, we have a customer-centric mindset that leverages our

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contract strategies, as well as our global footprint to produce products on six continents to meet the needs of our customers. And lastly, we have a forward-looking mindset with a long-term investment and innovation focus to grow faster than the market and deliver results.

Now, this is a slide from our 2019 Investor Day, where we reviewed the changing TiO2 market dynamics and put programs in place to reduce volatility and stabilize our margins. I'd like to walk through a brief history of prices, just to put this in perspective. As indicated by the lighter blue line, from 2012 to 2016, the industry experienced a significant and extended downturn. Now, this was largely driven by excess inventory build at our customers, Chinese producers adding more than 600,000 tons of capacity, and actually, more than 1 million tons of capacity over the six-year period, and then Chinese ilmenite more than doubling during that period. At the 2019 Investor Day, we outlined our margin stability program, which aimed to reduce pricing volatility and provide a win-win relationship between Tronox and our customers. And we are successful in doing just that.

The most recent downturn from 2018 through 2020 was much shorter. And since 2019, we've seen a positive change in price stability over the last three years, despite volume volatility as indicated by the dark blue line. Now, this is a result of several factors, including slower export activity and more volatility from China; higher freight and duties, resulting in higher landed cost; short supply of key raw materials, like high-grade feedstock and ilmenite; higher material costs overall, including those for chloride technology, where the majority of the new capacity in China resides, Tronox is well-positioned to capitalize on these changing dynamics due to our 85% vertical integration and global footprint, creating an exciting future for our company.

So, let's summarize the factors contributing to the change into these TiO2 dynamics. Starting with the market changes, customers are becoming global purchasers; customer dynamics and supplier dynamics are improved; the industry has shifted to a partnership approach, focused on supporting stability and growth for long-term benefits. If I switch to the structural drivers, we have seen a change in the TiO2 landscape. We now have more standalone TiO2 entities, all of which have been dealing with these feedstock imbalances as a result of lack of investment. Chinese production is now better aligned with demand and their cost structures are really normalizing, as the country puts greater emphasis on environmental protection and as feedstock remains short in China. All input prices remain elevated for a period of time and the profitability profile for this industry has been very challenging, as we estimate 20% of pigment plants are selling at our below cash costs.

Tronox, however, has evolved alongside these changing industry dynamics with a strategic focus on creating margin stability for the longer term by taking a commercialized approach; being closer to our customers; and ultimately, lowering our freight costs by leveraging our global footprint; maintaining our high degree of vertical integration that shows our commitment to grow with our customers; investing in our project newTRON that's going to transform our service to our customers, and actually unlock more tons for our customers. And finally, leveraging our different technologies and our research and development centers of excellence around the globe to provide our customers with the most innovative and broad product suite in the industry.

As you can see in this slide, our sales are balanced, both from a regional and a product segment perspective with coatings and high-performance plastics accounting for more than 70% of our total sales. Our global footprint, the selling channel enabled better alignment between us and our customers, allowing us to be actually become more of a partner than a supplier. Now, I want to give you guys just an example of how this works. We recently couldn't export one of our specialty coatings products from the US to a major customer in Asia due to the shipping challenges that we're all facing. However, we were able to work closely with that customer and they were able to use one of our offsets from our Bunbury site in Australia, saving time and money. We have many other examples just like this one.

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Our unique global footprint is a difference maker. Lastly, our balanced top line is further enhanced by our vertical integration, which insulates us from supply disruptions relatively compared to our peers, and provides our customers with long-term assurance of supply, which our customers highly value. Now, this slide demonstrates how our vertically integrated platform truly pays dividends when there is a structural supply shortage of feedstock, which we expect to continue. As you can see in the chart on the left, our current forecast expect demand to largely outpace supply through 2026. This is mainly driven by lack of investment. Our vertical integration strategy is a significant defense mechanism against these supply shortages and rapidly increasing prices for feedstock.

I would now like to shift products and talk a little bit about zircon, an additional advantage of our vertical integration. Zircon provides another lever for Tronox to deliver value to our shareholders and our customers. And as a high-value co-product of TiO2, zircon is mined alongside our ilmenite without the need for additional mining or significant upgrading. The primary end markets for zircon are diverse and include ceramics, zirconia chemicals, refractory applications and foundry, all with GDP-driven dynamics. Tronox is the largest producer of finished zircon tons with over $14 billion in reserve value. And we believe that the long-term fundamentals are supportive of enhanced value due to short supply and that lack of investment in new capacity.

Our customers clearly support our differentiated strategy, which has resonated well in the market. As you can see by some of our key accounts listed here, our top 20 TiO2 accounts represent approximately 50% of our sales, and with those accounts, we have had relationships of more than 20 years. Our values matter to our customers. We are trustworthy and reliable. We build mutually rewarding relationships. This is one of Tronox's key core values and our customers recognize that in the way we do business every day. Furthermore, we are focused on selling safe and sustainable tons. Missy talked earlier about our Platinum EcoVadis rating, our customers recognize that we have more control over our carbon footprint. Our commitment to these values results in a strong customer base of approximately 1,200 customers across six continents.

Now, let's take a deeper look at our commercial approach, which is a competitive differentiator for our customers. Our current approach reduces volatility, while also establishing some volume growth and price flexibility to manage our margins. We offer our customers a broad range of purchasing and pricing options, but for this presentation, we tried to condense this down into three buckets. First, our margin stability agreements, which are tailored to our customers, can utilize cap and collar mechanisms to manage price movements over a certain period of time. Now, our volume-related contracts are actually the larger piece of our portfolio, and these contracts are based on volume purchases for periods of one to three years with two-way volume commitments and incentives embedded for fulfilling those agreements. Lastly, our distribution and long-standing relationship customers represent a smaller portion of our business, but one that places a lot of value on our quality, our service, our liability, and our footprint. Now, even within these three buckets, we have many variations from customer to customer. We give our customers a choice and, again, that strengthens our relationships.

Here, you can see the fruits of our labor pay off by looking at our index pricing relative to our peers in local currency. As you can see, we have clearly been in line with the industry. Our approach builds both shareholder and customer value through our contract strategies and our balanced use of margin stability agreements. We've talked about our TiO2 market dynamics, our differentiated strategy, and now our commercial approach. This brings us to the wide variety of products that Tronox produces and sells that are found in everyday uses, such as mineral sands that are mined to produce TiO2 feedstocks. A key part of that mineral sands is also our rare earth resources, which I'll get back to here in a bit. Titanium dioxide used for standard applications like coatings, high-performance plastics and paper. We have our ultrafine and specialty TiO2 that goes into very innovative end-uses, like DeNOx catalyst and metal oxide colorants and paints that clean the air. Our titanium chemicals go into high-value applications, like titanium metal and catalyst. We've talked about zircon that go into ceramics and glazes. And finally, pig iron and many other products that support a wide range of industries.

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Now, to one of my favorite topics personally, we don't become a leader in this industry without a robust research and development centers of excellence around the globe that develop new and innovative products for our customers. Our portfolio spans recently launched products; a pipeline for core and specialty TiO2 product development; and the new products, technologies and adjacencies. We have recently launched two new TiONA products, TiONA 244 and TiONA 592 for premium plastics and high-performance coatings applications, as well as our TiONA 800 series at Yanbu. That's our premium series that we've launched at our Yanbu, Saudi Arabia site. Our pipeline for core product development includes our next generation of plastics products, as well as products that will help our customers meet their sustainability goals, such as the new line of DeNOx catalyst products, a TiO2 grade used for carbon capture, and coatings products with low or no carbon footprint.

Finally, we are pursuing a number of new products, technologies, and adjacencies that will drive additional top line growth for years to come. One example is titanium-based composite for direct lithium extraction. Additionally, demand for rare earth minerals is growing at rates much higher than GDP, and we expect this trend to continue, driven by the growth in permanent magnets for electric vehicles and wind turbines. We are currently in early stages of developing our own plans to extract more value from our rare earth resources.

Before we pause for Q&A, I want to quickly recap the key messages of our commercial strategy. First, we have delivered on our commitment to change the TiO2 industry. We are positioned to benefit from our significant structural competitive advantages. We have grown closer to our customers with more efficient pricing strategies that benefit both sides and allow for market growth. And lastly, we will be an innovator in this industry with our forward-looking, long-term investment focus. Thank you.

QUESTION AND ANSWER SECTION

Jennifer Guenther
Vice President-Investor Relations, Tronox Holdings Plc

A

So, if I can ask the presenters that have already presented to join me up on stage, and we'll get the stools moved over and we'd love to take questions from you all. As I said, you can submit through the webcast. We can also have them in the room. We'll have a microphone that we'll be able to pass around. Just give us one moment to set up.

John D. Romano
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

Sit down. We brought down stool. So, you might as well sit down. You want to field the question?

Jennifer Guenther
Vice President-Investor Relations, Tronox Holdings Plc

A

Okay. So, we did have these presenters presenting this morning. Obviously, we have sessions in the afternoon. But we'll take any question. If we are going to defer anything to the afternoon, we'll try to hit on it a little bit, but we'll take the first from David Begleiter, please.

David Begleiter
Analyst, Deutsche Bank Securities, Inc.

Q

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Thank you. Dave Begleiter, Deutsche Bank. Jeff, you mentioned on the Chinese producers about almost 20% or below – operating at below or at cash costs. How long can they be sustained for and what happens if it doesn't improve? Do they shut down permanently or temporarily, what's you view over there medium to longer term for these producers? Thank you.

Jeff Engle
Senior Vice President-Commercial & Strategy, Tronox Holdings Plc

A

Yeah. No, thanks, Dave. And to be clear, too, that was even for the whole industry. But yes, there is quite a bit of capacity in China based on our intel. And as you guys know or many of you know, we actually have an asset in China. So, we see the rising costs firsthand. But to answer your question, what's going to happen with that capacity that is underwater? We believe that, at some point, they will run out of inventory on their balance sheet and cash, and then they will have to shut down. What we've seen in the past is, some of those will go down temporarily for even as much as a couple of years, and then they may come back just depending on demand. But I think more and more due to all kinds of forces, including environmental, they could go down permanently.

John McNulty
Analyst, BMO Capital Markets Corp.

Q

John McNulty from BMO. On the commercial approach side where you spoke to the different types of agreements that you have out there, can you help us to understand the peak, or how the differences are on the pricing from the volume contracts to the margin stability ones to the long relationship ones, like how wide is the deviation there? And then on top of that, you have a really broad platform. And so, you have kind of a stability or an ability to deliver no matter what the situation. Do you feel like you're getting pricing that reflects that, that consistent stability where you can always meet the customer's needs, where maybe what we've seen through the rest of this past couple of years, we haven't seen that necessarily where everybody can always deliver?

Jeff Engle
Senior Vice President-Commercial & Strategy, Tronox Holdings Plc

A

Yeah. So, to answer the first question, as we mentioned in the slide, these contracts, whether despite the categories, are very much tailored to customers. We talked about cap and collar mechanisms, but we actually have a number of mechanisms in that category to manage stability, and try to drive stability across our agreements. But there are just a wide range of pricing options in all three of those buckets. So it's hard to narrow it down to one or the other. And so, it's highly variable between customers.

John D. Romano
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

And when you think about how those are put together, again, we don't have a prescribed forecast on how we're going to actually put out margin stability agreement, because it all depends on what the customer wants. These are win-win negotiations that come together through a customer, and Tronox that's not something we're pushing to the customer. Some of them want them, some of them don't. But what I can say is, our margin stability initiatives have absolutely had a leveling effect on the rest of our pricing. So pricing is moving up. We talked about what happened in the last downturn. We lost $300 over three years, and we gained that back in three quarters. And you can see how our pricing has continued to move up. So, we believe that margin stability is something that we're constantly negotiating those agreements. As you might imagine, in this market, there's many customers that would love to have one, that didn't want to have one before. So it's all a matter of kind of managing expectations around what's happening in the market and what we can negotiate with those customers.

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Frank J. Mitsch
Analyst, Fermium Research

Q

Hi. Good morning. Frank Mitsch, Fermium Research. Jeff, coming to the feedstock slide that you showed about the supply and demand, and how there's going to be a big shortfall out to 2026, I mean, right now, the market is tight, but it did look, at least that when I look at the chart that 2023 next year, it looked like the supply side was going to be north of the demand side and so forth. And then after that, then it really disconnects. Can you talk about the near- and mid-term outlook that you're looking on the feedstock side of the supply/demand equation?

Jeff Engle
Senior Vice President-Commercial & Strategy, Tronox Holdings Plc

A

Yeah. No, sure. I think when you get that close to the line, it's relatively balanced, right. And especially with today's shipping market, it can be even tighter, despite the production level. But, I would say, what you saw there was more balanced. There are some ilmenite projects, small ones coming online. Of course, part of that is us. Our Atlas Campaspe, as well as what we've done in Jazan have filled that gap for us, and have been a differentiator, as you'll hear later in the presentation. So that's part of what's driving what you see in that balance, Frank. Yeah.

John D. Romano
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

And those were our numbers. And most of you probably subscribed at TZMI as well. And when you look at TZMI's growth on feedstock, there is an assumption in there around Jazan that's actually picking up their numbers in the near term.

Jennifer Guenther
Vice President-Investor Relations, Tronox Holdings Plc

A

I have one that came in on the webcast. What would be the impact on Chinese exports of TiO2 if the US lowers tariffs on imports from China?

John D. Romano
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

Well, I'll let Jeff take that, but I'll start. So there's a couple of things around TiO2 with regards to the US. So there is a significant normal duty, 6.5%. There's another 25% on that right now. So, duties on TiO2 in the US from China are north of 30%. But if that duty was removed, I mean, you start to think about where we were before the duty happened. Chinese imports were coming into the US. But the reality is, there's still a barrier to a larger percentage of that, which is the slurry consumption.

Jeff, you might touch on that.

Jeff Engle
Senior Vice President-Commercial & Strategy, Tronox Holdings Plc

A

That's right. Yeah. No, there's a lot of consumption out there, too, that's just not geared for Chinese tons. So that's one aspect. The other aspect is, is duty is just one part of the equation. We've seen freight rates as high as 20,000 to 30,000 plus coming from China to the US...

John D. Romano
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

Per container.

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Jeff Engle
Senior Vice President-Commercial & Strategy, Tronox Holdings Plc

A

Yeah. Per container, sorry. So huge variable rates of freight as well.

Jean-François Turgeon
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

And one thing, I think, Jeff mentioned in his presentation is, we have seen, in the last downturn when there was flow of Chinese pigment coming, they had a structural cost advantage at that time, because of feedstock and all other element to make pigment. It's very different today. I mean, the feedstock costs in China are very high. Ilmenite is above $400 a ton; sulfur, which is used to make sulfuric acid. And even worse, the feedstock for the chloride grow in China is not available in China. So...

Jeffrey J. Zekauskas
Analyst, JPMorgan Securities LLC

Q

Jeff Zekauskas at JPMorgan. Two questions. I think you've changed your absolute leverage target to go from $2.6 billion to $2 billion by 2025. So, the first question is, why do you want to do that? In that your interest expense is a little bit more than $100 million and your EBITDA is $1 billion, why is that a good use of capital in general? And second, you want to bring down your overall financial leverage to whatever it is, 1 times to 1.5 times, why is that a good idea? Why shouldn't the financial leverage be 2.5 times? Why shouldn't there be a more concerted commitment to returning capital to shareholders?

I would think the only reason why you would want that low leverage level is, if you have an acquisition agenda because you've got tax assets. But if you have an acquisition agenda, shouldn't you articulate that? Is that the point of getting down to that low level of leverage? Why do you have these financial targets, or why are these targets changing? You've said they're changing, but you haven't articulated the reason why these lower levels of leverage are better for the shareholder.

John D. Romano
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

And, Jeff, I'll start on that. Well, look, sort of answer your question, we do not have a target out there for acquisition purposes at this stage. We're looking. Obviously, we mentioned that we'll continue to evaluate strategic acquisitions to the extent they are aligned with our strategy. Jeff Engle talked a little bit about rare earths. That may be something that we look at. Obviously, there's some, if you think about Jazan, for whatever reason, that becomes an asset of ours. Even with the assumption of that debt, we still maintain that 1 times to 1.5 times of leverage. You'll hear that a little bit later from Tim.

So, when we think about our capital deployment, it's around growth, returns, and the balance sheet. And what balances that, we said we generate $750 million to $850 million of free cash flow starting in 2025. That's our targets. So, we'll have the flexibility to return value to shareholders through dividends, return value to shareholders with additional share repurchases options. But in the absence of that, that's where our net debt goes to. And I think, for our purposes, having a lower debt target of around $2 billion-ish is something that we want to do. So, if that opportunity does come along to actually make an acquisition, we'd have to, but also we feel more comfortable in the kind of the way we operate having a lower debt level.

Jean-François Turgeon
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

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Yeah. I think, Jeff, what we can add is, there's unknown in front of us that we don't know what they will be. But with our strategy, we feel that we're going to be able to be in a very strong position. And having a strong balance sheet may create opportunity for things that we don't know today that could be very attractive depending on what happened in the market.

John D. Romano
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

But it's definitely not a signal that something is looming out there on an acquisition, other than maybe Jazan happens. That's something that could happen. That would be an M&A acquisition.

Jeffrey J. Zekauskas
Analyst, JPMorgan Securities LLC

Q

Thanks.

John D. Romano
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

Yes, sir.

Q

I'm the bogeyman. I'm [ph] Charlie Rose (01:23:06). The question I have for you is that the housing market's right now tipping over, the coatings market's slowing down, and the Western economies are entering a much more severe downturn. Talk about the ability to maintain, whatever you call, that margin maintenance process? Because the pipe is going to empty out at some point in 2023. That's my guess. The pipe might not look as full in terms of demand for pigments in 2023. So, I don't care what the pipe looks like now, because the pipe doesn't mean anything now. The market's telling you the pipe is going to empty out at some point. In 2023, to some degree, the pipe might be less full. So talk about margin management in a less robust world? Maybe that's more important.

The second thing I want to ask a question about is that you have some strange Western participants. SK is controlling Venator. You have now Kronos in the hands of [ph] two daughters (01:24:15), I don't know what they're about. What's going on with these other Western participants, and how do they behave in a different climate?

John D. Romano
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

So, maybe, I'll start, and then will pass it to Jeff and JF, if you have a comment. So, I'll start with the bogeyman. It's a good comment. Yeah, the reality is, we've been through – when you saw those margins, we talked about 20 consecutive quarters north of 20% EBITDA margins. That was in the midst of a downturn. We had EBITDA margins north of 20%. We talked about. You're going to hear more about our project newTRON that, in the absence of price, we'll add a $150 to $200 per metric ton on our cost reduction, which translates to $150 million to $200 million of additional margin to the company. So, specifically though with the housing market, when we think about the total supply chain, where we are from, where the inventories are, we're still having a difficult time meeting customer orders, even with this downturn in the, what you can say, moderating demand that's happening in parts of the world.

So, Jeff, I don't know, maybe you can touch on that piece of it a little bit, and then you can touch on Kronos.

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Jeff Engle
Senior Vice President-Commercial & Strategy, Tronox Holdings Plc

A

Yeah. Definitely, even with some moderating demand, I mean, the supply chains are empty and you even said it. But there's also quite a few puts and takes out there. We expect there's areas, like India, for example, that are expected to grow double-digit, and they're very – the local customers there are very bullish on growth there. And it's not a small market. So, there are areas, too, that no matter what happens in the Western world, we expect growth. I think the other thing is, there's two sides of this equation. So, you talked about demand, but there's supply, and supply still remains very short. And we expect some supply deficits, even next year given the feedstock challenges. So that's the other piece. And then finally, I'd say, our agreements that we've put in place help manage that margin piece from our side as well.

Jean-François Turgeon
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

Yeah. And talking about our competitor, I mean, obviously, they have their own strategy, and what we focus on is our strategy. And we believe that what we're doing at the moment, investing in our business to modernize our asset with our project newTRON, and you'll hear more from our other speaker later on this morning on that, is the right thing to do. We're doing well at the moment as a company and we're investing to lower our costs, to automize our plant, to standardize our process. So, doing that will make us an even stronger and lower cost producer. And in our business, TiO2 is an essential product for quality of life.

So, if you're the lowest cost producer, you're going to always win. And even in today's market, some of our competitor, like Jeff mentioned, 20% are burning cash today in that industry. So, you would need the world to completely collapse for more than that to happen. And we don't foresee that. I mean, we see a slowdown and grow. But I can tell you, for example, India is growing at double digit at the moment, and it's a very important market for us and we're doing quite well there.

Jeff Engle
Senior Vice President-Commercial & Strategy, Tronox Holdings Plc

A

Yeah.

John D. Romano
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

Just maybe one more, [ph] Charlie (01:27:43) on that, and that would be attached to the other part of the business, which is zircon. Jeff talked about feedstock and a structural supply shortage there. If you don't invest in the ilmenite, you're not going to get the zircon either. We're the largest producer. Our 10-K reported we had 250,000 tons of production of that. It's a very high-margin product for us. It's something that we've invested a lot of time and effort to try to make sure we're maximizing the value of that. And that's another differentiator for us that, we believe, even if there is some sort of further adjustment in economic activity, that will allow us to stabilize our business because that's a big margin generator for us.

Q

One follow-up question for you. If energy markets continue to increase in price, do these businesses grow in earnings value with rising energy prices, or do they get damaged by rising energy prices?

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John D. Romano
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

Look, natural gas, clearly for us, has been an issue. We've talked about that several times around how that's impacting us in the UK. I would say that it has an impact on us, but it's not as significant as maybe some of the plastics side of the business. So it's having an impact on, obviously, our ability to ship because shipping costs are going up. There's no – Jeff mentioned 20,000 tons for a container shipment. But I would say, oil prices and energy prices have an impact. But that's not one of the most significant ones, other than, I would say, more like natural gas, which has significantly gone up. But now, we're starting to actually see some stabilizing of that in the European market, even with the war going on.

Michael Leithead
Analyst, Barclays Capital, Inc.

Q

Great. Thanks. Mike Leithead from Barclays. Jeff, stole my main question around leverage. But I did want to ask, if we look at the last Investor Day to today and, obviously, the world's changed a heck of a lot, but 2019, you talked about future potential EBITDA of $1.6 billion to $1.7 billion, but $750 million of free cash. Today, you're talking about 2025, $1.4 billion, but $800 million of free cash, so higher free cash flow conversion. I know a lot's changed, but your assets are pretty much the same. So again, can you help bridge kind of what's changed, why you think you can get more cash out of the business, and is that kind of $1.6 billion, $1.7 billion still kind of where we're going over the long term?

Jean-François Turgeon
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

And maybe, John, I'll take that one. And look, we'll cover more of that in the second part of the presentation this morning, because obviously, when John Srivisal and Tim will cover the financial of the company, you'll have more transparency on all our plant and all that. But what we could say is, the fact that we have lower our debt significantly obviously has reduce our interest costs versus the plan. The vertical integration that we had seen in 2014, now we have more concrete. I mean, we have now invested in Atlas Campaspe. We have Jazan. We know more what it could do. And that explains some of the difference between what we see today and what we said. We said, in the [ph] $1.3 billion to $1.5 billion (01:31:00), we have not include Jazan. So, that's why in 2019, we had in mind that Jazan will be part of the portfolio later on. So that explains some of the elements on the EBITDA.

John D. Romano
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

And again, you're going to hear more when Russ Austin and, actually, John Srivisal will talk more about. Again, I can't stress enough that you're going to get more detail about project newTRON. Just add $150 million to $200 million to that number and you're easily getting to that cash flow number. So, we're going to be able to provide some – Russ is looking at me, like don't steal my thunder, but that'll come up in the second half.

Jennifer Guenther
Vice President-Investor Relations, Tronox Holdings Plc

A

Any other questions? We'll check...

John D. Romano
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

Yeah. There's one.

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Jennifer Guenther
Vice President-Investor Relations, Tronox Holdings Plc

A

Okay.

Joshua Spector
Analyst, UBS Securities LLC

Q

Josh Spector, UBS. Just a question on the environmental side. I mean, I tend to think for TiO2, no, not necessarily a Tronox issue, but an industry challenge is the use of coke in the process inherently leads to carbon emissions that are tough to capture. So, to your road to net zero, is there work being done to either be able to capture that or use some different inputs into the process to allow you to get there in a way that's going to be economically feasible, and also within your overall CapEx priority context, something that's not going to be something we need to consider over the next 5 to 10 years? Thanks.

Melissa Hammonds Zona
Senior Vice President, Chief Sustainability & Human Resources Officer, Tronox Holdings Plc

A

Certainly, I'll start with the CapEx point. And if I use the South Africa project as an example, that's a benefit to the company with little to no CapEx whatsoever. And we see that the other projects that we've been able to advance to the forefront will have very similar impact. Now, it doesn't mean there won't be investment. So, when you look at those longer term investments, you talked about coke, you hear about coke optimization and how we're optimizing our current operations in order to, again, maintain and enhance those outputs, but they have sustainable outcomes.

We realized, to make that 2050 goal, we are going to have to change the way we operate and do business. We know that means a difference in reductants, that means a difference in our manufacturing, and it goes beyond finding solutions, like our own carbon capture and what we do. We're not going to buy carbon credits and rely on carbon capture to get us to that 2050 goal. Comes back to that part that Jeff's excited about, which is the R&D of what we're going to do, and what we can do as a company to get us to that 2050 goal. For us, we see those first steps as getting to 2025, exceeding those expectations, and looking at what we can do for 2030 and beyond.

Jennifer Guenther
Vice President-Investor Relations, Tronox Holdings Plc

Okay. I think we've answered a lot of the questions in the room. No further ones on the webcast. We have a 10-minute break scheduled. So, we're just about right on time. So, let's resume back at 10:15 AM Eastern, please. Thank you.

John D. Romano
Co-Chief Executive Officer & Director, Tronox Holdings Plc

We got the background now.

[Break] (01:34:06-01:45:45)

Russel Austin
Senior Vice President-Operations, Tronox Holdings Plc

All right. I trust we're all settled and ready to go again. Well, good morning, everyone. I'm Russ Austin. I'm the Senior Vice President responsible for Global Operations and Safety. I'm based in Holland working out of our

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Botlek plant in Rotterdam. And as you may tell from my accent, I'm definitely not from Alabama, and I'm not exactly Canadian either. I'm, in fact, Australian, and I have been for a fair while now. My career extends across oil, gas, mining, chemicals and smelting where, like JF, I also worked for Rio Tinto as a Senior Manager in the vertically integrated Aluminium division. I joined Tronox 15 years ago in Western Australia, where I led mining, upgrading and pigment operations. My service has included roles as Managing Director in Australia, where I led successful integration of Tronox and Cristal operations, then as a stint, as MD of Europe, where I worked closely with our French, UK and Dutch employees, developing a new set of leaders and building out our operational improvement plans. Now, as the headperson for our global operations, I'm privileged to be leading our people through a period of what will be best summarized as a great change.

Tronox is a place, where every day, I'm inspired to deliver my best, my very best; inspired by the aspiration, intimacy and action of 6,500 talented diverse people, people that I connect with every day, and people who, like me, want to build a legacy, a legacy that will be remembered for zero injuries, zero incidents, zero harm to our people, remembered for its extraordinary business achievements, and talked about as an organization that's made a meaningful contribution to sustaining future generations of this world. Our purpose is one that we want everyone, including you, to be proud of. For such a legacy, you must determine a future to be different to the past though, because a better future doesn't come from yesterday's solutions. Today, I want to stand in that future and invite you to sit with me, a future that's meaningful, it's exciting, but it's a future that matters.

I want to start by showing you the four key pillars that have underlined safe and sustainable operations at Tronox for a long time now. Now, those four pillars have been our focus since we last spoke to you in 2019, and we believe, they'll remain the foundation on which we'll build that exciting future. Number one, we're the world's largest vertically integrated producer of titanium dioxide and we intend to remain in that position. Two, our competitive advantage continues to be derived from the benefits of vertical integration, enabling us to deliver adjusted EBITDA margins above 20% for the last 20 consecutive quarters. Thirdly, our approach to operational excellence is focused on delivering safe quality, low-cost, sustainable tons in any environment. Operational excellence remains core to our business and will grow in value as we expand it beyond its traditional framework. And number four, in recent times, we've integrated the best process technology from legacy Cristal and Tronox to deliver synergistic value to customers and shareholders, but a new wave of technology is now upon us, global digital technology that will drive performance higher as we lever newTRON into our expanding operations.

Now, the world's largest integrated producer should never miss an opportunity to show just how broad our mission is, as it's shown here on the map. Some facts about our geographical reach. 20 facilities across six continents. Mineral sands mines and upgrading facilities in South Africa and Australia producing titanium minerals, zircon and pig iron. Titanium dioxide plants in the US, Brazil, Europe, Saudi Arabia, Australia and China. And as Jeff Engle mentioned, our sales are balanced between regions, but we can shift product from any region, if the customer needs a solution. We have access to all of the world's proven TiO2 process technology, allowing us to produce pigment from both chloride and sulfate inputs.

This provides additional flexibility in all conditions, setting us apart from other operators. Our total vertically integrated TiO2 capacity of more than 1 million tons ensures long-term security of supply, which our customers highly value. Now, whilst the network looks impressive, it's what lies beneath that has me involved. It's the people. And as JF mentioned, our people and the outward mindset we have to making each other successful is what sets us apart from the rest. The relatedness that we have for each other and the mutual appreciation for what each person has to do for the whole extends beyond the geographical hotspots and cultural boundaries that you all read about. I personally know and have worked directly with every leadership team at all of these facilities, and you can't achieve outstanding results without those relationships.

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As I mentioned earlier, Tronox maintains a superior competitive position as the most vertically integrated TiO2 producer, and this diagram shows the scale of that advantage across the many mining operations. Our mining and upgrading operation secures 85% of our internal feedstock needs, allowing full utilization of the mining assets, and providing options to optimize the use of our feedstock into our pigment sites in any market scenario. For example, in a production-constrained market, we can switch to higher grade mined feedstocks, thus increasing pigment rates and capturing higher sales volumes. But in a demand-constrained market, our vertically integrated technology allows us to process lower grade feedstocks to reduce cost, thus helping maintain margin when pigment price is constrained. And we know vertical integration works in all conditions. And to protect that competitive position, we're investing in new mines and expansions across our core geographies for the long term.

We're set to deliver Atlas, Fairbreeze extension, Namakwa East OFS, all by 2025, and that investment will secure our global feedstock requirement to at least 2035. And we believe each mine will generate an internal rate of return of above 50%. And as our CEO mentioned, we also have the ability to expand our upgrading capacity by exercising an option to acquire the Jazan slag facility once it's reached sustainable operations. And I visited the site recently and can report that we continue to make progress through the commissioning stage and Jazan slag is now being successfully integrated into our Yanbu pigment plant. But investing in mines and upgrading facilities is only part of the strategy. newTRON, our global digital transformation will further enhance our operating model producing more efficiency through high utilization and lower fixed costs across all of our operating sites. Atlas, our newest mine in Australia, will be commissioned in Q3 this year and will come complete with that digital capability along with, as JF said, a renewable source of energy for its power needs.

In 2019, we introduced you an operating system based on six key pillars of manufacturing excellence, as can be seen here on the left. As Managing Director in Australia at that time, I've been at the core of that operating system from the very start and, together with our people, [indiscernible] (01:54:20) delivered an immense amount of value for our shareholders. These are just some examples in the middle of what we've achieved through operational excellence. We connected our sites into an integrated business planning system. Think of that system being at the heart of making decisions to deliver the right product to the right place at the right time across the entire integrated supply chain.

In 2020, we took our Tronox standardized org design and implemented that template in quick time across the newly acquired Cristal sites, instantly delivering value. And later on, my colleague, John Srivisal, has a great slide showing you the combined realized value of the Cristal acquisition since 2019. And in 2021, we achieved record asset utilization on the back of embedded processes, such as short interval control, routine workflow management, reliability-based maintenance strategy rebuilds. And in 2022, I can tell you, we're working really hard to eclipse the 2021 achievement. Now, those examples and the success of what has been a manufacturing system inspired us to broaden and deepen the model to encompass an enterprise-wide all people, all functions model utilizing eight principles across three key result areas as you can see on the right. Now, those areas are operational excellence, financial excellence and manufacturing excellence. And today, the conversations have centered on all of these principles, but let me touch on a couple as a reminder.

Safety will remain core to everything we do. [indiscernible] (01:56:07) strategy rollout commenced in 2021, we expect to continue investing in people and systems to deliver zero harm to our employees and the environment. newTRON applications will also feature in relation to [indiscernible] (01:56:20) risk management and automated work permitting. A safe operation is a performing operation. Optimizing the enterprise will remain a major focus for us. As I mentioned before, integrated business planning has been a significant part of that journey since 2019. And again, new technology will transform that IBP process to a new level of transparency and agility for both short term and long term end-to-end planning. Think of the entire value chain; from mine production to pigment shipping being instantly at people's fingertips in our future.

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Now, I think you understand how serious we take our responsibility to sustainability. And as Missy Zona emphasized, we've reassessed our targets, and our enterprise system must be ready to operationalize our 2025 near-term carbon and landfill reduction goals. So, what does that mean? Well, more investment in people, projects, and products that will feature now in future planning as part of this now formalized operating principle. As a member of this executive team, I'm committed to coming up with new ways of delivering sustaining value through our combined engineering resources.

Now, our centers of excellence, as shown on this slide, complements the enterprise model I just spoke about and helps to drive research and innovation to support our organizational goals. They center on three key strategic platforms: technology, sustainability, and other enabling technologies and business processes. And within those platforms, you can see key operational plant processes and functions that, we believe, will be the subject of more study, research and concepts. And such work provides a basket of projects that each of our 20 sites can choose from, depending on where they are on their improvement journey. The decentralized model that we have, along with the relationships that I speak about, enable our people to exchange ideas, experiences and data to create projects that address our strategic objectives for the whole of business, from mine to customer. The new products that Jeff referred to came from the finished products COE team, but let me give you an operational example.

Our COE oxidation team set about redesigning an oxidizer to deliver an oxygen [indiscernible] (01:58:59) saving of 5% along with an increased wear life of associated piping. A pilot site was chosen and the results are now backing up the modeling, meaning that all pigment sites have the go ahead to implement those design changes. And that's over 16 oxidizers planned to deliver better efficiency and increased asset life, a significant carbon footprint reduction project in the back. And centers of excellence is a term that's widely touted in our industry, I accept that, but I see it differently in our organization in the way a solution is applied. We can take solutions and adopt them across the entire supply chain. So, let me give you an example. A mineral separation yield, some sort of breakthrough in that area, in our separation plants, that can be applied to mine concentrators and even pigment plants. And so, I ask you what TiO2 competitor can do that with its upstream supplier?

To this point, though, I've given you the past and the present and an overview of our operating system, and how it's enabled us to produce safe quality, low-cost, sustainable tons. I've led the implementation of our 2019 operational excellence model, and I've seen it deliver on the promise. But it's the next phase that I'm most excited about. This is the future that will generate the legacy that we want, a future that we all care about, and we're working on it right now. And that next phase of the journey relates to that fourth pillar that I referred to earlier, global digital transformation, and our goal of realizing $150 to $200 a ton of run rate savings.

And newTRON is the vehicle for this transformation, and this slide shows the key value drivers emanating from the project. We've already seen the early benefits of our supply chain initiatives with a complete review and striking of new commercial deals, but we'll soon see a rollout of technology that will further optimize our global sourcing and procurement capability. Enhanced plant automation is another key driver. And shortly, I'll show you specifically the early results of that work, along with the potential to unlock more value in the future. Maintenance is necessary to run our plants, but we accept it's a cost that must continue to improve.

Maintenance in the future will evolve from fixed time to predictive, using real-time diagnostics and our reliability professionals will effectively mine historical equipment data, looking for signs that flag imminent failure, and we're piloting technology through newTRON that will enable that opportunity. And finally, picture every business function – or business process at Tronox, having been redesigned and matched to the technology that's coming; new processes that are efficient, automated and, most importantly, standardized across all 20 sites in the coming years. And later, John will break out the EBITDA timing and split across these four value drivers for you. I can

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summarize this slide by saying newTRON and the full value opportunity shown here will be driven by people, process and technology; people being trained, given responsibility, authorized, incentivized to work within the rules of each and every one of those business process standards. And you can say that that's pretty powerful combination just on its own, because we've been doing that for a long time. But take the people and the process and add technology, technology that adds capacity and capability to generate some serious power.

Now, let's keep walking down into the future, so I further breakdown those pieces of that $200 a ton puzzle. Now, this slide gives you a next level of detail as to how newTRON will transform our operations. It reveals a puzzle involving people, process and technology; a puzzle that we're working on right now, so let me show you some. The dark blue pieces are foundations that represent the culture of our people. These foundations are recognized best practices, and our intention is just to install more of that of what we've implemented over the years. The blue pieces are examples of new processes that have been standardized and codified by a global team representing all sites. And whilst the process is not new, each design is now matched to the technology pieces you see in the green evolve. Now, those technology pieces will enable more plant automation, data extraction, efficiency and better planning decisions in our operations. Now, we are putting in place every one of these pieces on this journey across the board. And as each one links up, we'll see the combined benefit of people, process and technology.

Now, let's zoom in a little bit more. I'll show you some examples of the puzzle already in place. 5S programs and operator care tactics, nothing new. Have evolved in some of our plants over many years, but we want to see the entire organization adopt this program in a structured and supported way from the top down. Clean, organized workplaces are safe and efficient workplaces. Operators taking pride in their workplace and incentivized by leading safety indicators that recognize preventative ownership before the loss occurs. Let's jump back and explore another area, advanced process control. Now for us, advanced process control is new technology piece to the puzzle.

As an example, even the best control room operators cannot keep a chlorinator optimized every second of every day, as each automated control loop fights other loops to protect its own patch and with such a complex chemical process, the operator is constantly intervening. And you can see the frequency of those interventions in the top chart. Now, I counted for you 106 set-point changes in 24 hours on that top chart by the control room operator in an attempt to stay in control. Advanced process control technology was pioneered and mastered in the oil and gas industry, but we believe we're one of the first in the TiO2 industry to adapt it to our chlorinators an overall process on this scale. Working with our technology partners, we modeled and tested software to make multiple set-points partnered together to selectively adjust the right variables at the right time within the upper and lower boundaries as is in this case.

When we finally went live, the results were astounding. Almost as immediately as you can see from the bottom chart, we saw those 106 operators set-point changes reduced to one, one in 24 hours. As a result of that, we saw head temperature stabilize and coke efficiency increased by up to 7%. And as we heard in the Q&A before, the use of coke in our process is a big contributor to our carbon footprint. Now remember, this optimized advanced control for us is now happening every second of every day whilst that system is switched on.

And that's just one chlorinator item. We have 25 chlorinators in our operations. You start to see the value multiplied, right? And it doesn't stop there. I predict that the time between $1 million chlorinator rebuilds will significantly increase as high temperature excursions and refractory wear rates decrease. The scale at which we're planning this technology will extend in the future to oxidizers, compressors, vaporizes, dryers and I foresee an APC umbrella if you like across an entire plant one day. And already we're planning a pilot to introduce AI learning software into the APC system. That really is an exciting future.

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Let's go back and explore another example of the newTRON puzzle. The shift to utilizing data doesn't just exist in our plants. We realize that our operational excellence model must have its own data hub to enable good governance and management of our program. The clock's ticking and we know it. So, we've created a source of truth that enables tracking progress and underlying performance measures that roll up to that value that John will soon show you. And these dashboards are living enablers to deriving value from our work. For this, the advanced process control that I spoke about, the COE oxidizer examples I gave you, all reside in this hub being tracked against forecast improvement, all the way to completion.

Let's take a fly-through through parts of the system. I'll walk you through next is our operational – the first page here is the landing page, which features a number of highlights and metrics that we track internally as an operational team. Every week, I take great interest in seeing progress on this page. This next is the A3 library. Now, A3 is a well-understood and widely used troubleshooting tool in our industry, which helps provide a solution to a problem in a very structured way. Here, we feature our communications library and this is how we share information between sites. Look, these types of hubs are standard best practice when rolling out global business transformation across sites. We get that, but we wanted to give you an insight into how we're tracking and measuring the progress of newTRON internally. After all, nothing happens without action and this tells us whether that's happening or not.

There's another way to summarize how the process and the technology is aligned. We have operational excellence program and by looking at it in terms of time horizons in the hierarchy levels of control as is outlined in this pyramid. Let me start at the top, the enterprise resource planning application. We're busy standardizing SAP as for HANA across all of our sites in the coming years. That system will help make decisions on a weekly to monthly basis and provide a source of measurement on performance that we've not seen at Tronox before.

Our manufacturing engineering system sits below the ERP, collecting global engineering data from all of our plants that is all shared; root cause analysis, reliability-based engineering, design engineering, and business case building are all processes that will use this new system as a means of data extraction. Work that requires long-term solutions will benefit from this system.

Stepping down to the next level, the Tronox Operational Information System or TOIS as we like to call it, is a site-centered technology that monitors our machines and processes on a minute by minute basis, allowing us to focus on poor equipment performance and short term production planning solutions. Our DCS and PLC controllers operate at the next level of seconds, constantly measuring and controlling our process and seem to be ably supported now by APC.

Then finally, at the very bottom of the pyramid, you see a myriad of inexpensive wireless digital field sensors, all feeding data into our control system. The more we measure, the more we can control. So, if you look at the whole, you can be assured in the not too distant future, every piece of data of every second of every day is being used towards optimizing cost, rate, usage, utilization, and being interrogated at some level by machine, operators, engineers, finance, marketing, sales, or customer service. newTRON is people and process powered by technology.

So, now what? Well, we will relentlessly pursue our newTRON buildout over the coming years. Our people will continue to receive the training, coaching, and vision to give them capacity and capability to understand the process and use the technology. Armed with a cultural outward mindset that I see every day and we're so proud of, our people will be the critical and intrinsic component of the operational excellence system. We're busy standardizing processes globally. We'll roll out new processes every month along with our SAP implementation schedule, 6,500 people doing the right things, the right way, at the right time. We're committed to rolling out the

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technology in the form of SAP this fall and operations information systems that I spoke about. But we're also committed to supercharging our advanced process control presence with our technology partners. Plants will reach new levels of automation and performance, resulting in more production, but also lower cost. That's our mission.

To conclude, now as Missy Zona mentioned, we operate with the end in mind and I say we want to create a legacy that everyone will remember and can be proud of. The two goals are the same and they both start with creating a future today, a future that will further strengthen those four key pillars that support safe, quality, low cost, sustainable tons, a future that matters. Now, I hope you've been able to walk down that path with me and acknowledge that you're seeing something different and real on top of the inherent strategic advantages of vertical integration that we've spoken about for a long time, we're creating that space to drive that advantage even further. We think it's a future that's going to be realized and I hope you do too.

And with that, I want to introduce John Srivisal, SVP of Business Development and Finance. John and his team have been instrumental in building out the value driver trees and teaching operations to make the link between operational excellence in the field and our bottom line. John?

D. John Srivisal

Senior Vice President-Business Development & Finance, Tronox Holdings Plc

Thank you, Russ. And good morning, everyone. My name is John Srivisal, Senior Vice President of Business Development and Finance for Tronox. I have 25 years of experience in a wide variety of broad-based financial roles. I actually began my career in New York in investment banking, spending five years in mergers and acquisitions, financings, and restructurings. In 2004, I went in-house, joined a client of mine, Solutia, which is a specialty chemicals company, traded on the NYSE. There, I also held a wide variety of financial and transactional responsibilities and in 2009 was given global responsibility for mergers and acquisitions. At that time, we embarked on a process where we completely reshaped and repositioned the portfolio. Under my leadership in a period of 3-1/2 years, we closed on over 20 M&A transactions.

I joined Tronox in March of 2018 and currently have global responsibility for mergers and acquisitions as well as FP&A, financial planning and analysis. I was also previously Chief Integration Officer and led the Cristal synergy program. With respect to my FP&A responsibilities, in addition to reporting and analyzing monthly results, the five-year plan, the budgeting and forecasting process, I also have shared accountability for the numbers for our significant investments in our capital programs. As Russ mentioned, I worked hand-in-hand with our business and functional leaders around the world to prove out the story through numbers and then to track, report on, provide actionable analyses to drive results and make sure we meet or exceed our commitments. I'm looking forward to sharing with you all today this more detailed type of information on our key projects that will drive our strategy and unlock value at Tronox.

I'd like to start today by highlighting three points that give us confidence that Tronox will be able to deliver future growth and strong financial performance. Number one, our proven track record of execution in fulfilling our commitments; number two, the value creation opportunities that stem from newTRON and that lead to long-lasting improvement, both top line and bottom line; and number three, a high degree of vertical integration, which yields significant cost savings for Tronox versus our competitors.

This next slide demonstrates Tronox's strong execution track record. On the left-hand side of the page in the dark blue bars, you can see that at our Investor Day those were the targets that we set forth for unlocking value through the combination. The light blue two bars show our actual synergy performance. And as you can see through robust execution by our teams around the world, we were able to achieve $243 million of synergies in

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2020. Not only was this above our Investor Day ultimate synergy target of $220 million, but we also achieved this two years earlier.

Now, turning on the right-hand side of the page, of the synergies that we achieved in 2020, 85% were impactful to EBITDA in the areas of supply chain, feedstock, operations, and SG&A. These projects had the impact of directly benefiting our bottom line on a sustained basis. The other 15% were also significant as they unlocked one-time cash benefits to Tronox. We will continue to drive further improvements and manage our costs and this is particularly important in the face of what we've experienced over the past two years. As costs have risen due to the challenging macro environment, Tronox has been remained laser focused on cost reduction.

Now, on the left-hand side of the page, we wanted to give you a little bit more detail on the cost components of our businesses. We separated out both the pigment and the mining side of it. As the chart shows, the pigment plants are mostly variable, growing from 66% in 2020 to 75% in 2022. And if you look at the right-hand side of the page, we break that cost down even further. As you can see, feedstock is the single largest cost for our pigment plants at about 40% of the total. Additionally, over the past two years, we have seen the biggest increase come from processed chemicals at 27% CAGR and utilities at a whopping 45%. They now make up 30% of our cost, whereas two years ago they were 22%. Now, this increase has been partially offset by a 4% reduction in the larger two – larger two fixed cost buckets of labor and utilities, which has been primarily driven by fixed cost leverage.

Now, turning to the mining side of the business, if you heard throughout today, our strategy is to maintain our vertical integration. Now, taking a look back at the left-hand side of the page, you can see why we always want to run our mines flat out and flat through our pigment plants. The vast majority of the cost is fixed. This is almost a mirror image of our pigment plants, as I mentioned earlier, where the majority is variable. Now, Russ has already discussed many activities that are driving operational excellence. We are making structural changes that will improve our costs over the long term. We're investing and taking action in areas that we can control. And over the next few pages, I'll walk through in more detail the projects that we are already executing on to drive further cost improvements and create value.

Now, as you heard from Jeff and Russ earlier today, there are two initiatives that we are undertaking across Tronox to support our long-term strategy, newTRON and vertical integration. Implementation of newTRON will yield top to bottom savings across the enterprise. And we already have recognized value from that initiative. In 2021, we have seen approximately $20 million in procurement savings. We expect this amount and other buckets to grow significantly over time and achieve the $100 to $200 per ton run rate that you heard from several others earlier this morning by the end of 2023. And also given how we have accelerated savings, the program is mostly pre-funded. On the mining side, we are investing now to secure long-term supply of feedstock. Through vertical integration we anticipate saving between $300 and $400 per ton of first the feedstock. We also generate a high value co-product in zircon. And finally, we have the high value option in Jazan that I'll talk about more later.

Turning to newTRON, we wanted to give you some more details on the benefits we expect to achieve from this global business transformation. As I mentioned earlier, we have pre-funded a significant amount of the capital for the project already. Taking a look at the chart in the middle of the page, the green bars represent the project spend and in 2020 we had some upfront spend. But in 2021 we focus on accelerating supply chain savings. Through significant one-time cash DPO and MRO savings, which the one-time cash benefits is the dark blue and the $20 million of procurement savings I mentioned earlier. You can see that we've been able to keep that light blue line, which tracks cumulative net investment close to zero. As we've moved into 2022, as you can see, the spend does increase, but the project has now progressed into delivering ongoing and recurring benefits that will

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directly impact EBITDA in the bottom line. As I mentioned before, we currently expect the annual run rate of ongoing savings to be in the range of $150 to $200 per ton.

Now, take a look on the right-hand side of the page, you can see a pie chart breaking out the EBITDA savings. We expect about two-thirds to come from cost and about one-third to come from volume contribution. And you can also see that all four major categories that Russ had described earlier will contribute robust benefits. And finally on newTRON, while this page shows our current estimate of the savings we expect to achieve, like our performance on synergies, we will not be satisfied if we only achieve these numbers. We look forward to keeping you posted on our progress.

We have a very robust and detailed planning process. And this page shows one output of that process, which is our latest long-term mine production forecast. Now, Tronox has ample feedstock for the next 15 plus years to support our vertical integration strategy. We are committed to and made deliberate decisions to develop three critical projects; Atlas Campaspe, Fairbreeze, and Namakwa East OFS. Each of these mine developments will further revenue opportunities, provide significant long-term cost savings. These projects are expected to deliver very attractive IRRs in excess of 50% and payback in less than five years.

There is tremendous opportunity for growth in the future and we are making investments in order to be positioned to capture that growth. We expect to spend a total of approximately $400 million on these projects for the rest of 2022 through until the end of 2025. However, we have the ability to be nimble with our spending. We can pause or ramp up projects as market demand dictates. One additional key highlight is that, as you can see from the chart, once these capital investments have been made, we do not expect to have any significant capital for mining development for the next 10 plus years. I wanted to reiterate that point these three investments here will ensure that we don't have to make any investments of significance until 2032. We are investing now for long-term value creation.

We are very excited that our new Atlas Campaspe mine will be coming online very soon. This project replaces supply from our Snapper and Gingko projects, which are at end of life and represent approximately 15% of our vertical integration. Importantly, we will get a significant amount of high-grade rutile and zircon. As I described earlier, we expect the project to payback in under five years and provide an IRR in excess of 50%. This is even after the significant cost inflation that we have seen over the past two years. Atlas Campaspe will support a vertical integration for 10 years and will further opportunities to leverage that fixed cost investment to other nearby ore bodies, which we have secured the rights to.

This next chart shows a clear look – gives you a clear look at why we believe vertical integration is an advantage and sets Tronox up for long-term financial savings. The chart in the middle of the page highlights the difference in cost between purchasing external feedstock and sourcing it internally over time. This 9% to 14% advantage that you see here translates into $304 to $100 per ton of savings for Tronox. Our competitors need to buy this feedstock at this much higher level. And as I shared from you earlier, feedstock is the single largest cost item for pigment plants. The significant advantage is why maintaining our high degree of vertical integration is critical to our long-term strategy. Just described earlier how valuable zircon is to Tronox's portfolio and is an added benefit to our mining assets is that we can extract zircon. Zircon is not widely available in all mining assets. There is also very limited additional cost to the feedstock extraction process to get this high value co-product out of the ground and thus this is accretive to EBITDA.

Now turning to the business development side of my responsibilities, I wanted to spend some time talking about additional upside and potential growth opportunities at Tronox. As John has shared earlier, our capital allocation priorities are focused across three areas; growth, returns, and the balance sheet. We want to share that any

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opportunity we pursue will be consistent with these priorities. And we have characterized these opportunities into three different buckets; the first being the breadth, the depth, breadth and quality of our mining assets. As I shared with you earlier, our current mine plan can support our needs for the next several years. However, that is our current mine plan. We have significant optionality on timing and the pace of capital spend. Furthermore, in addition to the mining products, as I showed you earlier, we have a vast before portfolio, additional secured mining tenements and resources that are located close to our facilities. This gives us further flexibility and future potential value.

Now turning to Jazan, together with Tasnee, we are continuing to make progress on Jazan. As JF mentioned earlier, we are encouraged by the ramp up, but there is still a lot of work to do to get that furnace operating in its full run rate potential. As the furnace is still in ramp-up mode, we are evaluating whether or not sustainable operations can be achieved and by when it could be achieved. But we do not expect this to happen before the end of the year. However, as I have described earlier, we have a very robust planning process and have alternative options to maintain our current level of vertical integration to the extent that Jazan does not end up meeting our expectations. Additionally, Jeff reviewed this earlier. This is an incredibly tight feedstock market. And so in the meantime, Jazan is providing us with much needed feedstock to support our business.

Now, as a reminder, in the 2018 option agreement, we had anticipated a two-furnace transaction and estimated that each furnace had the potential to contribute up to $75 million of EBITDA at full run rate. Additionally, under that agreement, we had an option to acquire it for the assumption of debt only, no additional cash consideration. However, regardless of the outcome, as John mentioned in the Q&A, our goal is to still maintain the 1 to 1.5 times long-term leverage range. And given the status of the project today, we are discussing with Tasnee a path forward. We'll keep the market updated on our progress.

Now turning to other targets, we look opportunistically for strategic acquisitions that are related to our core business and that are financially accretive. We have a tested and proven process to evaluate diligence and execute on transactions and good processes, structure, and experience in unlocking value and delivering synergies. We would expect to focus on mining assets that would benefit our portfolio, targets that could develop underserved markets and growth areas where we bring a competitive advantage and are aligned with our strategy, like rare earths, as Jeff had mentioned earlier. Overall, we believe there is further upside at Tronox and are confident that we can create significant value in each of these three areas.

Now, before I pass it over to Tim, I wanted to highlight the financial benefits of our long-term strategy, I wanted to reiterate our material benefits from the key initiatives that we have in place for future growth. Our strong track record is proof that we will deliver on our forecasts. Through it all, we will maintain our position as a Tier 1 cost producer. newTRON will enhance our operational excellence and will deliver a robust revenue stream and additional cost benefits. Vertical integration is very valuable and will provide significant cost advantages versus our competitors. And importantly, we have significant flexibility across different market scenarios, whether we have higher demand or see a market pullback. And finally, we have further potential upside. This is an exciting place for Tronox with initiatives in place to drive results over the long term.

I'd now like to turn it over to Tim Carlson, our Chief Financial Officer, who will talk about our financial performance.

Timothy Craig Carlson

Chief Financial Officer & Senior Vice President, Tronox Holdings Plc

Thanks, John. Good morning. It's a pleasure to be with you today. For those of you who do not know me, my name is Tim Carlson and I lead the finance team at Tronox. Prior to joining Tronox, I started my career in public

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accounting, then I spent 10 years at Campbell Soup Company in a number of different roles. I was in corporate audit, corporate strategy, did some M&A in their business development group. In my last two years, I spent as their Head of Finance for their Australia business unit down in Sydney, Australia. In 2,000, I joined ATMI who's a semiconductor materials company. I spent two years. It was a great learning experience as I spent two years as a General Manager of their Semiconductor Materials Packaging Business Unit and also during my tenure I led the initiatives to manage profitability and cash flow during both the tech bubble and also the financial crisis.

While at ATMI, I learned the importance of being nimble, of always having a playbook to optimize cash flow and earnings, and the importance of contingency planning. In 2014, we sold the business to Entegris and I became the CFO of a private equity-sponsored industrial company and until October of 2016. I'll never forget my first day at Tronox. It was the day that we signed the letter of intent with Cristal, which was the catalyst that transformed us from being a mining soda ash and TiO2 company to being a TiO2 market leader through our vertically integrated business model that generated differentiated returns and it generates great margins.

When I spoke to you three years ago at our last Investor Day, we had just closed the Cristal acquisition after two years, and there is quite a bit of uncertainty in the room as to whether or not there were any significant financial or strategic benefits of the acquisition. Since May of 2019 and under John and JF's leadership, we have overdelivered on our synergy commitments. We have generated adjusted EBITDA margins in excess of 20% in each subsequent quarter, we generated a positive free cash flow during the depths of the COVID pandemic, and we generated significant free cash flow enabling us to payback over $1 billion of debt to achieve our gross debt target one year before what we committed to. I'm very pleased and proud as to what we've accomplished. Divesting the soda ash business and completing the Cristal acquisition was truly transformational.

Over the last several hours, John and JF, Missy, Jeff, Russ, and John Srivisal have shared with you our core business strengths and our plans to further differentiate ourselves from other chemical companies to deliver long-term robust financial performance. Today, we introduced new and improved long-term targets, reflecting the strength of our business model and the transformation into an industry leader. These targets are supported by our leadership in the industry, combined with our differentiated vertically integrated business model, which enables strong cash flow, while maintaining balance sheets and capital expenditure flexibility. We remain committed to shareholder value creation and will continue to use excess cash to delever and return cash to shareowners in both the forms of dividends and stock repurchases. And finally, we have a clear and disciplined capital allocation priority that supports our longer term goals, while creating value for shareowners.

I'd like to spend a couple of minutes summarizing our historical revenue, adjusted EBITDA, and free cash flow performance over the last three years, which demonstrates a history of executing against business plans and commitments. In 2021, revenues were $3.6 billion, representing a 9% CAGR over 2019. Our adjusted EBITDA in 2021 was $947 million, an 18% CAGR and 400 basis point margin improvement off of 2019, one of the significant drivers for that significant increase in EBITDA from 2019 to 2021 were the significant synergies that we realized from the Cristal acquisition that John just spoke to you about. And lastly, I'd like to discuss the improvement in our free cash flow. Our free cash flow in 2021 was $468 million, a 48% CAGR over 2019, and we maintained our free cash flow conversion ratio above 70% with the goal of keeping it above those levels going forward. We're proud of our competitive position as the market leading TiO2 company, we're proud of our execution against our strategic initiatives, and we're proud of the financial performance over the last three years.

Building off this solid foundation with the initiatives and activities that Missy, Jeff, Russ, and John discussed, enable significant runway ahead as we expect to see earnings expansion, driven by top line growth, by reducing our cost per ton through high-return capital projects, remaining focused on disciplined expense management, and leveraging our tax attributes. One of the reasons I'm so confident about our future is that we have a healthy

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balance sheet that supports future value creation. We have significantly strengthened our balance sheet since 2019 by reducing debt by $1 billion, including the $740 million that we paid back in 2021, reaching our targeted gross debt target of $2.5 billion on April 4, 2022, one year ahead of schedule. This has resulted in improved net leverage to $2.5 billion at the end of 2021 and $2.4 billion as at the end of the first quarter on a trailing 12-month basis. It also has resulted in upgraded credit ratings and annual reductions in our cash interest.

Additionally, in Q1 of this year, we refinanced our nearest maturity high interest rate debt, which reduced our interest rate to approximately $120 million this year and increased the amount of our prepayable debt and it extended our maturities to 2028 and beyond. Given the current interest rate environment, it's a positive that roughly 70% of our debt is at a fixed rate. You may recall as part of our 2019 refinancing we entered into swap agreements with notional values of $750 million that expire in 2024 that swap out a portion of our variable rate payments on our term loan for fixed rate payments. We also have ample liquidity, $758 million available at the end of the first quarter 2022 and our cash balances are well distributed across our global operations. Looking ahead, we are targeting a net leverage ratio of 2.1 time by the end of this year in a range of 1 to 1.5 times by the end of 2025, which translates into a total gross debt balance by the end of 2025 of less than $2 billion, which is expected to further reduce our annual cash interest to approximately $90 million.

Moving to capital allocation, Tronox's capital allocation strategy remains focused on returning value to shareowners by creating value by investing in high returning capital projects, continuing to delever, and returning cash to shareowners in the form of dividends and share repurchases. I'd like to review our capital allocation track record. First, starting in 2019, we repurchased a total of $288 million in shares, including 14 million shares from Exxaro as part of our activities to divest their ownership interest they obtained as part of our 2012 merger. We also delevered and we also continue to invest in internal projects with a focus of increasing EBITDA per ton. During our 2019 Investor Day, given our high leverage ratios, we made commitments to improve on our net leverage target by bringing it down to 2 to 3 times and reducing total debt to $2.5 billion. We intended to begin to continue to delever in 2020, but with the impact of the COVID pandemic, we flexed our business model by controlling spend, reducing CapEx, and managing our balance sheet, allowing us to generate $160 million of free cash during a very difficult and challenging year.

During 2021, we repaid the $750 million of debt that I talked about, as well as we reinvested $272 million of cash internal projects with a focus on newTRON and Atlas Campaspe. Dividend payments since 2019 have nearly tripled as we've increased our quarterly dividend four times from $0.045 to $0.125. Looking forward, we expect a balanced allocation of capital that will continue to drive shareowner value creation. First, we will continue to focus on high return in internal projects to drive growth and also increase EBITDA per ton with a range of capital expenditures of $250 million to $300 million by 2025. We expect to continue dividend payments with increases being evaluated annually and the remaining cash will be fairly split between both share repurchases and debt repayment.

As you heard earlier today, the timing and amount of our capital expenditures is flexible. Our capital expenditure program is focused on three categories; safety and maintenance, vertical integration, and growth and cost reduction. As we allocate capital across these three categories, our goal is to focus on high-return projects with total capital returns of 25% to 30% inclusive of maintenance and safety capital. There's a high degree of flexibility embedded in our capital spend program. As you can see, our capital spend has historically been below $300 million a year. In 2022, we've increased our forecasted capital spend to $400 million to $425 million given our investments in newTRON, our global business transformation initiative, as well as vertical integration, but both will improve future earnings. After completing these investments, we expect that our CapEx will drop back down to $250 million to $300 million a year from 2025 to 2030.

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I'd like to spend a couple of minutes to provide an overview of the tax attributes, given the significant benefit that they've provided on both a historical and on a future financial performance. Tronox is uniquely positioned from a tax perspective, given our global footprint and given the tax attributes that we've accumulated over the last nine to 10 years, the most of significant of which was Anadarko settlement that was reached in 2014. As you can see in this slide, we have over $8.5 billion of tax attributes available in the United States, Australia, and other jurisdictions, that those tax attributes are expected to yield an estimated tax benefit of $1.2 billion given current tax rates. As a result of these favorable tax attributes, our cash taxes were $50 million and $70 million lower respectively in 2020 and 2021 than they otherwise would have been if we didn't have the attributes. And we expect these tax attributes will save us approximately $120 million in cash taxes in 2022. Our forecasted earnings profile assumes that our Australian attributes will be nearly fully utilized in 2025, but our US attributes will be available for the next 15 to 20 years. Our 2025 estimated cash tax savings from our attributes is approximately $90 million, with an additional $60 million to $90 million over the next 10 to 15 years, a source of significant value for our shareowners.

Moving to the next slide, I'd like to provide a little bit more detail to the expectations for 2025 that John and JF shared earlier. Starting with adjusted EBITDA, we are targeting adjusted EBITDA in 2025 to be in the range of $1.3 billion to $1.5 billion, which implies an EBITDA margin in excess of 30%. Our market assumptions are relatively modest as we have modeled approximately a 2% CAGR increase over the current year in pigment volumes, which is slightly lower than the historical and projected GDP estimates – global GDP estimates, relatively flat pigment pricing at just below a 1% CAGR over the current year and a 2% CAGR in zircon pricing and zircon volumes. In addition, as a result of our newTRON initiative and other capital investments, we're also estimating approximately an additional $50 million of savings on top of the newTRON savings that Russ spoke to you about earlier. As previously mentioned, CapEx is expected to decline back down to $250 million to $300 million by 2025 as we complete our newTRON and vertical integration investments.

Free cash flow is expected to be in the range of $750 million to $850 million, which implies a conversion ratio near 80% following a continued improvement in our ability to generate cash. Our free cash flow uses are estimated to be $80 million to $100 million for cash interest, $125 million to $150 million in cash taxes, and $50 million to $100 million in working capital. We are confident in our ability to achieve these new and improved longer term targets based upon our strong track record of delivering on our commitments.

Turning to the next slide, these bridges show how our 2025 targets are clearly achievable through a balanced mix of top line growth, which includes a conservative pricing assumption, which should give us a little bit of upside as well as executing against our strategy to reduce costs and optimize cash uses. We are not relying on market growth alone. The direct actions we are taking to reduce our cost and optimize cash uses carve the path to realize our long-term financial objectives. But we're not only confident in our ability to achieve our long-term financial objectives, we're just as confident, given our differentiated vertically integrated business model with our ability to manage earnings and cash flows during a downturn in the global economy, as well as realize even better financial performance.

At some point in the next one to two years, it's likely that we'll need to manage through a recession. During a recession, we are confident we can generate $800 million to $1 billion of adjusted EBITDA and $300 million to $400 million of free cash flow. Our assumptions for a recession case is a reduction in TiO2 volumes by up to 10%, a reduction in TiO2 pricing of $200 per metric ton. But our TiO2 pricing assumes that the ore market retains tight given the lack of new capacity. It also assumes that process chems only decline 2.5% off of current levels and it also assumes energy pricing only declines 2% off of current levels. If there are larger declines in process chems and energy, it would be further reflected in declines in pigment pricing, which would have known that impact on

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our target adjusted EBITDA or free cash flow. And to put this in perspective, our energy pricing and process chem costs are up $350 per ton to $400 per ton since 2020.

Our ability to manage through difficult periods was tested and proven during the COVID pandemic, as we have a number of different levers in our global diversified and flexible manufacturing networks that we can pull. Our vertically integrated network allows us to run our mining and beneficiation assets at 100%, regardless of the economic scenario, which allows us to take advantage of fixed cost absorption in a cost structure as John mentioned, that is over 60% fixed. We also have an expense reduction playbook that can be executed given any economic scenario with cost-saving activities bucketed into three different categories based upon prioritization given the nature and the depths of the downturn. In addition, our capital spend is flexible and we have a balance sheet that can be managed to generate cash.

On the other end of the spectrum, we see significant potential upside in our business, with pigment volumes 10% to 15% higher than current levels and an additional $200 to $300 per ton of additional pricing. We are confident that we could deliver adjusted EBITDA of $1.5 billion to $1.7 billion, adjusted EBITDA margins of 32% to 34% and $850 million to $1 billion of free cash flow. And if Jazan is successful, the adjusted EBITDA on free cash flow would be even greater. Because as a reminder, given our feedstock integration, we realize a $300 to $400 per ton cost advantage, so a 250,000 metric ton furnace operating at full capacity has the potential to contribute an additional $75 million of EBITDA. We're very excited about our future earnings potential.

Before I wrap up my presentation, I wanted to revisit our full year 2022 guidance. Given our performance year-to-date and our continued improvement that we expect in the second half, we're increasing the bottom end of our range and we're narrowing our range for adjusted EBITDA to be $1.075 billion to $1.125 billion. This assumes some continued logistics and supply chain challenges get offset by additional price increases and favorable fixed cost absorption benefits. Our adjusted EPS is expected to be $3.15 to $3.59 per share, which is a significant improvement off of the 2021, $2.29 per share. Free cash flow is expected to be greater than $300 million, which has been impacted by the $85 million settlement with Venator, $25 million of incremental CapEx given the extraordinary inflation associated with Atlas Campaspe, and $50 million of working capital associated with slag that we expect to purchase from Jazan before the end of the year.

In closing, I'm very happy and excited to be part of this great company and management team. We have transformed the business over the past three years and we intend to transform it again the next three years through our newTRON and vertical integration investments to maintain our Tier 1 cost structure, which will enable us to continue to drive long-term robust performance. Through the initiatives that Missy and Jeff, Russ and John shared with you this morning, we are well-positioned to achieve our long-term targets centered around EBITDA growth, capital allocation, and deleveraging. Our differentiated vertically integrated model and our portfolio of products deliver best-in-class returns and profitability metrics. Our longer term growth is supported by our cash generation and our healthy balance sheet. We're also committed to continue debt reduction while also returning cash to shareowners in the form of dividends and share repurchases while maintaining a disciplined capital allocation strategy.

Finally, I know the macroeconomic concerns are top of mind for many of you. So, I want to reiterate that our transformation over the last three years has made us much more resilient to any downside scenario. We are prepared to weather any challenges the economic environment given our global operations, given our vertical integration, our flexible balance sheet and capital structure. And even during a trough, we expect our business to generate adjusted EBITDA margins in excess of 20% and at least $1 to $2 of free cash flow per share. We are a different company as this is not something we could have said three years ago. Our future is bright and we look forward to updating you on our progress in the years ahead.

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And with that, I'd like to turn it back over to John and JF for closing remarks.

John D. Romano

Co-Chief Executive Officer & Director, Tronox Holdings Plc

There we go. So, Tim gave a very, I think, fulsome summary of today's events. I'd like to first off thank all of you for coming here and your interest in Tronox. Hopefully, we pick some additional interest in the company. We believe it's a long-term investment worth considering. JF and I are very excited about where we are. We're confident in our strategy, supported through our vertical integration, our global footprint, our diversified product portfolio, our process in product technology, which is going to be supported through newTRON and ultimately the people that we have with the company.

You've got an opportunity to meet a lot of the people, some of them that you haven't met that are up here on the front row, you'll have an opportunity to chat with them after we're finished here after the Q&A. But we believe that that team is going to help us in the execution of what we've identified as a bit challenging but realistic goals for 2025 to be at $1.3 billion to $1.5 billion of EBITDA, generating $750 million to $850 million of free cash flow with a capital allocation plan, which will focus on distributing that cash around returns, growth, and managing the balance sheet. So, JF?

Jean-François Turgeon

Co-Chief Executive Officer & Director, Tronox Holdings Plc

Thank you, John. And again, thank you everyone for your interest in Tronox. Thank you to our virtual colleagues that are not here as well. We're going to use and this presentation will be available in the coming weeks and months. So, hopefully, it will trigger interest in us. There is unknown in front of us, that's for sure. But I think that with the strategy that John and the team elaborate, we feel that we have all the tool to be able to go through any challenge that will come to us. And we're investing in our business to control what we could control. And we see the possibility of some interesting opportunity that may come in front of us as well. And that's why you have seen a team of passionate people about TiO2, a team that has a track record to deliver on their commitment. And I can tell you that John, myself, and this team, we are absolutely convinced that we will deliver on the financial target that we have presented to you today.

And on that, I would like to invite the presenter to join us and we'll have another Q&A session with you.

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QUESTION AND ANSWER SECTION

Jennifer Guenther
Vice President-Investor Relations, Tronox Holdings Plc

A

Once again to all the presenters for your presentations, very insightful. We'll take again questions from the audience. [ph] Barbara (02:56:22) will pass around a mic and we'll also take them from the webcast as well.

Matthew DeYoe
Analyst, BofA Securities, Inc.

Q

Hey. Matt DeYoe from Bank of America. So, Tim, you kind of walked through recession scenario of EBITDA of $800 million to $1 billion and sorry to kind of bring this one up right away. But – so, I mean we're not that much further above that level now and we were kind of in that level last year. So, it was 2021 recessionary scenario and I'm happy to see you were modeling some inflation in the bridge. What kind of annual inflation do you see now because it used to be [ph] 40% (02:57:02) and this year it's kind of wild, so what internally do you think of?

Timothy Craig Carlson
Chief Financial Officer & Senior Vice President, Tronox Holdings Plc

A

Yeah. The inflationary pressures are really by component of our underlying cost structure. We've seen a lot more inflation on the process chems on the energy side than we've seen on the labor and some of the other components. Fixed cost components, we haven't seen a significant amount of inflation on globally. And just given our global manufacturing network, we're not really exposed to the inflationary pressures in any one jurisdiction, right? We talk about the inflationary pressures we have in the UK around natural gas, but we don't see that in our other jurisdictions, for example, in Australia, Saudi Arabia, and Hamilton where we're hedged. So, yes, there are pressures. As it relates to the underlying business model, we have continued to improve our underlying margins as it relates to those costs that have come through in terms of the success that our commercial team has had with incremental pricing, which has allowed us to improve our overall EBITDA. And we believe that we'll be able to maintain that margin despite what happens in a recessionary cycle, there will be some reductions in process chems as I mentioned, but we don't think we'll be given all of that back as pricing.

Jean-François Turgeon
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

And maybe, Matt, I can add to that that we are investing in our business and at the end of this year, we're going to start a new mine, Atlas Campaspe. Obviously, at the moment we're running an old mine that is at the end of its life with higher costs and have we start that new mine, we'll have much lower cost of production. And it's the same story with newTRON. newTRON is a project that we have invested, I mean, started to invest a few years back. We're investing a lot this year, but the benefit are accelerating with this. So, when you had the saving on our mind, the saving with newTRON, that explain why we're very confident in a recession to do better than what we did last year.

Matthew DeYoe
Analyst, BofA Securities, Inc.

Q

Understood. And one last one, I guess, on zircon. There was an assumption around TiO2 pigment price weakness in a recession, but zircon was maybe not mentioned. And I'm personally surprised it's been as strong as it has given everything that's happened in China and construction data points. So, why is maybe zircon more stable this cycle than it would have been?

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Timothy Craig Carlson
Chief Financial Officer & Senior Vice President, Tronox Holdings Plc

A

So, just to clarify, in a recessionary case, I didn't highlight it, but recession – zircon pricing was down as well. But go ahead, Jeff.

Jeff Engle
Senior Vice President-Commercial & Strategy, Tronox Holdings Plc

A

Yeah. So, to Tim's point it was down as well. But I think from a supply standpoint, zircon is behind TiO2. So, supply is much more constrained. I mean, significantly more constrained and it's just – we see a longer timeline on that.

John D. Romano
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

When you think about from the comparison to where we were a year ago, we're going to sell 100,000 tons less zircon this year than we did last year has nothing to do with demand. It has everything to do with supply. So, that supply line has been depleted. There's been no reinvestment in that business that's rebuilding that supply chain or continuingly even with any kind of – China is a big market for zircon, but we're still struggling to meet the orders because we're – the inventories are low and it's going to take a significantly longer period of time for that to get rebuilt and it's going to require investment and that investment does not happen in a year or two years. It happens over time.

Jennifer Guenther
Vice President-Investor Relations, Tronox Holdings Plc

A

I got one while the mic is being passed along from the webcast. How much debt is assumed if Tronox acquires Jazan?

Jean-François Turgeon
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

So, maybe I'll take that. But for sure it's clear that from a debt point of view, we want to achieve our leverage ratio that we talked about 1 to 1.5 times. Jazan, if we acquire it for the money we invest, is a non-cash acquisition for us and we explained that in 2018 when we negotiated the deal, the deal was for two furnace operating at sustainable operation. At the moment, they're one furnace that has been modified and its running and we don't know yet if it will reach sustainable operation. We're doing all our efforts to make that happen. And as we said, it's toward the end of the year that we'll know more about where we are and we'll keep you informed and we're obviously in discussion with Tasnee at the moment about how to go about this.

David Begleiter
Analyst, Deutsche Bank Securities, Inc.

Q

Thank you. Dave Begleiter, Deutsche Bank. Can you discuss demand trends in Q2? Any signs of weakness I would highlight, of course, [indiscernible] (03:01:56) weakness in both Europe and US recently. And what's your visibility in terms of demand order books through maybe the end of the paint season into the fall, given again low inventories amongst your customers? Thank you.

Jeff Engle
Senior Vice President-Commercial & Strategy, Tronox Holdings Plc

A

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Yeah. No, thanks, Dave. Good question. I would say, I mean, we're not immune to hearing about the – some of the weaknesses that you hear about in primarily in Europe and China really. Definitely and they brought up some softness. But overall, I would say the order books are very strong. We're still not able to fulfill all the orders and demand that we're asked for. And there're still so many bright spots around the world with high growth. It's offsetting some of these other signs of additional weakness. But even in Europe the demand still remains strong. The order book is still strong even though you hear more and more about weaker demand.

John D. Romano
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

When you think about where we would normally be, when you start to see any kind of a real downturn, our order book would start pulling back, our lead times would probably be brought forward. And our lead times are still as far out as they were a year ago and we're still having difficulty meeting those orders. So, Jeff, I think it's clear that our lead times.

Jeff Engle
Senior Vice President-Commercial & Strategy, Tronox Holdings Plc

A

Yeah, we haven't changed.

John D. Romano
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

Two months?

Jeff Engle
Senior Vice President-Commercial & Strategy, Tronox Holdings Plc

A

That's right. Two months. That's right. And a lot of it is due to what we've talked about the supply chain still being empty. And even though a lot of customers in these regions, they're still rebuilding their inventories.

Frank J. Mitsch
Analyst, Fermium Research

Q

Yes. Hi, Frank Mitsch from Fermium. Question for Russ, a question for Tim. Russ, really interesting the advanced process control impact that has had on your operations given your background at Rio as well as JF. I'm curious, are you aware of your competition and are they using something similar to that? Are you ahead of the competition? Is that commonplace? So, where would that fit in terms of being a differentiator?

Russel Austin
Senior Vice President-Operations, Tronox Holdings Plc

A

It's a good question because we know what we're doing, but sometimes it's difficult to know what others are doing. We've – like I said, we're working with a partner who is dedicated to that kind of technology and they're not – they're certainly not aware of certainly others who might be sort of compared in our industry that are doing it. However, we accept that it has been technology that's been mastered in the past. It's not cutting edge in terms of today's issue. So, whilst I accept that in the industry it's fairly well-embedded as I think we're confident that we're one of the first to bring it in. And I think the secret will be how far we go with it and how far it penetrates. And I say even to go beyond that to AI, I think that really is pioneering stuff. So, we're really happy with our partner. We have a feel for who is and who isn't, but at this stage what I'll say is we're going to focus on it being a successful for us. Is it possible again?

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Frank J. Mitsch
Analyst, Fermium Research

Q

Yeah. No, it's very interesting. And Tim, you outlined the uses, the priority uses of cash and outlined for monies that are left over after dividends and CapEx and so forth. It would go kind of equally to buybacks and to debt paydown. And I'm just curious as to what the role of being opportunistic might be in terms of share repurchase if hypothetically speaking the stock came under pressure.

Timothy Craig Carlson
Chief Financial Officer & Senior Vice President, Tronox Holdings Plc

A

Yeah. So, given the great work that our treasury team has done, Frank, we're very comfortable with $150 million to $200 million of cash on our balance sheet and then using anything above that to selectively repurchase shares and to delever. Our current thought, Frank, is fairly even split between the two. We talked about a $500 million reduction in gross debt. So, you would most likely anticipate and you can assume there would be a $500 million share repurchase over the next three years as well. So, we fully utilize the $275 million we have left on the existing program, and we'd be going to shareowners for a new program probably in the next 12 to 18 months.

John McNulty
Analyst, BMO Capital Markets Corp.

Q

John McNulty, BMO. In the recession scenario, Tim, you kind of highlighted there wasn't much of an assumption for ore pricing coming off, I guess. Can we get an update as to how the cost curve for ore looks right now and how that would hold up if there is a 10% decline in volumes on the pigment side?

John D. Romano
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

And maybe, Jeff, you want to touch on that.

Jeff Engle
Senior Vice President-Commercial & Strategy, Tronox Holdings Plc

A

Cost curves?

A

Yeah.

John D. Romano
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

The question was around ore and we didn't assume any pricing coming down on ore in that recession scenario and how that might relate to the volumes.

Jeff Engle
Senior Vice President-Commercial & Strategy, Tronox Holdings Plc

A

Yeah. So, if price comes down on ore, I mean, you could see there's still quite a bit of it as John showed in our model at least has fixed costs. So, they're still typically will run for volume. But what you will see I think is a lot of the HMC. And so, there's a lot of that, what I would call, intermediate ore that's going to China and other places and big slugs that's not separated or upgraded. We typically see that start to fall back as well as ilmenite. So,

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ilmenite as well in China is a big lever that if price comes down, we'll see some of that come down, especially with respect to what's happening in iron market as well.

Jean-François Turgeon
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

But if price...

John D. Romano
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

Go ahead.

Jean-François Turgeon
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

And John, we have seen at the moment the feedstock price continue to move up even with a slowdown in China...

Jeff Engle
Senior Vice President-Commercial & Strategy, Tronox Holdings Plc

A

That's right.

Jean-François Turgeon
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

...that has happened in the last six months. Ilmenite price hasn't moved down at all in China. In fact, imported ilmenite price is moving up.

Jeff Engle
Senior Vice President-Commercial & Strategy, Tronox Holdings Plc

A

And to be clear, I mean, ilmenite supply will come down. Yeah.

John D. Romano
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

And think about it from the high-grade feedstock market. So, let's just think about our volume, that's 10% would be 100,000 tons. That would be the equivalent of about 100,000 – 110,000 tons of feedstock that wouldn't be available. And there is a shortage of feedstock on the high-grade side well through 2025. So, that's why we think and the assumption is that where we are right now and the comment that was made earlier about some of these 20 – a lot of companies that are still below cash cost, that's going to be one of the triggers that's going to maintain the price in our opinion. Could there be price going down? Yes. And that's why I think Tim had a $200 drop on price versus what we would have seen in the last downturn, which was $300, which was significantly less than what we saw in the downturn before. And we believe that has everything to do with all the initiatives that we've put in place to stabilize our margins.

Joshua Spector
Analyst, UBS Securities LLC

Q

Yeah. Hi. Josh Spector, UBS. A couple of follow-up questions on Jazan, just playing with some different scenarios. So, if we say TiO2 pigment demand is flat next year, I assume you wouldn't want to exercise that purchase of that early because then you'd be long feedstock for a period of time. Is there a backend date in terms of when you could choose to exercise that? And if you choose not to exercise it, is there any advantage

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agreement for you guys to purchase that feedstock from Tasnee on a commercial basis in between or does that then go to the rest of the market? And the last question on this is you did the mechanical changes on the first furnace, what would be roughly the investment required on the second furnace, assuming what you did was successful there?

Jean-François Turgeon
Co-Chief Executive Officer & Director, Tronox Holdings Plc
A

So, Josh I'll start and I'll have my colleague to do add on Jazan. What I can tell you is that we're short – we're vertically integrated, but short on feedstock. So, we've been buying feedstock on the market to run our plant at full capacity. And with Jazan ramping up one furnace, we're still short. So, that's not like an asset that will make us long and it's clear for me and John and our team that we don't want to be in a situation where we would be long on feedstock. Because there is an advantage of being able to always run our mine and upgrading facility at full capacity. And as John explained, I mean, the fixed cost of those asset, that's why we want to remain in that situation. Look, it took about two years to modify furnace one that is up and running at the moment. So, to modify the second furnace, it's not a short event. We're not talking about a few months and it is a significant investment of money that has to be done to make the modification that were done to furnace one that is up and running at the moment.

John D. Romano
Co-Chief Executive Officer & Director, Tronox Holdings Plc
A

And we can't get really give you a definitive number on what that is at this stage because it's still not to the point where it's operational and it's up and running at what we would refer to as sustainable operation. So, there's still work to be done. To be clear, though, it's an advantage for us right now. We are getting feedstock from that plant. We're using it at our facility in Yanbu to make TiO2 in a market as Jeff and John Srivisal mentioned earlier, that's very tight. So, we have flexibility and it's going to take some time for us to get to the point where we're in an agreement and finalize those discussions with Tasnee to get that worked out.

D. John Srivisal
Senior Vice President-Business Development & Finance, Tronox Holdings Plc
A

Yeah. And Josh, as we mentioned, Jazan is producing now and we are buying feedstock from them. There is an agreement in place where they supply us and we purchase from them.

Timothy Craig Carlson
Chief Financial Officer & Senior Vice President, Tronox Holdings Plc
A

Yeah. But that's at market, it's not at a...

Joshua Spector
Analyst, UBS Securities LLC
Q

Yeah, close to market price.

Jennifer Guenther
Vice President-Investor Relations, Tronox Holdings Plc
A

While the microphone runs around the room, I have a question that came in on the portal. What do you attribute the stock prices low valuation on an absolute basis and further on compared to industry comparables?

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John D. Romano
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

That's a tough one. I'd say, well – look, we believe we're undervalued. There's no question. When we think about what we did last year versus our performance of the stock this year, it's not been where we wanted it to be. That's one of the reasons we're sitting here today with you trying to explain why we feel we're differentiated and we have the ability to work our way through what could be, as Tim mentioned, in the next year, year and a half, possibly a recession scenario. So we do think we have a business plan that's solid, the strategy that's going to allow us to continue to generate the value that we have and once we've done that and we continue to do that, the stock will reflect – the price will reflect that stock – the stock will reflect that price.

Timothy Craig Carlson
Chief Financial Officer & Senior Vice President, Tronox Holdings Plc

A

And unfortunately, there's some history as it relates to TiO2 stock prices over the past 10 years, which I think has clouded things a bit. But frankly, from my perspective, and as I mentioned in my presentation, Tronox is different. And as John and JF talked about, the industry is different. So, from my perspective, it's just a matter of time for the investment community to digest and see the results and the data that supports those hypotheses. And as a result, we'll see a tick-up then.

Jean-François Turgeon
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

I think we want our track record to show that we're investing in our business and the transformation that we have done to that business are delivering value. And our strategy is clear. It's focused on what we can control. Obviously, what's happening with the stock market at the moment has nothing to do with what we're sharing with you at the moment. But I think that if we continue to demonstrate performance, we have a great team that is committed to deliver the value that we presented to you, that would be reflected in the value of our stock.

John D. Romano
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

I think just a final note on that. If you think about it, we mentioned it two or three times and we've gotten 20 quarters north of 20% adjusted EBITDA since fourth quarter of 2020. We've been at 25% higher. We've been commoditized. To me, that doesn't sound like a commodity. That sounds like an industry – that participate in an industry that's actually converted their business to something that's much more stable.

Jeffrey J. Zekauskas
Analyst, JPMorgan Securities LLC

Q

Jeff Zekauskas from JPMorgan. I want to just try my earlier question once again. So, in your projections, you talk about $800 million in free cash flow, which is about $5 a share, which is a 30% free cash flow yield. And in your recessionary scenario, I think you talk about $300 million to $400 million of free cash, which is about $2 a share, which is 12% free cash flow yield on the current share price. But you also say that you want to match or roughly match your share repurchases with your debt pay-down. I don't exactly know what your cost of debt is. I don't know, 3%, 4%. So why is it that we want to match our debt pay-down with share repurchase when it seems prima facia that the share returns are much, much higher? And it also seems that you don't have an acquisition agenda. So, why is a 1 to 1.5 leverage level the right level for the company? Why shouldn't it be 3.5 or 6, 5?

John D. Romano
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

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We've been there before. So, Tim?

Timothy Craig Carlson
Chief Financial Officer & Senior Vice President, Tronox Holdings Plc
A

I appreciate the question, Jeff. From our perspective, we do not have a desire to be investment grade, right? So, put that on the table, right?

Jeffrey J. Zekauskas
Analyst, JPMorgan Securities LLC
Q

Okay.

Timothy Craig Carlson
Chief Financial Officer & Senior Vice President, Tronox Holdings Plc
A

That doesn't give us a benefit.

Jeffrey J. Zekauskas
Analyst, JPMorgan Securities LLC
Q

Yeah.

Timothy Craig Carlson
Chief Financial Officer & Senior Vice President, Tronox Holdings Plc
A

Right. So we're not doing debt pay-down to get to invest. That's not what -we're doing it to maintain a healthy balance sheet, right? There are a number of investors out there that are still concerned about leverage in this space given the impacts of the economy. So we are conscious of that. We did buy shares back in Q1. We would have bought shares back in Q2 if we didn't have the Venator settlement. So, share repurchase is absolutely a lever that we're going to pull. And fairly equally may not be fairly equally in three to six months, but that's kind of where we are today.

Jeffrey J. Zekauskas
Analyst, JPMorgan Securities LLC
Q

If I may follow up, sometimes your share price is, I don't know, $25 and sometimes it's $17. When you think about your share repurchase, does [indiscernible] (03:16:58) or is it worth postponing various capital projects in the light of downward volatility in the share price, or are you more or less set on what [indiscernible] (03:17:08)...

Timothy Craig Carlson
Chief Financial Officer & Senior Vice President, Tronox Holdings Plc
A

No, excellent question, Jeff, because the investments that we're making for newTRON and Atlas Campaspe and Vertical Integration Day will realize even greater returns than share repurchase in the future, right? So there's no reason to swap out capital projects for share repurchase, right? So, with that being said, when we think about at what prices we would buy back, obviously, $17 is better than $25, but even $25 is low.

Jeffrey J. Zekauskas
Analyst, JPMorgan Securities LLC
Q

Yeah.

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Timothy Craig Carlson A
Chief Financial Officer & Senior Vice President, Tronox Holdings Plc

Given where we think the share price should be in two, three years, we're going to have plenty of opportunity buying shares at below-market prices.

Jeffrey J. Zekauskas Q
Analyst, JPMorgan Securities LLC

Okay, great. Thank you so much.

Jennifer Guenther A
Vice President-Investor Relations, Tronox Holdings Plc

Are there questions in the room? Yes.

Daniel R. McConvey Q
Analyst, Rossport Investments LLC

Daniel McConvey, Rossport Investments. Just in things like the synergies, which you did really well in the last couple of years, and for newTRON, what is the measurement process in terms of measuring these synergies in the past and going forward the next two or three-year window?

John D. Romano A
Co-Chief Executive Officer & Director, Tronox Holdings Plc

That's a good one. John?

D. John Srivisal A
Senior Vice President-Business Development & Finance, Tronox Holdings Plc

Yeah. So, I mean, we have a group within FP&A that monitors it on a monthly basis. And so, we have people who are in charge of driving each of the initiatives. And so, we track it, we look at the results that come in and we tie it to true numbers that we can see hitting the bottom line or cash, depending on which project it relates to.

Daniel R. McConvey Q
Analyst, Rossport Investments LLC

Is there a whole accounting system for this or...

D. John Srivisal A
Senior Vice President-Business Development & Finance, Tronox Holdings Plc

Yes, there is.

Timothy Craig Carlson A
Chief Financial Officer & Senior Vice President, Tronox Holdings Plc

And what's great about it, it's not just FP&A, but it's really the round tables globally at each of our jurisdictions with Russ and team, because Russ is holding his teams accountable for it and we as business partners are helping support it.

Russel Austin A
Senior Vice President-Operations, Tronox Holdings Plc

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Yeah, what I like about it is, the system that's been set up is very – is directly linked to operations. So, we know what we do, how we're going our progress, and then how that translates to the bottom line. And the relationships that we have, we understand it very well in terms of not only what it's producing, what value it's realizing, they're tracking against the schedule. So, it really does drive us to getting to that number that we all want to get to.

Daniel R. McConvey
Analyst, Rossport Investments LLC

Q

Okay. And if things go well and you hit your targets in free cash flow, this would be in addition to it if you succeeded in hitting those targets for newTRON.

John D. Romano
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

Well, newTRON's actually factored in...

Russel Austin
Senior Vice President-Operations, Tronox Holdings Plc

A

That's factored...

John D. Romano
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

... [indiscernible] (03:19:33), yeah, newTRON's factored.

Russel Austin
Senior Vice President-Operations, Tronox Holdings Plc

A

But we've got a good track record of how we execute projects.

A

[indiscernible] (03:19:43).

Varkki P. Chacko
Managing Principal & Chief Investment Officer, Credit Capital Investments LLC

Q

My name is Varkki Chacko at Credit Capital. Is there a valuation that you put on your mines in terms of replacement value? We heard a $14 billion number for the zircon assets. How about the rest of the mining operations? And second question, on the rare earths, could you share your thoughts on – that seems to be a very strategic opportunity. Given your presence in mining, could you expand on that?

Jean-François Turgeon
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

Yeah. Well, great question. Thank you. I mean, I always like us to talk about our resource because we have extended reserve, but sometime people compare junior company to our-self. And I think that our resource are undervalue and I will ask Russ to elaborate on what we're doing in Atlas Campaspe and what it means. So, I think that – the point that is important is at the moment, we are investing to extend the life of our mine. And I think that's what's very good with the period we're in, but we'll have a nice 10 years where we will have our mine at full production with no need of fresh capital. And that's what differentiate I guess mining from chemical and being vertically integrated, we have to explain that to you guys and we'll do that as part of the 10-K and our reporting

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because there's more data that will be published and information about all of our mine. So, I hope that would help on this.

Russel Austin
Senior Vice President-Operations, Tronox Holdings Plc

A

I think you've explained it, but I mean, every time we report, we learn more about our mines, what they can produce. We continue to drill out and understand it better, and...

Jean-François Turgeon
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

But maybe you can elaborate on the infrastructure we're building and what it will open up.

Russel Austin
Senior Vice President-Operations, Tronox Holdings Plc

A

Yeah. Yeah. Well, Atlas is moving to a new province, if you like. So it's a completely new area. We've never been in there before. So, in this project, we're building out infrastructure like roads, rail networks. This is that first [indiscernible] (03:22:09) investment. And then, when we look at the life of the Atlas Campaspe deposit, there's other tenements that we have in the area. So, we can easily now just drill out those tenements, as I mentioned, and those will quickly turn into some sort of reserve. That's how we feel about it. And so, we expect to be in this province for quite a while longer using the infrastructure that we've invested now, we'll service for far longer than what is the current life of Atlas Campaspe.

John D. Romano
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

[indiscernible] (03:22:47). Jeff.

Jeff Engle
Senior Vice President-Commercial & Strategy, Tronox Holdings Plc

A

I'll cover the rare earths one. It's the one like I said before, we're in early stages of our plans. But there's a bunch of different pieces to this. So, one, we're already selling some rare earths as part of our tailings. And that's where we're getting the majority of those resources because they're already concentrated. Now, when we look at it and look at how do we really unlock this value, then you can take that you can bring that up to monazite, right? So, monazite is the mineral that contains it and there's significantly more value in that. And we believe there's more value and that's a really easy step. But then the other things that our team is working on and really excited about is you take that monazite and then crack and leach, then you go to oxides and ultimately how far down the chain do you go, and there's value at each step. And we believe we have expertise to at least go potentially one to two steps down.

Jeffrey J. Zekauskas
Analyst, JPMorgan Securities LLC

Q

Sorry, maybe just one more question on the pricing environment. So just given the steepness that we've seen in TiO2 pricing so far, presumably the margin stability agreements that you have in place with the cap and collar systems, they're going to be below market at this point, I guess. Is there a way to think about market levels off, how long until those kind of get reset to the market price, or how much upside would there be in that portion of the business that you have if the market does level off in a mediocre, macro or what have you?

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Jeff Engle
Senior Vice President-Commercial & Strategy, Tronox Holdings Plc

A

Yeah. I'll start and then John can jump in. So, no, thanks for the question. So, I'll go back to the comment that I think is really important, that these aren't alike in any way, that a lot of them are different. And so, there are a number of ways that we can manage the stabilization initiative. And so, it's not like we have resets all of a sudden on July 1 or January 1. In fact, some may have resets or circuit breakers that would occur at any point. And so, there's so many different mechanisms. I would just say, while we won't comment on what percentage or anything like that, there's a lot more flexibility embedded in many of these.

John D. Romano
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

That's why we made that reference around – it's having an influence on everything that we're doing. We're renegotiating some of those agreements now, too. Some of them have been there for three years, and we're in the midst of a renegotiation process. So, it's an element of it. But I'll go back to the point about peak pricing, though. We still don't think – I think there's a thought process that, okay, I don't know what's going to happen in the economy, you read a lot of different things, yesterday, interest rates go up, there's things that are putting a lot of doubt around people's minds around what might happen with regards to the economy. But when we think about where we are in some of these pricing agreements over time and think about the bottom end of the range, when that was back in 2011, when it was $2,000 a ton, it's not going back there. People have to get comfortable with – you've got inflation, price has got to move up along real terms, not just nominal. So, we're confident that – that's what we've talked about. When we think about this recession scenario, we lost $300 the last time the market went down, 2018, 2019 to 2020, and then it came back. We would expect something maybe less than that based on some of the work that our commercial team is doing to stabilize the margins. And quite frankly, if the market goes the other direction, yeah, sure, we'll have to negotiate with customers. But some of what we've done is not just margin stability, it's volumes that secure our volumes over a longer period of time. And that's been a big highlight around our vertical integration because in this market at this stage, there are still customers out there that are worried about not our ability to supply them, it's the other suppliers' ability to get feedstock to make TiO2.

Jeff Engle
Senior Vice President-Commercial & Strategy, Tronox Holdings Plc

A

Yeah. If I could just add one more point to that, John, because I think that's a key point. And we've got customers that have asked for more volume and in a contract for 2023 and 2024. And so – and that's because of that vertical integration. They see that nobody's investing like Tronox.

Jeffrey J. Zekauskas
Analyst, JPMorgan Securities LLC

Q

If I could try another one. I think China exported around 500,000 tons of titanium dioxide in 2014 and maybe last year it exported 1.3 million tons. And when you take a step back and you think about China's overall commodity production, phosphates down, urea down, chlorine and caustic down. Like, what is it that's so attractive about titanium dioxide that China wants to expand its capacity even though it has sulfate production, whereas in all of these other commodities that seem prima fascia more essential to it, it doesn't want to expand capacity. And do you have a view of what China's exports of TiO2 might be in 2025 if they're, call it, 1.35 million tons today?

Jeff Engle
Senior Vice President-Commercial & Strategy, Tronox Holdings Plc

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Yeah, I'll go ahead and start. No, thanks, Jeff, for the question. Again, there's a couple of parts to this. And so, as you know, since you track them very closely, part of what they export is really leftover of what the country doesn't consume, right?

Jeffrey J. Zekauskas
Analyst, JPMorgan Securities LLC

Q

Sure. Yeah.

Jeff Engle
Senior Vice President-Commercial & Strategy, Tronox Holdings Plc

A

And so, for 2025, it's going to come down to that. That's a big piece of it. But I would say, just generally speaking, the appetite for customers to take more Chinese product right now outside of China has significantly decreased since the last cycle. And those are the comments that we hear back even no matter what price is doing just because of that volatility aspect that we talked about. I also think, to come back to the point that we talked about earlier, that while there may be an appetite by some of the big guys to export more – or attempts to export more, some of this is going to be offset by this capacity that at some point has to close down as well because they can't manage the current cost structures.

Jeffrey J. Zekauskas
Analyst, JPMorgan Securities LLC

Q

And maybe if you could comment on the progress of Chinese chloride production. That is when you look at chloride-based TiO2 coming out of China, does it seem much greater or it's the same or – can you comment on the quality or the utilization or something like that?

Jeff Engle
Senior Vice President-Commercial & Strategy, Tronox Holdings Plc

A

Yeah. I'll start and you guys can fill in. But yeah, so I would say, there's the one big guy there that's announced the majority of the capacity. And while – I don't think they'd quite gotten to where they announced, there's some exports, and we see that on occasion. But we don't see a significant threat. Customers, again, do not seem super keen to qualify and use it. There are some smaller players that have commercialized chloride technology, but from our perspective, they're very much cost challenged just because of their size as well as the lack of integration with some of those. And then there's a kind of a new tranches of ones that are talking about or building other plants or have even built, but they've never – they've never operated. And we've operated in this business for decades and it's challenging. And so, you've got somebody who's going to just commission one of these, and it's not without its challenges. On the quality piece, I'd say there's still a gap.

John D. Romano
Co-Chief Executive Officer & Director, Tronox Holdings Plc

A

When you think about from the standpoint of the exports, Jeff, I mean, their exports are going up, but the amount of chloride that's going up is not going up proportionately with what's being announced. So, a lot of that chloride is being consumed in-country, because it's not being consumed by a lot of our other competitors or our other customers. And from the standpoint of the volume that's actually being added as far as what's – they're talking about adding capacity, that's the tougher piece. Adding sulfate may be a little bit easier to find ilmenite than it is going to be able to find high-grade feedstock. So, there is no question there is a deficit in high grade feedstock in the market right now. And that amount of capacity – well, what – I guess, the other thing I'll say is, what they say is not shocking because they're always saying shocking things about how much they're adding.

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Jeffrey J. Zekauskas

Analyst, JPMorgan Securities LLC

Q

Okay. Thanks so much.

Jennifer Guenther

Vice President-Investor Relations, Tronox Holdings Plc

Thank you, all, for being with us today, whether via the webcast or in person, we really appreciate your interest. We are an operating company, so we like to end on time. We are, for those in the room, arranging a lunch. You have opportunity if your question was – if you still have a question to engage with the team. For those on the webcast, if you've submitted a question and we didn't get to it, we will follow up with you after this event. So, thank you all for coming. We really appreciate it. Thanks for your interest, and thank you presenters.

John D. Romano

Co-Chief Executive Officer & Director, Tronox Holdings Plc

Thank you.

Jean-François Turgeon

Co-Chief Executive Officer & Director, Tronox Holdings Plc

Thank you.

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