



**Strategic Case Study (SCS) – 2024 November**

## **Mock Exam 01**



**Rotomyne**

## Section 1

### You receive the following email:

From: Martin Jacobs, Chief Finance Officer

To: Senior Finance Manager

Subject: Strategic planning

Hi!

I have attached an extract from the Board minutes.

At the Board's request, I have spoken confidently to Rusev Blake, a chemical engineering and material science professor who is a leading investment analyst in recyclability and sustainability. Prof. Rusev believes that the proposed method of recycling might be possible with the latest technologies but implementation is unsuitable for Rotomyne since it is a separate area of expertise from our current business operations. In his opinion, the risks will increase and due to certain issues of quality of the process, the revenues will decline leading to a fall in our share price.

I need your advice on the following.

- First, evaluate the arguments for and against this proposal being consistent with our core values.

**Sub-task(a)=60%**

- Second, recommend reasons whether the Board should base its decision on the advice received from the investment analyst.

**Sub-task(b)=40%**

Regards,

Martin.

## Reference Material

### **Board Minutes Extract**

Andrey Prokhorov, Production Director raised concerns that our geologists monitoring reserves in existing mines and searching for any viable potential acquisitions gives disappointing results to the possibility of further expansion. He has looked into alternative methods and with the most recent discoveries and advancements in science and technology investing in advanced lithium battery recycling is a lucrative project.

From the lithium we produce our three traditional brine mines produce 60% which has faced scrutiny for its environmental impact. Andrey's proposal suggests that Rotomyne cease to expand in lithium mining and instead focus on recycling lithium from used batteries. He argues that this aligns with Rotomyne's sustainability values and could secure future growth.

Under this plan, Rotomyne would maintain its current mining operations but would stop further investment in new projects. Instead, the company would direct resources toward industrial-scale recycling technologies, allowing the recovery of key materials mainly lithium and even cobalt and nickel as by-products.

Board members raised concerns that these facilities deal with heavy amounts of energy and may be unsafe for our workforce. They also stated that using Operational Technology (OT) in recycling facilities may introduce security vulnerabilities and disruptions if not properly managed.

## Section 2

**A month later, you receive the following email:**

From: Martin Jacobs, Chief Finance Officer

To: Senior Finance Manager

Subject: Strategic choices

Hi,

I have attached an extract from a meeting agenda. Still, the discussions are going forward with the proposed recycling lithium approach and the board is considering possible implementation strategies.

As you can see, the board is considering two alternatives regarding the extent of introducing lithium recycling techniques within Rotomyne. Timing is a critical issue since there are rumours that a large competitor LitoCorp is also analysing possibilities of recycling lithium.

I need you to help me prepare for the meeting,

- First evaluate the challenges associated with using the Suitability, Feasibility and Acceptability criteria to choose between these alternatives. I do not need you to choose between the alternatives.

**Sub-task(a)=60%**

- Second recommend with reasons the most appropriate method of funding the required amount of capital for each of the alternatives separately. Either way, we would be proceeding with only one option so you can consider these investments to be mutually exclusive.

**Sub-task(b)=40%**

## Reference Material 2

### Extract from Board Agenda

#### Possible Approaches to Lithium Recycling Strategy

– Prepared by Andrey Prokhorov, Production Director

#### **Approach 1: Strategic Partnerships for Recycling Initiatives**

Rather than investing heavily in developing in-house lithium recycling technology, Rotomyne could pursue strategic partnerships with established battery recycling companies. These partnerships would allow Rotomyne to leverage the expertise and infrastructure of third-party recyclers while retaining control over its lithium supply chain. In this approach, Rotomyne would enter joint ventures or long-term agreements with specialized recycling firms, providing raw materials and logistical support in exchange for a share of the recycled lithium.

By outsourcing recycling operations, Rotomyne could reduce its initial capital investment to P\$1 500 million, mainly allocated to securing these partnerships and integrating supply chain systems. This approach would also mitigate operational risks associated with developing proprietary recycling technologies, as experienced partners handle the technical aspects of battery recycling. Rotomyne would meet 30% of its lithium supply from recycled sources within five years, scaling to 50% by 2030 as the partnerships mature.

However, reliance on external partners may limit Rotomyne's control over the recycling process and quality of lithium produced. Additionally, the company would need to carefully manage these relationships to ensure long-term stability and adherence to sustainability standards.

#### **Approach 2: Vertical Integration and In-House Recycling Development**

Rotomyne could take a more aggressive approach by fully integrating lithium recycling operations within its existing supply chain. This approach would involve acquiring or developing its own battery recycling facilities, creating a closed-loop system where end-of-life batteries are collected, processed, and repurposed in-house. Vertical integration would allow Rotomyne to have complete control over the recycling process, ensuring consistent lithium quality and sustainability compliance.

This approach would require significant upfront investment, estimated at P\$3 900 million over the next decade, including the acquisition of recycling technologies, construction of recycling facilities, and workforce development. In return, Rotomyne would source 60% of its lithium from recycled materials by 2030, with the potential to increase this to 80% in the future. By owning the entire process, the company could also benefit from cost savings over time as recycling becomes more efficient.

However, this approach carries significant financial and operational risks, particularly in the early stages of development. There are concerns about the scalability of in-house recycling, as well as the substantial energy requirements involved, which could challenge Rotomyne's sustainability objectives.

## **Answer**

### **Section 1**

#### **Briefing Paper**

Please find the below information useful for your requirements.

#### **Evaluation of the Arguments for and Against the Proposal in Light of Rotomyne's Core Values**

##### **Rotomyne Acts Ethically and Honestly**

One of the critical concerns in this proposal is whether Rotomyne is acting in alignment with its ethical commitment to honesty and transparency. Prof. Rusev Blake, a leading figure in chemical engineering and material science, has expressed serious reservations about the practicality of Rotomyne's proposed shift to lithium recycling. He specifically points out that while the technology might exist, it is unsuitable for Rotomyne due to its lack of experience in this domain. Given these insights, if Rotomyne were to proceed without addressing these concerns, it would compromise its ethical obligation to act honestly.

By not fully disclosing the complexities and challenges associated with lithium recycling, Rotomyne risks presenting an unrealistic picture of the venture. If the company moves forward with the recycling initiative, knowing it might fail due to process inefficiencies or quality concerns, this could be seen as a breach of integrity. The fact that recycling lithium, while sounding environmentally friendly, is energy-intensive and not necessarily profitable further casts doubt on the honesty of positioning this initiative as a sustainable breakthrough.

Moreover, ignoring the input from an industry expert like Prof. Blake, who warns of increased risk and possible revenue decline, raises questions about the professional competence of Rotomyne's leadership. If the company promotes this initiative under the banner of sustainability without openly acknowledging the operational and financial risks, it could be seen as deceptive, and stakeholders might question whether Rotomyne is adhering to its stated value of acting ethically and honestly.

This approach could also backfire on Rotomyne's reputation, especially if the project ultimately fails, leading to a fall in share price as Prof. Blake has suggested. If investors and stakeholders find out later that the company proceeded despite clear warnings, they may view this as a breach of trust, thereby damaging Rotomyne's credibility in the long term.

##### **Rotomyne Operates in a Sustainable Manner**

At face value, lithium recycling seems like an inherently sustainable solution. Ceasing expansion in mining operations and investing in recycling technology would, in theory, reduce environmental impact. Lithium mining, particularly from brine extraction, has faced scrutiny for its negative environmental footprint, and scaling back these activities would indeed align with the sustainability value. By recycling lithium, Rotomyne could position itself as a company that proactively reduces the need for further resource extraction, thus making a positive impact on the environment.

However, sustainability is more than a surface-level concept, and the practicalities of the proposed recycling process need to be examined. The high energy consumption associated with recycling lithium from used batteries is a significant drawback. The recycling process can consume more

energy than mining lithium in some cases, thus undermining the claim that this shift is a genuinely sustainable strategy. The proposal to invest in such energy-intensive processes might contradict the company's goal of operating sustainably, especially if there are more eco-friendly alternatives available, such as direct lithium extraction (DLE), which offers lower energy costs and less environmental damage.

Another critical point is the reasoning behind Rotomyne's decision to cease exploration for new mines. It has been revealed that the lack of viable new mining sites is the real reason behind this strategic shift, rather than a genuine commitment to sustainability. If Rotomyne presents its shift toward recycling as purely environmentally motivated, when in reality it stems from a lack of resources, this misrepresentation could be considered unethical. The company must be transparent about its motivations to remain true to its sustainability values.

### **Rotomyne Provides a Safe Working Environment**

The board's concerns regarding the safety of the recycling facilities are well-founded. The advanced recycling technology that Rotomyne would need to adopt involves handling significant amounts of energy and hazardous materials, such as lithium, cobalt, and nickel. The process of breaking down batteries and recovering materials involves complex procedures, some of which carry inherent risks to worker safety. Ensuring that employees are protected in these environments would require substantial investment in safety measures, as well as careful oversight to prevent accidents or exposure to harmful substances.

Additionally, the use of Operational Technology (OT) in these facilities could pose further risks. While OT can automate many aspects of the recycling process, it introduces vulnerabilities in terms of cybersecurity and potential disruptions to operations. If not properly managed, these risks could compromise the safety of workers, particularly if there is a failure in the system that leads to accidents or dangerous conditions. Given the increased complexity and the unfamiliar nature of the recycling operations for Rotomyne, the company may struggle to maintain the same level of safety that it currently provides in its mining operations.

By pushing forward with this proposal without fully addressing these risks, Rotomyne may fail to uphold its value of providing a safe working environment. The company must take into consideration the operational hazards that this new venture may bring, especially since industrial-scale battery recycling is relatively uncharted territory for the organization.

### **Rotomyne Constantly Innovates**

No doubt transitioning to lithium battery recycling represents a step towards innovation. The proposal to invest in cutting-edge recycling technologies and shift away from traditional lithium mining reflects a willingness to embrace change and explore new opportunities. However, innovation should be pursued responsibly. Prof. Blake's concerns suggest that this particular venture may not be suitable for Rotomyne, given the company's current expertise in mining rather than recycling.

If the company is unprepared to handle the technical and operational challenges of this recycling process, then this "innovation" could lead to more harm than good. Innovation for the sake of innovation, without considering the practical implications, is not aligned with Rotomyne's values. True innovation should not only push boundaries but also be feasible and beneficial to the company's long-term goals.

The risk of lower-quality output from recycled materials also casts doubt on whether this proposal is a true innovation. If Rotomyne cannot meet industry standards for material quality, particularly when dealing with customers in high-stakes industries like electric vehicle manufacturing, the move towards recycling could ultimately be a step backwards.

### **Rotomyne is Responsive to Customer Needs**

The potential drop in material quality from recycled lithium is a critical concern when evaluating whether this proposal is responsive to customer needs. Battery manufacturers, especially those in the electric vehicle industry, require high-purity materials for their products. As Prof. Blake and other board members have noted, recycled lithium often does not meet the same quality standards as newly mined lithium. If Rotomyne shifts its focus towards recycling and fails to provide the level of quality that customers expect, it risks damaging its relationships with key clients.

The consequences of this are particularly significant given that one of Rotomyne's major customers, a vehicle manufacturer, accounts for 22% of the company's revenue. If Rotomyne were to lose this customer due to inferior product quality, the financial impact could be catastrophic. By proceeding with this recycling initiative without ensuring that it can meet the quality standards required by its customers, Rotomyne would be failing to live up to its value of being responsive to customer needs.

Additionally, customer expectations are likely to shift as environmental regulations tighten, and companies will need to source more sustainable materials. While battery recycling is an important part of this equation, it must be done in a way that does not compromise the quality of the end product. If Rotomyne can find a way to innovate and meet both sustainability and quality standards, it will better serve its customers in the long run.

### **Conclusion**

The proposal to shift Rotomyne's focus from lithium mining to lithium battery recycling is a complex one that touches on all of the company's core values. While the move might appear to align with Rotomyne's sustainability and innovation goals, the practical challenges—such as energy consumption, process quality, and worker safety—raise significant concerns. The insights provided by industry experts like Prof. Blake and the potential impact on customer relationships further complicate the picture.

Ultimately, for Rotomyne to remain true to its values of ethics, sustainability, safety, innovation, and responsiveness to customer needs, the company must carefully evaluate whether this shift is truly the best path forward. Moving forward without addressing the identified risks would not only jeopardize the company's operations but also undermine the trust it has built with its stakeholders.



## **Recommendation on Whether the Board Should Base Its Decision on the Advice Received from the Investment Analyst**

### **Expertise and Credibility**

Prof. Rusev Blake is an industry expert with a strong background in chemical engineering, material science, and investment analysis in sustainability and recyclability. His concerns stem from both a technical understanding of lithium recycling and the broader business implications for Rotomyne. Ignoring his advice could be viewed as dismissing a well-informed, unbiased opinion, which is unwise from a governance perspective. In today's highly specialized industries, listening to experts is critical to avoid costly mistakes. Prof. Blake's warning that recycling might be technologically possible but unsuitable for Rotomyne is rooted in an understanding that entering an unfamiliar market without the required expertise can significantly increase risks.

For the Board, making a decision contrary to Prof. Blake's advice without sufficient counter-evidence would raise governance concerns. Shareholders, regulators, and other stakeholders expect leadership to rely on credible expertise when making strategic decisions. Moving forward without acknowledging his concerns might expose Rotomyne to criticism that it is disregarding industry knowledge, potentially undermining stakeholder confidence in the company's strategic direction.

### **Protecting Shareholder Value**

One of the Board's primary fiduciary duties is to protect shareholder value, and Prof. Blake has pointed out that moving ahead with the recycling initiative without proper expertise could lead to decreased revenues and a potential drop in Rotomyne's share price. If the company's revenues were to decline due to inefficiencies or poor-quality products resulting from the new venture, this would directly impact shareholder returns. A drop in share price could occur almost immediately if the market senses that Rotomyne is overextending itself into an area where it lacks the necessary expertise.

By considering Prof. Blake's advice, the Board would act in the shareholders' best interest, preserving their investment in the company. Shareholders expect that the company will make strategic decisions that not only drive growth but also protect the company's financial health. If the company fails to address the quality and technical challenges that come with recycling, it risks damaging its reputation and losing key customers. This would further jeopardize shareholder value, reinforcing the importance of considering Prof. Blake's advice as a critical part of the decision-making process.

Additionally, transparency is key to maintaining ethical standards. If the Board chooses to move forward without fully addressing the risks highlighted by Prof. Blake, it could erode trust with investors, customers, and other stakeholders. The Board has a responsibility to ensure that any new initiative aligns not only with the company's sustainability goals but also with its ethical commitment to honesty and transparency.

## **Long-Term Sustainability Goals**

The global push towards sustainability cannot be ignored, and recycling lithium aligns with broader environmental goals. By transitioning to recycling, Rotomyne could position itself as a leader in sustainable practices, appealing to customers and investors who prioritize environmental responsibility. However, the Board must ensure that this shift is more than just a symbolic gesture. If the recycling process is energy-intensive and produces lower-quality lithium, it may not truly align with sustainability principles.

Rotomyne must weigh the environmental benefits of reducing mining activities against the potential downsides of an energy-intensive recycling process. Prof. Blake's warnings about the high energy costs and operational inefficiencies should prompt the Board to carefully assess whether this initiative genuinely aligns with its long-term sustainability goals or if there are better alternatives, such as direct lithium extraction (DLE), which may offer fewer environmental drawbacks.

## **Potential to Develop Expertise**

Prof. Blake's concern about Rotomyne's lack of expertise in recycling is valid, but it does not necessarily mean that the company should abandon the idea altogether. Developing expertise in this area could be a strategic move, but it would require significant investment in hiring, training, or forming partnerships with companies that specialize in battery recycling. Rotomyne could explore joint ventures or strategic alliances with recycling firms that have the necessary experience, allowing the company to benefit from external expertise while mitigating the risks associated with entering a new market.

Over time, Rotomyne could develop the internal capabilities required to handle recycling on a larger scale. However, this should be a gradual process, with clear milestones and objectives to ensure that the company does not overextend itself in the short term.

## **Conclusion**

The Board should not base its decision solely on the advice received from Prof. Blake, but it should seriously consider his warnings as part of a broader decision-making process. His concerns about risk, expertise, and financial impact are valid and must be addressed. However, the company's long-term goals of innovation, sustainability, and diversification are also important. By taking a phased, cautious approach—perhaps through pilot projects or partnerships—Rotomyne can explore the potential of lithium recycling while managing risks effectively.

Please feel free to reach out to me if anything else is necessary.

Thank You.

## **Section 2**

### **Briefing Paper**

Please find the below information useful for your requirements.

### **Strategic Option Evaluation**

#### **Approach 1: Strategic Partnerships for Recycling Initiatives**

##### **Suitability**

The strategic partnership approach is suitable for Rotomyne because it allows the company to enter the lithium recycling market without heavily investing in developing in-house expertise. Given Rotomyne's current focus on lithium mining, which accounts for 60% of its revenue, partnering with established battery recycling firms enables the company to leverage existing infrastructure and expertise. This aligns with Rotomyne's mission statement to power consumers' lives in a world that is clean, healthy and sustainable.

However, suitability concerns arise regarding Rotomyne's limited control over the quality of the recycled lithium. While strategic partnerships offer lower capital investment and shared risks, they also reduce Rotomyne's oversight of the recycling process. The company may struggle to ensure that the lithium produced through these partnerships meets the stringent quality standards required by its key customers, such as electric vehicle manufacturers, which make up a significant portion of its revenue which is 45%. This lack of control could become a strategic issue if recycled lithium fails to meet market expectations, undermining Rotomyne's commitment to providing high-quality materials.

##### **Feasibility**

From a feasibility perspective, strategic partnerships are more financially viable in the short term than full vertical integration. The estimated capital investment of P\$1,500 million is significantly lower than developing in-house recycling facilities. Rotomyne can allocate these funds towards securing partnerships and establishing supply chain systems, allowing for a relatively fast entry into the lithium recycling market.

However, the feasibility challenge lies in managing the partnerships effectively. Reliance on third-party companies introduces complexities related to maintaining consistent production, meeting sustainability standards, and ensuring long-term stability. Rotomyne would need to invest heavily in relationship management and contractual oversight to avoid operational disruptions or conflicts. The success of this approach depends on the reliability and cooperation of external partners, which introduces a layer of uncertainty and complexity that the company may not be fully equipped to handle given its lack of prior experience in recycling.

##### **Acceptability**

This approach is likely to be acceptable to Rotomyne's stakeholders, particularly its shareholders and board members because it presents a lower financial risk. The reduced capital investment makes it more appealing in the short term, as it mitigates the financial exposure while still advancing the company's sustainability goals. By outsourcing much of the recycling operation, Rotomyne can continue to focus on its core mining operations, which may comfort those concerned about the company venturing too far outside its traditional expertise.

However, the potential downside is that key customers who prioritize high-quality, sustainable materials may find the lack of direct control over the recycling process less acceptable. These customers, especially in industries like electric vehicle manufacturing, may demand assurances about the source and quality of the recycled lithium. If the recycling process fails to meet these standards, it could lead to dissatisfaction and even loss of major contracts, which could be a significant risk to shareholder value.

## **Approach 2: Vertical Integration and In-House Recycling Development**

### **Suitability**

Vertical integration of lithium recycling operations is suitable for Rotomyne if the company aims to establish full control over its supply chain and ensure consistent quality. Meeting the customer needs for the reliable supply of good quality materials is highlighted in our vision statement. By owning the recycling process, Rotomyne can guarantee that the recycled lithium meets its high standards for purity and sustainability. Additionally, this approach aligns strongly with Rotomyne's core value of innovation, as the company would be developing new internal capabilities and securing a leadership position in the growing recycled lithium market.

However, suitability challenges exist in terms of the company's readiness for such a large-scale transformation. Rotomyne has traditionally focused on mining, and while vertical integration could secure long-term sustainability and profitability, it requires a significant shift in operational focus. The scale of investment needed to develop and manage recycling facilities may divert resources from the company's core competencies. Moreover, vertical integration may limit the company's flexibility to pivot or adapt to unforeseen changes in technology or regulation, as it becomes fully committed to in-house recycling.

### **Feasibility**

Financially, vertical integration is a far more expensive and complex undertaking, with an estimated capital investment of P\$ 3,900 million over the next decade. This is nearly three times the cost of the partnership approach, and while it promises long-term cost savings as recycling becomes more efficient, the initial financial burden is substantial. Rotomyne would need to secure funding, either through debt or equity, and this may strain its financial resources or dilute shareholder value in the short term. Additionally, the company would need to build or acquire the technical expertise necessary to operate these recycling facilities, which is a significant operational challenge given that recycling is not part of Rotomyne's current skill set.

From a technological perspective, there are concerns about the scalability of in-house recycling. The energy-intensive nature of the process and the technical complexity of safely extracting lithium from end-of-life batteries could present significant operational risks. If the technology does not scale as anticipated or if energy costs rise, the expected benefits of vertical integration could be compromised. These uncertainties make the feasibility of this approach questionable, particularly given the high upfront investment required.

### **Acceptability**

Vertical integration may be less acceptable to Rotomyne's shareholders and board members due to the high financial and operational risks involved. The P\$3,900 million investment represents a significant commitment, and the long-term payback period may be too extended to satisfy investors looking for quicker returns. Additionally, the complexity of developing in-house capabilities may raise concerns about the company overextending itself in an unfamiliar market. If Rotomyne faces

operational challenges in scaling its recycling operations, this could lead to financial losses and a decline in share price, which would not be acceptable to stakeholders.

On the other hand, this approach may be more acceptable to customers, particularly those in industries like electric vehicles, which require high-quality, sustainable lithium. By owning the entire recycling process, Rotomyne can provide greater transparency and traceability, which could strengthen customer relationships and lead to new contracts with sustainability-focused companies. If Rotomyne can successfully execute this approach, it would enhance its reputation as an industry leader in sustainability, which could have long-term benefits in terms of brand value and customer loyalty.

## **Conclusion**

Both approaches present unique challenges in terms of suitability, feasibility, and acceptability. The strategic partnership approach offers a lower-risk, lower-cost path to entering the recycling market but sacrifices control over the process and product quality, which may limit its long-term strategic alignment with Rotomyne's goals. In contrast, the vertical integration approach allows Rotomyne to fully control its recycling operations and quality, aligning strongly with its core values, but it comes with significant financial and operational risks that may not be acceptable to shareholders or feasible given the company's current capabilities.

These challenges highlight the complexity of the decision Rotomyne faces, requiring careful consideration of its long-term strategic goals, risk tolerance, and resource allocation.

## **Debt vs Equity**

### **Approach 1: Strategic Partnerships for Recycling Initiatives**

For the strategic partnership approach, the capital requirement is P\$1,500 million. This investment is relatively modest compared to large-scale projects, but timing is critical as a competitor, LitoCorp is also entering the recycling space. To maintain a competitive edge, Rotomyne must act swiftly, and bank loans offer the advantage of rapid capital access. Loans could be secured relatively quickly, allowing Rotomyne to move ahead with partnership agreements without delay, thereby staying ahead of competitors.

One of the main benefits of debt financing for this approach is the tax-deductibility of interest payments, which lowers the effective cost of borrowing. Additionally, Rotomyne's property, plant, and equipment (PPE) worth P\$ 7,270 million provides ample collateral for securing loans, reducing the perceived risk to lenders. With P\$5,000 million already in bank loans and P\$4,814 million in equity, Rotomyne's current gearing ratio stands at around 104%. While this gearing level is relatively high, adding another P\$1,500 million in debt will push it to 135% the increase may not be that significant. However, it will slightly increase Rotomyne's financial leverage, so careful management is needed.

The weighted average cost of capital (WACC) is a key factor here. If Rotomyne takes on additional debt, it could increase its financial risk, raising WACC. However, the partnership model involves lower operational risks because the technical complexities and responsibilities of recycling would be handled by experienced partners. This mitigates some of the risks typically associated with new

projects, making debt a reasonable choice as the overall risk profile is lower. Additionally, a key factor in favour of loans is that bank financing can be structured with flexible payback terms, allowing Rotomyne to spread repayments over several years, ensuring that the pressure on cash flows is minimized.

One challenge to consider, however, is whether Rotomyne will need the full P\$1,500 million upfront or in stages over time. If the funding is required incrementally, adjusting loan structures for staggered disbursements could cause complications. Managing the timing of capital inflows with the project's financial needs is critical, as premature borrowing could lead to unnecessary interest payments while delaying critical funding could slow down implementation, particularly in this fast-moving competitive landscape.

A final consideration is the payback period for the project. With strategic partnerships, returns may come relatively quickly due to lower upfront operational costs and reduced risks. Partnerships should begin generating cash flows within five years, allowing Rotomyne to repay loans without significantly impacting its financial health. Given the likely quicker cash inflows from this approach, a short-to-medium-term loan structure could work well for Rotomyne, aligning repayment schedules with expected returns.

## **Approach 2: Vertical Integration and In-House Recycling Development**

The vertical integration approach, which requires P\$3,900 million, is a much larger and more complex investment. Timing is again critical, as LitaCorp is reportedly moving forward with its recycling strategy, and delays could cause Rotomyne to fall behind. Raising P\$ 3,900 million quickly through debt alone is risky, and the company's current financial structure doesn't support taking on this level of additional debt. With a gearing ratio already at 104%, increasing this by another P\$3,900 million in loans would drive the ratio above 180%, which would alarm both investors and lenders. We are already over-gearred since our major competitor Lithdig only has a gearing ratio of 34%. Such a high level of debt would significantly increase Rotomyne's financial risk, driving up its WACC and reducing the company's flexibility in responding to operational challenges.

Additionally, borrowing P\$3,900 million would require servicing a significant amount of debt, which could become problematic if the project takes longer than expected to generate returns. The vertical integration model is a long-term investment with high initial costs and a delayed payback period, as the company would need time to build recycling facilities, acquire technology, and develop internal expertise. If cash flows from this initiative do not materialize as quickly as expected, Rotomyne could struggle to cover interest payments, leading to potential financial distress.

A further issue with relying entirely on debt for this approach is the timing of capital needs. The full P\$ 3,900 million will not likely be required up front; instead, the capital will be needed in stages as the project progresses. Managing such staggered funding through bank loans can be challenging, as lenders may not be willing to disburse funds on a flexible timeline. This could create delays in accessing capital when needed, slowing down the project and potentially giving LitaCorp an advantage.

Given these risks, equity issuance appears to be a more appropriate option for funding vertical integration. Issuing equity spreads the financial risk across a broader group of shareholders, reducing the company's reliance on debt and avoiding the risk of over-leveraging. While equity

issuance results in shareholder dilution, this could be more acceptable to investors when the stakes are so high. Additionally, equity does not require fixed repayments, allowing Rotomyne to maintain cash flow flexibility during the initial years when returns are low or delayed.

However, equity issuance takes time to organize and execute. Rotomyne may not be able to raise P\$3,900 million in the short term through equity alone. Also, the amount is too huge to be raised through a rights issue. The time required to issue new shares, gain shareholder approval, and execute the sale could delay the project, especially in comparison to debt financing, which can be secured more quickly. This timing challenge could make equity less attractive for a project that needs to move forward rapidly to stay competitive.

A hybrid funding model combining both debt and equity may offer the best solution. Rotomyne could raise part of the capital through equity, perhaps P\$1,500 million, which would dilute shareholders but keep the company's gearing at a manageable level. The remaining P\$ 2,400 million could be raised through debt, taking advantage of the tax-deductible nature of interest payments while ensuring that the company does not become excessively leveraged. This hybrid approach allows Rotomyne to access capital quickly while maintaining financial stability, addressing both the timing and scale of the project's requirements.

Please feel free to reach out to me if anything else is necessary.

Thank You.