ID Cover Page

Summary of WP Student Team

A Consulting Lab on Secil's Strategy2Procurement Project

Group constitution:

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A Consulting Lab on Secil's Strategy2Procurement Project

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Abstract

The following thesis is a view of the development and testing of four deliverables aimed at improving procurement processes in the Portuguese industrial firm Secil. Standardization across geographies and duplicability were the main focus points in the creation of these deliverables, which consist of a strategic category review template, a should-cost analysis file, a tracking tool, and a design for the governance of the firm's procurement department. Research for this project was mainly based on O'Brien's *Category Management in Purchasing* (2009), with weekly client meetings to further validate the team's work.

Keywords: Procurement, Category Management, Category Review, Should-Cost, Tracking Tool, Governance, Strategy, Portugal, Cement

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1. Executive Summary

Born from the merger of two companies that operated in the cement sector, Secil has a rich history with almost one hundred years of activity. The Secil Group has established itself in Portugal, its country of origin, focusing its activity on the production and sale of cement, concrete, aggregates, mortars, and hydraulic lime.

Over the last twenty years, the company has expanded into other markets and is currently present on four different continents, with eight cement plants at locations in Angola, Tunisia, Cape Verde, Spain, the Netherlands, and Brazil, adding up to a total annual cement production capacity of over 9.75 million tons.

Due to the growing competition and development in the industry, Secil saw the need to develop its business model to ensure growth in line with customer expectations and requirements. For this reason, the procurement department was challenged in the most recent internal *Ambition Sustainable Growth 2025* project to achieve a total of 5M€ in savings by the year 2025.

As a starting point for this challenge, the company outlined an ambitious strategy focused on center-led procurement, which aims to standardize processes and information for all its geographies, dictated by a central location, Portugal.

The present project was defined in order to respond to the needs explained above, presenting a proposal consisting of four deliverables executed with a globalization strategy. The team divided the project into four main phases, with distinct objectives: to turn internal presentations and category review documents into structured, visually appealing, and easily editable presentations from a user experience perspective. These documents were centered around a central document, named **Category Review**, which aims to illustrate detailed information about any specific category, to be used in meetings and strategic committees. Part of this document includes the **Should Cost Analysis**, designed to increase the efficiency of

category managers and the quality of outputs related to product price estimation, making this deliverable a crucial topic for negotiation with suppliers.

In order to follow up all possible initiatives and their associated saving, a new version of a previous **Tracking Tool** was created, presenting a simpler, dynamic template with automatic outputs for further performance analysis.

Lastly, for a structured follow up of the information regarding the procurement department, a **Governance Plan** was outlined to maximize the efficiency of the human capital structure, information transmission and the capacity for dynamism and communication between the procurement teams.

To complement the mentioned deliverables, a set of recommendations are also presented with a view on the future not only of the industry, but also with a focus on globalization and harmonization of processes across geographies.

2. Project Overview

2.1. Project Context and Governance

The Consulting Lab is a business-centered project developed by Nova SBE, in partnership with leading Portuguese firms, where students are tasked with solving specific problems at those firms. It is a gateway into the consulting world and has the goal to put students' theoretical knowledge into practice, working side-to-side with professionals at top firms, such as Secil, where the project is both demanding and rewarding. Consulting Labs are a two-fold learning experience: students gain invaluable knowledge of consulting in a **professional environment**, developing **analytical** and **interpersonal** skills and get the first experience in a challenging environment where the client relationship is the most important pilar to achieve **syndication**, while the firm receives a fresh-minded approach to a problem they are tackling.

The goal for the Consulting Lab in partnership with Secil was to revitalize their procurement department, following a center-led ambition with a globalization approach to the intended deliverables. The Nova SBE team collaborated with Secil's team for four months, accompanied by a **steering committee, a continuous follow-up team** and **a workshop team**. The steering committee members were CPO Hugo Alves, global category leads Miguel Borges and Patrícia Neutel, category managers Bruno Ventura and Filipa Lemos, strategy transformation/change management (STCM) lead Haua Amadá, and Professora Constança Casquinho. In the second and third steering committee meetings, Brazil category lead Alecssandro Simplício also took part. The continuous follow-up team was responsible for updates executed in biweekly meetings at Secil's headquarters in Lisbon and consisted of Bruno Ventura, Filipa Lemos and Patrícia Neutel. Periodically, Alecssandro Simplício, category managers Andersen Dias and Elaine Grabski from Brazil and category manager Raed Souei from Tunisia took part. Finally, the workshop team was responsible for the pre-steering committee feedback, consisting of global category leads Patrícia Neutel and Miguel Borges, category managers Bruno Ventura, Filipa Lemos, Nuno Dias and Michael Mendonça, STCM lead Haua Amadá, and data analyst Andreia Cruz.

In this project, the concept of **syndication** was truly applied, giving wings to an outcome achieved with a mix between the creativity and problem-solving capacity of the Nova SBE team with all the expertise and ambition of the procurement team members.

2.2. Project Challenge and Deliverables

The procurement sector is in a constant state of digital revolution, and it is necessary to maintain the continuous development and research for the automation of processes and the acquisition of new assets that enhance the business areas. Secil is in the process of improving global procurement processes, influenced by CPO Hugo Alves; namely, **standardization** across Secil's four main geographies and the **uniformization** of procurement documents. Thus,

the Nova SBE team was tasked with developing four deliverables in order to facilitate the job for managers in the procurement department.

(1) Strategic Category Review – Categories, in a procurement context, are groupings of similar goods or services with common supply and demand drivers (Buying for Victoria, 2022). Category managers are procurement professionals who take care of the analysis, negotiation, and purchase of products within a category. As such, a category review is a **dossier** or presentation which describes the **behavior** of a category during a given time period, including information about the category itself, market trends, previous strategies, supplier information, external analysis, and future strategy definition.

Before contacting Nova SBE, Secil did not have a generalized category review template for all managers across geographies; instead, each manager would create their own, using common frameworks from training documents and seminars, which would lead to confusion among the team during budgeting and sourcing committee meetings. Therefore, the team was asked to design and test a comprehensive dossier with an established number of slides and templates.

(2) Should-Cost Template – a should-cost is a specific form of **analysis** where category managers calculate how much a specific product is being priced above or below their actual cost, influenced by a variety of **cost drivers**. The category managers at the firm had been doing this analysis by themselves with no shared template between themselves, which had led to various inconsistencies and additional workloads. For the Nova SBE team, the challenge included designing and testing a working **semi-automatic model**, applicable to all geographies and categories. Managers would have minimal manual input and would receive results instantly, leading this deliverable to have a big **time-saving potential**.

(3) Tracking Tool – A tracking tool is a document which keeps tabs on each category manager's strategic initiatives. Due to the outdated state of previous tools at Secil, the Nova

SBE team was tasked with designing and testing a new, more **visually appealing** tracking tool, including status, deadlines, progress reports and savings potential.

(4) Governance Design – Procurement governance at Secil encompasses local and global forums ranging from strategic to operational to daily reporting meetings. In order to organize all these events, and understand which ones are truly necessary, the team was tasked with creating an **easily editable** model that lists all governance forums, which can be read by anyone, even those not working in the procurement department.

2.3. Project Scope and Goals

The central objective of the project, named Strategy2Procurement by both teams, was to **standardize** the category review and tracking tool templates, create a should cost model and present a governance model to support the activities of the procurement department. For these deliverables to be successfully developed, a current framework of Secil's procurement structure and the future ambitions brought by the *Ambition Sustainable Growth 2025* internal project was necessary. Considering these factors, the team outlined four guidelines for the development of the project responsible for establishing the team's pace and the mindset that would lead the team to meet the client's expectations.

- Achieve a detailed understanding of the surrounding processes related to the deliverables.
- Expand the work capacity, organizing a timeline guided by the level of difficulty of the deliverables.
- Architect templates in an organized way, to present an intuitive, automated, and visually appealing interfaces.
- Develop tools with a global mindset, creating opportunities to spread the processes across all geographies.

After careful analysis and development of each of the deliverables, they were tested to ensure **maximum efficiency** in a real environment, with products negotiated by the category managers from the procurement department. The categories selected for testing were aligned in a steering committee meeting by the category managers; the cement **additives** and **pallets** categories were chosen to go forward with testing, as they make an interesting connection between the complication of a complex material (additives), of which the company has no notion of mixing quantities, since quantities in the additives industry are a business secret, and a less complex material (pallets) of which all the constituents of the product are known. Out of scope are the analysis and testing of all the other categories that do not fit within the additives and pallets range as well as analysis related to other departments besides procurement.

3. Methodology

3.1. General Methodology

The project followed a semi-rigid calendar, split into four one-month phases. Due to the semi-independent nature of the deliverables expected by Secil, different phases of the project were allocated to each document. The team followed an **agile methodology** for the project, this is, a project management style where constant collaboration is imperative and feedback is continuous, and offers many benefits compared to a more traditional style (Fernandez & Fernandez, 2008). Both teams underwent various cycles of planning, executing and evaluating, and by the end of the projects, recommendations (the final deliverables) are ready to implement the next day.

Phase 0: Before initiating work on the project, the team **performed introductory research** on Secil, the cement and concrete industry, procurement and category management, and emerging trends in the sector. This phase, which lasted from the beginning of September until September 19th, included the team's first meeting at Secil's headquarters, where the

project's goals and scope were described in detail, and the Kick-Off Document, which contained thorough research on the company, external factors and trends, and a breakdown of the problem and the team's deliverables.

Phase 1: After the team familiarized itself with the firm's internal setting and the procurement landscape, a working schedule was devised in order to expedite the development of the most complex and valuable deliverables: the category review slide template and its sister document, the should-cost Excel template. This phase lasted from September 20th until October 24th, the latter date marking the team's first steering committee meeting.

Phase 2: Between October 25th and November 18th, the team moved onto the testing phase of the two aforementioned deliverables, working closely with category managers in order to accurately provide a working template for future use at Secil. Parallel to testing the category review and should-cost templates, the tracking tool deliverable was developed during this phase.

Phase 3: Once the category review and should-cost templates were fully tested with two distinct categories, the team approached its final phase of the project: developing a governance model and testing the tracking tool. This phase included the final polishing of all deliverables and lasted from November 19th to December 5th.

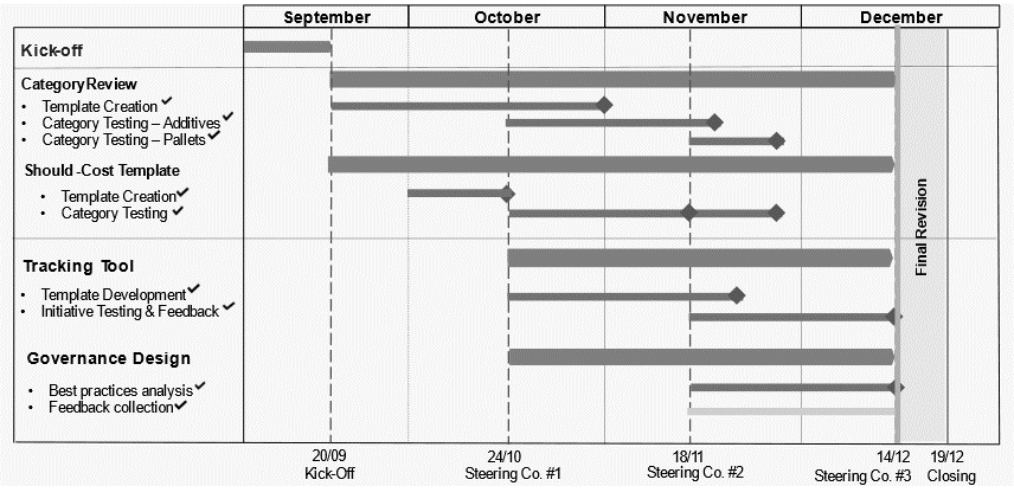


Figure 1: 4-phase project timeline, based on a Gantt chart (Gantt, 1910)

3.1.1. Phase 0: Introductory Research

Before diving into the project, the team conducted thorough research on the procurement sector, category management, and Secil, as having inside-out knowledge of the client's domain would facilitate solving their proposed problems. After the team's first briefing with Secil, internal documents were shared which expedited the learning process, including Secil's *Ambition 2025 Procurement Strategy Handbook* and *Category Management Strategy Templates*. Additionally, the team took to literature and investigative research in order to understand the external factors affecting Secil and the cement and concrete industry.

Internal Research

Due to the internal nature of the project, research within the company itself was crucial. The team analyzed Secil's procurement strategy in the context of its flagship projects, *Return 2017* and *Ambition 2025*, in order to paint a better picture of the firm's general timeline. Secil's *2021 Board of Directors Report* was also analyzed, which included relevant financial, strategic, and descriptive information. Quantitative data was not gathered due to the small sample size of Secil's procurement team; however, qualitative data, such as verbal and written feedback, and day-to-day communication and weekly meetings, were crucial in the development of the deliverables.

External Research

The team also combed the Internet for information regarding the state of procurement in Portugal and Europe, including trends and best practices, while also researching the frameworks most commonly used by category managers across the world, and the reasons why they were so prevalent across the procurement sector.

3.1.2. Phase 1: Template Creation

During this phase, the team began working very closely with Secil in order to create working templates for the deliverables, while still performing in-depth research in order to paint

a complete picture of Secil, which included a visit to the company's plant in Outão-Setúbal in order to see the operations in person.

Meetings were scheduled every Monday and Friday at Secil's headquarters in Lisbon with category lead Patrícia Neutel and category managers Bruno Ventura and Filipa Lemos. The category review and should-cost templates were loosely based on older templates used by the firm's category managers, leading to less individual research and more brainstorming and problem-solving sessions between the project's participants.

In this phase, the **category review** was intended to be a presentation aid for managers during budgeting and sourcing committee meetings; the result developed for the first steering meeting was a short and simple template with few frameworks and information. The **should-cost template** was created from scratch during these sessions with the Secil team, taking automation and ease of readability into consideration, with additional input from Secil's strategy transformation/change management (STCM) lead, Haua Amadá.

3.1.3. Phase 3: Template Development and Testing

Template Development

The second phase of the project was critical to the development of the four final deliverables. After gathering comprehensive feedback from the first steering committee meeting, the team took an important pivot: instead of gearing the category review towards a presentation-focused document, it was decided that a consolidated category dossier would be of higher value to Secil. During this phase's brainstorming sessions with the client, the team took extensive information and inspiration from the book *Category Management in Purchasing: A Strategic Approach to Maximize Business Profitability* (O'Brien, 2009) and other previous dossiers used by top management at Secil in order to create a replicable and standardized version of a category review template. Meanwhile, the tracking tool began development in Excel during this phase.

Template Testing

Rigorous testing was needed in order to assure the viability of the team's templates across the entirety of the procurement department at Secil, as all categories would use these templates to aid their budgeting, savings, and strategic decisions. For comprehensiveness' sake, two different categories were chosen: **cement additives**, a more complex category, and **pallets**, a less complex one. This decision ensured that the templates would perform equally across varying degrees of complexity.

Template testing was performed in collaboration with each category's respective manager: Bruno Ventura (cement additives) and Filipa Lemos (pallets), with additional input from Patrícia Neutel (category lead) and Haua Amadá (should-cost analysis support). While category research could be done through the team's own means, financial and strategic information was sourced from Secil. During this phase, the team only tested the cement additive category.

Before the end of Phase 2, the team visited Secil's fabric at Outão-Setúbal on November 17th to present the final draft versions of the category review and should-cost templates to the remaining category managers as a final feedback-gathering session.

3.1.4. Phase 3: Final Testing and Polishing

Due to positive feedback gathered in the factory session and the second steering committee meeting, both the team and the client were satisfied with the two deliverables already developed. The final phase of the project was centered on tying up loose ends, such as completing testing both aforementioned templates with the pallets category and the tracking tool.

Template Testing

During this phase, the team also focused on a priority Secil had defined early on: **standardization across geographies**. Therefore, the team had videocalls with category

managers in Brazil (Andersen Dias) and Tunisia (Raed Souei) in order to create a complete category review of cement additives and pallets. Necessary content and aesthetic modifications were made to the original templates in order to fit the needs of each category.

After finishing the templates' final tests, the team moved onto testing the tracking tool, where, in collaboration with client, a meta-testing of the strategic initiatives created for each tested category was performed.

Governance Template

The governance template was relegated to the end of the project's timeframe due to its cumulative nature; it could only be put into practice once all other deliverables were complete. Because corporate governance is so intimately connected with the well-functioning of firms (Larcker et al., 2005), including the procurement department (Caniëls et al., 2012), a special meeting was held with CPO Hugo Alves, where the team and the client discussed at length what to include in a governance model for the firm. Many governance forums were kept, but some were replaced and reprioritized due to emergence of the Nova SBE team's templates.

3.2. Literature Review

The team's research for the project was mostly centered around Secil as a firm, as the challenge presented was B2B. Research was mainly based on *Category Management in Purchasing: A Strategic Approach to Maximize Business Profitability* (O'Brien, J.; 2009), but included external frameworks as well.

Category Management

In procurement, category management is the "process that involves managing product categories as business units" (Nielsen Marketing Research, 1992). At Secil, each category manager presides over the purchasing of select categories for cement, concrete, mortars, and aggregates, which includes defining savings, budgeting and end-of-year reviews. The **category**

review is a dossier in which a view of each category is presented, from technical details to market information and strategic initiatives.

Category Review – Frameworks

The **Kraljic Matrix** (Kraljic, 1983) is an essential tool for category management (Glöckner et al., 2005), which divides categories into four quadrants across two axes (profit impact and supply risk): leverage items, strategic items, bottleneck items, and non-critical items. The former two have a high position on the profit impact axis; category managers at Secil prioritize both leverage and strategic items, with different strategies conceived dependant on the category's quadrant (Caniëls & Gelderman, 2005).

The **Global-Local Matrix** is another essential component of Secil's procurement strategy. Developed by McKinsey in partnership with Secil, it classifies any category in one of four quadrants, according to their sourcing delivery and demand complexity (if a category scores high on both axes, it is considered global-global, and vice-versa). This matrix is the cornerstone of Secil's procurement strategy and there has been a push to have as many categories as possible in the global-global and global-local quadrants in order to standardize procurement practices across geographies.

Another crucial component of the category review template is the **RAQSCI model** (O'Brien, 2009, 143-145), which defines business requirements for the category across six vectors: regulatory, assurance of supply, quality, service, cost/commercial and innovation.

O'Brien's **Supplier Segmentation Matrix**, a repurposed version of the Kraljic matrix, was used as a framework for supplier analysis, which divides suppliers into four quadrants according to their importance to the company and vice-versa: leverage, strategic, critical, and non-critical suppliers. This matrix was lifted from an internal Secil document which had already begun using it for category management purposes.

The **PESTLE framework** is an external analysis tool which takes into account the political, economic, social, technological, legal, and environmental influence on a certain organization (Aguilar, 1967). In order to improve readability, the team adapted the PESTLE model to a **scoring system** (Medina-Serrano, et al., 2020) and presented the framework onto a **von Mayr radar chart**. Additionally, **Porter's Five Forces**, a second external analysis tool was also used, which evaluates an industry's competitive rivalry, threat of substitutes, new entrants, and bargaining power between suppliers and buyers (Porter, 1979). An adapted Five Forces model was used, where analysis is made from the buyer's perspective, and not a sales perspective (O'Brien, 2009).

The **Six Value Levers** are a strategic design and brainstorming framework adapted from O'Brien's value levers (pp. 137-139), which include category, supply and value chain, market, supplier relationship, supplier incentivization and demand management levers. Within each lever is a set of initiatives which each category manager can take inspiration from when defining their strategy for a category. In addition to using the Six Value Levers, a **SWOT Analysis** is also used in formulating strategic initiatives. Created in the mid-1960s (Learned et al., 1965), the SWOT analysis divides an organization's strengths into internal (strengths, weaknesses) and external (opportunities, threats) factors (Andrews, 1971).

A second strategic design tool, **the Sourcing Gemstone**, was included, but as an auxiliary slide for the category review. The Sourcing Gemstone, first developed by consultancy firm ATKearney in 2001, is an alternative to the Kraljic Matrix and includes explores six general strategies for category managers: volume concentration, best price evaluation, global sourcing, relationship restructuring, joint process improvement and product specification improvement.

Should-Cost Analysis

Should-cost models are essential for the procurement process, since they provide a way to breakdown the costs of supplier products (Haight, 1974; Mealer & Park, 2013), informing its users about how much an item should be priced at, and then compares this price with the price offered by a supplier. This allows for a better understanding of cost breakdown and costs incurred by the supplier's at is looks at a product as a sort of reverse engineering, separating each component to understand the price, this provides fair negotiation between buyer and seller (Mealer and Park, 2013).

Tracking Tool

Considering the continuous increase in initiatives related to category management, it was extremely important for the Secil Group to establish an efficient **information flow**, in order to filter the key information for a better organization and structuring of the business. To meet this need, the use of technology in the form of software and programming comes to act as an essential pillar to achieve these objectives, bringing unique features such as the ability to analyze data in massive quantities.

The genesis of the tracking tool comes from the fundamentals of project management: implementation of methods, frameworks, tools, resources, and guidelines to the project activities in order to **fulfill its requirements**. This method is carried out according to the application of the project management processes of **initiating, planning, executing, monitoring, and controlling**. (Detelj & Pihir, 2007). Due to the development and constant sophistication of technological tools, the parameters of project management are changing rapidly. These changes take a closed topic, focused on the interaction and monitoring of a single team located in a single place, dependent on inputs and turn it into a brighter and more **dynamic** one, turned to the processes and the collaboration of multiple teams from all around the globe (Romano et al., 2002).

The owner of this tool will act as Project Management Officer, defined by PMI as the individual who is set to advocate a **management role** in a group of defined responsibilities associated with the projects covered by his realm. These competences can vary from elemental support activities to tasks related to the immediate supervision of a project (Dietrich et al., 2010). This is considered a fundamental role to support the procurement teams, having as main responsibilities the **update and the follow up** of the information entered by the category managers in the tracking tool, the analysis and collection of outputs such as the backlog and the sum of initiatives status per category manager, periodically calculated for further exposure in follow up meetings.

4. Situation Analysis

4.1. Secil Group

History

Secil – Companhia Geral de Cal e Cimento, S.A. is a large Portuguese industrial firm which operates in the cement, concrete, mortar, and aggregates business. Born in 1930 from a merger between two earlier cement companies, the group is currently majority owned by Semapa, who also owns Portuguese paper and pulp giant Navigator Company.

Secil is a major player in the cement industry in Portugal, producing around four million tons of cement across its factories at Setúbal-Outão, Maceira-Liz and Cibra-Pataias, serving approximately 35% of the country's cement needs (Secil, 2022). The company has expanded to three other main international markets: Tunisia, in 2000 (Société des Ciments de Gabès), Lebanon, in 2002 (Ciments de Sibline), and Brazil, in 2015 (Supremo Cimentos), while also maintaining a smaller presence in Spain, Angola and the Netherlands. Across all geographies, Secil produces 9.5 megatons of cement.

In 2021, Secil grossed 495.9 million (M) € in sales, earning 145.4M€ in EBITDA, which grew 17.3% from 2020. Portugal was the largest contributor to this number (64%), followed by Brazil (20%), Tunisia (8%) and Lebanon (8%) (Secil Administrative Board Report, 2021). Secil is a growing company, not just from a financial standpoint, but also from an organizational one. Its CO_2 emissions are down 8% compared to the same number from 1990, and a 10% reduction in workplace accidents compared to 2020.

The cement industry in Portugal is mostly dominated by two players: Secil and Cimpor. Both these companies compete in the procurement sector for categories, and cement and concrete patents. In the international market, Secil competes with large firms such as Cemex, Heidelberg Cement, Votorantim and Holcim.

Return and *Ambition*

In 2017, under new CEO Otmar Hübscher, Secil launched a group-wide project named *Return Secil to Profitability*. Its main goal was 140M€ in EBITDA by 2020 (Secil's EBITDA in 2016 was 85M€), although this target year was moved to 2021 due to the COVID-19 pandemic. The main pillars of this initiative were safety models, personnel development, and a strong return to profitability. As in all cross-functional initiatives, the **procurement department** at Secil took part in the *Return* project, with its projected contributions to the EBITDA goal being between 7M€ to 10M€. *Return Secil to Profitability* was a success, with a total EBITDA of 145M€ in 2021, and a contribution of 10.8M€ by the procurement department. The initiatives taken by the procurement department were one of the main drivers behind this success, including the acceleration of the transformational department and a series of "quick wins" strategies.

Following the noteworthy results of the *Return* initiative, a new firm-wide project was launched in 2021: *Ambition Sustainable Growth 2025*, which aims to increase EBITDA to 200M€ by 2025. The procurement department, spearheaded by CPO Hugo Alves since early

2022, was initially expected to have an EBITDA increase by 2.5M€ to 3M€; however, after a revision of the project by consultancy firm McKinsey, this number was raised to 5M€. This project is of particular pride to Secil, as it was created entirely in-house, with no external help from consultants. *Ambition 2025* is centered around seven core elements: customer, sustainability/ESG, people, innovation, operational performance, scale/diversification and financial. Each department has its own initiatives built with these elements in mind.

During a global procurement meeting, the procurement department identified **three priorities** for their *Ambition 2025* strategy: **center-led procurement**, "focused on category management excellence covering all geographies, business units and categories currently out of scope for which procurement can be seen as a strategic value partner"; **digitalization of procurement activities**, "using technologies to improve procurement efficiency and analytics to support decision making"; and **a cross-functional company-wide procurement framework** that "enables holistic and collaborative governance for strategy definition, demand planning, efficient sourcing decisions and supplier excellence." (*Secil – Ambition Sustainable Growth 2005*, Procurement Strategy, April 2022).

Inside each priority is a list of initiatives; the project proposed to the team by the client is focused on the first priority, center-led procurement, and its second initiative, **global category management**, which aims to "reinforce and mature governance by introducing routines for strategy definition, supplier relationship segmentation and bottom-up global target managed at category level – expand reach of strategic category management for all geographies."

4.2. Global Internal Analysis (SWOT)

Due to the project having an important geographical component, the team performed an introductory SWOT analysis in the context of procurement for its main geographies: Portugal,

Tunisia, Lebanon, and Brazil. For simplicity's sake, Tunisia and Lebanon were grouped together, as there are many similarities between the two.

4.2.1. Strengths and Weaknesses

Each geography's main strengths and weaknesses were determined in a pre-project meeting between all procurement teams. This general data was relayed to the Nova SBE team, who organized and divided the information in order of importance.

Portugal

Portugal is Secil's main administrative and knowledge hub, and is where over half of the firm's EBITDA originates from. As such, **strengths** in Portugal include high financial stability, superiority in planning and know-how and being, effectively, the bridge-builder between geographies, communicating and organizing relevant meetings and other governance sessions. Portugal's main **weaknesses** as a geography in Secil's procurement context are a high rate of high-urgency purchases, meaning there is no hierarchy in purchasing prioritization; a lack of purchasing power planning on the operational (cement plants) side; high transactional tail spend; and low procurement maturity, since the academic development of the sector has not been potentialized until recently.

Tunisia and Lebanon

Due to being located in the Middle East and North Africa region (MENA), Tunisia and Lebanon exhibit similar characteristics in Secil's procurement activity, with many category managers sharing information between themselves. Therefore, the analysis was performed for both countries simultaneously. **Strengths** in the region are a robust enterprise planning system (ERP), a strong and united team between their geographies, a good reputation in their respective countries, and being a vertically integrated business. On the other hand, **weaknesses** in Tunisia and Lebanon include a disconnect between their category management teams and Secil's global category management teams, hinting at standardization between geographies being a

fundamental issue; a focus on short-term results rather than a long-term strategic vision, where procurement is merely functional and not strategic; and bad tail spend management.

Brazil

Despite being the last geography to be integrated in the Secil group, Brazil provides over 20% of the firm's total EBITDA. Major **strengths** were the Brazilian procurement department's high amount of collaboration and involvement in other forums within the company, a premium focus on worker safety, and efficient delivery and execution. However, Brazil also is host to some **weaknesses**: similarly, to the other geographies, there is a difficulty in managing tail spend; in addition, there is a lot of resistance to change, which points towards a cultural issue. Linked to this, the company is still dependent on manual processes which slow down efficiency. Additionally, another weakness is the difference in maturity levels between the procurement department in Brazil and Portugal, which shows that there is a need for a higher level of understanding and standardization between regions.

4.2.1. Opportunities and Threats

Due to the global nature of procurement, and the supply chain, especially in the current decade, opportunities and threats are not exclusive to one geography. Secil aims to have a consistent global strategy in the *Ambition 2025* project, which is why both opportunities and threats must be leveraged as a global company and not individually.

One of the main **opportunities** for Secil is digitalization, namely spend-analytics solutions and supplier management tools, which bring geographies closer through an interconnected network and improves efficiency by cutting unnecessary tail spend (Afanasiev et al., 2019; Yevu et al., 2021; Seyedghorban et al., 2020), building on knowledge gained during the COVID-19 and Russia-Ukraine crisis supply chain bottlenecks. Related to this, tail spend process automation may be a course to take in the future for Secil. Another opportunity centers on joint innovation between geographies, which fosters creativity and brainstorming between

different cultures (Hassi & Storti, 2011), leading to high value-added projects. A final relevant opportunity is related to reinforcing the department's core capabilities: closing organizational gaps in cross-functional execution, negotiation execution, developing category and sourcing strategies, in order to improve efficiency.

Threats for Secil and its geographies are closely related to the global supply chain, which was deeply affected by the COVID-19 pandemic and the ongoing Russia-Ukraine crisis. The procurement department must learn that in the 21st century, global supply chain disruptions are an inevitability, and planning in advance is of heightened importance (Harapko, 2021). Local conflicts which affect a specific area are also a threat to look out for, as they also affect the local supply chain. Additionally, in Secil's global market, trade policy alterations may pose a large threat regarding the supply of raw materials, as was the case between the US and China in 2019, and, as such, Secil must build ties with diverse suppliers across the world to decrease dependence on a single country. Regarding digitalization, as procurement moves towards a more computerized approach to purchasing, managers must be wary of cyberattacks which may cause important data to be deleted.

5. Baseline Research

The procurement sector was one none of the consulting team members were familiar with, therefore additional research was imperative for the correct understanding and conclusion of the project presented. Alongside this external research, internal research into the processes and best practices used by Secil were also fundamental for the correct delivery of the documents and recommendations expected by the client.

5.1. The 7 Elements of *Ambition Sustainable Growth 2025*

The first section of research done by the team, even before the beginning work on the deliverables, was on Secil's procurement processes and ambitions for 2025. The *Ambition*

Sustainable Growth 2025 procurement handbook is a document provided by the client, comprised of Secil's internal procurement processes, the company worldwide SWOT, new ideas for the future and the company's overall intentions and goals for the project assigned to the Nova SBE team.

The *Ambition 2025* procurement strategy document contains seven fundamental elements for procurement growth that were followed during the investigation and elaboration of the proposal:

(1) Customer – Procurement activity relies on collaboration and focus on delivering customer needs.

(2) Sustainability/ESG – Procurement is included in the Economic Pillar. Secil has set targets for 2025 to start the pathway to ensure a sustainable supply chain.

(3) People – Setting priorities to develop, empower and motivate people within the organization.

(4) Innovation – There is an ongoing intention to work in developments with suppliers and contribute with innovative processes.

(5) Operational Performance – This element sits as the main focus for the procurement transformation process for the company.

(6) Scale/Diversification – Procurement is especially important in this element both in CAPEX appraisals and Requests for Proposal (RFP).

(7) Financial – The EBITDA impact will be the output of procurement core activity and will represent the impact of the transformation processes.

5.2. Strategic spend *vs.* Tail spend

Procurement processes are centered on purchasing goods and services from suppliers in the market; therefore, these processes must be well established. One of the primary roles of procurement is directly related to costs and how these can be minimized, while purchased goods

remain of the same or even higher quality. Understanding the underlying differences between **strategic and tail spending** and how the different distributions of weight between the two bear completely different results is essential.

Tail spend is often described as the money firms spend on purchases that represent around 80% of all transactions for only 20% of the volume (Frechette, 2020). Every company has its purchasing methods and patterns, which makes tail spending even harder for them to grasp; usually, it is composed of unpredictable patterns, less added value for procurement, and more complicated methods to predict manually.

On the other hand, **strategic spending** consists of transactions that will directly impact and yield costs or profits for the company in the short-term, and they consist of the opposite of tail spending; representing 80% of spend while consisting of only 20% of the total volume. The importance of such transactions shows the necessity of a well-established strategic spending strategy to be defined, as it will represent the make or break of many global companies. A BCG study (visualized with Appendix 2) found that "when businesses utilize digital to control tail spending, they may reduce yearly spending by 5% to 10% on average" (Olcer et al., 2019). A poor strategy will lead to overpricing the most important transactions within the company.

Companies with solid tail spend management tactics may get an enormous advantage over the ones that do not. Firms are becoming increasingly aware of the importance that indirect

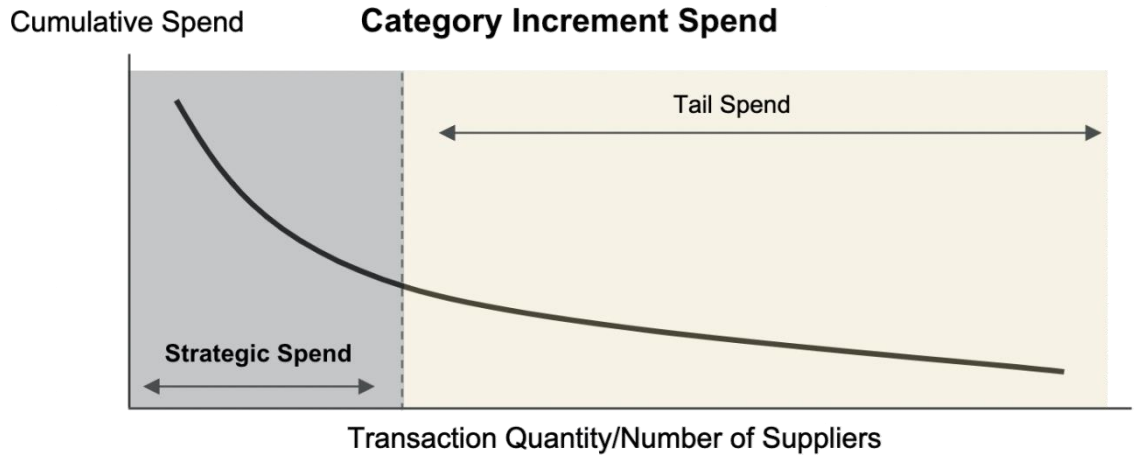


Figure 2: Tail Spend vs. Strategic Spend – Category Increment Spend Curve

purchases can have for savings. Not only this but indirect purchases are usually associated with being inferior to direct ones. Even though this is true in most cases, when looking at the effort necessary to understand how to manage indirect purchases better, it is understandable why companies tend to disregard it. Nevertheless, it must be done as it will also yield significant improvements in strategic spending.

As seen in figure 2, the category increment spend curve illustrates the tail spend *vs.* strategic spend phenomenon, which are usually the most essential – electricity, fuel, and operational services. The remainder of the curve consists of processes that can be automated and optimized to save up to 75% in purchase order requisition, submittal, and approval.

Therefore, Secil aims to automate the many, but lower-priced, transactions that occur on the tail spend, which includes **should-cost and category analysis**, allowing them to reduce such costs while focusing their efforts on the transactions that will generate profits and cost reductions. Understandably, managing tail spend is a challenging task. However, with the ongoing advances in technology and digital advancements, firms can analyze it much faster and in greater detail.

5.3. Center-led Procurement

As mentioned previously, the *Ambition 2025* procurement strategy handbook is the document with Secil's main initiatives for the project. One intention concerns automating tail spend; this automation is more easily achieved with a center-led procurement strategy, as standardization across all geographies is critical; however, this will be analyzed in depth later in this thesis.

The consulting team was hands-on with category managers within Secil to answer and give recommendations on the priority of center-led procurement, specifically regarding the **global category management** initiative. This initiative is focused on reinforcing and maturing governance by introducing routines for strategy definition, supplier relationship segmentation,

and bottom-up global target managed at the category level by expanding the reach of strategic category management for all geographies, representing an improvement in the procurement process for strategic spending.

Even though all this information regarding the *Ambition 2025* procurement strategy was presented and explained to the team by Secil, the team required additional research to fully understand the scope of the project. It was fundamental for the team to do know precisely what center-led procurement was and why it was essential for this project.

Center-led procurement is said to have both the benefits of centralized and decentralized methods (Templer et al., 2016). As explained by Secil, it allows for a procurement center of excellence and best practices. Creating a "main headquarters" allows for a connecting hub between different geographies with a leading knowledge and data center, allowing for a greater connection between the company's constituents.

This procurement style offers better communication of processes, contracts, and purchases throughout the company as they share the same processes and information regarding best practices and procedures.

The Four Pillars of Sourcing Success study by Ardent Partners found that companies with center-led procurement outperform their rivals in controlling spending and bringing down supplier costs. (Bartolini, 2015) Looking into costs and savings, creating a center of knowledge and excellence for procurement benefits the company immensely. The fact that every regional extension of the global company will deal with its local suppliers according to the best practices established facilitates the possibility of negotiating better and reducing prices and costs.

5.4. Procurement Trends

After the analysis of Secil's intentions with the project, it was decided that a thorough analysis regarding procurement and its main trends was imperative for the correct understanding and conclusion of the project. Therefore, in this chapter, it will analyze some

significant procurement trends, threats, and leverage points but also some trends specifically for the cement and concrete businesses.

5.4.1 General Procurement Trends

Procurement has seen an increasing trendline in terms of benefits for an extended period; however, the recent macroeconomic factors have created topsy-turvy times and reduced such gains (Basar et al., 2022). The new context of procurement with the COVID-19 pandemic brought ground-breaking supply chain disruptions. The Russia-Ukraine conflict brought the European energy market to a standstill, leading to raw material price hikes and all trade policy alterations. Other international trade game changers, such as the US-China trade war and Brexit, could pose a significant threat to procurement. Nevertheless, they can all also be leverage points that generate new trends in this market.

Procurement has suffered many changes alongside IT, allowing the possibility for data sourcing, relationships with suppliers, and inventory management (Jharkharia & Shankar, 2004). Joint innovation projects with suppliers are known to increase earnings by 10% (Formiconi et al., 2010), while collaboration with suppliers and others involved in the procurement process increases customer satisfaction. (Tan, 1998). Additionally, more than ever, relationships with suppliers are fundamental and need to be fostered, and firms are looking to decrease the number of suppliers to improve those relationships (Galt & Dale, 1991).

Technological developments are also a big player affecting the new trends in procurement. Major technological cyberattacks generating privacy concerns regarding supplier records, contracts, and data leaks can be breached with malicious intent; this creates mistrust, which is one of the main barriers to exchanging information (Eurich et al., 2010). Technology also gives new opportunities for companies to focus on fortifying cyberattack protection while understanding that digitalization is not a burden but a new era. Digitalization relies heavily on automation, namely spend-analytic solutions, supplier management tools, and spend

optimization. Participants in the supply chain might gain a great deal by integrating technology, including faster information sharing (Gavirneni et al., 1999), reduced supply chain risks (Christopher & Lee, 2004), improved communication and cooperation (Subramani, 2004), and more successfully constructed supply chain architecture (Dedrick et al., 2008).

5.4.2. Cement and Concrete Industry Procurement Trends

In terms of the cement and concrete industries, which are the ones Secil is situated at, both the trends are very like the ones seen before regarding procurement, so there is no need to distinguish between cement and concrete trends, hence why they are in the same chapter. However, the market for both commodities is very singular in some regards. The increase in population directly impacts these industries; as the population is increasing, the industries have experienced a sizeable expansion. Despite this, they ultimately suffered significant setbacks with the COVID-19 pandemic.

The challenges stated earlier regarding procurement can once again provide chances for businesses to expand their markets if they can develop their personnel, enhance logistics, and manage the supply chain efficiently (Okeudo, 2012). Therefore, cement and concrete industry companies are reinforcing their core capabilities – the most significant gaps are in cross-functional execution, negotiation, developing categories, and sourcing strategies.

Once again, technological changes are fundamental for these industries. As an constantly developing industry, companies need technological improvements to meet their client's needs. IT is strongly believed to enable faster response between the entire supply chain system (Kapoor et al., 2007).

Lastly, innovation has allowed for a higher standardization across geographies to maintain cohesion while also improving the ability to proactively build a support network and search categories from different regions. Such innovative trends are made possible by technological advancements creating more efficient procurement methods (Sambamurthy et al.,

2003). As already mentioned, shifting towards a more technological and data-centered procurement approach will result in lower prices and therefore generate higher savings, improving both financial and operational performance (Cachon & Fisher, 2000).

5.5. O'Brien's Category Management Book

As mentioned in the literature review, research was mainly based on *Category Management in Purchasing: A Strategic Approach to Maximize Business Profitability* (O'Brien, 2009). This book was a focal point for information during the entire duration of the project. As already explained in the literature review, one of the deliverables of the project was a category review template for Secil's category managers, which is essentially a dossier in which a view of each category is presented, from technical details to market information and strategic initiatives. This deliverable was the main beneficiary of research taken from O'Brien's book.

5.5.1. Kraljic Matrix and Supplier Segmentation Matrix

When researching procurement best practices and the most used matrixes, the first matrix was the Kraljic (Kraljic, 1983), and it is an essential tool for category management (Glöckner et al., 2005). It is used to segment the purchases or suppliers according to the risk or complexity of the market and the impact that purchases/suppliers have on the firm's profitability. The matrix is divided into two axes and four segments. Items with a high-profit impact for the company will be set on the upper side of the matrix. On the other hand, if an item is thought to have a low impact, it will be positioned on the lower quadrants. The same will be applied to risk/complexity, where low supply risk is positioned on the left side quadrants while high risk will be on the right.

Taking a closer look into each of the segments individually, it is noticeable that **strategic items** will be positioned on the upper right of the matrix. These are essential components for the company from a profitability standpoint. However, the market is very complex, and

continuous monitoring and good relationships with suppliers are fundamental for a correct procurement process.

On the other spectrum of complexity, **leverage items** are positioned on the left upper side of the matrix. These elements also have a high profitability impact on the company, but their market complexity is low, meaning that supply is abundant. Low market complexity allows the company to leverage its position since bargaining power will be at an all-time high due to the high volume of supply and the constant possibility for the company to change suppliers.

The last two segments are positioned on the matrix's lower end, depending on how complex/risky the market is; one is situated on the right and the other on the left. **Bottleneck items** have a high risk and are on the lower right side. These components are not as crucial for the company regarding profitability but are positioned in complex markets. The market complexity means companies must foster their relationships with suppliers without bearing many price concerns.

On the other side, to the left, are **non-critical items**. These items have a low impact and importance on the company's profit and are in abundance in the market. Not only will the company be able to bargain prices, but the efforts do not necessarily need to be great, as the number of suppliers and complexity of the market are low.

5.5.2. RAQSCI Business Requirements Model

In order to understand the business requirements of a company, it was viewed the means through which the supply base is connected to the corporate purpose, vision, goals, objectives, and strategy. Further analysis of the RAQCSI model (O'Brien, 2009) was fundamental. It is a staircase model in which one can only move a degree upwards if the latter is complete.

The model is divided into six steps/requirements. The first one, **regulatory**, concerns observing the established rules and regulations, stipulations, and restrictions. Secondly, there is

the **assurance of supply** where accessibility and availability of goods and services and, for example, the financial stability of suppliers and risk play an enormous role. The third step is **quality**, which are aspects relating to the reliability and suitability of the goods or services and the supplier's capacity to guarantee recurrence. Quality is one fundamental aspect, as this will determine how good the final product for the final client will be. **Service requirements** are one of the top three requirements. These are factors related to how the products or services are supplied or offered and any related support activities. **Cost/commercial** requirements include commercial terms, conditions, and agreements to comply with, as well as implementation and acquisition costs. Lastly, Continuous improvements should be made to save costs, boost value, or gain a competitive advantage in all elements of the customer experience, and this is called **innovation**.

5.5.3. The Six Value Levers

As explained in the literature review, the Six Value Levers were incorporated as one of the tools to be used by category managers when thinking about their category strategy on the category review deliverable. It is a strategic design and brainstorming framework adapted from O'Brien's value levers (pp. 137-139), which include category, supply and value chain, supply market, supplier relationship, supplier incentivization, and demand management levers.

The first lever is the **category**. This lever is intended to make managers think about their commodity and summarize it, thinking about its specifications, design, and spending.

Supply and value chain is the second one, and it incentivizes critical thinking about how the category is supplied to the firm and the processes to acquire it. It allows managers to ponder about the processes and logistics efficiency as well as whether costs are too high.

Next is the **supply market**. At this point, critical thinking about the market of suppliers where the commodity is situated is imperative. An overall look into the current and possible future suppliers will lead to a better understanding of all possibilities, giving more room to

change if necessary. Considerations such as market competitiveness, new markets, suppliers, or restructuring of the supply base are overriding best practices.

After analyzing the different supplier possibilities in the market, it is of the utmost importance to acknowledge the relationship between the buyers (category managers) and suppliers, as it is of both interests that this relation is cherished so that it could reap benefits. Also, a good relationship will open the possibility for collaboration, allowing for performance development and innovation. The latter point will be directly related to **supplier incentivization** as, sometimes, for buyer-supplier long-lasting relationships, there is a necessity to improve payment terms, support route to market, and demonstrate trust and commitment with on-time payments.

Lastly, the final lever in O'Brien's framework is **demand management**. After analyzing the category and its supply side, a thorough examination of the demand was in order. For the correct planning of the future category strategy, a clear understanding of what the customer wants, and needs is fundamental. It gives insights into the number of products to be sold, if the quantity ought to be reduced or increased, if the product meets the customer's standards, and ultimately a general comprehension of the policies and regulations associated with the product sale.

Even though the value lever framework from O'Brien inspired both the team and Secil category managers, both parties agreed, following several meetings, that a few alterations to the framework needed to be made. The correct alignment of the benefits of such a theoretical framework with the needs of the procurement team was fundamental. With the feedback from the team of managers, it was concluded that the best fit would be an adaptation of the framework explained above. The framework proposed to Secil, even though similar, had some differences. The supplier incentivization and supplier relationship levers, would be merged into a new lever called **supplier relationship**. This allowed for the creation of a new important lever named

technical; this lever represents the specifications regarding the category as it is important to think if its design or specification should be changed.

5.6. The Global-Local Matrix

Earlier the importance of a center-led procurement strategy was established, in order for the firm's ambitions of reducing the amount of time spent with the tail spend, making it more automated so that a more significant focus could be given to the strategic spend. For this to succeed, it is vital to standardize across all geographies. Brand standardization may generate economies of scale as it creates benefits such as centralized manufacturing, enhanced control over suppliers, and personnel savings (Van Gelder, 2003).

The local-global matrix has two axes and four quadrants and is divided between either global or local sourcing delivery and demand complexity. In this matrix, each category is allocated according to the values stated before. This matrix is fundamental to understanding how each category may have a different viewpoint.

Secil created this matrix with the aid of consultancy firm McKinsey. It allows for a better understanding of how to look at each category and position it according to a certain strategy. However, no scholarly research has been made public about this matrix and its

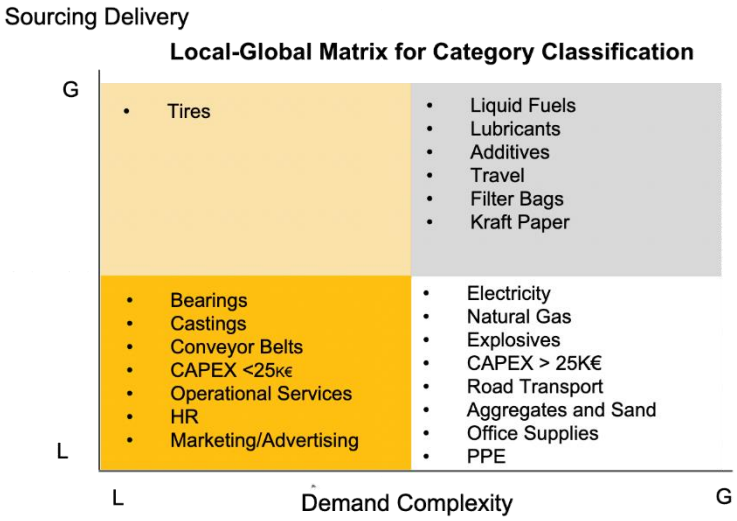


Figure 3: Global-Local Matrix

importance. Despite this, it is understood that internally, for Secil, this matrix is indispensable as its importance in Secil's procurement activity is enormous.

6. Deliverable Development

6.1. Category Review Template

The category review was the **most complex and valuable deliverable** for Secil, as mentioned in the first briefing meeting by CPO Hugo Alves. The Nova and Secil teams met biweekly in order to design and test the template, which was intended, at first, to be a presentation aid for category managers. The template oversaw many iterations over the course of the project; after the first steering meeting, the purpose of the category review template shifted from a presentation-style document to a dossier-style document, leading to a meticulous selection of frameworks and information to include. The aim of the category review dossier is for it to have multiple functions: an aid for budgeting, savings, and sourcing committees.

The strategic category review is intended to be versatile, editable, and easy to read for non-category managers. As part of a four-part deliverable project, this template forms the basis of future procurement strategies at Secil, meaning **interchangeability between managers and geographies** was a fundamental concept to consider when designing the slide deck. Visually, the presentation style was defined to be as appealing as possible, since visuals in presentations increase the attention rate of the audience (Pettersson, 1992) and subconsciously influence the audience's areas of focus (Kong et al., 2017).

Storyline

Effective storytelling is the cornerstone of a successful presentation in business (Denning, 2006), especially in a visual medium (Choy, 2017) such as a deck of PowerPoint slides. Therefore, the team and the client had a brainstorming session where a winning storyline was developed. Due to the internal nature of this project, the validation of the category review

template's storyline was done in the second factory and steering meetings by the remaining category managers and CPO Hugo Alves.

The category review template is **a five-step deep-dive** into the microcosm of any given category, beginning with an **overview of the category**, an **analysis of Secil's current suppliers**, an **analysis of the market**, **strategy design** and **should-cost analysis**.

6.1.1. Category Overview

The first step of the storyline is centered on a general overview of the category, its spend and influence on the company and respective geographies, market trends and technical specifications. Many themes from previous Secil category reviews are echoed in this section of the slide deck, such as the Kraljic and Global-Local matrices. However, information was laid out in a more periodic and streamlined manner.

Spend Profile

The first subchapter outlines a general historical view of the category's performance across the past three years, in addition to a breakdown of total spend and spend percentage across relevant geographies. Due to the complexity of various financial and market reports available to category managers at Secil, a simple presentation of the total and relative spend of a category is an effective way to introduce a presentation on said category. The information on this slide, namely graphs and tables, stems from the auxiliary Excel file which also houses the should-cost analysis tool.

Category Breakdown

To keep the presentation's coherent storyline, a visual breakdown of the category's spend was done in the following slide, in the form of a tree diagram. The choice of a tree diagram comes from the need of a category manager to sequentially understand where their spend lies within geographies and/or categories. Tree diagrams are especially effective in

communicating this type of information (Burch et al., 2013), regardless of their number of nodes or links.

Strategy Summary

The next subchapter in the category review template is an "*as-is*" delineation of Secil's current strategies for the category in question. It includes a rundown of initiatives across an adapted version of O'Brien's **Six Value Levers** (O'Brien, 2009), where each strategic action the category manager has taken is classified according to one of six levers: technical, category, supply and value chain, supply market, supplier relationship and demand management. Inside each lever are sub-levers, which serves as a brainstorming instrument for category managers. Fundamentally, the six levers point to an overarching global strategy, which is highlighted brightly in gold. Alongside with the fact that Secil's primary corporate color scheme contains gold and dark grey, this color was chosen as the slide deck's main highlighting tone, as the yellow-red spectrum is a good attention-grabber in presentations (Camgöz et al., 2003).

Additionally, this slide sees the use of the **Kraljic matrix**, an essential tool for purchasing decisions (Kraljic, 1983), which classifies the category in one of four quadrants: leverage, strategic, bottleneck and non-critical. The Kraljic matrix includes a movable pin which allows category managers to self-identify the quadrant in which their own category lies. Initially, in lieu of a static matrix, the team designed a weighted scoring system for the Kraljic

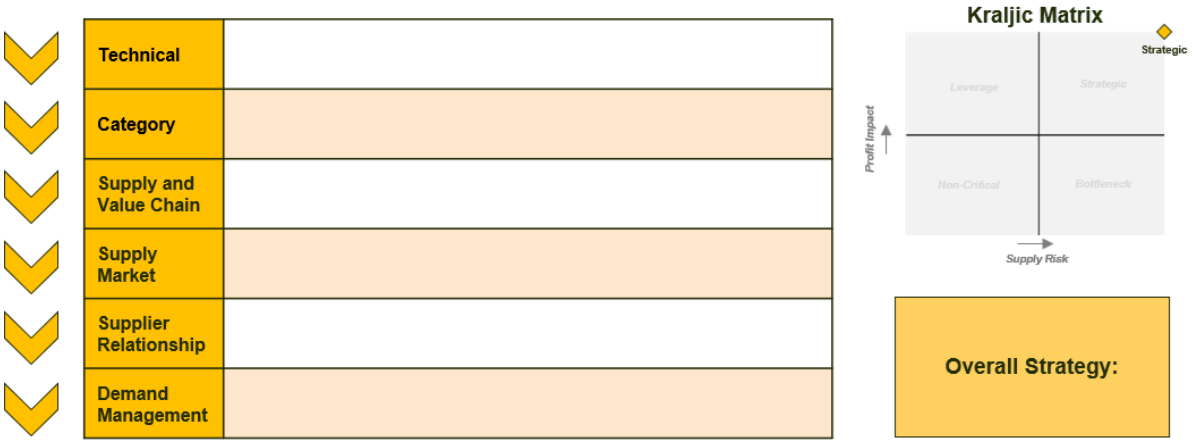


Figure 3: The category review's strategic summary slide, including the adapted version of O'Brien's Six Value Levers and the Kraljic matrix

matrix based on a make-or-buy framework designed by Medina-Serrano et al. (2020), where points were attributed based on relevant questions for each quadrant. However, this proved to be an unneeded level of complication, which was discussed in the second factory meeting with all category managers present. Feedback on a simple pin system was more positive, so a simple version of the Kraljic matrix was added instead.

Category View

After a summary of the strategy for the category, a general view of the category itself is presented. This section of the slide deck covers three areas: an enumeration of **industry trends** concerning the category in question, which are crucial to understanding the current procurement climate (den Butter & Linse, 2008), **items** in question, which includes all types of specific products category managers buy (e.g.: a category manager in charge of cement additives buys an item called a strength activator), and category **cost drivers**, such as fuel, energy and raw materials), which are linked intrinsically to the final price category managers pay for product they are purchasing, and therefore are essential to include in this section of the template (Tassabehji & Moorhouse, 2008).

Heavily featured on this slide as well is McKinsey and Secil's **Global-Local matrix**, which is, jointly with the Kraljic matrix, the touchstone of the company's procurement strategy

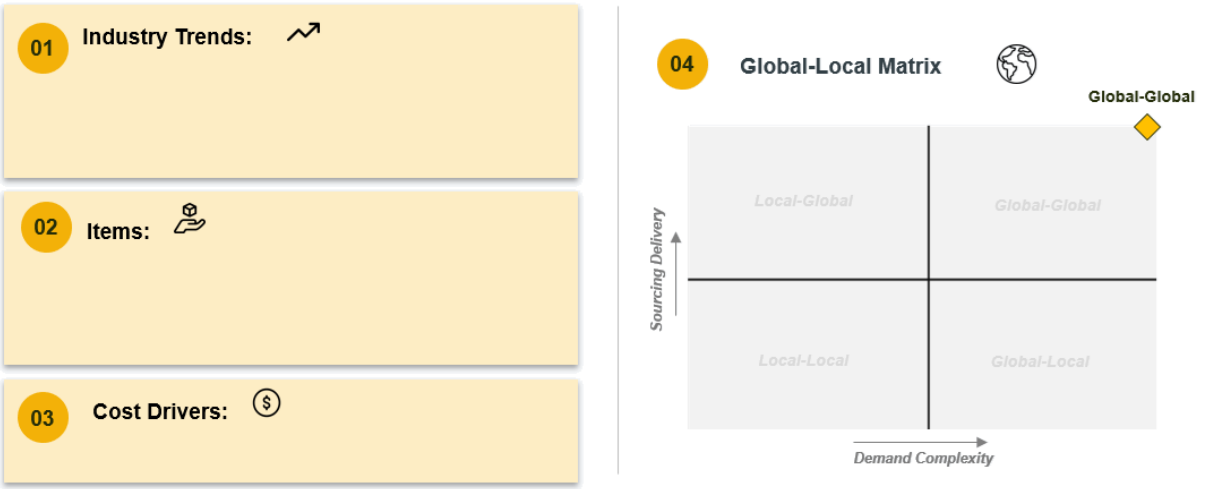


Figure 4: Category view slide, including the global-local matrix. This and the Kraljic matrix are two essential components of Secil's category

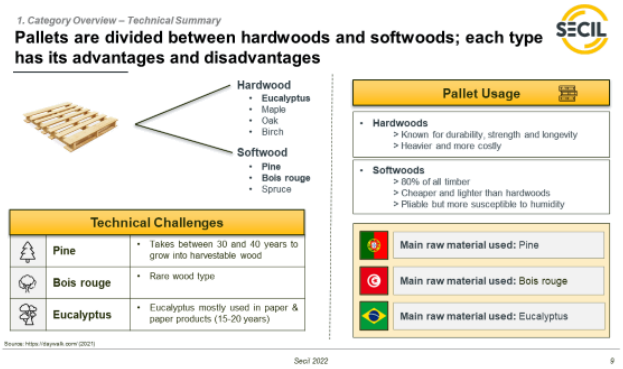
design and classification. Similarly to the Kraljic matrix, as discussed above, there was the intention of linking this Global-Local matrix to an Excel spreadsheet where the position of the classification marker would change relative to each category manager's answer to a questionnaire (Medina-Serrano et al., 2020). However, after feedback from category managers, the team opted to maintain the simplicity of each category manager moving a pin manually.

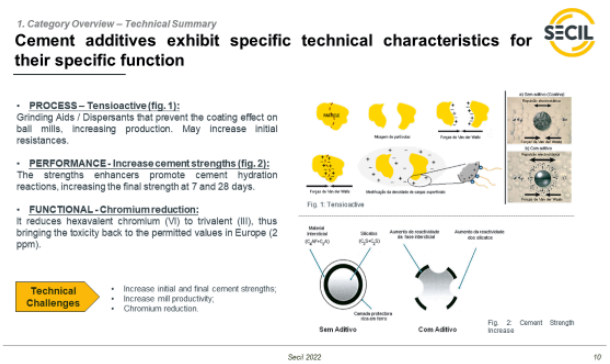
Business Requirements

Following the general external overview of the category is a less visually appealing, but necessary slide, which gives a detailed look into the requirements for a business such as Secil to operate. As an industrial firm, Secil must comply with various regulations and quality assurance factors (Juutinen, 2022). In order to compartmentalize these requirements, the **RAQSCI model**, widely used in the procurement sector, was used. The team and the client took heavy inspiration from O'Brien's version of the framework, which includes guidelines for each letter.

Technical Summary

The final slide of the category overview section is a detailed technical summary of the category. Due to the inherent complex nature of Secil's business activities, it is not easy for a manager to explain in detail the ins and outs of their category, as each product serves a specific purpose in the manufacture of cement, concrete, mortar or aggregates. Therefore, it was imperative to include a slide with the aim of simplifying the intricate chemical and/or





Figures 5 & 6: Two technical summary slides for different categories (pallets and cement additives)

engineering processes in which the category is involved. Secil's categories range from sand, to pallets, to plaster, to explosives, which led to this slide having more "free rein" than others, as each category has its own idiosyncrasies, with one compulsory field to be filled in: the **technical challenges** posed by the category.

6.1.2. Supplier Analysis

In the procurement sphere, an analysis of one's current suppliers is key in order to understand where key strengths, weaknesses and opportunities may lie (Ghadimi et al., 2015), which leads, in essence, to the pursuit of a strong supply chain (Novack & Simco, 1991). This section contains three analysis frameworks which give a stronger picture of the firm's current supply landscape.

Supplier Breakdown

In order to compare total volume, total spend, and spend percentage between suppliers, the team designed a table based on a previous category review dossier created by CPO Hugo Alves. The table is a very simple description of Secil's **financial relationship with their suppliers** for a given category: for each row, managers must input a supplier's name, in which geographies they supply the category, their total spend and volume with that supplier, and, optionally, any additional observations. Preferably, the table is filled in from highest to lowest spend.

Tomás Amante

Supplier Segmentation

Each category manager's understanding of their relationship with suppliers is analyzed in this slide, which features two, three or four **supplier segmentation matrices**; one for each geography served by that category. The supplier segmentation matrix is a tool which allows category managers to classify suppliers according to their relative importance to the company. Having leverage suppliers (Secil is important to the supplier, but the supplier is not as important to Secil) is desirable in regards to this matrix. This slide had many iterations, as initially, it

served as a global supplier segmentation matrix, but after careful deliberation and videocalls with category managers in Brazil and Tunisia, it was decided that, in order for the category review to be accessible to all geographies, each country would classify their suppliers in a separate matrix.

Suppliers per Location

The final slide in this section contains a **world map** which plots each supplier's presence in every Secil geography, with a small legend beside it linking countries to suppliers. This slide is optional, as not every category is supplied on a global scale; for example, pallets are supplied locally to each geography, nullifying the purpose of this slide.

6.1.3. Market Analysis

Before defining a strategy, category managers must first have a broader view of the market for their category in order to identify external threats and opportunities (Jaipuria et al., 2016). Therefore, a collection of four slides were added to this section as a way to allow managers to better explore the market for their own category, entering the strategic design phase with more robust knowledge of the external factors which influence the behavior of the category on the market.

Supply Perspective

Keeping with the theme of a consistent storyline to the slide deck, the market analysis chapter begins with a reflection of the previous chapter. Not only is it important for managers to know their own suppliers, but also **other incumbents in the market** (Elmaghraby, 2000). Therefore, the team created a table which presents, on one row, an overview of each category's main suppliers, and on another, the main producers in the market which do not supply Secil. Once again, it was important that all geographies were included, so this table is divided between Portugal, Tunisia, Lebanon, and Brazil.

Demand Perspective

After analyzing the supply side of the market, category managers must also analyze the demand side, namely **second-tier suppliers**, who are the suppliers' suppliers (Wilhelm et al., 2016). Categories have their own suppliers, who in turn are also affected by cost drivers, external factors, and competitive rivalry amongst themselves.

Additionally, cement, concrete and mortars are not the only industry which consumes certain categories/products. Pallets, for example, are mostly used in retail, and industrial pallet usage is generally insignificant. On the other hand, certain cement additives product patents are used exclusively by Secil. This leads to category managers needing to do a careful analysis of the entire supply chain and its players, in order to notice leverage opportunities for a future strategy.

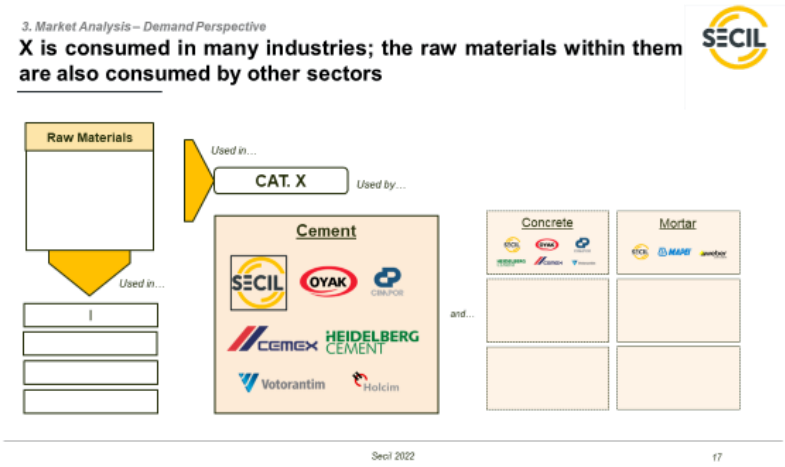


Figure 7: Demand perspective slide – template

PESTLE Framework

The **PESTLE framework** (Aguilar, 1967) is an excellent tool for external analysis and defining the factors which most affect the performance of a given category. In this slide, the team opted for a quintuple classification approach (very low, low, medium, high, very high), which category managers can set manually according to a set of criteria. A color-coded approach was used (green/low, gold/medium, red/high) in order to facilitate reading and promote faster comprehension (Smith, 1962).

In addition to editable text boxes for each letter in the PESTLE framework, the slide is accompanied by a **von Mayr chart**, popularly known as a spider or radar chart. Radar charts are good visualizers of complex data (Atanassova, 2010) and have been used to visualize a PESTLE analysis in the past (Silinevicha & Kalinina, 2017). A spreadsheet in the auxiliary Excel document was used for a simple 1-to-5 parameter evaluation of each factor in a PESTLE analysis, which can then be copied into the category review slide deck.

Porter's Five Forces

The **Porter's Five Forces model** is the quintessential strategic framework for industry analysis (Porter, 1979). This slide is the last step before diving into a category's strategic design and serves as a brainstorming tool meant to stretch the manager's mind regarding the firm's position in the industry. Quintuple classification and color-coding theory was also applied to this framework in an identical fashion to the previous slide's PESTLE analysis. However, a crucial adaptation was necessary in order for the slide to be of use in the context of category management: each of the five forces is looked at through the buyer's lens, and not the seller's (O'Brien, 2009). For example, industry rivalry for the pallets category does not concern cement, concrete or any other Secil activity, but the rivalry between incumbents in the pallets market. This rivalry is what then affects Secil's power as a buyer in the market and becomes useful in devising future strategies.

6.1.4. Strategy Design

The end of the category review template harbors the most important part of the document, the strategic design. This section is the conclusion of the storyline, which has been building up towards this point. Strategy formulation and development is a crucial step in a successful procurement department (Virolainen, 1998). Secil seeks standardization across its geographies, which means there must be strategic alignment between Portugal, Tunisia, Lebanon, and Brazil. Alignment across countries is extremely important for a multinational

company present in less developed countries (Kobrin, 1994; Jones, 2010). Initiatives must be defined and taken together, as a team, in order to strengthen Secil's position.

SWOT Analysis

The strategic design section of the category review template begins with the ever-present **SWOT framework**, which helps compartmentalize strategic thinking by creating a division between external and internal analysis of the firm (Learned et al., 1965; Andrews, 1971). A SWOT analysis is the precursor to the development of strategy (Samejima et al., 2006), which is why it was positioned as the first of three strategic design slides.

Strategic Repositioning

The strategic repositioning subchapter is split between two slides in order to give category managers ample space to delineate their actions and initiatives for the upcoming years. Firstly, managers are encouraged to fill in a table which contains four columns: **Why?**, a conclusion from either the SWOT analysis or a relevant takeaway from previous slides; **How?**, a detailed description of the courses of action which aim to tackle the issue or opportunity in the previous column; **Benefits**, which can either be required KPI targets, a desired qualitative outcome, or both; and **Timeframe**, where each strategic initiative is given an achievable date for completion. It is recommended that strategies are ordered by completion date as it provides an easier future mental picture for category managers, which improves the decision-making process (Klingebiel & De Meyer, 2012).

This section's second and last slide is a repetition of the strategic summary slide from the category overview chapter, which had as focal points an adapted version of O'Brien's **Six Value Levers** (O'Brien, 2009) and the **Kraljic matrix** (Kraljic, 1983). The team and the client agreed upon an identical slide as repetition in presentations functions as a recall and mnemonic device (Young & Bellezza, 1982), ensuring the conclusion of a satisfying storyline. The goal of this slide is for managers to place the previously defined strategies into one of the six value

levers, giving a short explanation of what exact purpose the initiative will bring in that context. Additionally, managers are free to reposition the initial pin in the Kraljic matrix towards a desired outcome (for example, a category may need to be reclassified from strategic to leverage by the end of the fiscal year).

6.1.5. Should-Cost Analysis

While less relevant in the context of a short presentation, the final chapter of the category review template is of high importance for budgeting and negotiating decisions. Discussed in detail in point **6.2.** of this thesis, the should-cost analysis is a cost-breakdown tool which informs the user how much an item should be priced at, and then compares this price with the price offered by a supplier. This tool was modelled in an Excel spreadsheet; however, it is necessary to include a summary of the conclusions gained from performing a should-cost analysis in the final category review slide deck dossier.

Initially, the team's intention was to connect both the category review and the should-cost model through a twin-document system, where the Excel file was linked to a built-in table in the PowerPoint slide deck. However, this proved to be excessively complicated for the student team to implement and the client team to understand and led to issues such as unsynchronized information across categories and geographies after a short amount of testing. Therefore, after receiving favorable feedback, category managers were recommended to include a screenshot of the Excel document (in lieu of linking documents through the cloud or copy-pasting the table from the spreadsheet), which led to more consistent and easy-to-read information. At the bottom of the slide is a text box where managers can write two or three main conclusions to be taken from the should-cost analysis.

6.1.6. Appendices

The final four slides of the category review are not presentable slides, but framework guidelines for category managers who may not be familiar with O'Brien's category

management book, or in need of a refresher on how to categorize information within more obscure procurement models.

The first appendix is an explanation of the RAQSCI business requirements model, with in-depth examples for each dimension. Next, is back-up PESTLE analysis slide which goes into detail regarding each factor, followed by an arrangement of O'Brien's six value levers by sub-lever. At the end is a model excluded entirely from the main body of slides, ATKearney's Strategic Souring Gemstone; however, it serves as an important brainstorming tool for managers who struggle with designing strategies with only the Kraljic matrix and value levers (Cordell & Thompson, 2019).

6.2. Should-Cost Template

The should-cost analysis template is an Excel file that serves as a support document for the above category review. While its fundamental purpose is providing a semi-automated tool for each category manager to perform a should-cost analysis, it also includes sheets with supplementary tables and graphs for the category overview section of the dossier and support matrices and frameworks.

This deliverable, during the project, was consistently subject to change and improvements as category managers started becoming more aware of its incredible benefits on effort and time reduction. Its great aid in scalability to other geographies and documents, such as savings and budgeting reports, category reviews, and sourcing committees were very much considered and implemented.

The should-cost analysis is a method many companies use to understand better the cost their supplier should be charging. Such knowledge improves the company's position while negotiating and leveraging the price. It gives insights into the supplier's fees, the profit margins they may want to achieve, and their power in the negotiation. Should-cost analysis (SCA) assists

the purchaser in getting a detailed insight into the supplier's product resulting in a more judicious price negotiation (Varadarajan, 2013).

The document's development began as a simple Excel file with minimal automation, where each category manager could choose from a drop-down list of their assigned categories. This initial document had little to no actual use, as neither the Nova SBE team nor the client could envision what the template would look like and what possibilities it could bring to Secil. Effectively Managing the costs of purchased products and services is vital in procurement management (Ellram, 1996). However, when the project moved towards the biweekly in-person meetings at Secil's headquarters and teams together working as a unit, new ideas and solutions were brought forth, allowing the team to create the document that the client was hoping to have.

In order to develop the best possible template, the team had six elements in mind, beginning with **Keeping it Simple** (KIS). Since the first brainstorming session with Secil's managers, it was understood that it was not the first proposal template for should costs and that the prior propositions were hard to understand and manage; therefore, it was decided that simple was better.

Alongside KIS, there is **readability**. In order to make the document simple and usable, it was essential to make it easy to read. Therefore additional resources such as the easiness of reading and interpreting the template results are a significant benefit and a deterrent for minor mistakes,

Thirdly, **consistency** was vital for the correct usage of the template, as all the information used by the managers should be retrieved from the same database for coherent results. The latter lever directly relates to one of the most critical levers: **automation.** Automation will benefit not only the managers, who will see their efforts immensely reduced but also the analyst that will be charged with keeping the database updated.

Next is **duplicability**. The possibility of the duplication of the document regarding different purposes was one of the category managers' main priorities. This was carefully thought out and developed, facilitating additional computations, and it will aid in supporting other documents, such as budgeting and savings.

The last element was only thought about during the final weeks of the project. However, it was fundamental for its correct conclusion as it turned out to be indispensable for the company, it is **scalability**. Scalability allowed for the incorporation of other currencies apart from euros, exchange rates, and local country drivers, generating the possibility for other geographies to use the document as well.

The Excel document is structured into category overview, should-cost analysis, and frameworks and matrices. A cover page and index, although superfluous, given the nature of the document, signal a polished and aesthetically pleasing central hub and guide for users (Schmidt-Stölting, 2011).

6.2.1. Spend Profile

After the cover and index pages is an auxiliary sheet which serves as support for the first chapter of the category review template. The sheet consists of three tables and four graphs (two pie charts and two column charts), of which category managers are recommended to select one of each to include in the *Spend Profile* subchapter, depending on personal preference or category suitability. Each graph is linked to the tables, which require manual input, and include simple spend and volume information per geography and/or business unit. One additional table requires historical data for the past three years in order to paint a picture of the evolution of the category's spending.

6.2.2. Should-Cost Analysis

Instructions

The third page of the excel sheet are instructions for the correct usage of the template. It presents a guide for managers and all parties involved with document usage, allowing for a clear understanding of the contents and methods of computation.

Database

The database is one of the most important pages for the should-costs, savings, and budgeting computations. All the cost drivers and their respective values are in this sheet. The category managers will not use the database, so there will be no extra effort involved with this sheet. An analyst from the STCM team in Secil will instead manage it. This person will be in charge of updating the values for the cost drivers, understanding if new cost drivers emerge or old ones become irrelevant in order to add or delete them from the database. Even though some manual work will need to be done for the correct maintenance of this sheet, this work will not be done by the managers, which was the project's main objective, to reduce their workload. Despite this work needing to be done, all the columns in the database will be brought down until row 200, meaning that if new cost drivers or values are added, the computations that are aided by formulas will be automatically calculated.

Regarding the composition of the database, it will constitute one main table and two additional backup tables that will be fundamental for the adequate computations on the should-cost excel sheet that will be deeply explained afterward. The first and most significant table will be composed of nine elements/columns, them being: The **group** the commodity is situated in (for example, metal, chemical, other); the commodity itself; a brief **description of the commodity** and where it was taken from; the **commodity with a measurement**, meaning what the commodity is and what is the monetary unit per measure of acquisition (for example, USD/lb or EUR/ton); then there is the **currency per measure** which is the same as before but without the commodity; the **currency** on its own that will be used for computation purposes; and the last three columns are baseline values, one for **"baseline 2021"**, another for the **"actual**

baseline”, and the last is **“other baseline”**. The baseline columns are the values or prices of the cost drivers on the period decided.

The second table will be the same as the three last columns of the main table but with formulas to automatically add the values with conversion rates from one currency to another. These formulas with currency conversions are fundamental for category managers' computations in the should cost excel sheet as they may want to see the total costs according to different currencies. The cost driver values situated on the main table are set according to the currency of the country from which the information was retrieved. Therefore it is crucial to add the possibility of calculating them if another currency wants to be studied automatically. The exchange rates will be allocated in the final excel sheet table of the database. This last table will have three columns with the exchange rates according to the three baselines stipulated previously (2021 baseline, current baseline, and alternative baseline). It will include the following currencies: euro (EUR), (LBP), Tunisian dinar (TND), Brazilian real (BRL), united states dollar (USD), Chinese yen (CHY), and Grand Britain pound (GBP).

The formula used to automatically retrieve and compute the values with the according exchange rate means that “if the **group** of the commodities are equal to inflation, the values for the inflation in the main table will be retrieved into the second table. If not, the formula will investigate cell V5 which is the **currency** the category managers want to test in the should cost excel sheet and will compare it and calculate the values with the according exchange rates considering the currency and values of the cost drivers from which the information was taken in the main table.”

Should-Cost Template

The should-cost template will be the essential sheet and the one used by category managers. There will be three exactly equal sheets within the excel template, one for each region in Secil's workforce: Portugal, Brazil, and Tunisia.

The first two things managers will look at upon opening the excel sheet are a table and a caption. The caption says that "input cells are only the ones with the orange shade," meaning that only these cells will offer the possibility to be edited by the category managers. Every other cell will be computed automatically and will be left with no color filling. Looking at the first table on the should-cost template, it is noticeable that some of the cells need to be edited by the managers; this table is a heading for the computations. It will be constituted by who the category manager is and what is the category and sub-category to be analyzed (these cells will need to be filled out manually by category managers). The baseline they want the computations to be retrieved from and the currency of choice for the results and numerical values, also present in the table, will not be manually filled. These two cells will have a drop box list to choose from as they are the same for all managers).

The baseline cell will offer the possibility to choose between two options, either "Baseline 2021" or "Other Baseline" the importance of these baselines will be fully explained later. The currency drop box list will have five of the seven currencies appearing on the database, which were enumerated earlier, apart from the Chinese yen and the British pound.

Cost Drivers	Baseline Weights (2021)	Baseline Price	Percentual Impact	Price Impact	Should Cost
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
Other Costs and Margins	100,00%	0,00		0,00	0,00
Total Should Cost	**100%**			0,00	0,00
Commercial Effect					0,00
Total Cost					**0,00**

Figure 8: Should-cost template

Explaining the should cost model without the visual aid of the template is highly challenging; therefore, the image below is a picture of the template model, which will serve only as a method for more straightforward explanations.

As explained before, the category managers need to edit the cells with an orange fill, while the others are entirely automated. One should fill the orange-shaded cells from left to right and top to bottom for a correct template analysis. Let us take a deeper look into the columns individually and then explain some of the rows containing text.

The first column will be filled with a drop box list with all the cost drivers present in the "database" excel sheet. In this column, the manager will choose the drivers that impact their category's price.

The second one, named **"Baseline weights 2021"**, will also need to be filled manually; however, in this section, no drop box list will appear. Here managers will have to insert the percentual value that the cost driver that was input earlier will have on the category's price. These weights will be from 2021. The **"other costs and margins"** cell will be the remainder of the total should cost, amounting to 100%, minus the sum of the weights of all the cost drivers chosen above.

The third column, **baseline price**, is the only one that "does not follow the rules" meaning that it should be firstly looked at from the bottom to the top as there is the need for a cell to be filled for the others to be automatically computed. This cell will represent the total price of the category in 2021 and must be filled manually. The cells above represent the total price value multiplied by each cost driver's percentual weight impact on the total cost, giving a cost per driver.

In terms of the **percentual impact**, things are not relatively as straightforward as these values come from the "Database". As said before, there was a reason behind the addition of three baseline columns in the database. For the percentual impact values to be calculated, category managers must decide between using the "Baseline 2021" or "Other Baseline" on the baseline cell. The "Baseline 2021" represents the percentual change in the cost driver values in the "Database" sheet between the actual baseline (value of the cost driver today) and the

Baseline 2021 (value of the cost driver in 2021). On the other hand, the “Other Baseline” will represent the exact change as the one explained earlier; however, this time is between the “Other Baseline” value for the cost driver in the "Database" sheet (any value from any date to be tested) and the actual baseline. After the baseline selection, the formula will retrieve the value of the division of these columns from the “Database” according to the cost drivers chosen in the should-cost template. In the end, the formula will automatically compute the percentual impact of a given cost driver according to the baseline chosen by the category managers. Despite almost every value being automatically calculated for “Other Costs and Margins”, this will not be possible as there is no information regarding this in the “Database”. Therefore, each category manager needs to fill this cell with their expected percentual impact for this cost.

Once again, the **price impact** is much easier to understand as it is automatically computed using a simple multiplication formula. It represents the multiplication of the baseline price and the percentual impact per cost driver.

The last column of the **should cost will** compute the initial baseline price per cost driver plus the price impact, giving a total should cost value per driver.

Some additional acknowledgments must be made regarding the total should cost row and the commercial effect. The **total should cost** is the sum of all the cost drivers' price impacts and respective should costs. Regarding the **commercial effects** that are manually inputted, they represent the impact that category managers believe suppliers will have on the companies 'should cost. They demonstrate the margin of profit suppliers will intend to gain from the sale of the commodity.

In the should cost template there is also another table for further analysis of the should cost calculated and its impact, this is fundamental for savings, budgeting, and sourcing committees. This table is constituted of six rows. The first is the supplier’s **initial asked price**, this cell must be manually input by each category manager after talking with suppliers. The

second row is also of manual input, and it represents the actual price that the category manager was able to negotiate with the supplier, so it is **the price after negotiation**. The third and fourth rows are both completely automated, they demonstrate the **price change** and the **unit delta**, respectively. The price change is nothing more than the price after negotiation minus the supplier's initial asked price, and the unit delta is the total cost minus the price after negotiation. The fifth row is once more manual, and it shows the **quantity** bought or predicted to be bought. Finally, the last row gives the quantities times the unit delta, or **total impact**, which can represent either a saving or a loss, if higher than zero it will represent a loss (color red), if it is the opposite represents a saving (color green).

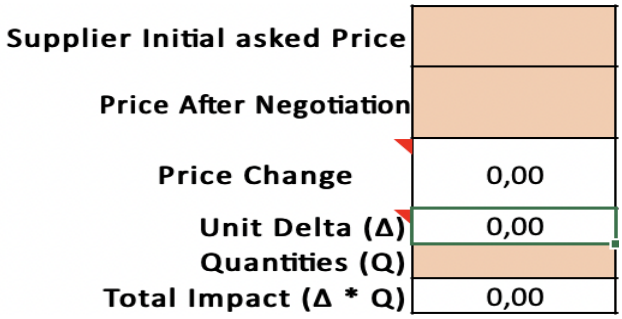


Figure 9: Additional support table for savings and budgeting

To finalize the description of the should cost template, it is noticeable that some cells have a red triangle in the top-right corner, these are nothing more than notes for category managers with explanations regarding the meaning of the cell itself and its computations, for them to better understand the meaning behind the automatic formulas.

6.2.3. Frameworks and Matrices

The final two sheets of the should-cost Excel document are also auxiliary and pertain to certain sections of the category review.

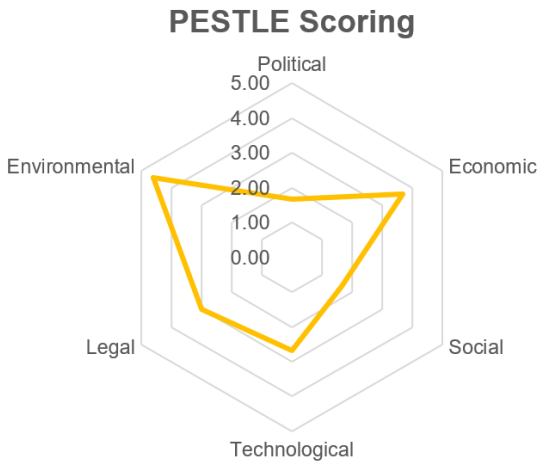
PESTLE Scoring

As mentioned previously, the PESTLE framework (Aguilar, 1967) used in the *Market Analysis* chapter of the category review, is based on a von Mayr chart, commonly known as a radar chart. In addition to being visually appealing, a radar chart is a simple form of evaluating

and ranking a multidimensional data set based on a scoring system (Yijing & Ming, 2009; Zhang, 2016). Von Mayr charts have also been used to classify PESTLE analyses in the past (Silinevicha & Kalinina, 2017).

In order to limit unnecessary workloads for category managers, the spreadsheet is simple and contains only three parameters to be evaluated per PESTLE initial: the **political** score is dependent on political stability, trade policy and government policy; the **economic** score on the inflation rate, exchange rate and employer rates; the **social** score on cultural barriers, target demographics and population growth; the **technological** score on the level of innovation, automation and cybersecurity; the **legal** score on employment laws, health regulations and safety regulations; and the **environmental** score on environmental policies, sustainability and NGO pressure. The spreadsheet asks the question, "From 1 (low) to 5 (high), how much does this factor affect the management of this category/region?", prompting users to fill in each of

	Score
Political	1.67
Economic	3.67
Social	1.67
Technological	2.67
Legal	3.00
Environmental	4.60



Figures 10 & 11: Visualization of scoring averages and von Mayr chart for the pallet category

highlighted cells according to their understanding of how much influence each factor holds. For each factor, an average is calculated which translates to a position on the graph.

Matrices

The last sheet of the Excel document is comprised of four matrices with a rudimentary scoring system where the user inputs a value from -1 (low) to 1 (high) relative to each matrix's

axes. Based on the inserted values, a formula automatically pins the category on a quadrant and describes it. This section of the document may help category managers when brainstorming a category's position on the Kraljic or Global-Local matrix.

6.3. Tracking Tool

The development of the tracking tool began after the completion of the category review, which has an influence on the tool because only after the category strategy design are born the initiatives that will be manually input in the tracking tool.

The starting point was the analysis of the current tracking tool, modelled in Excel, and the entire governance structure around this topic. This analysis resulted in two main outcomes: As the current climate is marked by digital change, the future tool needed to be built in an **organized way, to present an intuitive, automated, and visually appealing interface**. In addition to the initiative tracking feature, it also marked the exponential importance of providing an **analysis** of all the information entered in the tracking tool, a feature that the previous tool did not have.

Therefore, the team decided to present a solution doing the modelling in an Excel file, not only so that the impact of a new tool would be lessened due to familiarization with this format, but also to ensure the best quality of the deliverable according to the team's expertise and the Secil Group's **globalization** ambitions, since project management software for companies is not made available for testing without any initial investment; consequently, the tracking tool was divided into four main tabs.

Index

Welcome page of the tool, the index presents an automatic linkage with the other pages that make up the document, presenting an automated alternative capable of saving the time of the category managers and the PMO responsible for the tool, and is also useful for organizing the contents.

Tracking Tool

Given the importance of this tool, in addition to the features idealized above and after meeting with the category managers and a member of the Secil Group strategic team, the team decided to increase the number of fields to be filled in the tracking tool in relation to the previous model, so that the subsequent analysis of information can reach a level of **detail** that expands the resolution of challenges, problems or stalled initiatives.

Procurement Owner – Category Manager responsible for the initiative, semi-automatic filling with the name selection function through a list of names.

Area Owner – Corresponds to the contact point on the other side of the initiative, the person responsible in the respective location where the initiative will take effect. Manual input column.

Category – The category that will be impacted by the described initiative. Filling in in a semi-automated way from the selection through a list with all categories.

Geography – Geographic location where the initiative will occur.

Industrial Plant – Geographic location of the plant where the initiative will occur.

Strategy Value Lever – Link to the Strategy Value Levers included in the Category Overview document. An aid to understanding the purpose/goal of each initiative.

Initiatives Description – Manual input field where category managers give an overview of the initiative.

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Ambition 2025 **Elements** – Link to the "parent project", a key element to identify initiatives and prioritize them according to the project goals timeline.

Potential Saving – Estimated amount of savings that the initiative may come to gather.

Start Date – Start date of the initiative.

Deadline and New Deadline – By default, these fields are equal, unless there is a delay, and it is necessary to set a new deadline in the respective field.

Delay – Delay in days, automatically calculated from the difference between "New Deadline" and "Deadline".

Status – Phases of a project according to the project management guidelines. In an Idea and Initiating phase, the "Potential Saving" is discounted by 50%, and in a Planning phase 30% of the value is discounted, and in the remaining phases (Executing and Implemented) no discount is made. These adjustments are performed to prevent value discrepancies in case initiatives fall through.

Progress Report – Manual input field for the PMO to update with progress and status of initiatives.

Discounted Saving – Actual saving value discounted automatically as per selection in the "Status" column.

Analysis

This section presented an innovation in the new tool, featuring a set of dynamic and automatic tables capable of making an **effective analysis** of the most important indicators of the Tracking Tool. This not only brought a performance analysis capability, but also brought an authentic incentive for **problem solving**, challenging the strategic side of the procurement area. Therefore, we can conclude that in order to build a solid performance output analysis, it is imperative to resort to basic pillars related to **data management and insight-led decision-making culture**. Moreover, organizations must ask themselves not only how they are going to incorporate these analytics, but also why they are implementing it. (Accenture, 2019). Thus, it was crucial to develop a model that established a connection between the Secil Group's objectives and ambitions and the outputs described.

Within the "Analysis" tab, we can find a total of five analysis tables:

Number of Initiatives per status and corresponding Savings – General overview of the current paradigm of the categories, with the possible number of initiatives per status and the relative savings (Potential and Total).

Number of initiatives per Category Manager – Helps to understand the workload for each manager, being each initiative detailed to its status.

	Nº of Initiatives	Potential Saving (K€)	Total Savings (K€)
Idea	3	2500.00	1250.00
Initiating	3	2300.00	1150.00
Planning	2	1200.00	840.00
Executing	3	2000.00	2000.00
Implemented	2	1600.00	1600.00
Total	13	9600	6840

Figure 12: Number of initiatives per status and respective savings

Category Manager/Project Status	Idea	Initiating	Planning	Executing	Implemented	Total
Bruno Bermudes	0	0	0	0	0	0
Bruno Ventura	1	1	1	2	1	6
Filipa Lemos	2	2	1	1	1	7
Michael Mendonça	0	0	0	0	0	0
Nuno Miguel Dias	0	0	0	0	0	0
Patricia Neutel	0	0	0	0	0	0

Figure 13: Number of initiatives per category manager

Category Manager/Project Status	Idea	Initiating	Planning	Executing	Implemented	Total
Bruno Bermudes	0.00	0.00	0.00	0.00	0.00	0.00
Bruno Ventura	600.00	200.00	300.00	1000.00	500.00	2600.00
Filipa Lemos	1900.00	2100.00	900.00	1000.00	1100.00	7000.00
Michael Mendonça	0.00	0.00	0.00	0.00	0.00	0.00
Nuno Miguel Dias	0.00	0.00	0.00	0.00	0.00	0.00
Patricia Neutel	0.00	0.00	0.00	0.00	0.00	0.00

Figure 14: Savings per category manager

Category Info – Details the number of initiatives and total saving per category selected from a dropdown list.

Savings per Category Manager – This table details the amount of savings for each category manager's initiative status.

Delay per Category Manager – Calculates the number of days in backlog accumulated by each team member.

Tutorial Information

To make the tool even more **intuitive**, the team created a tab dedicated to backup information needed to clarify possible doubts when filling out the Tracking Tool. This information details key points regarding value levers, project phases and their respective saving discount rates. By adding this information, we reduce the time of the category managers and PMO in case of any doubt and increase the **efficiency** and quality of the information entered in the tool.

6.4. Governance Model

After developing and testing the three deliverables mentioned above, the team moved on towards the final deliverable, a governance proposal for Secil's procurement department. A robust governance mechanism, which includes the scheduling of weekly, monthly, and yearly meetings, budgeting decisions and coordination of internal forums across geographies, is essential in a complex procurement structure (Olsen et al., 2005). There are many forms of governance depending on the desired outcome of a project, team configuration and risk-reward sharing (Chen et al., 2018). In the past five years, there have been noticeable shifts in procurement governance, namely due to the COVID-19 pandemic (Lee et al., 2021), which profoundly impacted the supply chain of raw materials worldwide.

Due to Secil's complex internal structure involving many departments and geographies, a procurement governance system was already in place; however, it was very rudimentary in succinctly explaining the purpose and design of each governance forum. Initially, Professor

Constança Casquinho and the team tried to schedule a meeting with a top Portuguese procurement specialist in order to understand the industry's best practices, but this was unable to come to fruition. Despite this setback, the Nova SBE team and client team met with CPO Hugo Alves and global procurement lead Miguel Borges, where Secil's procurement governance was laid out in detail and analyzed. Based on this meeting, a governance proposal document was designed. The most important factor to take into consideration, derived from feedback from the meeting, was mutual coordination between geographies, which meant that Portugal, Tunisia, Lebanon, and Brazil should all be able to follow the proposed governance structure.

Secil's governance is split between daily, weekly, monthly, and yearly forums, where multiple topics are discussed. In collaboration with category managers Bruno Ventura, Patrícia Neutel and Filipa Lemos, the team classified all governance forums across three main elements: **frequency** (daily, weekly, monthly, or yearly); **geographical setting** (local or global), where local governance is an intra-geographical meeting and global governance, which is inter-

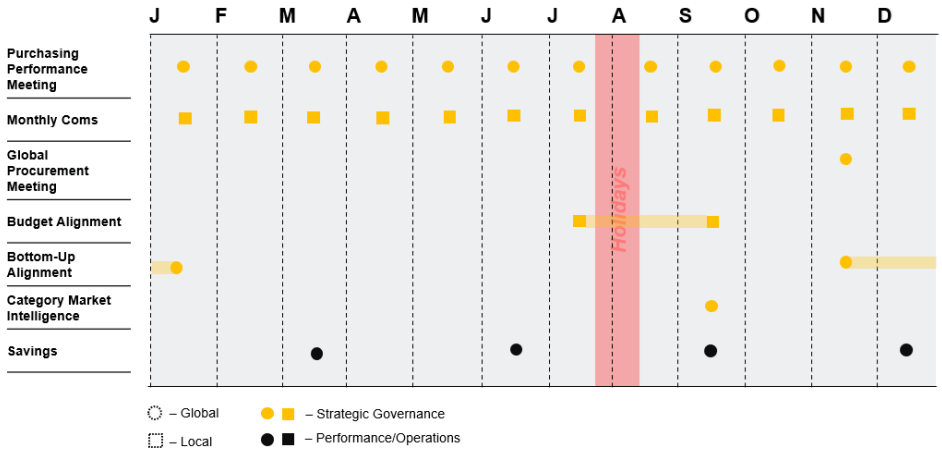

Figure 15: Yearly governance schedule timeline design

geographical, implies the presence of all geographies in the meeting; and **focus** (strategic or performance/operations).

In order to create the governance model itself, the team opted for a slide deck, which is easier to present, and generates more positive feedback from audiences than just a spoken presentation or a general memo (Amare, 2006). Firstly, explanatory tables were built, describing each governance forum: what **purpose or scope** it serves in the context of Secil's procurement department; the **owner/leader** of the forum; the forum's **participants**; the **frequency** of the forum; and **support documents** used. In the support documents section, many governance meetings and events were accompanied by the deliverables designed by Nova SBE. After further feedback sessions with the client team, additional visual emphasis was added to the slide deck in the form of two distinct timelines, one displaying a weekly scope (Monday

Figure 16: Weekly governance schedule timeline

through Friday) and the other a yearly scope (January through December). Then, through the use of shape and colour labels, which are easily identifiable and distinguishable (Buss & Nikam, 2020) each governance forum was arranged on the timelines according to its frequency.

7. Testing and Recommendations

Once each deliverable template was completed and fully approved by Secil's category managers and steering committee, a second step was necessary for the successful completion of the project: each document was required to be tested with a specific category. This way, the team can assure the client that the templates are fully usable in the future after the project is completed. The client provided the team with two categories which would require different

methods of analysis and experimentation. A key step in the testing phase was **ensuring the customizability** of each template, and the **consistency of** templates would fare across geographies.

Cement additives are materials added to cement which optimize cement properties and the cement grinding process (Sika, 2022), such as reducing CO_2 emissions in order to comply with current EU regulations and decreasing the amount of cement clinker (mixture of calcium, silicon, iron, and aluminum from which cement is produced) used per ton of cement. Each additive is made from varying raw materials and chemicals (Nelson et al., 1990; Broni-Bediako et al., 2016) and is its own patented product, leading to a large amount of cost drivers and general complexity as a category. Additionally, the sourcing strategy for cement additives is standardized across geographies, since most Secil plants are required to consume additives. Therefore, this **global-global** category was considered more **complex** to analyze. Due to its complexity, the team tested this category first.

Pallets are flat transport structures which can bear heavy loads and can be lifted by forklifts and pallet jacks. In the cement and concrete industry, pallets are used to move bags of final product from the factory to external means of transport. Despite not contributing to the finished products, pallets are involved in many logistical processes around cement plants and the final consumer. Within Secil, this category has a local sourcing imperative, where pallets are independently sourced by geography. Therefore, this **global-local** category is considered less complex.

For each deliverable, the team required internal information from Secil, namely previous financial reports for all relevant geographies, category descriptions, and past strategic initiatives. This phase of the project involved many meetings with not only Portuguese category managers (Patrícia Neutel, Bruno Ventura and Filipa Lemos), but also international category

managers (Alecssandro Simplício, Andersen Dias and Elaine Grabski for Brazil, and Raed Souei for Tunisia), where knowledge-sharing and client was the main focus point.

7.1. Category Review

Most slides in the category review required input from the client's side, since the team did not have sufficient knowledge of the client's internal context. However, regarding external analysis, in-depth research on the category was performed, which was then approved by the corresponding category manager.

Despite the team's initial concerns that the resulting slide decks would be drastically different to one another due to the large contrast between the two testing categories, both category review dossiers ended up being similar. This satisfied one of the team's goals, which was to create a template which could be easily used and replicated between different categories and managers.

The biggest points of difference between the two tested templates were a required additional slide to distinguish cement additives from other additives, as Secil also uses concrete and mortar additives; the design of the technical summary slide, since each category has a unique functionality in the company; and the deletion of the world map from the supplier per location slide in the supplier analysis chapter for pallets due to it being a locally sourced category.

7.2. Should-Cost Analysis

The should cost deliverable was one where new ideas and possible implementations were brought forth throughout the project as constant brainstorming and new computation methods and features to maximize its performance were constantly being thought out. Despite this, the backbone of the document was understood from the beginning of the project. Therefore, when new ideas were brought to the table, only minor tweaks were necessary to keep the template functional.

During the first testing, the outline for the final template was already decided following the category managers. However, testing was fundamental to understand if its usability would be feasible for the client or if further improvements ought to be made.

Additives were the first category to be tested, and even though this was supposedly the most complex and challenging of the two to be tested, this was not true. The computation mechanisms were easily tested as all the information regarding the cost driver prices was known, so it was straightforward that the computation methods were consistent and automatic. However, both the consulting team and the client quickly understood that scalability was needed. Only after the first tests were this present; therefore, the adequate implementation of exchange rates, currencies, and a formula that would tie cost drivers with their currency and the currency being tested by managers altogether was a significant necessity.

For pallets, this was more complex; being a local-global category, information regarding cost drivers and prices were much harder to obtain. Nevertheless, the attainment of such values is not the managers' responsibility, nor is it within the scope of the consulting project. The scope was the creation of a document that, when the analyst submits and updates such values, the computations necessary are all automated. Therefore, the tests could be done and concluded without as much information since the sole objective of the should cost template was to be functional for category managers so that computations are automatic.

When doing the pallet tests, the team and Secil managers noticed that two things needed to be added to the excel for further improvements. The first was the creation of two additional sheets, one for Brazil and another for Tunisia, precisely equal to the one for Portugal. For a category such as pallets that is not global-global, there is a necessity for the should-costs of the three countries to be in the category review as they are different. Therefore, this was a fundamental addition to the template. Secondly, it was noticed that for these categories where supplier information is not as disclosed, there is a need to add inflation as a cost driver method

for the should-cost computations. Therefore, in the "database" excel sheet, rows were added for the inflation for Portugal and other countries with the underlying thought that managers can choose between three types of inflation inside of each country, them being: 2022 inflation, 2023 inflation, and the compound inflation of 2022/2023. The fact that these were the three types of inflations suggested by the STCM lead Haua Amada, does not mean that in the future, these three values will be strictly the ones in the "database". The "database" allows adding, editing, and removing cost drivers and their values without losing the mechanical ability associated with it.

7.3. Tracking Tool

After detailed, the project timeline revealed that the tracking tool model would be developed in a third phase, following the closing of the category review, since it was in this topic that the strategic repositioning of the selected categories would be addressed, a topic from which would emerge information about the why? how? benefits and timeframe of future initiatives. Only after collecting this set of information was the testing of the tracking tool started.

Despite having information regarding the timeframe and description of the initiative there were still fields to fill in, namely: location, industrial plant, value lever and ambition 2025 element, having on those topics a specific clarification session with the category managers to define the missing information. The information regarding the saving values was tested with dummy data due to the high instability of forecasting savings for a medium/long term initiative. After the testing, the team analyzed and proved the tracking tool efficiency, being remarkable an improvement on the information quality and outputs detail, but since the testing was only done with two categories, we concluded that for an excellent initiative tracking functioning, the team would recommend to Secil the implementation of a **project management software**, being able to expand the analysis and tracking capabilities due to factors like:

- A greater capacity to **store information without deteriorating the user experience**, a common problem with excel after the input of numerous data. Considering the size of the category management team and the number of categories (around 125), the input of initiatives per category would result in many cells being filled in, making the excel file heavier and slower to use. With the use of software, the storage would be acquired and stored in the cloud, always maintaining security, and promoting speed of use.

- Various **interface options**, being not only possible for category managers to have a personal interface where they could have all the information regarding their initiatives, but also be able to customize the distribution of that interface and characterize it with graphics and other tools. This feature removes the burden associated with filling in the information, offering interactive and dynamic software where category managers would be comfortable to study and use.

- Encouraging the **temporal organization** of tasks by the category manager so that it has a snapshot according to the calendar and the deadlines to be met.

- **Improved information tracking and detailing**, as most project management software displays the results in a variety of ways, either as graphs or reports, offering an out-of-the-box perspective to users and facilitating the PMO's analysis work.

7.4 Governance Model

The team, together with the client, including CPO Hugo Alves, included all governance forums for the procurement department at Secil when designing the governance model. In practice, however, the governance plan is yet to be tested, as it would take over a year to corroborate its validity. However, its modifiability and flexibility makes it easy to change if there are ever any further additions or reductions in governance.

As with all other templates, the Nova SBE team is available to modify any deliverable at a moment’s notice.

8. Limitations and Lessons Learned

This chapter is the result of a joint brainstorming session between the Nova team and the category managers, sharing the final balance of the project from the perspective of the students and the elements from the procurement department. The reflection on this topic proved to be a crucial element for the evaluation of the project and identification of best practices not only for the evolution of the Consulting Lab but also for the growth of recent consultants and Secil's organizational approach to similar projects.

From the perspective of the Nova SBE team, the first point to address is to highlight the importance of working in a **physical format**. This point forces to work together in a physical way, being also key to the knowledge of group dynamics, developing interpersonal relationships between team members and client, creating a healthy project environment, characterized by a climate of mutual help. This friendly environment is an enabler for the transmission of information and problem solving in a simple and effective manner.

We then found the **familiarization** with the entire business structure to be a fantastic insight. This was done in questioning sessions with category managers, and later transformed in a physical format when the team visited the factory in Outão, where we were introduced to the processes required for production and transportation of the final product to the customer. The knowledge of the processes enhances the reality of the project, being able to project the impact of the functions of a category manager throughout the value chain.

Related to the last theme is the **involvement of the remaining geographies**. During the course of the project, the team expressed extreme gratitude for the involvement of Brazil and Tunisia, bringing a different insight from an industry characterized by completely different factors than the Portuguese. The difference between paradigms made the analysis of the deliverables a more challenging task, but at the same time it managed to install a Global mindset

in the team, so that any thought, idea, or innovation that was proposed would be architected with this characteristic.

Lastly, the **timeline planning** combined with the complexity of the deliverables, it is of utmost concern to have fluid communication with the client and to understand what the synergies are between the deliverables and which of these require more attention and work. Only after obtaining this information can the project timeline be delineated, associating development goals with important points in the project such as steering meetings. This topic will fall on the organization of the team, being one of the topics of greatest attention, because a miscalculation of time can jeopardize the entire project.

In Secil's view, the category managers and the strategic department stressed the importance of **internal alignment pre- and post- kick-off**. It is vital that the ambitions of the elements involved in the project are in sync in order to deliver the required tasks in a cohesive way from the beginning to the end of the project. In the beginning of this project there was a communication gap between the continuous follow up team and the CPO, generating different visions for the category review template. Despite this shortcoming, expectations were aligned after the first steering**.** Aligned with the team's first point, the category managers also mentioned the need for regular physical follow up, establishing contact points twice a week and giving up total availability for online meetings via teams whenever the team needed assistance.

Enforcing **commitment between all geographies** was also a theme indicated to respond to the misalignment between the international team members present in the project. Since they were only introduced to it at a later stage, all the fundamentals of the project had to be explained again to four new team members at different time spans. For this reason, all members participating in the project present in distinct geographies must be chosen in advance, informing them of the cadences of meeting schedules.

Finally, the relevance of working with a team made up of different people, with different backgrounds, ages, and experiences. Unlike a real consulting scenario where companies pay big money for consultants to have an almost dominant position where they express the necessary steps to be taken, Consulting Labs introduces students with a fresh mind about to enter the job market, bringing distinct visions that when coupled with the insights of an experienced team, challenges all elements to enter a journey marked by **constant progress and evolution as a team**, directing the project to a problem solving dimension rich in knowledge, innovation and experience.

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Appendices

1. Final Project Timeline

2. Tail Spend Management Benefits

3. Kick-Off Document: Baseline Definition

4. Category Review Template

5. Category Review – Additives

6. Category Review – Pallets

7. Should Cost Instructions

8. Should Cost Database Sheet

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10. Should Cost Testing

10.1. Chrome Reducer additive testing

10.2. Grinding additive testing

10.3. Pallets testing Tunisia

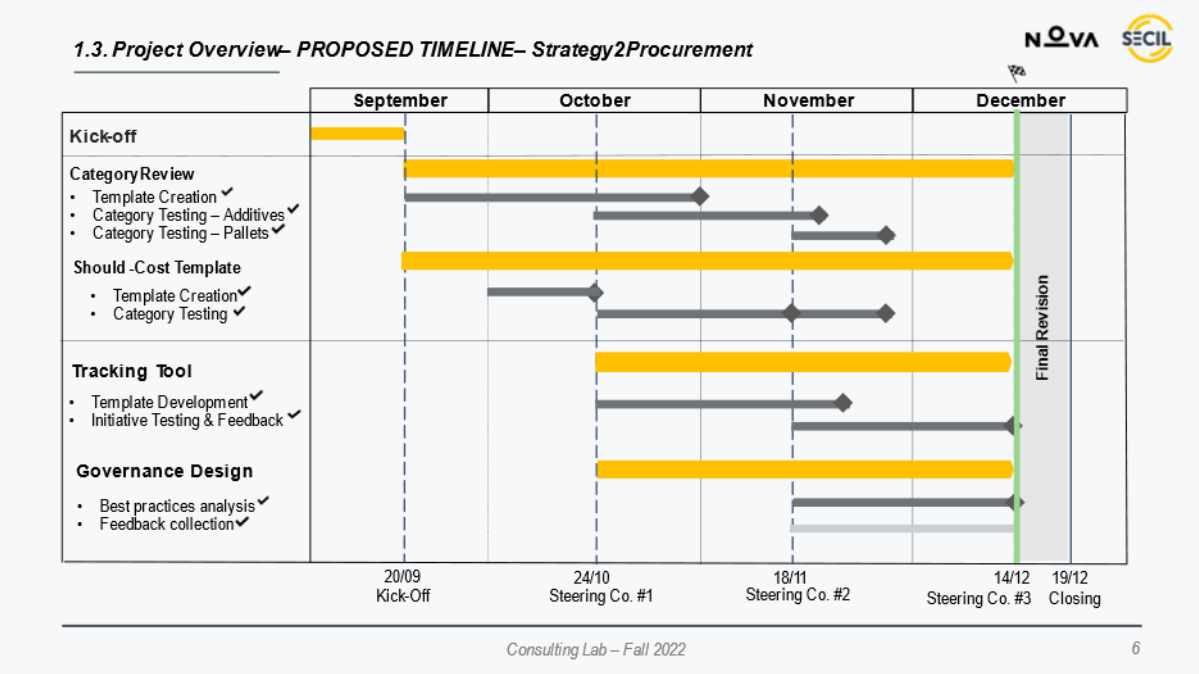
10.4. Pallets testing Brazil

10.5 Pallets testing Portugal

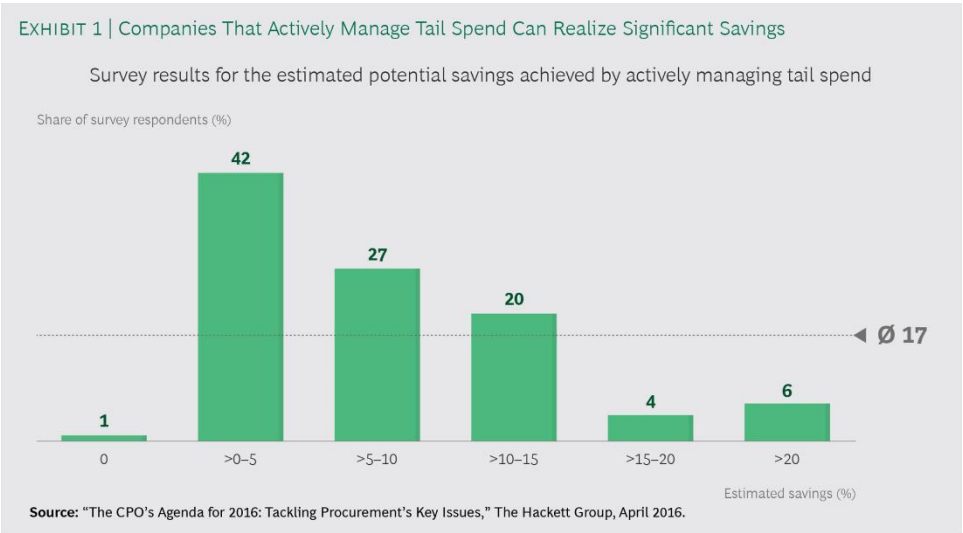
11. Tracking Tool

12.Governance Plan

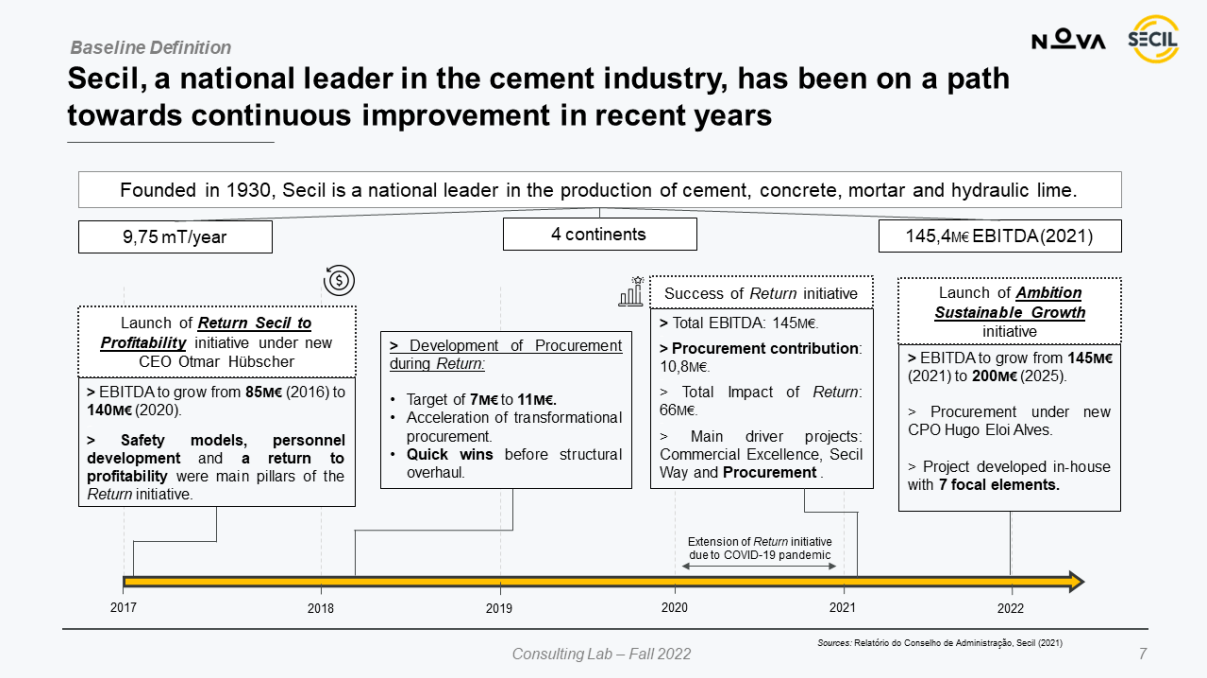
Appendix 1 – Final Project Timeline



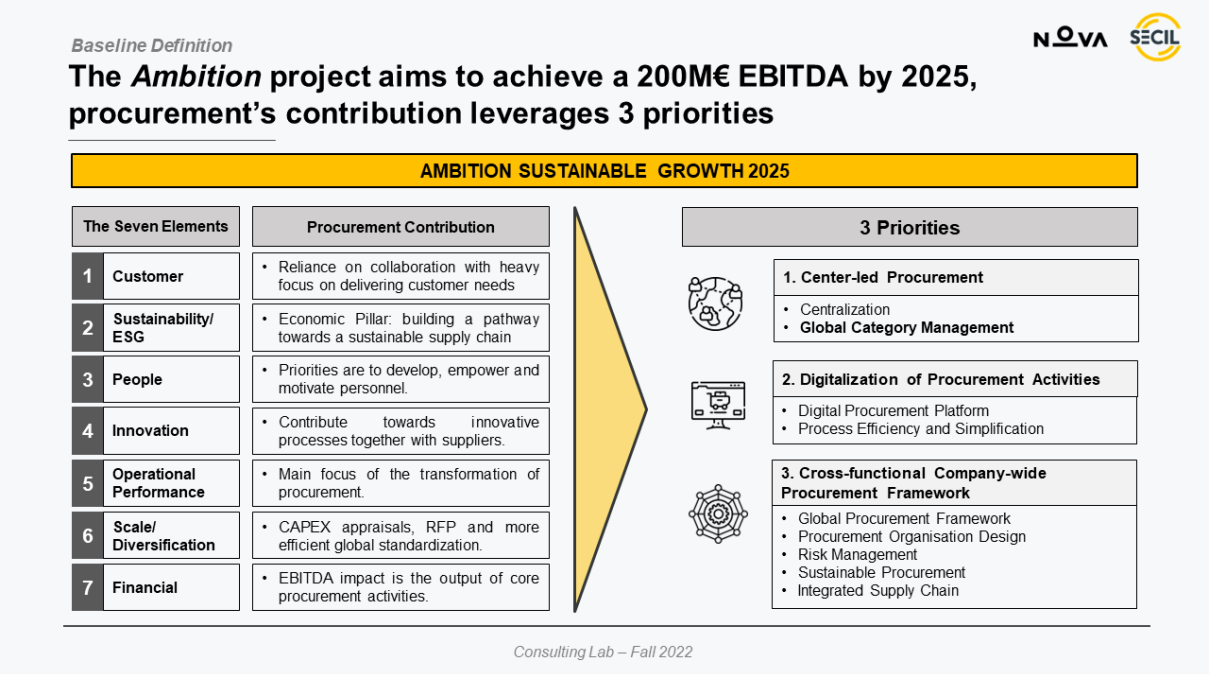
Appendix 2 – Tail Spend Management Benefits



Appendix 3.1. – Kick-Off Document: Baseline Definition – Secil Timeline 2017-2021



Appendix 3.2. – Kick-Off Document: Baseline Definition – *Ambition 2025*



Appendix 3.3. – Kick-Off Document: Baseline Definition – Global Internal Analysis

Baseline Definition

Secil's main geographical locations exhibit unique strengths, weaknesses and trends

	Portugal	Brazil	Lebanon/Tunisia
Strengths	• Financial stability • Planning and know-how superiority • Bridge-builder between geographies	• Collaboration and involvement of procurement in other forums • Focus on safety • Delivery and execution	• ERP system • Strong team across geographies • Good reputation • Vertically integrated business
Weaknesses	• High urgency rate purchases • Lack of purchase planning in operations • High transactional tail spend • Low procurement maturity	• Tail spend management • Resistance to change • Different maturity levels across geographies • Manual processes	• Global category management • Focus on short-term results • Tail spend management • Procurement is functional and not strategic
Trends	• Joint **innovation** projects with suppliers increase earnings by 10% • **Digitalization**, namely spend-analytics solutions and supplier management tools • **Reinforcement of core capabilities** – biggest gaps in cross-functional execution, negotiation execution, developing category and sourcing strategies • Spend optimization to rely heavily on **automation**, especially for tail-spend		

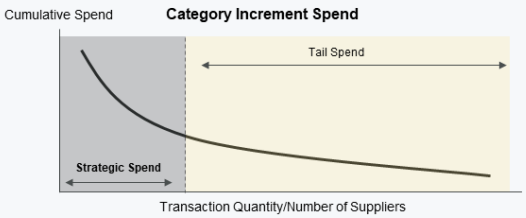
Sources: McKinsey (2021); Kevin Shuler/Quandary (2021)

Appendix 3.4. – Kick-Off Document: Baseline Definition – Tail Spend and Global-Local Matrix

Baseline Definition

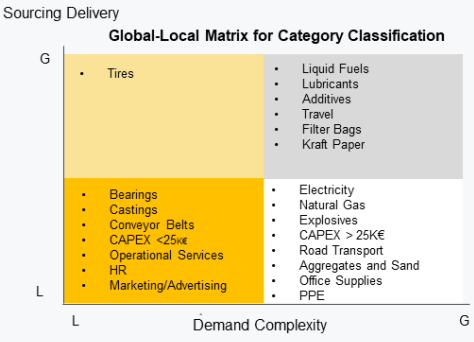
Secil's category spend is concentrated in 20% of transactions, cross-regional standardization is a key saver

Secil's main category spend is centered around road transportation, solid fuels, operational services and electricity



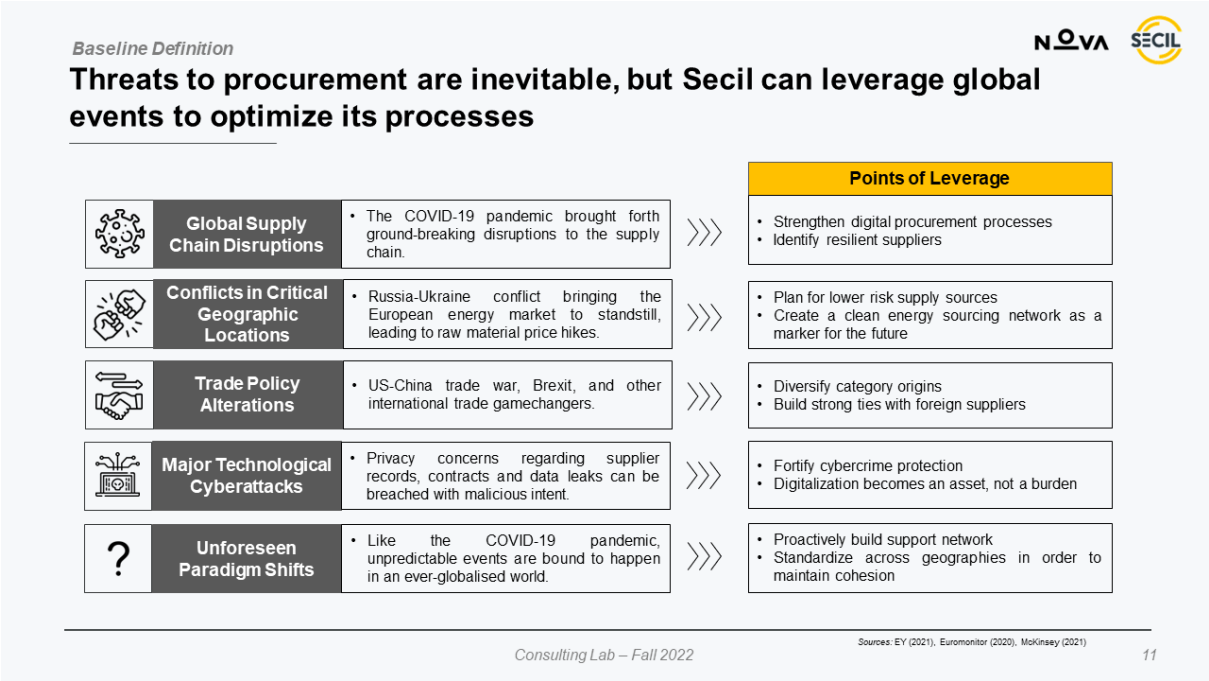
The **Category Increment Spend curve:** 80% of category spending occurs on 20% of transactions, which are usually the most important – electricity, fuel, operational services. The remainder of the curve consists of processes that can be automated and optimized to save up to 75% in purchase order requisition, submittal, and approval.

Standardization across geographies is key



Sources: SpendMatters/Dell (2013)

Appendix 3.5. – Kick-Off Document: Baseline Definition – Threats



Appendix 4 – Category Review Template

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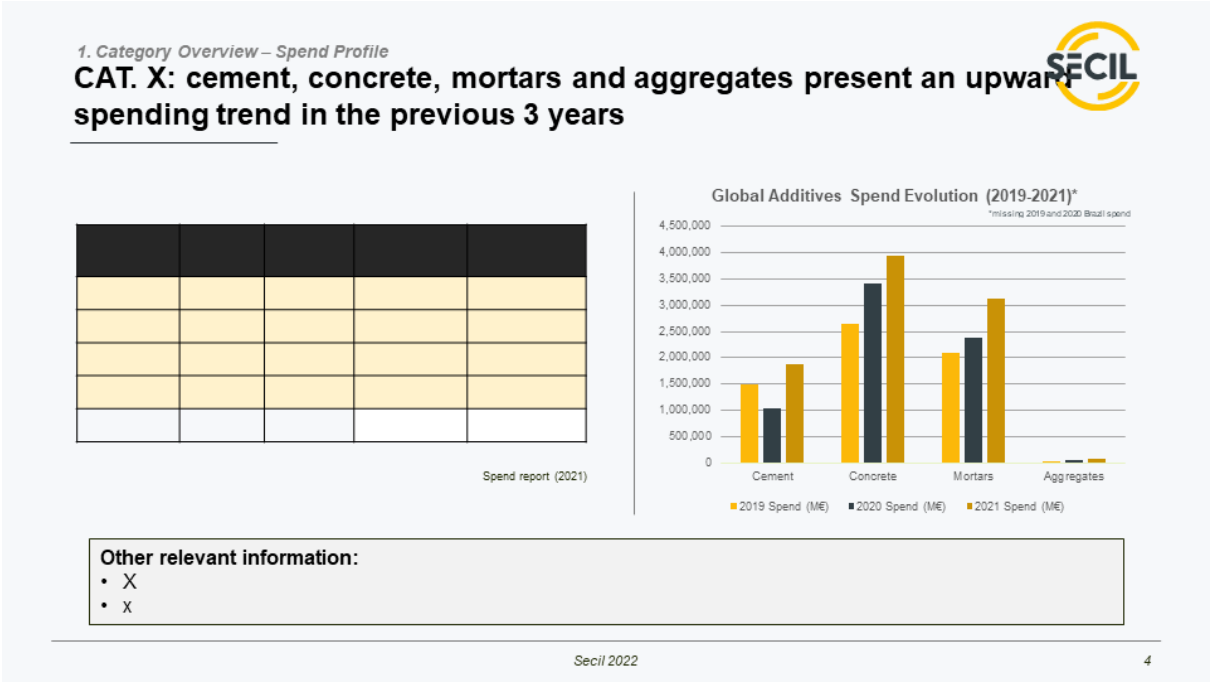

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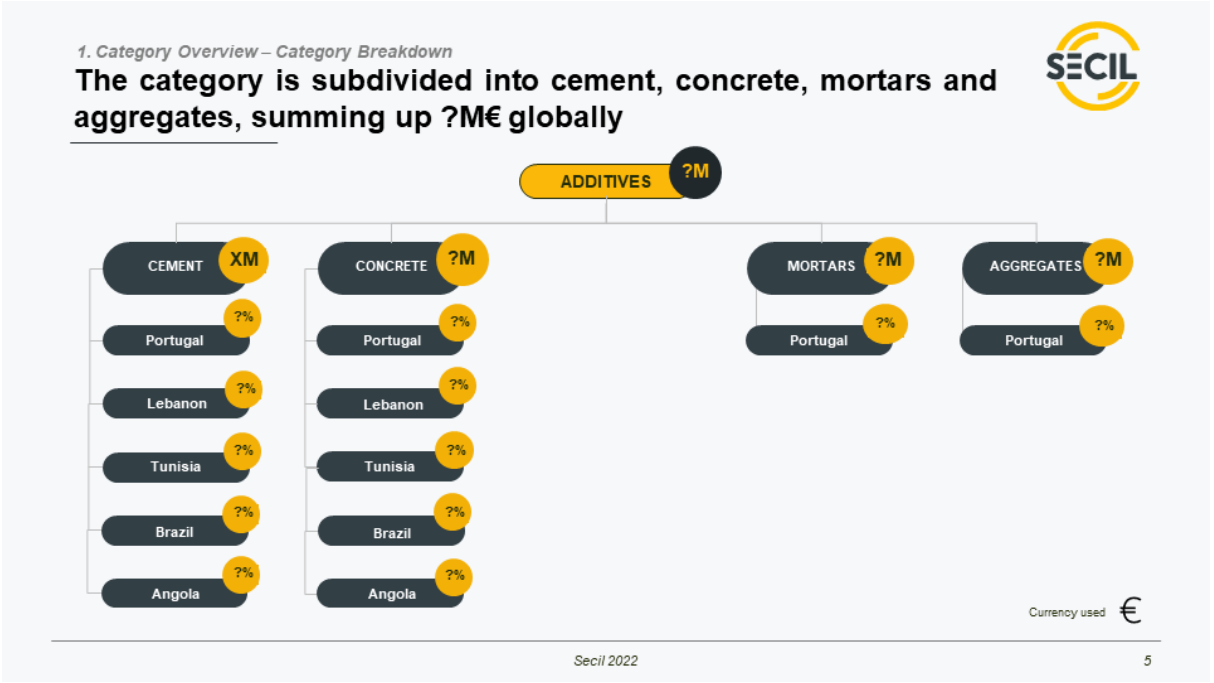

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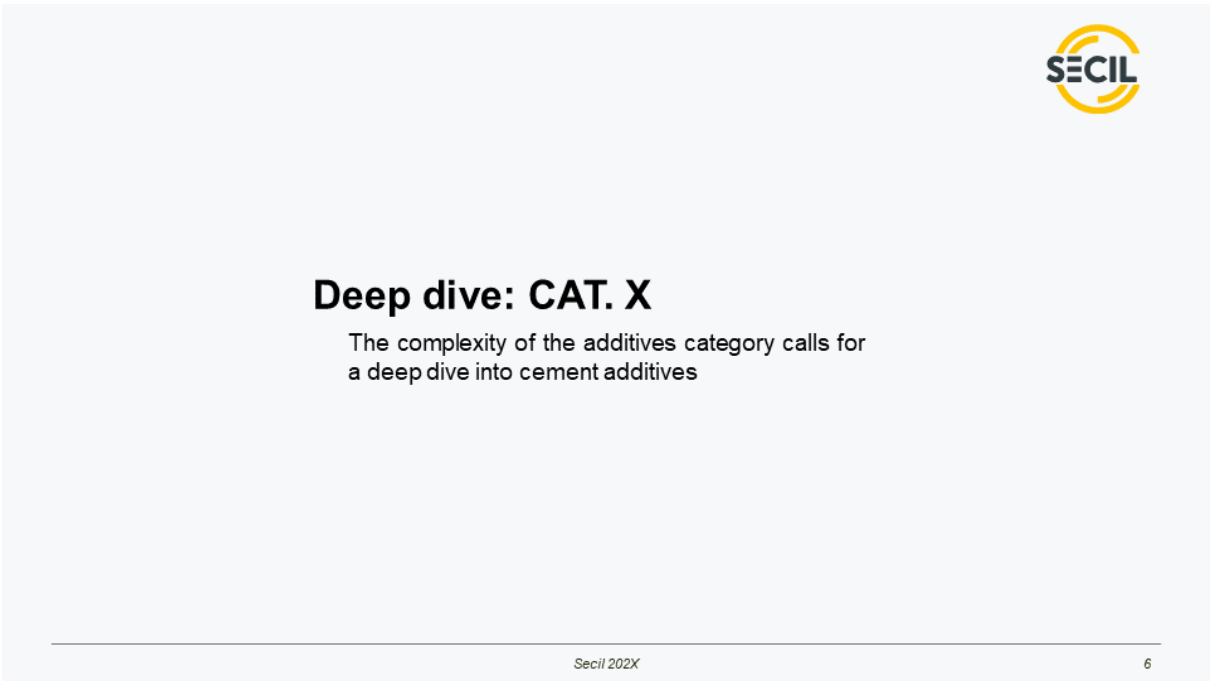

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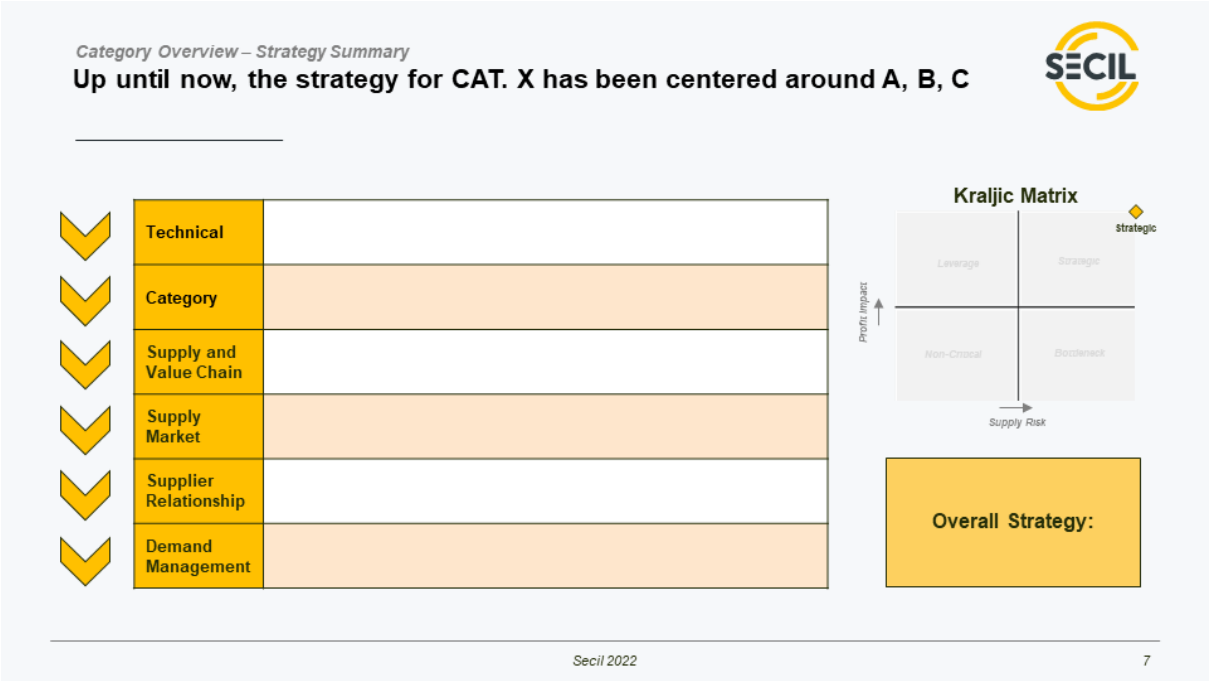

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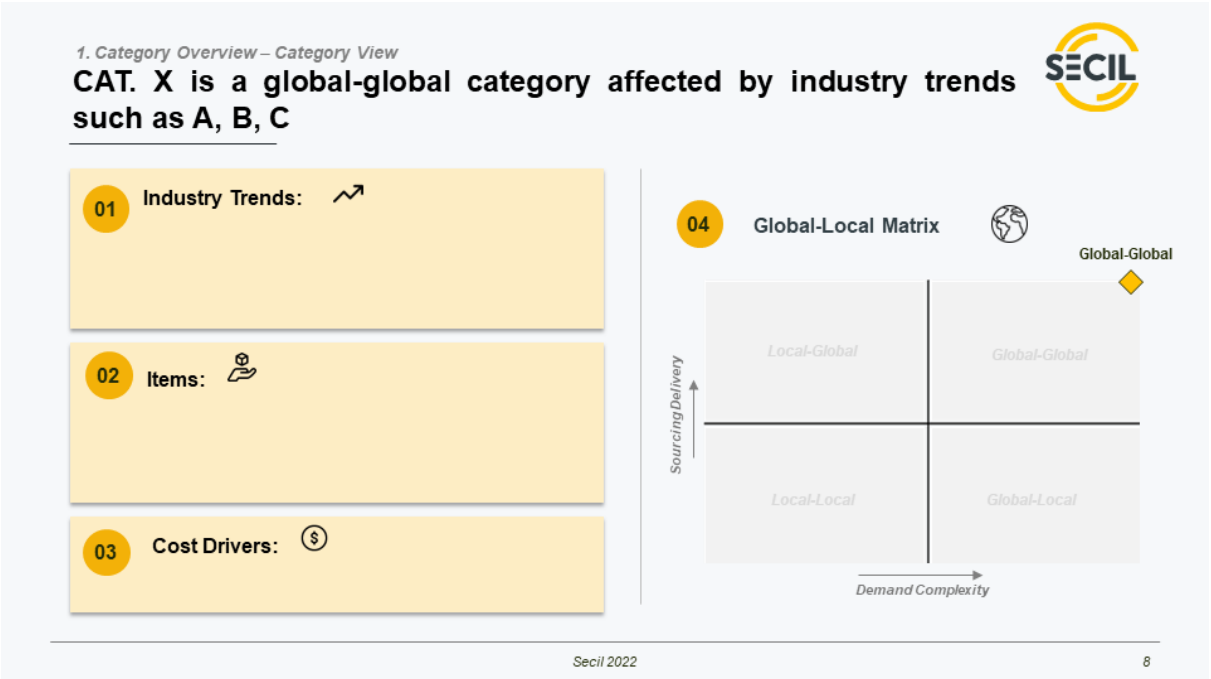

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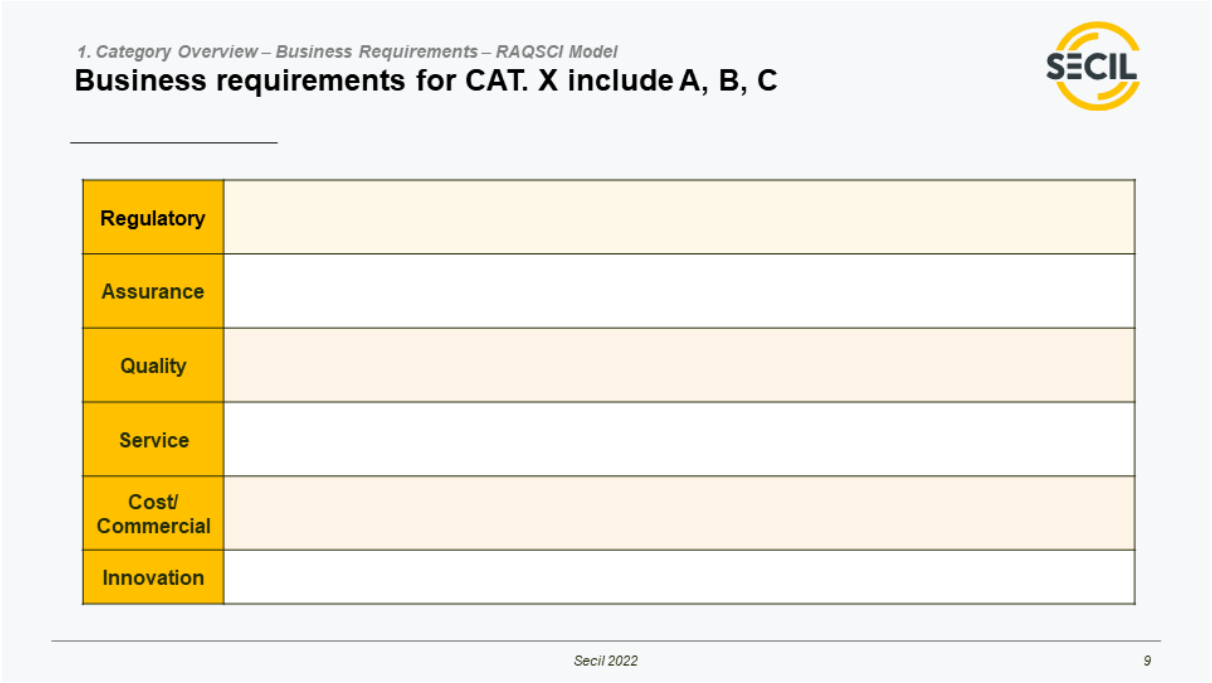

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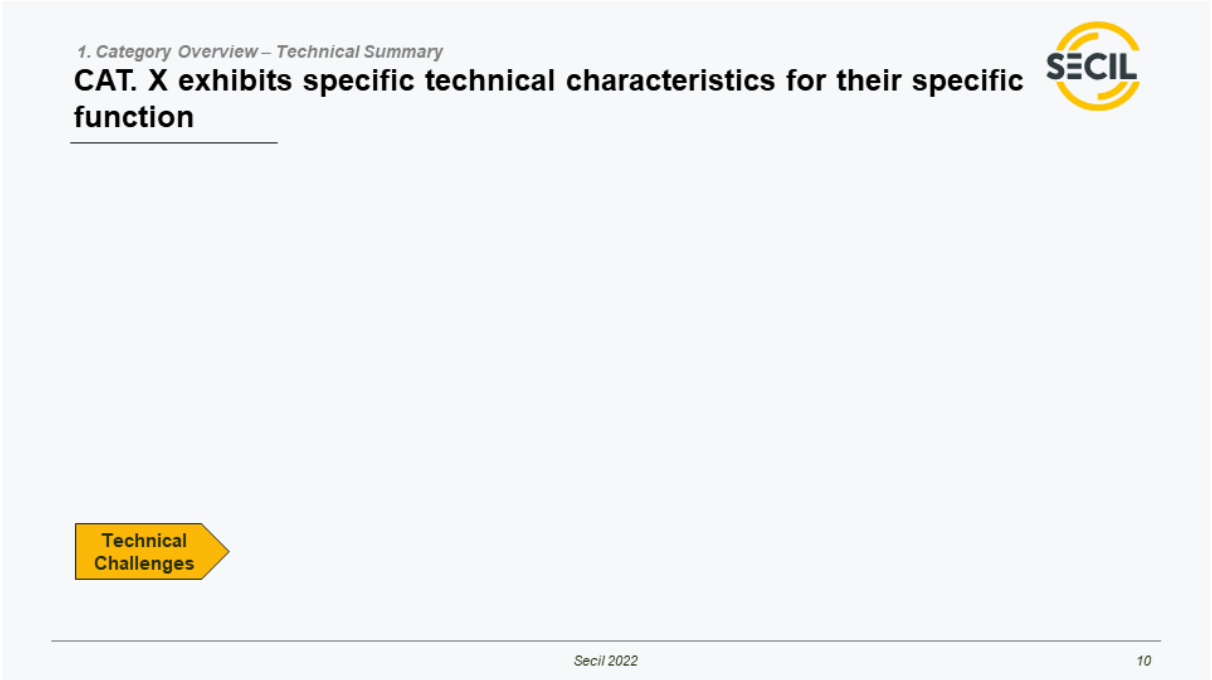

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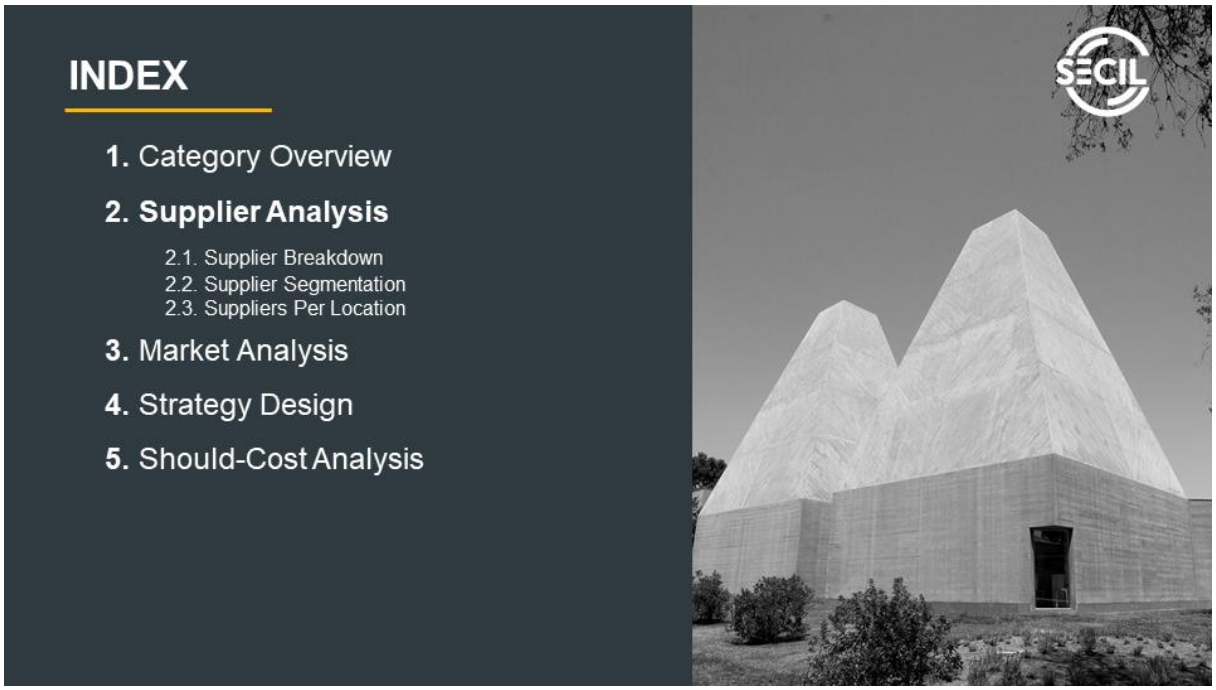


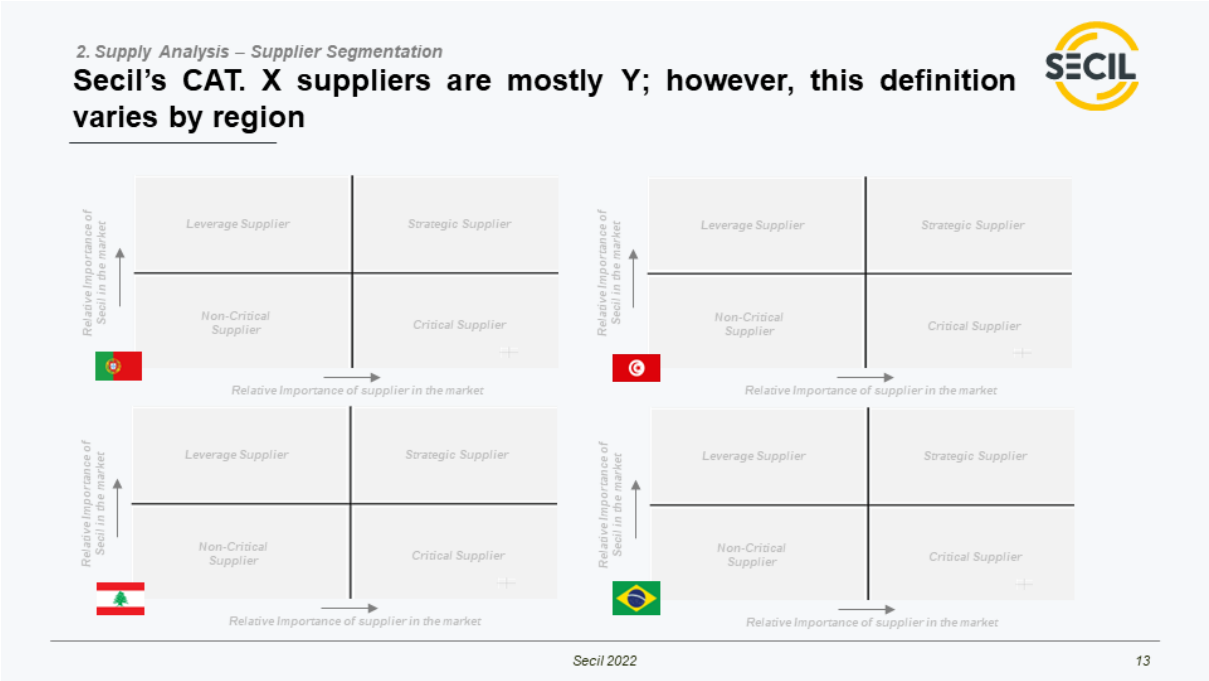
Appendix 4 – Category Review Template

2. Supply Analysis – Supplier Breakdown

Secil's CAT. X suppliers are divided into A, B, C

Supplier	Geography	Spend (k€)	Volume (tn)	Obs.

Appendix 4 – Category Review Template



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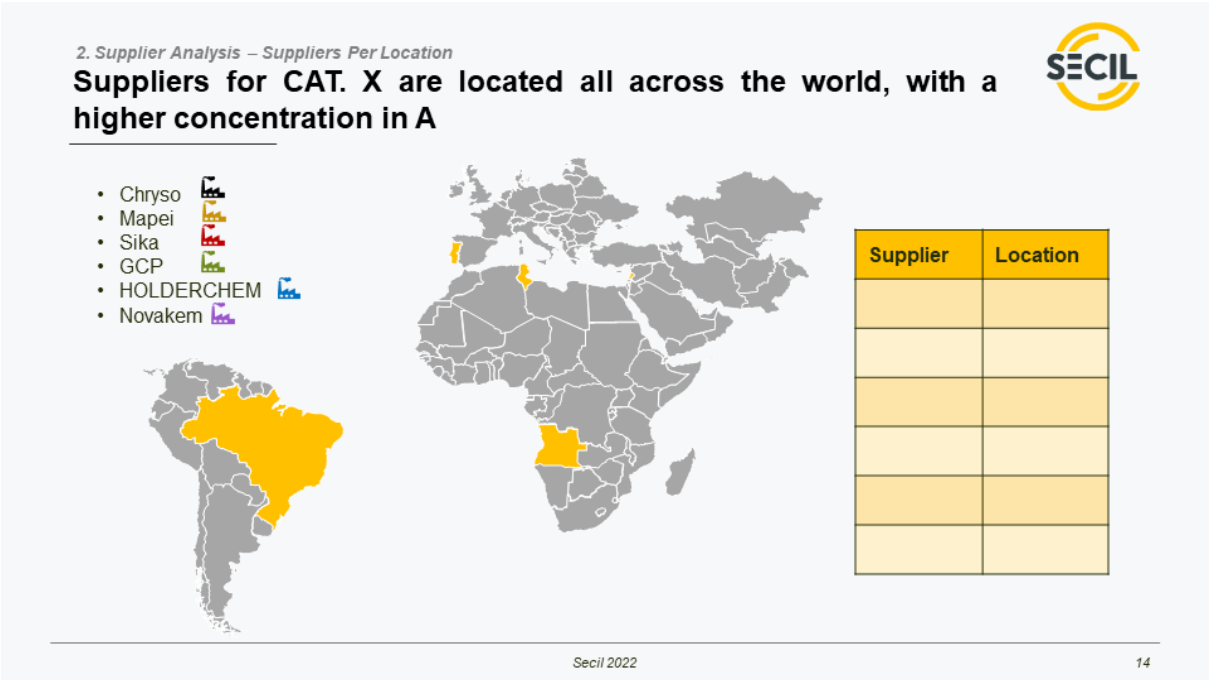

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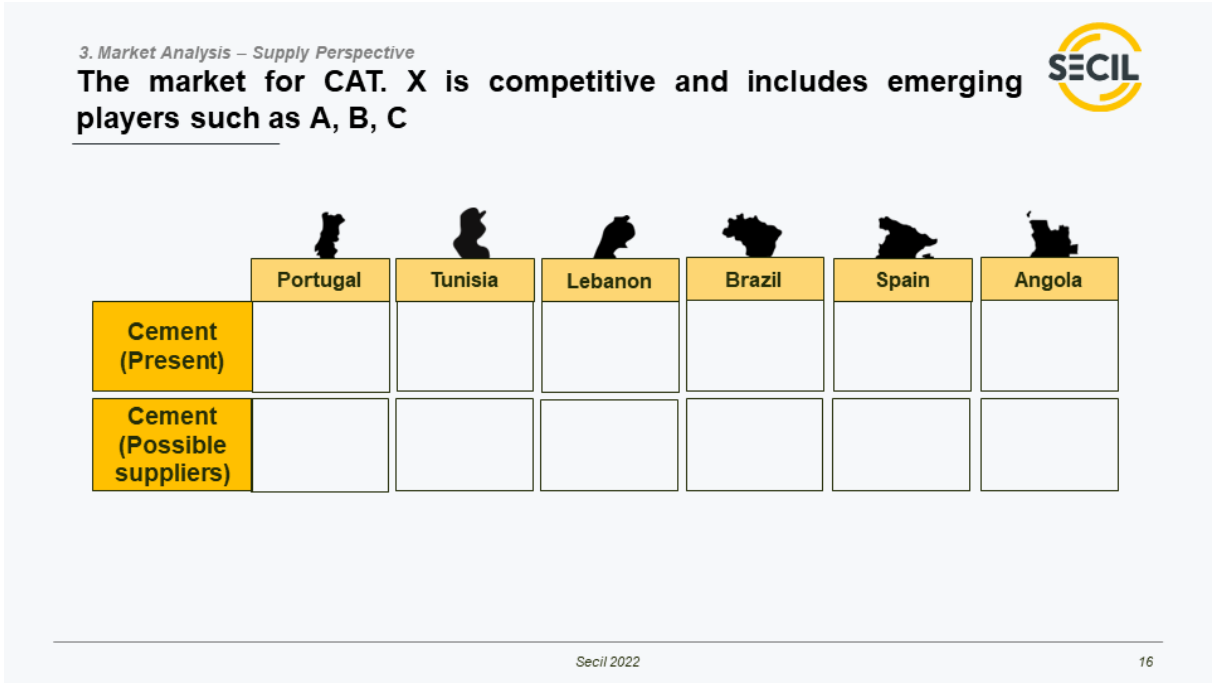

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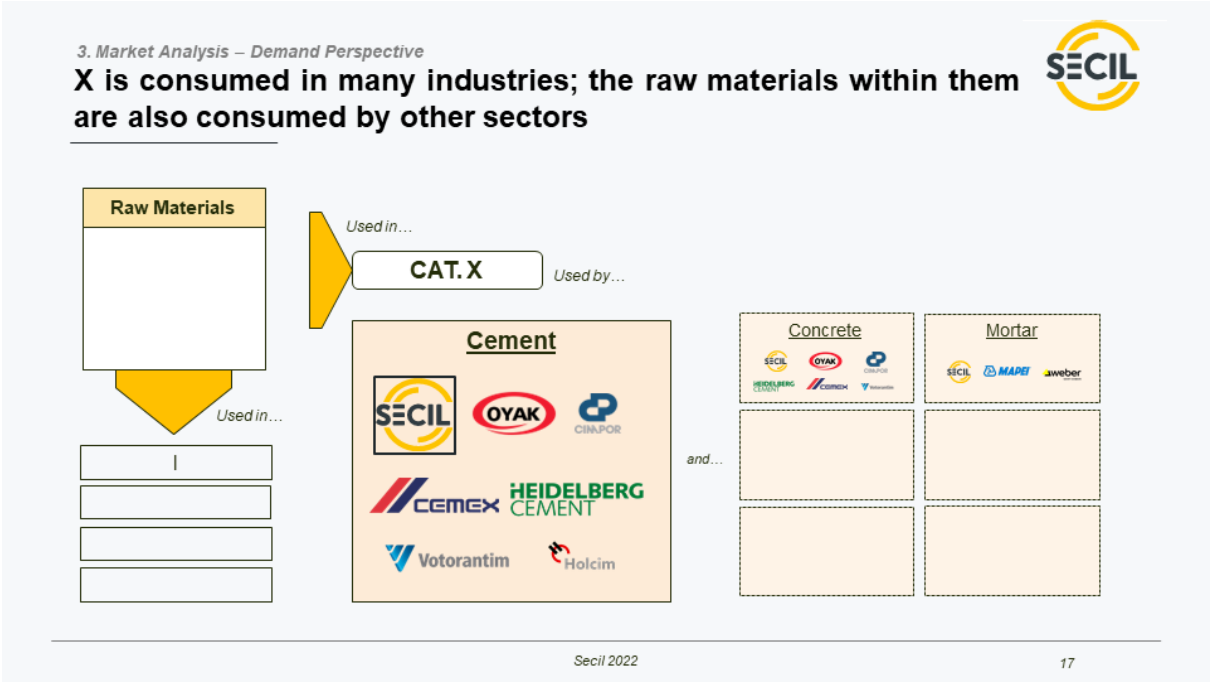

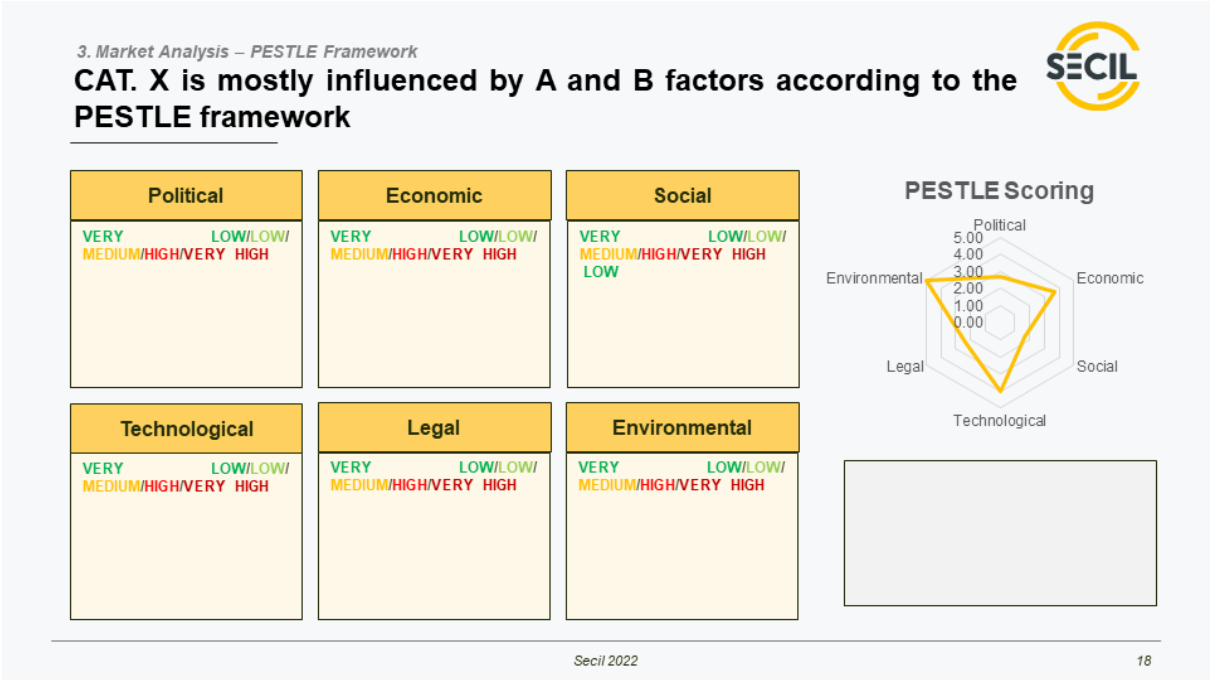

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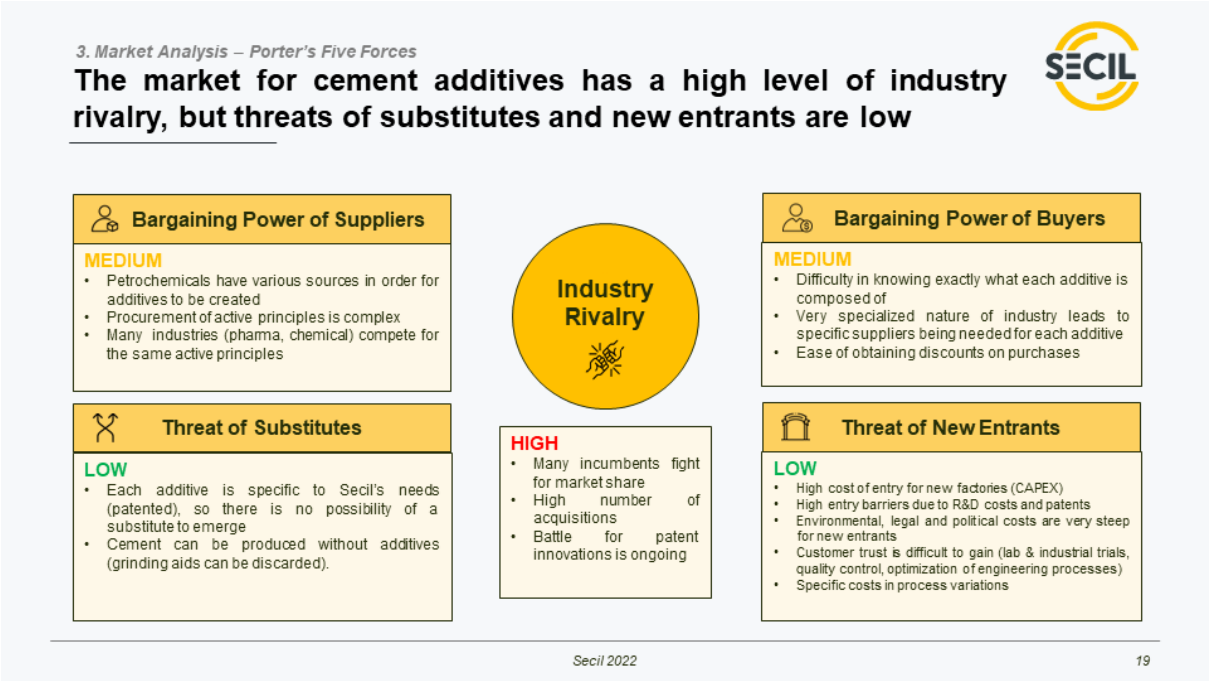

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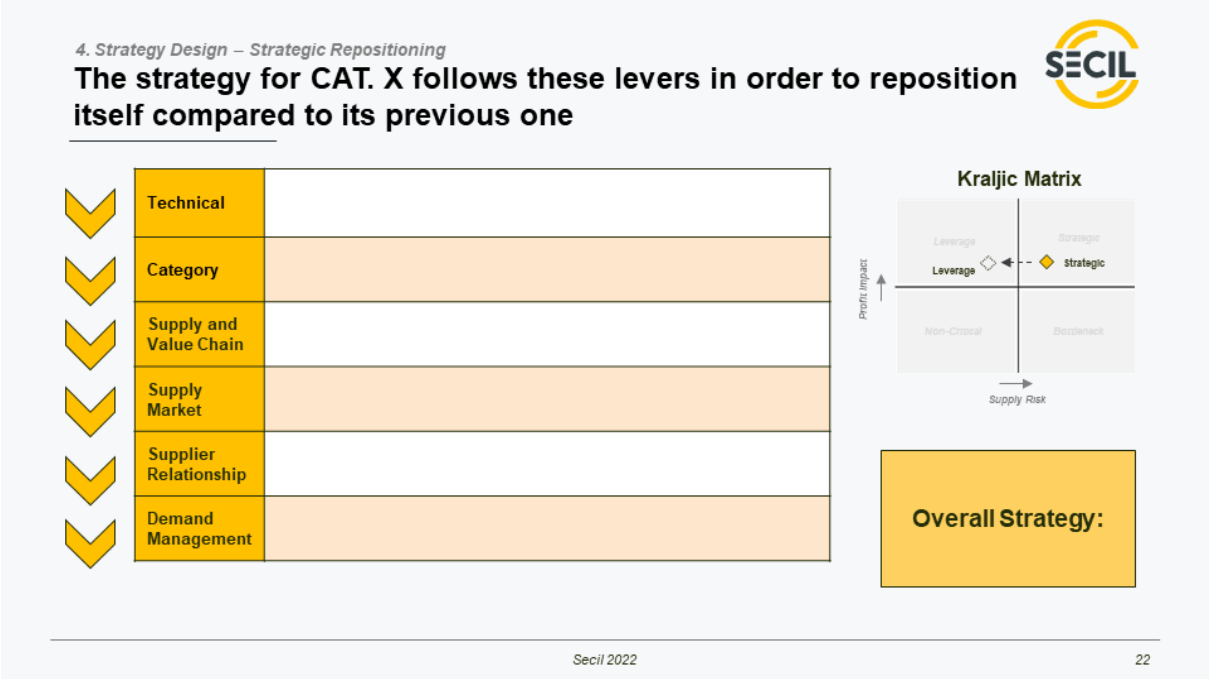

Appendix 4 – Category Review Template

4. Strategy Design – Strategic Repositioning

A detailed look into the actions which will drive the strategy for CAT. X

Why?	How?	Benefits	Timeframe

Appendix 4 – Category Review Template

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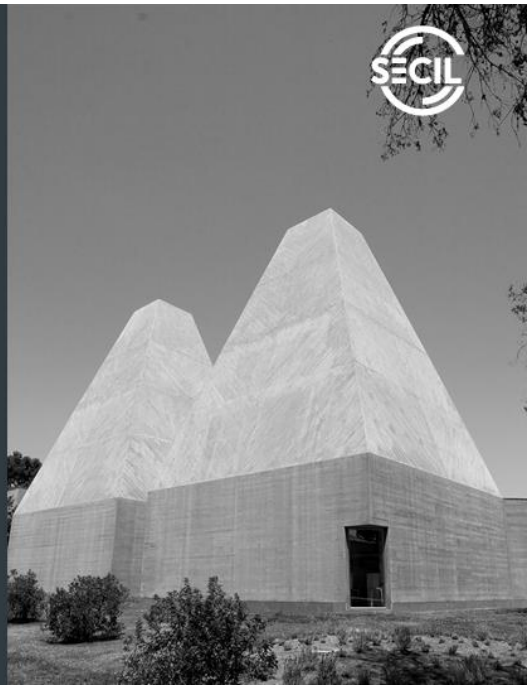
1. Category Overview
2. Supplier Analysis
3. Market Analysis
4. Strategy Design
5. **Should-Cost Analysis**



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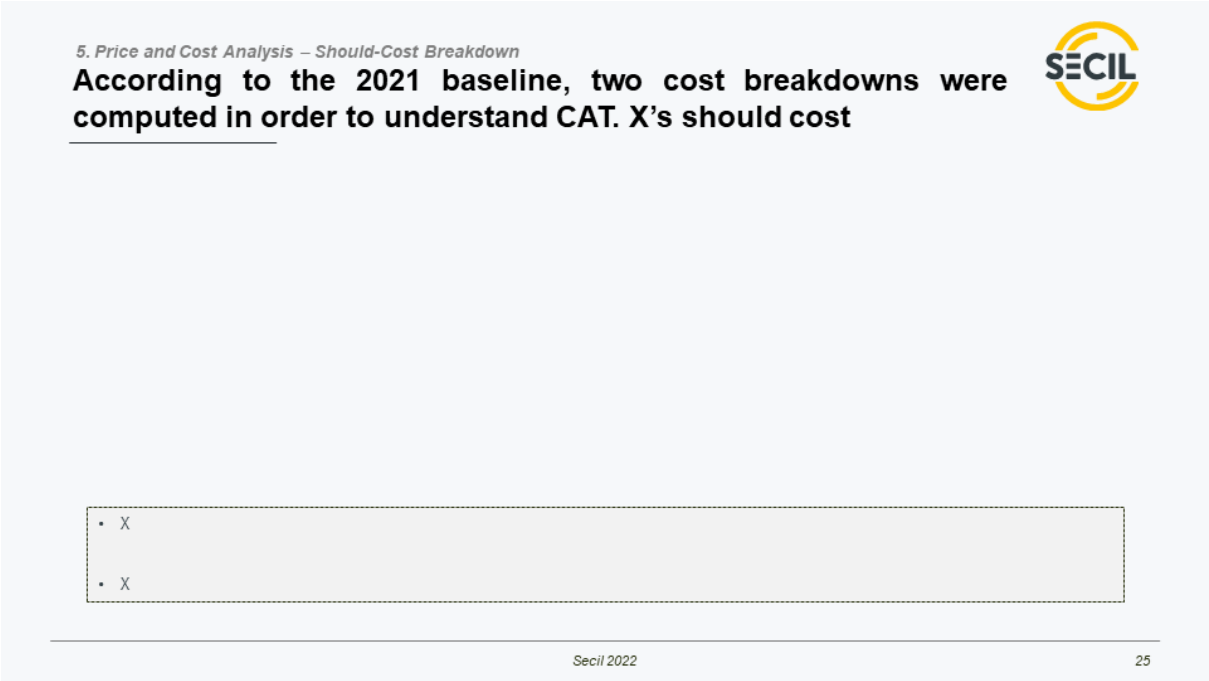


Appendix 4 – Category Review Template

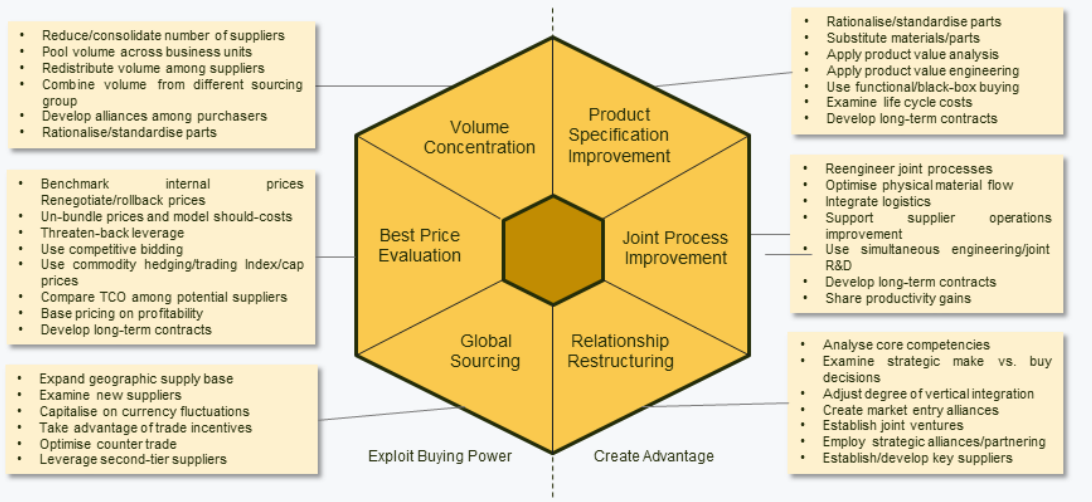
Appendix 4 – Category Review Template

Category Overview – Business Requirements – RAQSCI Model Guidelines

Regulatory	• Complies with relevant and/or forthcoming current legislation as regulatory obligations
Assurance	• Financial stability of supplier • Coverage, risk, capacity, delivery • Problems or incident management • Corporate Social Responsibility
Quality	• Design • Consistency, repeatability and fitness for purpose • Compliance with specification • Reliability • Measurement • Quality management systems
Service	• Lead times and flexibility • Inventory holding, staging, allocation • Processes and procedures
Cost/ Commercial	• Acquisition cost goals and objectives • Implementation costs • Continuous improvement (future cost, cost reduction, cost avoidance) • Terms and conditions • Charging methodology • Cash retention in the business
Innovation	• Capabilities and areas of focus • Supply chain, market driven • Internal • Use of emerging technology • "First point of call" for supplier's new ideas, arrangements for sharing and collaboration

Appendix 4 – Category Review Template

Strategy Design – Sourcing Diamond Model Guidelines



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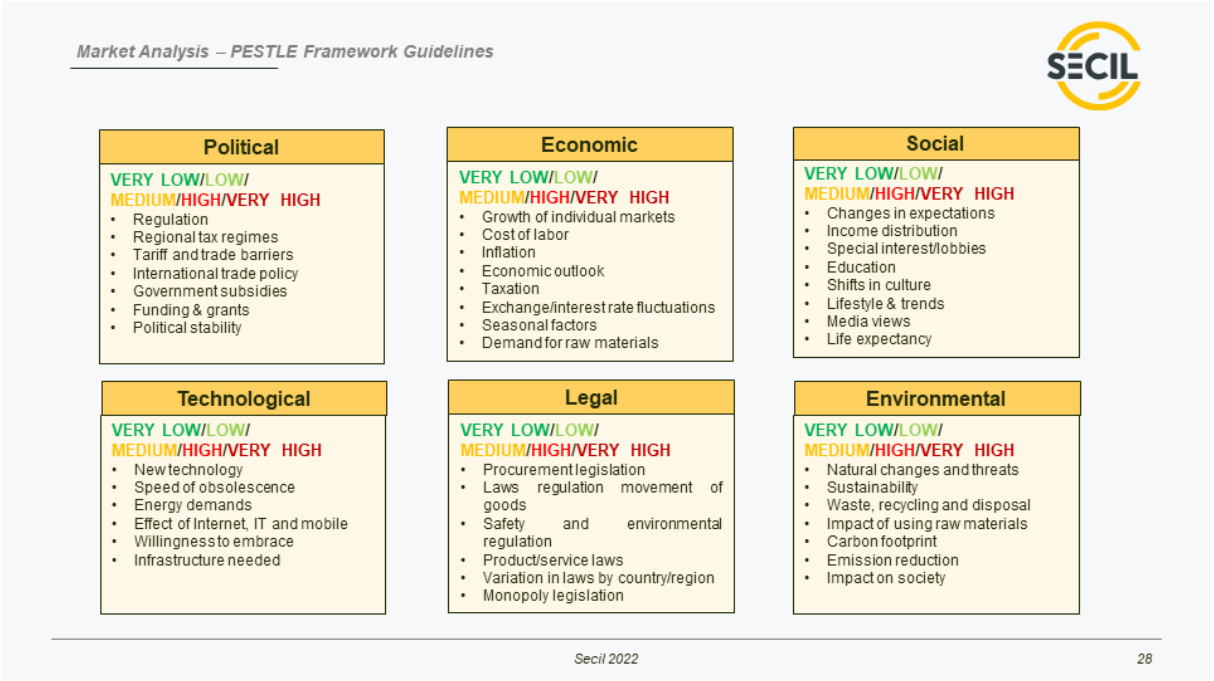

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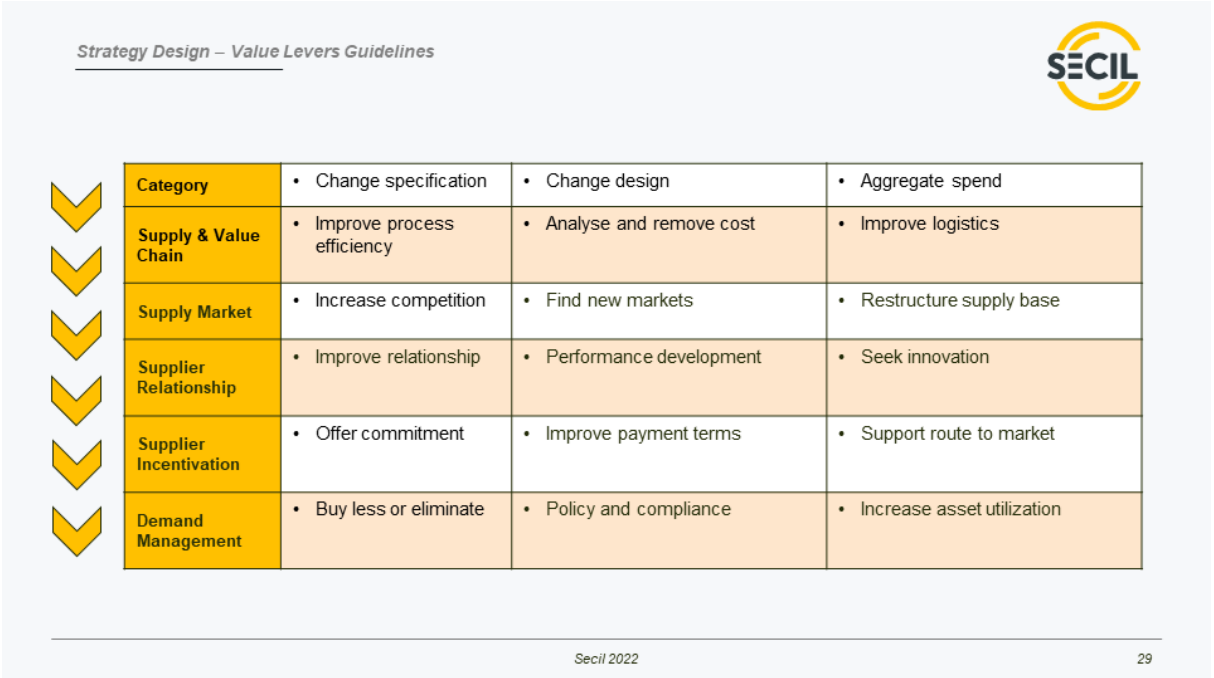

Appendix 5 – Category Review: Additives

Appendix 5 – Category Review: Additives

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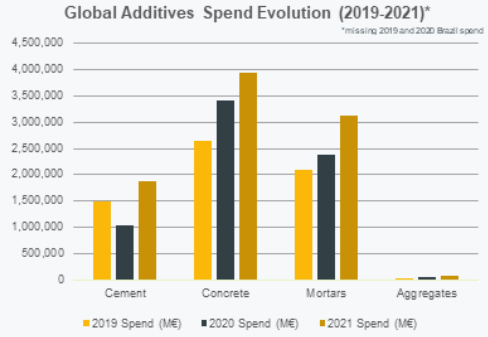
1. Category Overview – Spend Profile

Additives: cement, concrete, mortars and aggregates present an upward spending trend in the previous 3 years

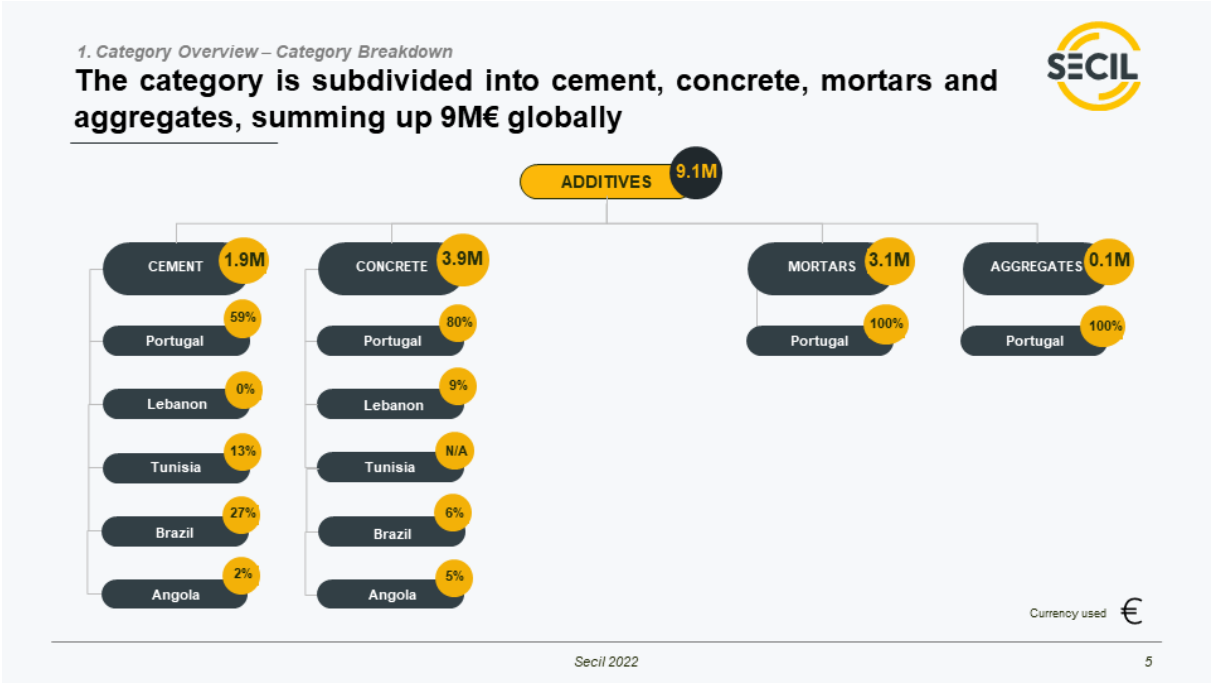
Location	Total spend (M€)	Additives spend (M€)	% Spend of additives	Volume (ton)
Portugal	268	7.7	2,9%	9.570
Tunisia	44	0.2	0,5%	298
Lebanon	56	0.4	0,7%	502
Brazil	70	0.8	1,1%	935
Total	**438**	9.1	2,1%	**11.304**

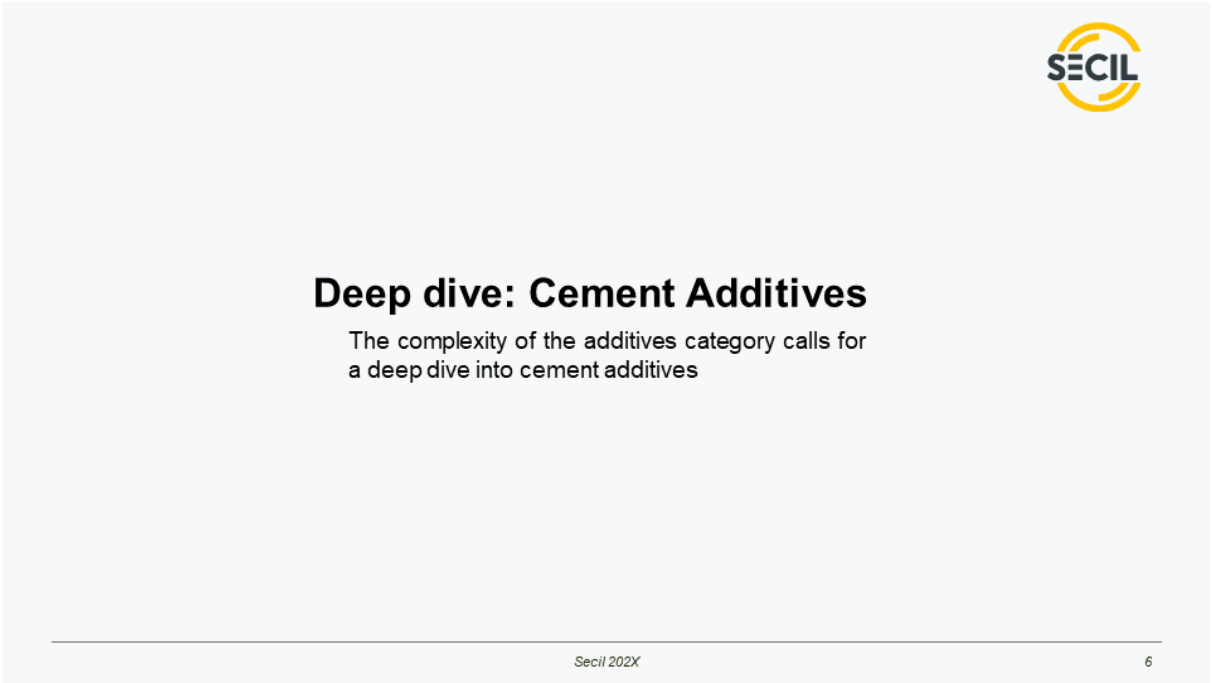
Spend report (2021)



Other relevant information:
- Additives weigh over 2,1% of total global spend
- Portugal is the biggest geography in terms of total volume (~80%)

Appendix 5 – Category Review: Additives





Appendix 5 – Category Review: Additives

1. Category Overview – Strategy Summary

Up until now, the strategy for cement additives has been centered around increasing competition and sourcing higher performance additives

Technical	• **Change design:** incorporating trial additives as an innovation and competitive drivers
Category	• **Volume aggregation** for Portugal cement plants, based on their annual budgets
Supply and Value Chain	• **Quarterly / Yearly negotiations** with current suppliers (Mapei and Chryso)
Supply Market	• **Increase competition:** trials with non-incumbents (Sika)
Supplier Relationship	• **Seek innovation:** joint collaboration with testing new formulas • **Improve payment terms:** Prolonged payment period from X to Y days with Chryso
Demand Management	• **Align additives consumption** in Portugal cement plants according to the negotiations

Kraljic Matrix

Overall Strategy: Increase competition and source higher performance additives

1. Category Overview – Category View

Cement additives are a global-global category affected by industry trends such as reducing clinker factor

01 Industry Trends:
- Higher mill productivity/energy efficiency
- Cement strengths increase/reduce clinker factor
- Introduce a 3rd player (Sika)
- New Reductis (Chryso)
- Prey retarder admixture for Outão cement

02 Items:
- The main items are presented by our current partners: Mapei (Tensioactive, Chromium Reducer and Early/Late Strength Activators), and Chryso (Tensioactive and Early/Late Strength Activators)

03 Cost Drivers:
- Transport prices, energy, fuel, raw materials (ethylene glycol, glycerin, antimony, ethylene,Tipa)

04 Global-Local Matrix

Appendix 5 – Category Review: Additives

1. Category Overview – Business Requirements – RAQSCI Model

Business requirements for cement additives include providing a high-quality product while striving to be sustainable

Regulatory	• Comply with regulations imposed by the **Portuguese government and the EU**; • All additives must have a **safety data sheet**, identifying hazards; • GQAS must **approve the safety data sheet** before the start of the consumption.
Assurance	• The supply of **volumes needed** to produce the quantity of cement in budget; • The **financial stability** of the suppliers (D&B report); • Lead and response times for supply request by the plants.
Quality	• **Laboratorial trials** by the supplier with plant raw materials for product development; • Industrial trials to check the measure performance / dosing of the additive; • Continuous **quality control** of the cement specifications, to ensure the reliability and impact of the consumed additives.
Service	• **Technical support** to the cement factories; • Supplier laboratorial and **auxiliary services**; • Cement milling systems: **auditing**.
Cost/ Commercial	• Consider the specific cost of the additive, including **dosing ratios**; • Incorporate the benefits, such as mill energy consumption, increase of productivity, clinker factor reduction, CO2 costs; • Implementation and **trial costs for new additives**.
Innovation	• **Continuous improvement** to reduce costs and increase value; • Strive to source the **most sustainable and advanced additives** in the market.

1. Category Overview – Technical Summary

Cement additives exhibit specific technical characteristics for their specific function

- **PROCESS – Tensioactive (fig. 1):**
Grinding Aids / Dispersants that prevent the coating effect on ball mills, increasing production. May increase initial resistances.

- **PERFORMANCE - Increase cement strengths (fig. 2):**
The strengths enhancers promote cement hydration reactions, increasing the final strength at 7 and 28 days.

- **FUNCTIONAL - Chromium reduction:**
It reduces hexavalent chromium (VI) to trivalent (III), thus bringing the toxicity back to the permitted values in Europe (2 ppm).

Technical Challenges

- Increase initial and final cement strengths;
- Increase mill productivity;
- Chromium reduction.

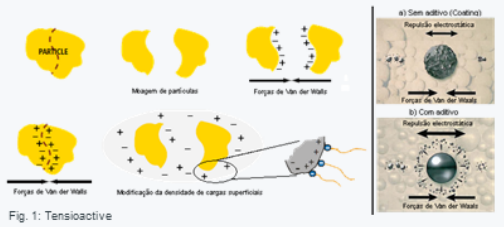


Fig. 1: Tensioactive

Fig. 2: Cement Strength Increase

Appendix 5 – Category Review: Additives

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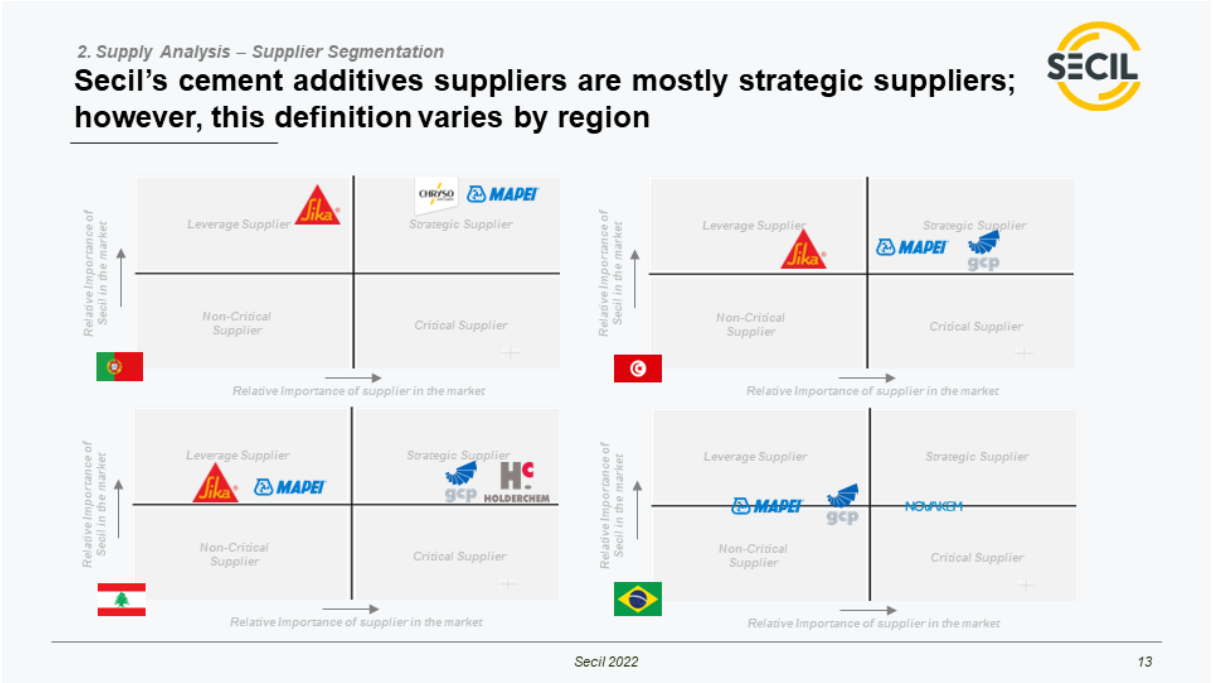
2. Supply Analysis – Supplier Breakdown

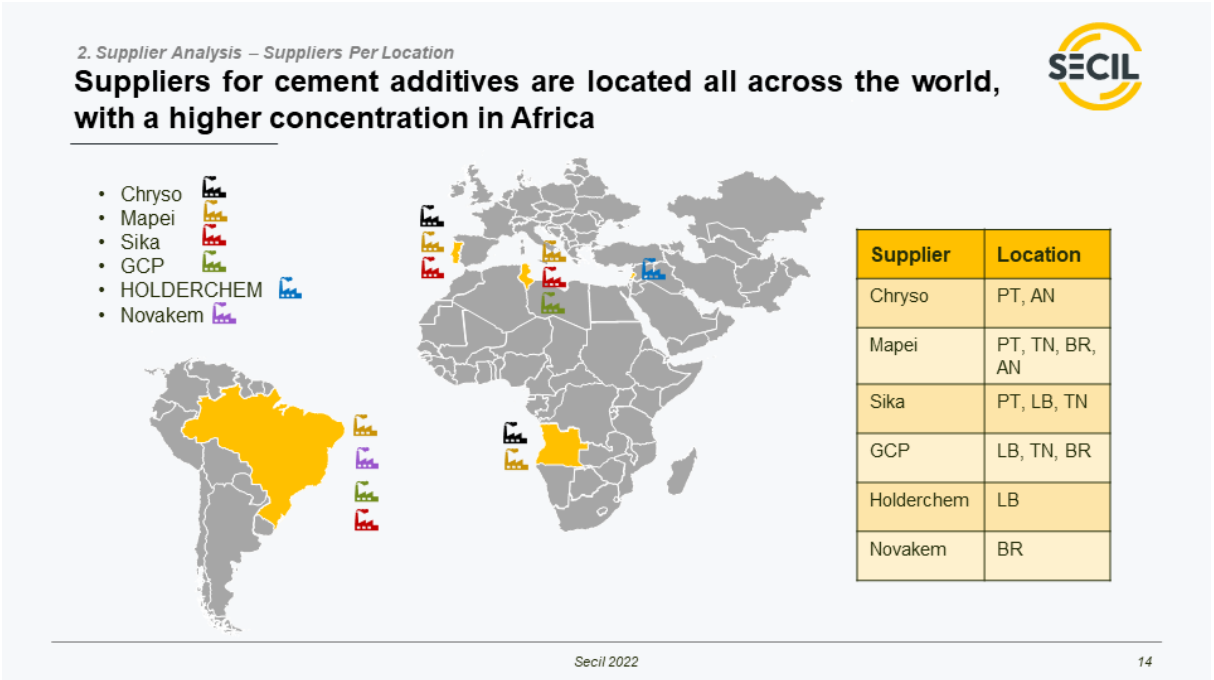
Secil's cement additive suppliers are divided into six main players whose locations are spread across 4 continents

Supplier	Geography	Spend (k€)	Volume (tn)	Obs.
Chryso	PT; AN	495	700	
Mapei	PT; TN; BR; AN	646	771	
Sika	PT; LB*; TN	(trials)	(trials)	(trials)
GCP (luxor technology & trade)	LB*; TN;	205	272	Only TN by a trader
Holderchem	LB*	-	-	Currently not buying
Novakem	BR	491	446	

*Lebanon is not currently using additives in cement production

Appendix 5 – Category Review: Additives





Supplier	Location
Chryso	PT, AN
Mapei	PT, TN, BR, AN
Sika	PT, LB, TN
GCP	LB, TN, BR
Holderchem	LB
Novakem	BR

Appendix 5 – Category Review: Additives

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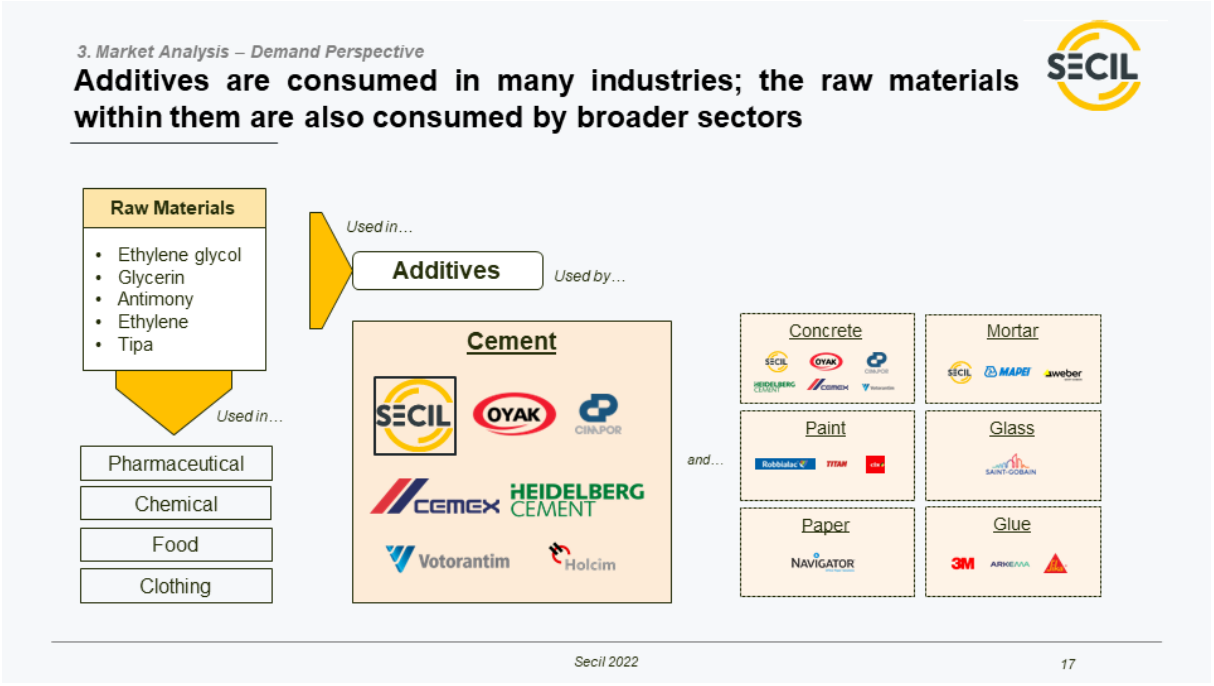
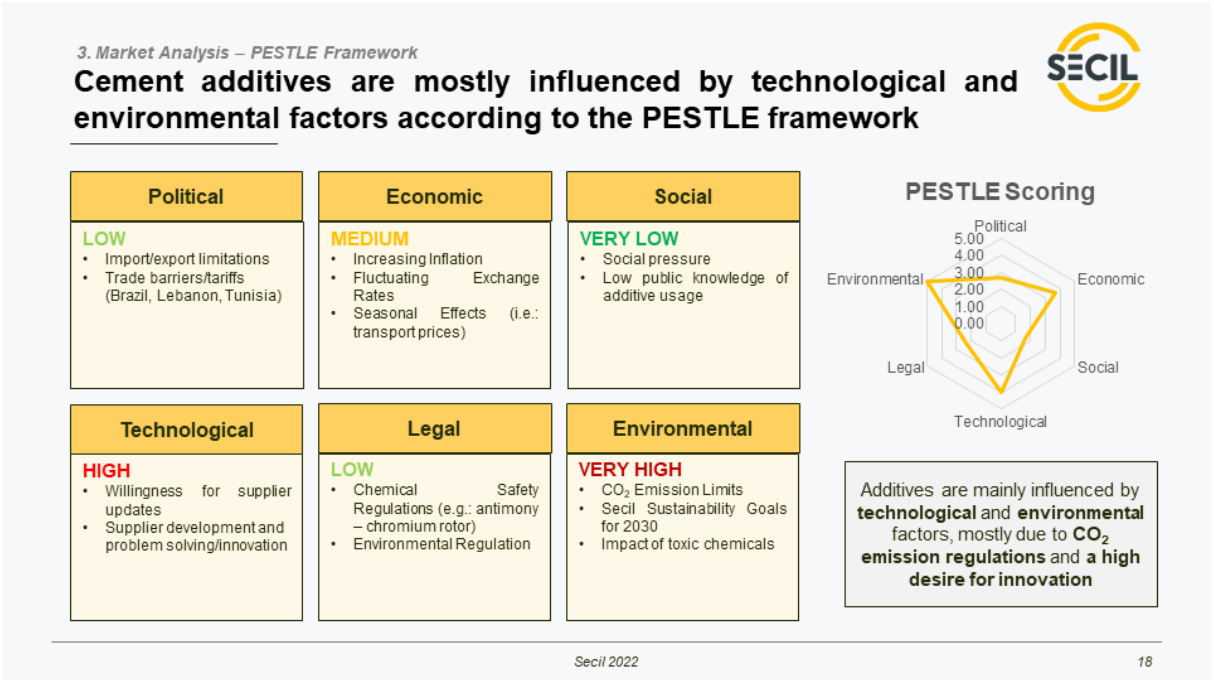
3. Market Analysis – Supply Perspective

The market for cement additives is competitive and includes emerging players such as Sika

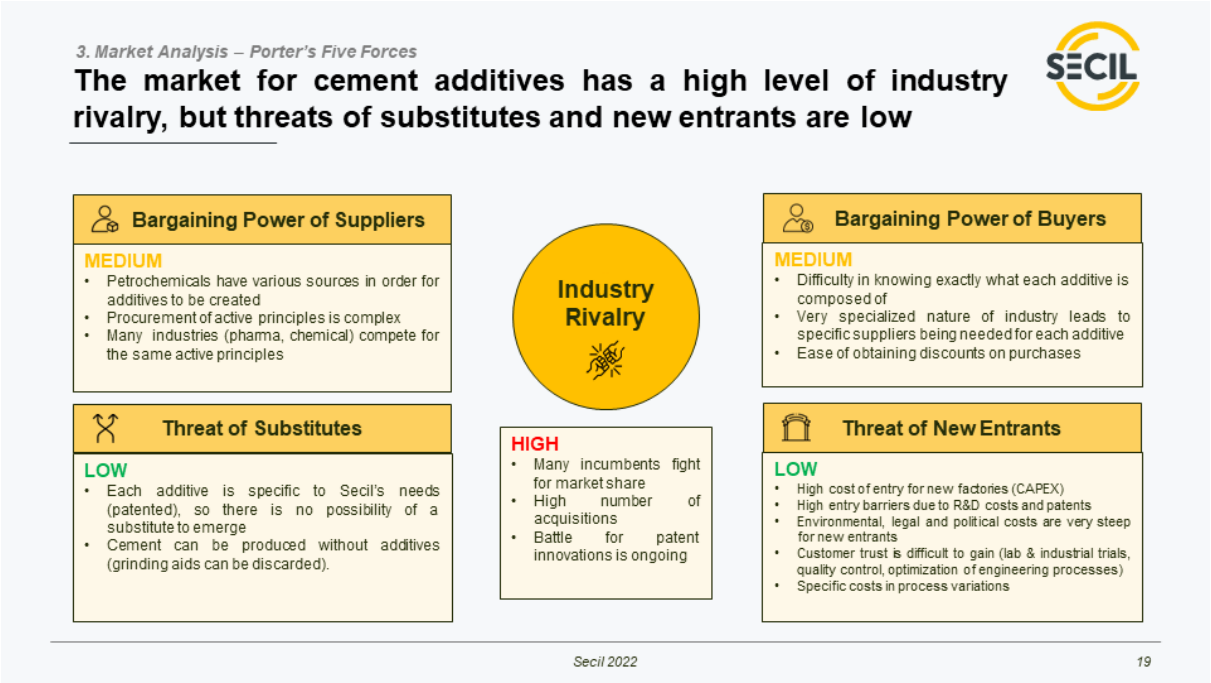
	Portugal	Tunisia	Lebanon	Brazil	Spain	Angola
Cement (Present)	• Chryso • Mapei	• GCP • Mapei • Sika	• GCP • Sika • Holderchem	• Novakem	• N/A	• Chryso • Mapei
Cement (Possible suppliers)	• **Proquicesa** • **AKKİM** • **Sika**	• **Proquicesa** • **AKKİM**	• **Master Builders Solutions**	• **Mapei** • **Sika** • **GCP**	• N/A	• N/A

Appendix 5 – Category Review: Additives





Appendix 5 – Category Review: Additives



Appendix 5 – Category Review: Additives

4. Strategy Design – SWOT Analysis

Secil's strong know-how can deal with threats such as competitors and external factors to potentiate new market opportunities

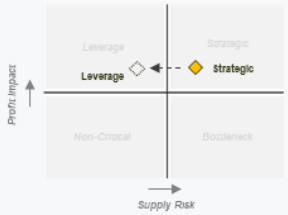
Strengths	Weaknesses
• Volume aggregation due to widespread consumption of grinding aids within the group • Shared know-how within all cement plants • Value chain synergies in the concrete business (cement → concrete) • CDAC as an internal pivot for trials and experiences	• Inability to fully know what is included in each additive • Non-regular supply of raw materials (quality varies by region) • Lack of routine quality tests • Limited resources to perform optimization of process drivers
Opportunities	**Threats**
• Market players available to supply the Secil Group • Adoption of eco-friendly raw materials such as vegetable-based glycerin • R&D capability from Secil's main suppliers	• Competitors from other industries • Energy crisis is driving up the price of transport and other relevant cost drivers • Supply chain risks due to raw material shortages

4. Strategy Design – Strategic Repositioning

The strategy for cement additives follows these levers in order to reposition itself compared to its previous one

Technical	• **Change design:** incorporating trial additives as an innovation driver
Category	• **Aggregate spend or demand:** consolidate volumes: ask plants' needs for tendering (annual)
Supply and Value Chain	• **Analyse and remove cost:** should-cost conclusions • **Improve process efficiency:** yearly meetings with plant managers
Supply Market	• **Increase competition:** trials with non-incumbents
Supplier Relationship	• **Improve the relationship:** SRM approach with suppliers • **Seek innovation:** joint collaboration with testing new formulae
Demand Management	• **Increase asset utilization:** optimize standardization of additives • **Policy and compliance:** consolidate Secil's green energy commitments (Ambition 2025 goals) by buying green

Kraljic Matrix



Overall Strategy:
Global-Global approach, aiming to transition from strategic to leverage category

Appendix 5 – Category Review: Additives

4. Strategy Design – Strategic Repositioning

A detailed look into the six actions which will drive the strategy for cement additives

Why?	How?	Benefits	Timeframe
• Supply chain **risk mitigation** for raw materials	• Improve **strategic relationship** with main suppliers (SRM approach)	• Supply risk reduction	• Q4 2022
• Market players available to supply the Secil Group	• **Laboratorial trials** with non-incumbent suppliers using Secil raw materials	• More competitive bidding	• Q1 2023
• **R&D capability** from main additives players	• Trials with strength enhancers to **improve cement formula**, complying with regulatory standards	• Cement-specific cost reduction	• Q1 2023
• **Volume aggregation** within geographies	• **Standardization** of additives, if possible • **Negotiation of rebates** with suppliers	• Better commercial conditions	• Q1-Q4 2023
• Shared know-how within all cement plants	• Procurement to **promote yearly meetings** with plant managers	• Product standardization	• Q1-Q4 2023
• Adoption of **eco-friendly** raw materials	• Trials with suppliers offering **eco-friendly** alternatives to current solutions	• Reduced CO_2 footprint	• Early-mid 2024

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Appendix 5 – Category Review: Additives

5. Should-Cost Analysis

According to the 2021 baseline, two cost breakdowns were computed in order to understand the additives should cost

Category Manager:	Bruno Ventura
Categoria:	Additives
Sub-Categoria:	Grinding Additives
Baseline	Baseline 2021
Currency	EUR

Price After Negotiation	0,50 €
Delta Unitário	-0,10
Quantities (Q)	1000
Total Impact (Δ * Q)	-103 €

Cost Drivers	Baseline Weights (2021)	Baseline Price	Percentual Impact	Price Impact	Should Cost
Ethylene - EUR/ton	70,00%	0,39	11,76%	0,05	0,43
Glycerine - USD/ton	20,00%	0,11	-5,16%	-0,01	0,10
Electricity OMEL - EUR/Mwh	5,00%	0,03	48,22%	0,01	0,04
Labour Costs - Currency/xx	5,00%	0,03	0	0,00	0,03
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
Other Costs and Margins	0%	0,00	0,00%	0,00	0,00
Total Should Cost	100%	0,55		0,05	0,60
Commercial Effect					0,00
Total Cost					0,60

Category Manager:	Bruno Ventura
Categoria:	Additives
Sub-Categoria:	Chrome reductor
Baseline	Baseline 2021
Currency	EUR

Price After Negotiation	4,40 €
Delta Unitário	0,02
Quantities (Q)	1000
Total Impact (Δ * Q)	19 €

Cost Drivers	Baseline Weights (2021)	Baseline Price	Percentual Impact	Price Impact	Should Cost
Antimony - USD/ton	80,00%	2,86	21,31%	0,61	3,46
Labour Costs - EUR/xx	10,00%	0,36	8,46%	0,03	0,39
Electricity OMEL - EUR/Mwh	10,00%	0,36	48,22%	0,17	0,53
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
Other Costs and Margins	0%	0,00	0,00%	0,00	0,00
Total Should Cost	100%	3,57		0,81	4,38
Commercial Effect					0,00
Total Cost					4,38

- The first table represents the chrome reductor should costs. There **was a price increase of 81** cents per kilogram, and after the price negotiations the total cost was **lower** than should cost **generating savings**.
- The second table represents the grinding additives should costs. There **was a price increase of 4 cents** per kilogram and after the price negotiations the total cost was **higher** than should costs **incurring in a loss**.

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Appendix 6 – Category Review: Pallets

Appendix 6 – Category Review: Pallets

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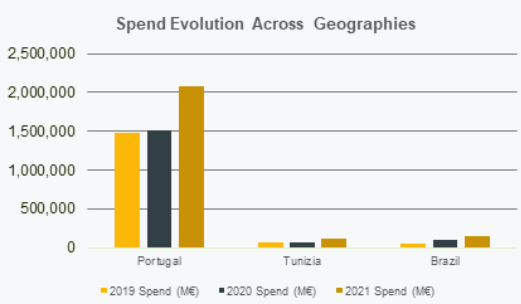
1. Category Overview – Spend Profile

Pallets present an upward spending trend in the previous 3 years, where Portugal is the biggest spender

Location	Total spend (M€)	Pallets spend (M€)	% Spend of pallets	Volume (Kunits)
Portugal	268	2.1	0,78%	316
Tunisia	44	0.13	0,3%	7
Brazil	70	0.13	0,3%	26.3
Total	**382**	2.36	0,62%	**349.3**

Spend report (2021)

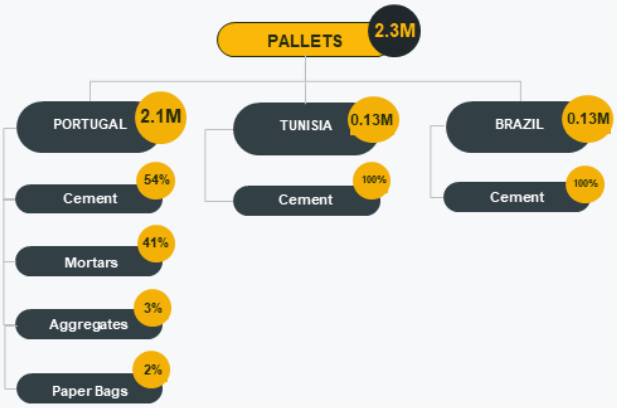


Other relevant information:
- Pallets weigh over 0,62% of total global spend
- Portugal is the biggest geography in terms of total volume (~90%)

Appendix 6 – Category Review: Pallets

1. Category Overview – Category Breakdown

The category is subdivided by business unit, summing up 2.3M€ globally



Currency used €

1. Category Overview – Strategy Summary

Up until now, the strategy for pallets has been centered around improving the relationship with suppliers

Technical	• **Change specification:** Uniformization of pallet dimensions • **Change design:** Wood reduction
Category	• **Aggregate spend/demand:** Cement BU + Mortar BU • **Aggregate spend/demand:** Volume aggregation in collaboration with Navigator
Supply and Value Chain	• **Improve process efficiency:** Management based on a long-term approach, shared information with suppliers • **Analyze and remove cost:** Understand TCO
Supply Market	• **Increase competition:** Triannual tenders • **Restructure supply base:** Reduced suppliers in cement and mortars
Supplier Relationship	• **Improve the relationship:** Successful relationship nurturing with Martos in Portugal. Synergies with other Secil partners (plastic supplier) • **Improve payment terms:** Prolong payment period (X to Y days)
Demand Management	• **Buy less or eliminate:** Pallet pooling for mortar BU

Kraljic Matrix

Current Strategy: Focus on guaranteed sourcing and developing supplier relationships

Appendix 6 – Category Review: Pallets

1. Category Overview – Category View

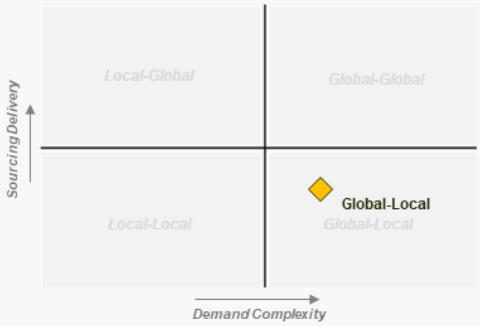
Pallets are a global-local category whose main cost driver is the price of wood

01 Industry Trends:
- Circular market – pallet renting is becoming an increasing industry standard
- Scarcity of resources due to regulations in the lumber market. Seasonality effect.
- Big retailers first customers for pallet producers
- Many small producers/suppliers

02 Items:
- **Non-returnable** pallets: Portugal (89%), Brazil (10%)
- **Returnable** pallets: Portugal (10%), Brazil (90%), Tunisia (100%)
- Portugal – pine wood, Brazil – eucalyptus wood, Tunisia – bois rouge wood

03 Cost Drivers:
- Price of pine wood, consumables, labor, transport costs, energy costs

04 Global-Local Matrix



1. Category Overview – Business Requirements – RAQSCI Model

Business requirements for pallets include phytosanitary treatment in Portugal and load requirements

Regulatory	• Phytosanitary treatment of pallets is mandatory by law in Portugal
Assurance	• Continuous guarantee of supply due to stable financial situation
Quality	• Wood must bend, but not break under pressure • Raw materials must fulfil quality standards • Pallets must bear a 1.5-2tn load
Service	• Pallets must be delivered to clients in great shape • Circular economy demands great care in handling of pallets
Cost/ Commercial	• Reduced cost according to raw materials • Renting sales model • Navigator benchmark
Innovation	• Source pallets with carbon neutral raw materials • Innovation in business model: renting pallets • First point of call for suppliers' new ideas

Appendix 6 – Category Review: Pallets

1. Category Overview – Technical Summary

Pallets are divided between hardwoods and softwoods; each type has its advantages and disadvantages

Hardwood
- Eucalyptus
- Maple
- Oak
- Birch

Softwood
- Pine
- Bois rouge
- Spruce

Technical Challenges		
	Pine	• Takes between 30 and 40 years to grow into harvestable wood
	Bois rouge	• Rare wood type
	Eucalyptus	• Eucalyptus mostly used in paper & paper products (15-20 years)

Source: https://daywalk.com/ (2021)

Pallet Usage

- **Hardwoods**
  > Known for durability, strength and longevity
  > Heavier and more costly
- **Softwoods**
  > 80% of all timber
  > Cheaper and lighter than hardwoods
  > Pliable but more susceptible to humidity

Main raw material used: Pine

Main raw material used: Bois rouge

Main raw material used: Eucalyptus

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Appendix 6 – Category Review: Pallets

2. Supply Analysis – Supplier Breakdown

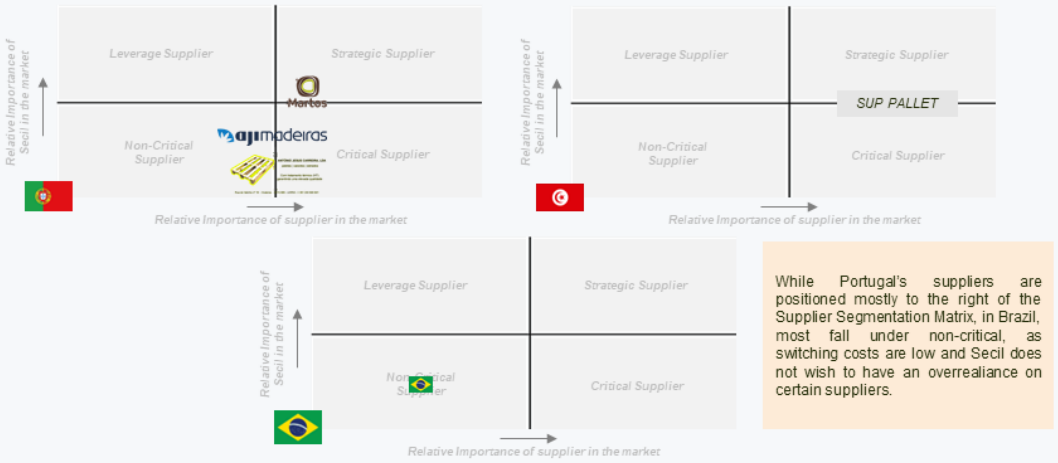
Secil's pallet suppliers are divided into main players per region, however the number of other players is enormous

Supplier	Geography	Spend (k€)	Volume (Kunits)	Obs.
Martos	PT	1591	214	-
António Jesus Carreira	PT	255	41	-
Alfarigor	PT	152	40	-
PCL Florestal	BR	47	9.7	-
Others	PT; BR; TN	102; 10	21; 2.7	-
Total	PT; BR; TN	2157		

*Lebanon is not currently using pallets

2. Supply Analysis – Supplier Segmentation

Secil's pallet suppliers in Brazil are non-critical, whereas in Portugal they hold more weight



While Portugal's suppliers are positioned mostly to the right of the Supplier Segmentation Matrix, in Brazil, most fall under non-critical, as switching costs are low and Secil does not wish to have an overrealiance on certain suppliers.

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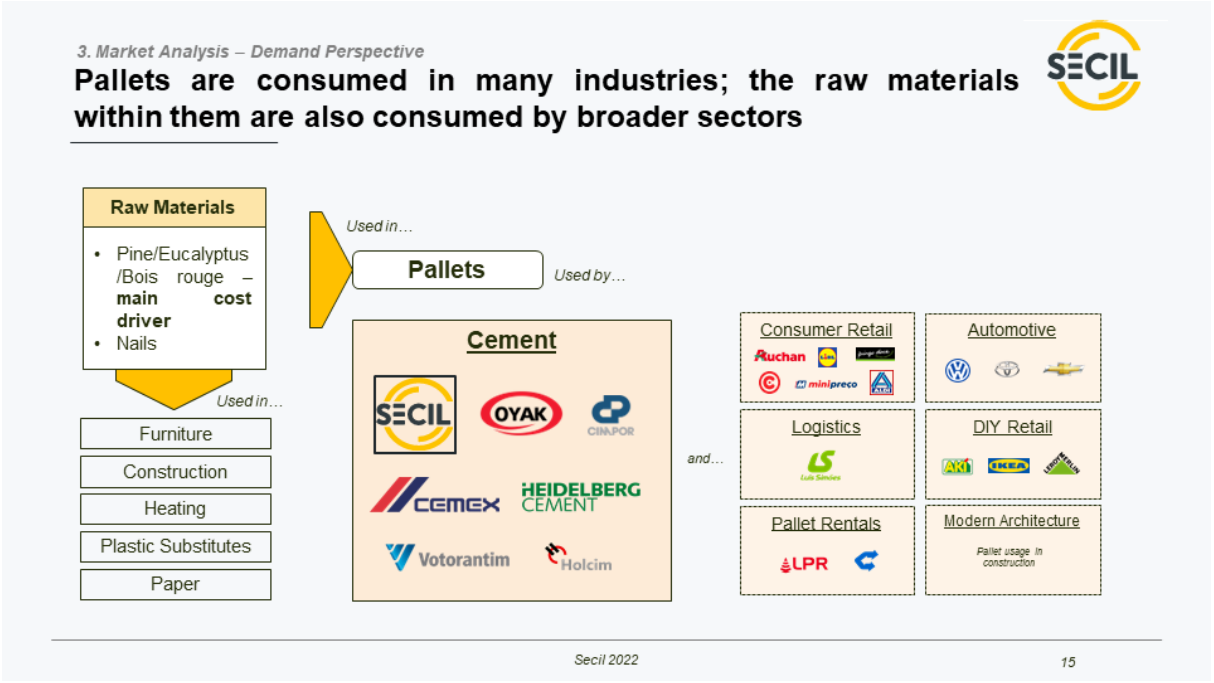
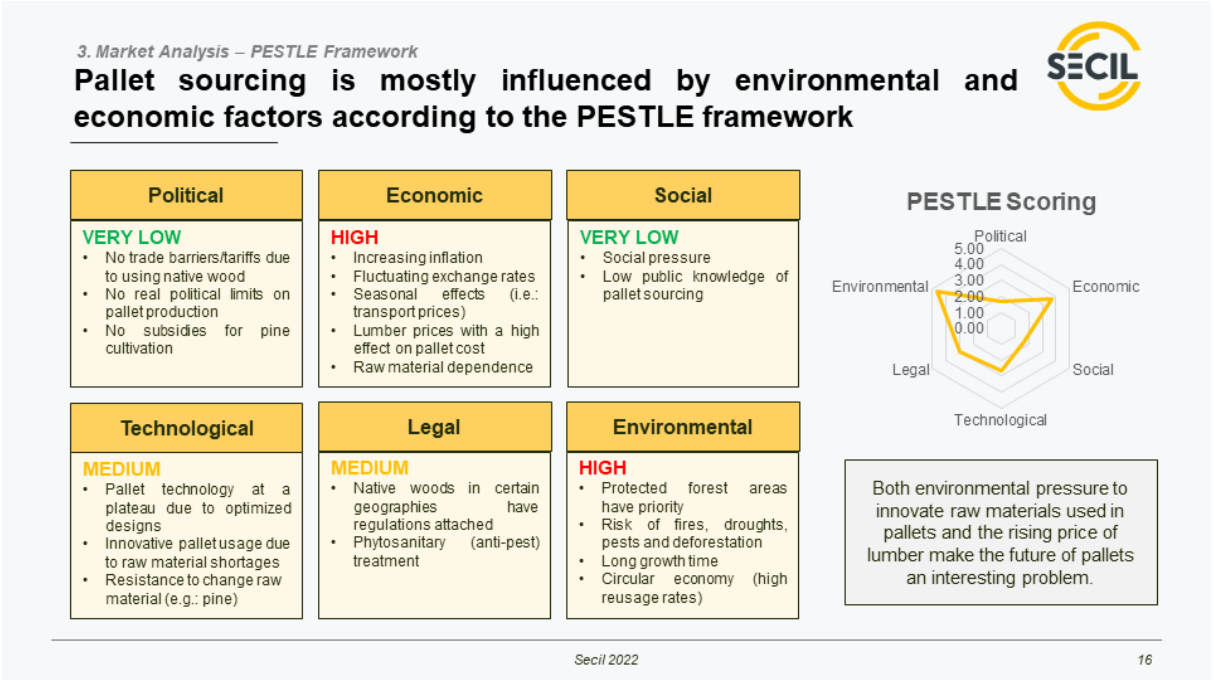
3. Market Analysis – Supply Perspective

The market for pallets is competitive and includes many emerging players

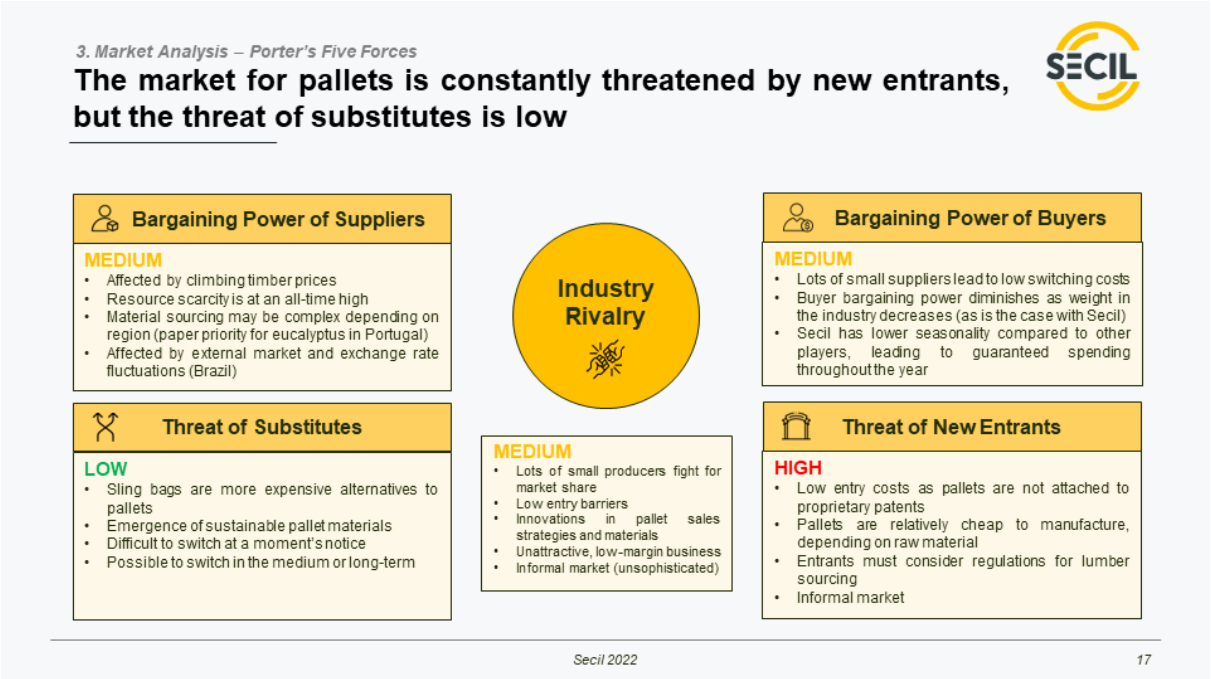
	Portugal	Tunisia	Brazil
Pallets (Present)	• AJC • Alfarigor • Martos	• Sup Palette • Somef	• PCL Florestal • RR Baido • A. Dalzotto
Pallets (Possible suppliers)	• Palser • Palsystem	• TRADING INDUSTRIEL SERVICE ALFORJANI	**Multiple Suppliers**

Appendix 6 – Category Review: Pallets





Appendix 6 – Category Review: Pallets



Appendix 6 – Category Review: Pallets

4. Strategy Design – SWOT Analysis

Secil's strong stable spend can deal with threats such as the increasing price of raw materials

Strengths	Weaknesses
• Established relationships with current suppliers of pallets • Stable annual spend • Constant development of supplier relationship • Good market reputation/no credit risk • Item standardization which optimizes supplier sourcing	• Relatively small position compared to warehouses and retailers • Strict quality guidelines – high standards for pallet quality • Lack of uniformization for mortars in Portugal • Imported raw material (Tunisia)
Opportunities	**Threats**
• Leverage renting instead of buying pallets outright • Circular economy – sustainable reusage of pallets • Raw material quality	• Lumber scarcity/expected increase in demand from other industries and regulations throttle pallet production • Cost drivers increasing (energy, fuel, pine wood cost) exponentially • Supplier preferential treatment of larger pallet players such as retailers • Difficulty in knowing the entirety of the market and all its players • Environmental factors such as fires, pests and droughts

4. Strategy Design – Strategic Repositioning

The strategy for pallets follows these levers in order to reposition itself compared to its previous one

Technical	• **Change specification/design:** if pallet pooling is successful, specifications must be changed
Category	• **Aggregate demand/spend:** Standardization of pallets for mortar BU
Supply and Value Chain	• **Improve process efficiency:** Ensure higher quality pallets delivered to client with the help of a third party • **Analyse and remove cost:** Reduce m^3 of wood per pallet
Supply Market	• **Increase competition:** alternative supplier for cement in Portugal • **Make vs. buy:** make pallets in-house (Tunisia)
Supplier Relationship	• **Improve the relationship:** Continue nurturing relationship with Martos in Portugal. Synergies with other Secil partners (plastic supplier) • **Improve the relationship:** SRM approach with suppliers
Demand Management	• **Buy less or eliminate:** Pallet pooling for cement BU

Kraljic Matrix

Overall Strategy:
Focus on sustainability and find alternative suppliers

Appendix 6 – Category Review: Pallets

4. Strategy Design – Strategic Repositioning

A detailed look into the initiatives which will drive the strategy for pallets

Why?	How?	Geography	Benefits	Timeframe
• Reduce supplier dependence	• **Alternative supplier** for cement in Portugal	Portugal	• Supply assurance	Medium-term
• Reduce supply costs	• Make **pallets in-house**	Tunisia	• Supply assurance	Short-term
• Sustainable pallet reusage	• Explore **circular economy** options – returnable pallet pooling	All	• Environmental responsibility	Short-term
• Reduce quality costs	• Ensure **higher quality pallets** delivered to client with the help of a third party	Brazil	• Cost reduction	Long-term
• Sustainable reusage of pallets	• Increase **returnable pallet percentages** over non-returnable	All	• Environmental responsibility	Long-term
• Optimize technical efficiency	• Revisit pallet wood **optimization** • **Reduce** m^3 of wood per pallet	All	• Cost reduction	Medium-term
• Lack of uniformization of mortars	• **Standardization of pallets** for mortar BU	Portugal	• Standardization	Short-term

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1. Category Overview
2. Supplier Analysis
3. Market Analysis
4. Strategy Design
5. **Should-Cost Analysis**

Appendix 6 – Category Review: Pallets

5. Should-Cost Analysis

According to the 2021 baseline, two cost breakdowns were computed in order to understand the cost of pallets in Portugal

Cost Drivers	Baseline Weights (2021)	Baseline Price	Percentual Impact	Price Impact	Should Cost
Pine Wood - EUR/xx	80,00%	9,87	108,13%	10,67	20,55
Inflation PT - percentage	20,00%	2,47	8,50%	0,21	2,68
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
Other Costs and Margins	0%	0,00	0,00%	0,00	0,00
Total Should Cost	**100%**	12,34		10,88	23,22
Commercial Effect					0,00
Total Cost					23,22

Supplier Initial asked Price	19,00
Price After Negotiation	20,00 €
Price Change	-1,00 €
Unit Delta (Δ)	-3,22
Quantities (Q)	1000
Total Impact (Δ * Q)	-3 224 €

- **Portugal** – 80% pine wood cost
- The total should cost amounted in **23,22**€

5. Should-Cost Analysis

According to the 2021 baseline, two cost breakdowns were computed in order to understand the cost of pallets in Tunisia

Cost Drivers	Baseline Weights (2021)	Baseline Price	Percentual Impact	Price Impact	Should Cost
Red Wood - LBP/xx	90,00%	53,10	8,50%	4,51	57,61
Taxes - Currency/xx	10,00%	5,90	9,00%	0,53	6,43
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
Other Costs and Margins	0%	0,00	0,00%	0,00	0,00
Total Should Cost	**100%**	59,00		5,04	64,04
Commercial Effect					0,00
Total Cost					64,04

Supplier Initial asked Price	62,80
Price After Negotiation	62,80
Price Change	0,00
Unit Delta (Δ)	-1,24
Quantities (Q)	1000,00
Total Impact (Δ * Q)	-1244,50

- **Tunisia** – 90% red wood cost – imported from Italy
- The total should cost amounted in **64,04 Tunisian dinars**

Appendix 6 – Category Review: Pallets

5. Should-Cost Analysis

According to the 2021 baseline, two cost breakdowns were computed in order to understand the cost of pallets in Brazil

Cost Drivers	Baseline Weights (2021)	Baseline Price	Percentual Impact	Price Impact	Should Cost
Eucalyptus Wood - BRL/xx	55,00%	9,90	147,00%	14,55	24,45
Taxes - Currency/xx	21,25%	3,83	0,00%	0,00	3,83
Labour Costs - EUR/xx	13,00%	2,34	13,00%	0,30	2,64
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
Other Costs and Margins	11%	1,94	23,10%	0,00	1,94
Total Should Cost	**100%**	18,00		14,86	32,86
Commercial Effect					0,00
Total Cost					32,86

Supplier Initial asked Price	
Price After Negotiation	40,00 €
Price Change	-40,00 €
Unit Delta (Δ)	7,14
Quantities (Q)	1000
Total Impact (Δ * Q)	7 143 €

- **Brazil** – 55% eucalyptus wood cost. Tax costs (21,25%) are significant. Labor: 13%.
- The total should costs amounted in **32,86 Brazilian reais**

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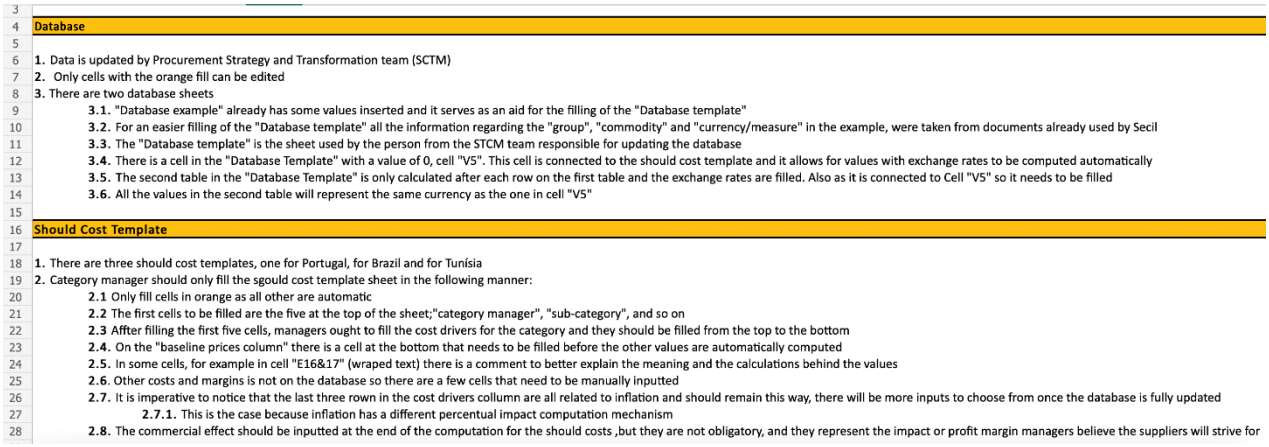
Appendix 7.1. – Should-Cost Instructions



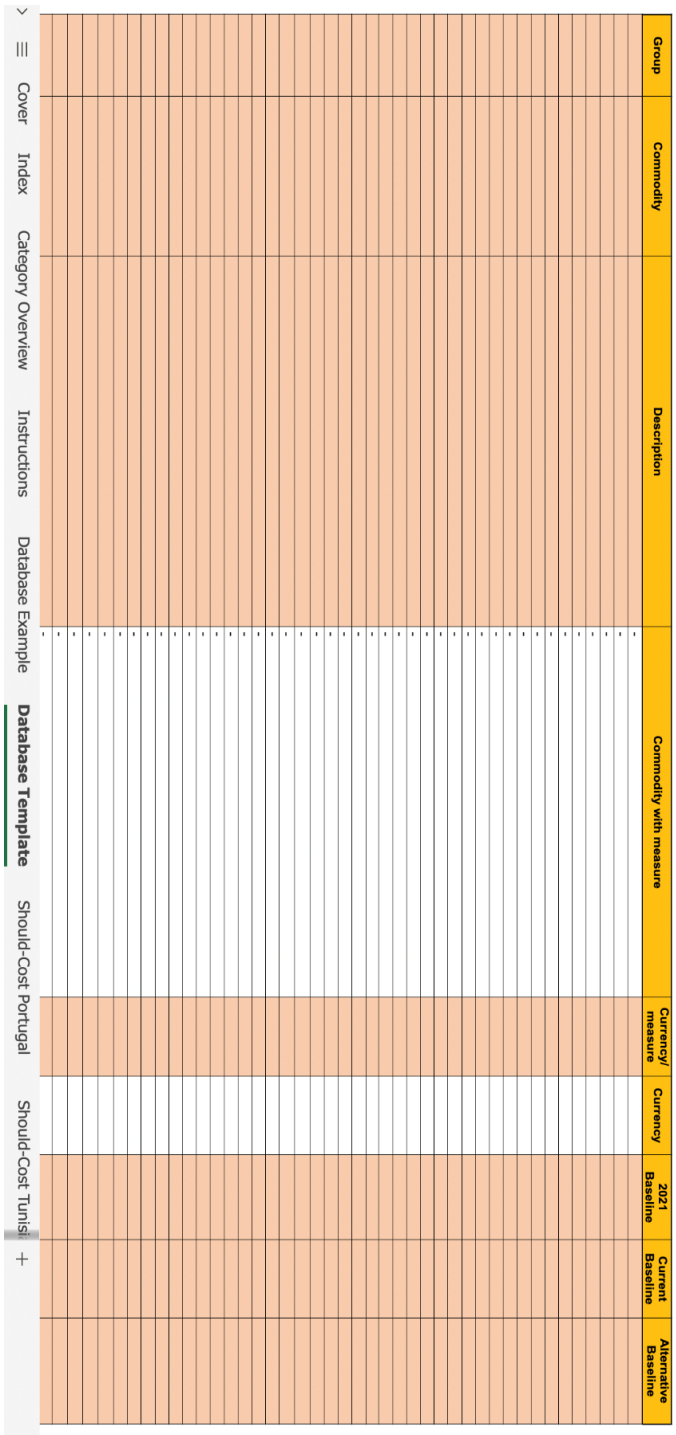
Database

1. Data is updated by Procurement Strategy and Transformation team (SCTM)
2. Only cells with the orange fill can be edited
3. There are two database sheets
    - 3.1. "Database example" already has some values inserted and it serves as an aid for the filling of the "Database template"
    - 3.2. For an easier filling of the "Database template" all the information regarding the "group", "commodity" and "currency/measure" in the example, were taken from documents already used by Secil
    - 3.3. The "Database template" is the sheet used by the person from the STCM team responsible for updating the database
    - 3.4. There is a cell in the "Database Template" with a value of 0, cell "V5". This cell is connected to the should cost template and it allows for values with exchange rates to be computed automatically
    - 3.5. The second table in the "Database Template" is only calculated after each row on the first table and the exchange rates are filled. Also as it is connected to Cell "V5" so it needs to be filled
    - 3.6. All the values in the second table will represent the same currency as the one in cell "V5"

Should Cost Template

1. There are three should cost templates, one for Portugal, for Brazil and for Tunísia
2. Category manager should only fill the sgould cost template sheet in the following manner:
    - 2.1 Only fill cells in orange as all other are automatic
    - 2.2 The first cells to be filled are the five at the top of the sheet;"category manager", "sub-category", and so on
    - 2.3 Affter filling the first five cells, managers ought to fill the cost drivers for the category and they should be filled from the top to the bottom
    - 2.4. On the "baseline prices column" there is a cell at the bottom that needs to be filled before the other values are automatically computed
    - 2.5. In some cells, for example in cell "E16&17" (wraped text) there is a comment to better explain the meaning and the calculations behind the values
    - 2.6. Other costs and margins is not on the database so there are a few cells that need to be manually inputted
    - 2.7. It is imperative to notice that the last three rown in the cost drivers collumn are all related to inflation and should remain this way, there will be more inputs to choose from once the database is fully updated
        - 2.7.1. This is the case because inflation has a different percentual impact computation mechanism
    - 2.8. The commercial effect should be inputted at the end of the computation for the should costs ,but they are not obligatory, and they represent the impact or profit margin managers believe the suppliers will strive for

Appendix 7.2. – Should-Cost Database Sheet



2021 Baseline	Current Baseline	Alternative Baseline

Appendix 7.2. – Should-Cost Database Sheet

	USD			
	Exchange rates	2021 Baseline	Current Baseline	Alternative Baseline
EUR	USD			
EUR	TND			
EUR	LBP			
EUR	BRL			
EUR	CNY			
EUR	GBP			
EUR	EUR			
EUR				
USD	USD			
USD	TND			
USD	LBP			
USD	BRL			
USD	CNY			
USD	GBP			
USD	EUR	0	0	0
USD				
TND	USD	0	0	0
TND	TND			
TND	LBP			
TND	BRL			
TND	CNY			
TND	GBP			
TND	EUR	0	0	0
TND				
LBP	USD	0	0	0
LBP	TND	0	0	0
LBP	LBP			
LBP	BRL			
LBP	CNY			
LBP	GBP			
LBP	EUR	0	0	0
LBP				
BRL	USD	0	0	0
BRL	TND	0	0	0
BRL	LBP	0	0	0
BRL				
BRL	BRL			
BRL	CNY			
BRL	GBP			

Appendix 7.3. – Should-Cost Template Sheet

Category Manager:	

Legend		
Input Cells		Only cell with orange shade can be edited

Category:	
Sub-Category:	
Baseline	
Currency	

Cost Drivers	Baseline Weights (2021)	Baseline Price	Percentual Impact	Price Impact	Should Cost
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
Other Costs and Margins	100,00%	0,00		0,00	0,00
Total Should Cost	**100%**			0,00	0,00
Commercial Effect					0,00
Total Cost					**0,00**

Supplier Initial asked Price	
Price After Negotiation	
Price Change	0,00
Unit Delta (Δ)	0,00
Quantities (Q)	
Total Impact (Δ * Q)	0,00

Appendix 7.4. – Chrome Reducer Additive Testing

Category Manager:	Bruno Ventura

Categoria:	Aditivos
Sub-Categoria:	Aditivo Redutor de Crómio VI
Baseline	Baseline 2021
Currency	EUR

Cost Drivers	Baseline Weights (2021)	Baseline Price	Percentual Impact	Price Impact	Should Cost
Chromium HC	30,00%	6,00	-60,00%	-3,60	2,40
Manganese	10,00%	2,00	66,67%	1,33	3,33
Nickel Future	30,00%	6,00	75,00%	4,50	10,50
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
Other Costs and Margins	30%	6,00		0,00	6,00
Total Should Cost	100%	20,00		2,23	22,23
Commercial Effect					2,00
Total Cost					24,23

Price After Negotiation	31,00 €
Delta Unitário	6,77
Quantities (Q)	1000
Total Impact (Δ * Q)	6 767 €

Appendix 10.2 - Grinding additive testing

Appendix 7.5. – Grinding Additives Testing

Category Manager:	Bruno Ventura

Categoria:	Aditivo
Sub-Categoria:	Aditivo de Moagem
Baseline	Baseline 2021
Currency	EUR

Cost Drivers	Baseline Weights (2021)	Baseline Price	Percentual Impact	Price Impact	Should Cost
Antimony	80,00%	2,86	21,42%	0,61	3,47
Electricity OMEL	10,00%	0,36	48,22%	0,17	0,53
Labour Costs	10,00%	0,36	6,02%	0,02	0,38
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
Other Costs and Margins	0%	0,00	0,00%	0,00	0,00
Total Should Cost	100%	3,57		0,81	4,38
Commercial Effect					0,00
Total Cost					4,38

Price After Negotiation	4,20
Delta Unitário	-0,18
Quantities (Q)	1000
Total Impact (Δ * Q)	-175,43

Appendix 7.6. – Pallets Testing Tunisia

Category Manager:	

Category:	Pallets
Sub-Category:	Pallets
Baseline	Baseline 2021
Currency	TND

Cost Drivers	Baseline Weights (2021)	Baseline Price	Percentual Impact	Price Impact	Should Cost
Red Wood - LBP/xx	90,00%	53,10	8,50%	4,51	57,61
Taxes - Currency/xx	10,00%	5,90	9,00%	0,53	6,43
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
Other Costs and Margins	0%	0,00	0,00%	0,00	0,00
Total Should Cost	**100%**	59,00		5,04	64,04
Commercial Effect					0,00
Total Cost					**64,04**

Supplier Initial asked Price	62,80
Price After Negotiation	62,80
Price Change	0,00
Unit Delta (Δ)	-1,24
Quantities (Q)	1000,00
Total Impact (Δ * Q)	-1244,50

Appendix 7.7. – Pallets Testing Brazil

Category Manager:	

Category:	Pallets
Sub-Category:	Pallets
Baseline	Baseline 2021
Currency	BRL

Cost Drivers	Baseline Weights (2021)	Baseline Price	Percentual Impact	Price Impact	Should Cost
Eucalyptus Wood - BRL/xx	55,00%	9,90	147,00%	14,55	24,45
Taxes - Currency/xx	21,25%	3,83	0,00%	0,00	3,83
Labour Costs - EUR/xx	13,00%	2,34	13,00%	0,30	2,64
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
Other Costs and Margins	11%	1,94	23,10%	0,00	1,94
Total Should Cost	**100%**	18,00		14,86	32,86
Commercial Effect					0,00
Total Cost					**32,86**

Supplier Initial asked Price	39,00
Price After Negotiation	40,00
Price Change	-1,00
Unit Delta (Δ)	7,14
Quantities (Q)	1000,00
Total Impact (Δ * Q)	7142,80

Appendix 10.5. - Pallets testing Portugal

Appendix 7.8. – Pallets Testing Portugal

Category Manager:	Filipa Lemos

Category:	Pallets
Sub-Category:	Pallets
Baseline	Baseline 2021
Currency	EUR

Cost Drivers	Baseline Weights (2021)	Baseline Price	Percentual Impact	Price Impact	Should Cost
Pine Wood - EUR/xx	80,00%	9,87	108,13%	10,67	20,55
Inflation PT - percentage	20,00%	2,47	8,50%	0,21	2,68
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
		0,00	0	0,00	0,00
Other Costs and Margins	0%	0,00	0,00%	0,00	0,00
Total Should Cost	**100%**	12,34		10,88	23,22
Commercial Effect					0,00
Total Cost					**23,22**

Supplier Initial asked Price	19,00
Price After Negotiation	20,00 €
Price Change	-1,00 €
Unit Delta (Δ)	-3,22
Quantities (Q)	1000
Total Impact (Δ * Q)	-3 224 €

Appendix 8.1 – Tracking Tool Tested with Initiatives from selected categories

Procurement Ow	Area Owner	Category	Geography	Industrial Plant	Strategy Value Levers	Initiatives Description	Ambition 2025 Element	Potential Saving (€k)	Start date	Deadline	New deadlin	Delay	Status	Progress Repor	Discounted Saving
Bruno Ventura	Thiago Alberti	Adhivos	Portugal	Ourão	Improve the relationship	Improve strategic relationship with main suppliers (SRM approach)	Operational	600	9/8/22	11/8/22	12/2/2022	26	Idea	TBD	300
Bruno Ventura	Thiago Alberti	Adhivos	Portugal	Ourão	Increase competition	Laboratorial trials with non-incumbent suppliers using Secil raw materials	Scale/Diversification	200	7/8/22	12/8/22	12/30/2022	2	Initiating	TBD	100
Bruno Ventura	Thiago Alberti	Adhivos	Portugal	Ourão	improve process efficiency and capability	Trials with cement enhancers to improve cement formula, complying with regulatory	Innovation	300	8/8/22	1/8/22	12/4/2022	108	Planning	TBD	200
Bruno Ventura	Thiago Alberti	Adhivos	Portugal	Ourão	change specification	Standardization of additives	Operational	400	8/8/22	4/30/22	12/5/2022	278	Executing	TBD	400
Bruno Ventura	Thiago Alberti	Adhivos	Portugal	Ourão	improve process efficiency and capability	Procurement to promote yearly meetings with plant managers	Operational	500	6/14/22	6/1/22	12/6/2022	177	Implemented	TBD	500
Bruno Ventura	Thiago Alberti	Adhivos	Portugal	Ourão	find new markets	Trials with suppliers offering eco friendly alternatives to current solutions	Sustainability/ESG	600	6/15/22	9/10/22	12/7/2022	89	Executing	TBD	600
Filipa Lemos	Thiago Alberti	Paletes	Portugal	Ourão	Increase Competition	Alternative supplier for cement in Portugal	Operational	700	6/16/22	9/11/22	12/8/2022	89	Idea	TBD	350
Filipa Lemos	Fuad Souvi	Paletes	Tunisia	Gabès	Analyze and Remove Cost	Make Pallets in-house	Innovation	800	6/17/22	9/12/22	12/9/2022	89	Initiating	TBD	400
Filipa Lemos	Thiago Alberti	Paletes	Portugal	Ourão	Increase Asset Utilization	Explore circular economy options - returnable pallet pooling	Operational	900	6/18/22	9/13/22	12/10/2022	89	Planning	TBD	630
Filipa Lemos	Elaine Grabski	Paletes	Brasil	Pomerode	Analyze and Remove Cost	Ensure higher quality pallets delivered to client with the help of a third party	Financial	1000	6/19/22	9/14/22	12/11/2022	89	Executing	TBD	1000
Filipa Lemos	Thiago Alberti	Paletes	Portugal	Ourão	Increase Asset Utilization	Increase returnable pallet percentages over non-returnable	Operational	1100	6/20/22	9/15/22	12/12/2022	89	Implemented	TBD	1100
Filipa Lemos	Thiago Alberti	Paletes	Portugal	Ourão	Improve Process Efficiency and Capability	Revisit pallet wood optimization	Operational	1200	6/21/22	9/16/22	12/13/2022	89	Idea	TBD	600
Filipa Lemos	Thiago Alberti	Paletes	Portugal	Ourão	Change Specification	Standardization of pallets for more than EU	Scale/Diversification	1300	6/22/22	9/17/22	12/14/2022	89	Initiating	TBD	650

Appendix 8.1 – Tracking Tool – Tutorial Information Tab

↩ INDEX

In Depth Value Levers

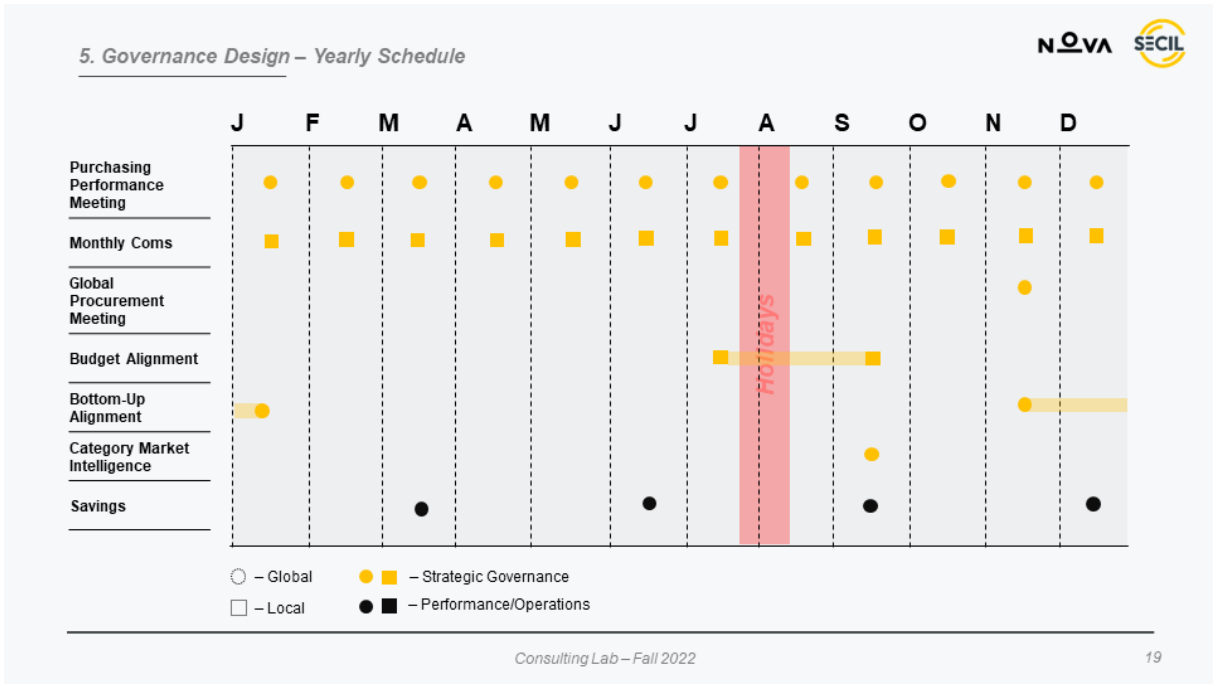
Change Specification	Change, consolidate or standardize specification
	Make generic
	Add some feature or function to drive growth
Change Design	Review "fitness for purpose" and value-engineer
	Incorporate innovation to drive growth
Aggregate Spend and Demand	Aggregate spend or demand across the business
	Consortia buying with partners
	Consolidate volumes
Improve Process Efficiency and Capability	Understand the end-to-end supply and value chain and identify areas for development
	Drive in improved efficiencies
	Improve capability
	Use lean or six sigma approaches
	Reduce or eliminate waste
	Eliminate unnecessary steps
	Improve transactional effectiveness
Analyse and Remove Cost	Understand the total cost of ownership
	Understand where cost is introduced in the supply and value chain
	Identify and pursue improvement objectives to tackle specific cost areas
Improve Logistics	Optimize packing
	Ullage reduction for packing and transport
	Optimize logistics
Increase Competition	Switch suppliers
	Run a tender or competitive market exercise
	Use e-auctions or competitive bidding
Find New Markets	Look beyond current market - global sourcing
	Low cost country sourcing
	Look at new/other markets where similar capabilities exist
Restructure the Supply Base	Make vs buy-in/source vs outsource decision
	Rationalise supply base
	Create new suppliers
	Backwards integration
Performance Development	Supplier performance management
	Drive in supplier improvement plans
	Set improvement objectives and targets
	Provide support to develop supplier capability
	Introduce performance incentives or penalties

Project Status Insight

L1	Idea
L2	Initiating
L3	Planning
L4	Executing
L5	Implemented

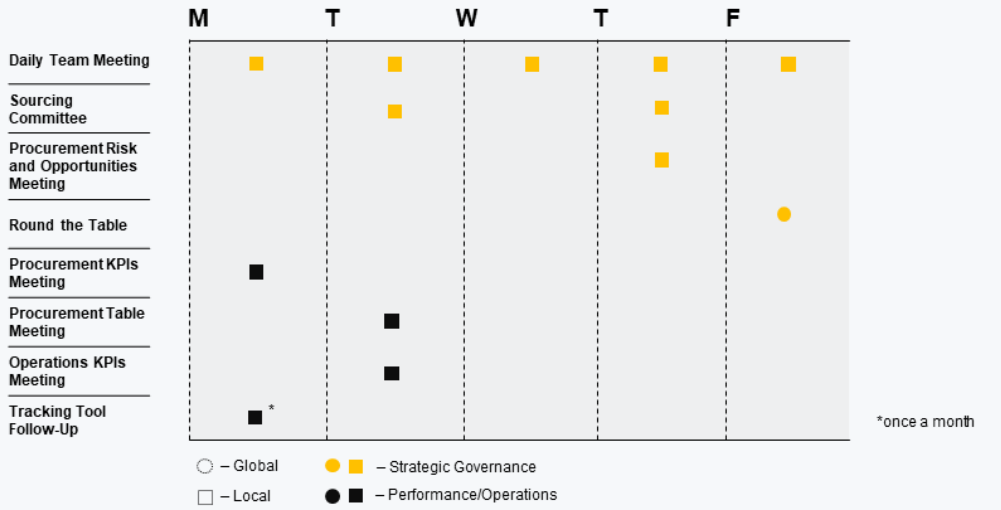
50%	
50%	
30%	
0%	
0%	

Appendix 9 – Governance Plan



Appendix 9 – Governance Plan

5. Governance Design – Weekly Schedule



5. Governance Design – Strategic Governance

The proposed governance model follows a 5-step table along with an auxiliary timeline divided according to frequency and geography

Forum	Scope/ Purpose	Owner	Participants	Frequency	Support Documents
Daily Team Meeting SMCP / IORO Teams	• Team Planning • Tensions	Category Lead	• Category Lead • Category Managers • Delivery Buyers	Daily	• Team Planning Excel
Sourcing Committee	• Mandate to quote • Mandate to source	STCM	• CPO • Category Lead • Category Managers • Relevant stakeholders	Weekly (Tue/Thu)	• Sourcing Committee Templates
Procurement Risk and Opportunities Meeting	• Market risks and opportunities	CPO	• CPO • Procurement Leads • Category Managers • STCM	Weekly (Thu)	• Risk Evaluation Excel
Round the Table	• Projects Status • Team Management	CPO	• CPO • Category Leads • STCM	Weekly (Fri)	• Round the Table Excel file
Purchasing Performance Meeting	• Category Reviews • Savings Report (Quarterly)	STCM	• CPO • Category Leads • Category Managers • Local Procurement Managers	Monthly	• Specific Presentation PPT • Savings Report

Appendix 9 – Governance Plan

5. Governance Design – Strategic Governance

The proposed governance model follows a 5-step table along with an auxiliary timeline divided according to frequency and geography

Forum	Scope/ Purpose	Owner	Participants	Frequency	Support Documents
Monthly Coms	• CPO Communications to Team	CPO	• CPO • Corporate Team	Monthly	n/a
Global Procurement Meeting	• Team Building	STCM	• Procurement team including geos	Yearly (Nov.)	• Specific Presentation PPT
Budget Alignment	• Budgeting	Finance BP	• CGPT • CPO • Local Procurement • BU Managers	Twice a year (Jul. & Sep.)	• Strategic Review Presentations • Ficha 3
Bottom-up Alignment	• tbd	tbd	• tbd	Yearly (Nov.-Jan.)	• tbd
Category Market Intelligence	• Commodities/ Market Analysis	STCM	• CPO • Geography CEOs & CFOs	Yearly (Sep.)	• tbd

5. Governance Design – Performance/Operations

The proposed governance model follows a 5-step table along with an auxiliary timeline divided according to frequency and geography

Forum	Scope/ Purpose	Owner	Participants	Frequency	Support Documents
Procurement KPIs Meeting	• KPIs Presentation	STCM	• CPO • STCM • Local Procurement Team	Weekly (Mon)	• KPIs Presentation
Procurement	• PR Analysis • Urgent PR Analysis • PR Prioritizations	Michael Mendonça (?) Bruno Ventura (?)	• Category Manager • Maintenance Manager • Maintenance Planning Manager • Other Applicants	Weekly (Tue)	• Procurement Table Outão Excel • Procurement Table Mac/Pat Excel • Procurement Table Materiais Excel
Operations KPIs Meeting	• KPIs Presentation	Soraia Cristino (Outão) João Horta (Mac/Pat)	• Plant Manager Area Managers	Weekly (Tue)	• KPIs Presentation
Tracking Tool Follow-up	• Initiatives Follow-up	STCM	• Category Lead • Category Managers	Monthly	• Tracking Tool Excel
Savings	• Savings	Finance BP	• n/a	Quarterly	• tbd