

A Work Project, presented as part of the requirements for the Award of a Master's degree in Impact Entrepreneurship and Innovation from the Nova School of Business and Economics.

Business in Practice:

Navigating Transformation and Personal Growth in a Dynamic Industry

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12-09-2023

Abstract

This master's thesis presents a comprehensive analysis of the transformative journey of *Curro Cars*, a company committed to shifting from conventional combustion engine vehicles to innovative electric vehicles. It highlights *Curro Cars*' strategy development process, emphasizing the pivotal role played by the Innovations and Operations department in navigating the complex automotive industry landscape. Moreover, it underscores the importance of strategic alignment, inter-departmental collaboration, and adaptability. Additionally, the thesis delves into my personal growth by investigating two critical incidents that occurred within the team. These incidents are analyzed to gain valuable insights into my personal development and future learning.

Keywords

Business in Practice, IndustryMasters, Simulation, Strategic Management, Megatrends, Transformation, Automobile Manufacturing, Team Dynamics, Personal Growth, Innovation, Sustainability, Reflection, Operations Strategy

This work used infrastructure and resources funded by Fundação para a Ciência e a Tecnologia (UID/ECO/00124/2013, UID/ECO/00124/2019 and Social Sciences DataLab, Project 22209), POR Lisboa (LISBOA-01-0145-FEDER-007722 and Social Sciences DataLab, Project 22209) and POR Norte (Social Sciences DataLab, Project 22209).

Abbreviations

BiP = Business in Practice

ESG = Environmental, Social, and Governance

Electric Vehicle = EV

GHG = Greenhouse Gas

HR = Human Resource

IMS = Integrated Management System

KPI = Key Performance Indicator

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1. Business Analysis

1.1 Introduction

In the face of Clayton Christensen's (2013) Innovator's Dilemma, established firms are challenged with the complex task of making incremental improvements to maintain their competitive position while fostering a culture of innovation to adapt to rapidly changing markets. Hence, they need to continuously evolve and refine their strategies to integrate imaginative modifications. In today's context, few challenges rival the urgency of climate change, demanding rapid implementation of innovative solutions across sectors, especially in fossil fuel-dependent industries (De Stefano, Montes-Sancho, Busch, 2016). The aftermath of the Kyoto Protocol (1997) underscores the necessity of transforming production and consumption practices, spanning sectors like automobile and transportation.

At the forefront of this transformative journey lies *Curro Cars*, a company committed to orchestrating a shift from conventional combustion engine vehicles to their innovative electronic counterparts. This thesis delves into the narrative of *Curro Cars* and explores the company's strategies, challenges, and contributions to transition toward a more sustainable future. The following sections of this thesis will examine the company's strategy, accompanied by an analysis of two key departments: Innovations and Operations. Drawing upon concepts, models, and frameworks from the Business in Practice (BiP) program's academic sessions, this analysis will form a conceptual argument. Furthermore, insights from simulation data, including relevant outputs like graphs, will underpin performance evaluation. In addition, drawing parallels with real-world automotive companies where applicable will enrich this analysis and support the drawn conclusions.

1.2 Strategy: Creating a Foundation for Change

Begin by envisioning the end, as advised by Kiyosaki in 2000. While originally referring to investment strategies, this principle resonated with *Curro Cars*' ambitious project of transitioning its automotive business from conventional combustion engine cars to innovative electric vehicles (EVs). With a clear *vision* in sight, *Curro Cars* started formulating a viable strategy for realizing this business transformation. However, grasping the essence of strategy was a prerequisite. According to Kevin Johnson (2015), "Strategy is a style of thinking, a conscious and deliberate process, an intensive implementation system," that ensures future success. Incorporating this understanding of strategy, *Curro Cars* pursued a methodical progression involving strategic analysis, creation, alignment, and ultimately, an evaluation of the strategy's effectiveness (Whittington et al., 2020). Subsequently, the team employed the procedural framework outlined in Aspirations, Markets, Methods, Capabilities, Systems (Fig. 1) to guide their approach.

To begin, the team engaged in discussions regarding their aspirations and the optimal approaches to achieve the transformational goal. A team charter (Fig. 2) was created, collecting possible challenges that could be faced by the team in terms of operations and internal processes. Countermeasures for each challenge were documented to ensure readiness. Moreover, fundamental principles were incorporated with the intention of enhancing the potential of realizing the *vision* of shaping a net-zero future by driving electrification through pioneering technologies and setting new standards in eco-friendly transportation. The company's *mission* was to become the leading provider of highly innovative and environmentally friendly vehicles for individual mobility. Additionally, a set of core *values* has been defined. These values prioritize harmonizing goals with financial and social responsibilities for the well-being of both people and the planet. Commitment to fostering

sustainable and inclusive growth, steering the environmental, social, and governance (ESG) agenda, and setting clear team priorities, was adopted (Fig. 3).

The following stage on the above-mentioned procedural framework involved market research, to understand the automotive industry and to identify target customers and competitors. The objective was to convert data into information, and information into insights (Fiorina, 2004). First, customer product ratings and preferences were consulted in the key markets of America, Europe, and Asia (Fig. 4). From this data, a noticeable demand for EVs across various car types, spanning from Compact to Luxury classes, was evident in all three respective markets. To further validate the intention to shift the focus towards EVs the team focused on megatrends like the generational shift and rapid technological advancements (Five Megatrends and Their Implications for Global Defense & Security, 2016), reflecting the evolving desires of younger consumers. The findings underscored that the younger demographic seeks to break away from the constraints that previous generations were imposed with, prioritizing purpose and distinction (Shroyer, 2023). This trend aligns with the new generation's shift away from viewing automobiles as a status symbol (Kleebinder, 2018). Instead, young people prioritize investments that deliver substantial value and impact. Moreover, their leaning toward sustainability and advanced technology, combined with a willingness to invest more for these features (Petro, 2022), prompted *Curro Cars* to offer more than just a product; the company is now promoting a lifestyle.

Second, a thorough analysis of competitors was conducted, examining their portfolios and offerings. Three notable competitors were identified, all catering to the same markets and industry. The most relevant is competitor B, acknowledged as the market leader due to its high revenue numbers and the largest portfolio of six cars (Fig. 5), including the most profitable car in the market (Fig. 6). Furthermore, Competitor B emerged as the most closely comparable contender to *Curro Cars*. Competitor A holds the highest market share in terms of cars sold

(Fig. 7). Lastly, Competitor C was the company with the smallest car portfolio, the lowest overall sales figures, and even a negative value added (Fig. 5). However, it stood out as the only company to successfully introduce EVs to the market. Among these offerings, one of its cars ranked second in sales across all models (Fig. 6). Moreover, competitor C positioned itself as the smallest yet most technologically innovative firm.

Proceeding within the procedural framework, a combination of methods and capabilities was employed with the objective of crafting and formulating a strategy (Rothaermel, 2023) for future positioning and differentiation. This approach aimed to enhance comprehension of the essential skills and resources needed and to identify the necessary processes for successful implementation

Much like CUPRA, *Curro Cars* adopted a strategy centered on challenging the status quo and embracing a “disruptive approach” (Christensen, 2013), “rebellious spirit, and unconventional mindset” (Labate, 2022). By seamlessly merging electrification and sportiness, *Curro Cars* catered to the same appeal that CUPRA highlights (CUPRA, 2023). The aim was to appeal to a particular group of cost-conscious customers, primarily those prioritizing enduring quality and longevity in their vehicles, aligning with the concept of sustainability by owning cars that are built to last, all while producing sporty and technologically advanced vehicles.

Curro Cars faced the fundamental question of whether the company had the capability to execute the devised strategy. To address this question, it was necessary to evaluate the strategic fit, primarily through the examination of the vehicle portfolio and manufacturing capacity, ensuring an alignment between external opportunities and internal capabilities (Rothaermel, 2016). While formulating a coherent strategy is a challenging endeavor for any management team, the true test lies in its implementation across the organization (Hrebiniak, 2006). This became particularly evident upon evaluating *Curro Cars'* standing in Q4. The analysis revealed that the company and its transformation were still in their infancy, implying that before

initiating change, a solid foundation needed to be established. To achieve this, the team sought to comprehend the potential of its vehicle fleet (Fig. 8) – consisting of five cars, with four powered by combustion engines and one being a hybrid model – by categorizing all products within a BCG Matrix (Fig. 9). The matrix indicated that the automotive fleet lagged behind competitors across all car types in terms of market growth potential and relative market share. This process facilitated gaining an overview of the product portfolio's potential and devising a strategy for prioritizing cars and markets for initial investments in factory expansion, innovation, recruitment, and financial planning. Armed with this understanding, an action plan was formulated, aligning with *Curro Cars'* new *vision, mission, and values*. Moreover, in order to assess the effectiveness of these strategic adjustments, a decision was made to utilize strategy evaluation and control methodologies (Whittington et al, 2019), which include the establishment of Key Performance Indicators (KPI) as outlined in the procedural framework. The effects of these initiatives will be subjected to a more comprehensive analysis in the following sections, with a specific focus on the Innovation and Operations departments.

In retrospect, *Curro Cars* was successful in both formulating and implementing a strategy using the procedural framework to define a clear direction (Welch, 2009). The team effectively balanced various factors influencing strategy implementation by prioritizing communication within the team and establishing an efficient system of coordination and control (Li et al., 2005). The team's unfamiliarity with the simulation platform however, hindered precise execution of strategic decisions, particularly due to constraints like no free price setting, preventing the desired affordable brand positioning. Furthermore, the absence of crucial data on the simulation platform resulted in a lack of comprehension regarding the influences on outcomes, thereby hindering critical strategy evaluation and control methodologies.

1.3 Innovation: The Key to Implement Change

The following chapter will explain the critical role played by *Curro Cars*' Innovation department in advancing the organization's *mission* and *vision* (Fig. 3) of shaping a net-zero future through the promotion of electrification and the development of highly innovative, environmentally friendly vehicles for individual mobility.

First, the company's innovative potential and capabilities will be assessed within the context of Q4. This assessment will provide insight on how these insights informed the team's understanding of the car fleet's status quo and guided their decisions and investments. Second, a detailed analysis will be provided concerning the decisions and investments undertaken by the Innovation department. This analysis will offer a deeper understanding of the reasoning behind specific choices, illustrated with concrete examples of decisions made by the Innovation department. It will provide a comprehensive integrated perspective and bridging the previously discussed strategy and the Operations department, a topic that will undergo further analysis in the upcoming chapter. Lastly, the chapter will explore how these decisions and investments have empowered *Curro Cars* to navigate the ongoing transformation and remain relevant in the dynamic landscape of the automotive industry.

Much like comprehending the core of strategy, it was crucial for the team to grasp the significance of innovation. As the aim was to position itself as the leading provider of EVs, the team recognized the ongoing necessity to adapt, and stay ahead in an ever-changing industry (Nadar, no date). In addition, innovation involves both business and societal growth, ensuring a company's survival by identifying new opportunities and implementing these ideas to create value (Fig. 10). *Curro Cars* prompted renewal and innovation within its organization (Sharma, Chrisman, 1999). This concept is also known as Corporate Entrepreneurship (Cerdeira, 2018), representing entrepreneurial initiatives originating from the top-down level (Fig. 11).

As mentioned in the strategy analysis, the company's potential for EV transformation in Q4 was in its early stages, primarily in the research and development phase. Curro Cars had to wait nine months (until Q7) to initiate EV development (Fig. 12). However, *Curro Cars* recognized the opportunity to develop hybrid cars during that waiting period. This realization, combined with the fact that the car portfolio contained only one hybrid model (Fig. 8), led to the decision to develop one hybrid car in both Q5 and Q6, while preparing for the launch and the start of EV development in Q7. Before determining which cars to prioritize for the hybrid and EV models, however, the KPIs needed to be settled on for the department. This step ensured that the decisions made in the Innovation department align with the overall strategy of the company. Besides that, the team addressed the question whether to follow a disruptive or incremental innovation approach (Fig. 13). In essence, this decision came down to whether the team wanted to be a pioneer and lead the market or wait and leverage established technology to provide higher quality and reliable vehicles (Christensen, 2013). The team decided to concentrate on achieving gradual but significant technological improvements to the current car fleet, thus following an incremental innovation approach. In particular, a mix of incremental and architectural innovation was employed.

Further, *Curro Cars* chose to prioritize the promotion of a lifestyle, a sporty image, and advanced technology to attract the target audience of young customers, rather than concentrating solely on sustainability. The objective was to set the firm apart, even if that required some environmental trade-off, as suggested by Porter in 1980. The team achieved this by emphasizing KPIs related to customer demographics and technological advancements, rather than solely concentrating on CO₂ emission reduction. This was well compatible with the decision to focus on established technology and reliability while being affordable. Nevertheless, CO₂ emissions were still an essential indicator to reach the goal of a net-zero future car portfolio.

The company's emphasis on cultivating a sporty and affordable lifestyle is evident in its hybrid car, the "Porto," developed in Q5 (Fig. 14). The team faced a trade-off when deciding to slightly exceed the CO2 emissions limit of 1g per mile to deliver a sportier image and a faster engine, prioritizing customer preferences over environmental considerations. Additionally, they chose to incorporate cutting-edge technological features to offer innovation while opting for an urban design to enhance affordability for their target audience. To underline this focus, *Curro Cars*' decision to introduce the "Pico" (Fig. 15) as an entry-level EV with shorter ranges, but at a more affordable price, demonstrates the firm's commitment to catering to young professionals. These individuals primarily reside in urban areas (Cortright, 2020) and prioritize affordability over long driving ranges. Lastly, *Curro Cars* opted for LFP-Blade battery technology in Q6 (Fig. 16), aligning with their strategy of being innovative while not exclusively focusing on environmental sustainability. Nevertheless, the commitment to sustainability was maintained, as demonstrated by the choice of a costlier yet more environmentally friendly battery variant in Q10 (Fig. 17).

Much like Toyota (n.d.), *Curro Cars* has actively capitalized on opportunities to invest in the future, fostering continuous innovation, the development of new technologies, and staying at the forefront of industry trends. This has been achieved by prioritizing investments in various aspects, including electrification, connectivity, and autonomous driving features. These strategic investments have enabled *Curro Cars* to design and introduce vehicles equipped with state-of-the-art technology features.

All these measures were implemented in close coordination with the Operations department and its production capabilities to ensure that the number of cars in the portfolio aligns with the factory allocation at various locations. Likewise, the Innovation department maintained a continuous and collaborative dialogue with other departments, including Finance and Marketing. This cooperative approach ensured that proposed investments aligned seamlessly

with the company's core objectives. This alignment of functions (What is Business Alignment?, 2022) enhanced teamwork and communication within the management team and its departments. It clarified communication channels and fostered a clear understanding of the company's upcoming strategic moves among the entire team. The element of timing played a crucial role in incorporating business alignment and efficiency into the team's initiatives. Understanding the implementation time for for specific investments served as a guideline to seamlessly align financial capabilities, operational capacities, and to adapt to market developments.

The Innovation department played a pivotal role as the primary driver for implementing the adopted strategy, which revolved around challenging the established norms and revolutionizing the automotive industry by merging electrification and sportiness. This also applies to the realization of the *vision* and *mission*, where the investments undertaken have empowered *Curro Cars* to craft and establish EVs, reshape its automotive lineup, and position itself as the most innovative and environmentally friendly provider of individual mobility solutions.

Through their dedication to innovation, *Curro Cars* found itself in a favorable position, allowing the company to view shifting market conditions as opportunities rather than threats, as famously expressed by Steve Jobs (n.d.). While *Curro Cars* initially faced challenges related to penalties for exceeding the CO₂ allowance per car sold starting from Q4, the company adapted and successfully transformed these CO₂ penalties into bonuses by Q16. This achievement could have been realized earlier if the company's strategy had been more focused on leading the way in sustainability. However, in Q22 *Curro Cars* transitioned the entire car fleet to EVs (Fig. 18), aligning with evolving market demands, as evidenced by the dominance of EVs among the top 25 cars sold (Fig. 19).

1.4 Operations: Managing the Transformation Process

The transformation of *Curro Cars*' entire car portfolio was accomplished through effective resource management and coordination. The upcoming chapter will explore the management team's understanding of the role of Operations and how it determined, built, and used distinctive capabilities, such as unique processes and tools to organize them (Fig. 20). Moreover, it will detail how *Curro Cars* leveraged the Integrated Management System (IMS) (Fig. 21) through the implementation of a modified process structure to facilitate inter-functional cooperation and communication (Fig. 22). Subsequently, an overview of the KPIs which significantly influenced the department's decision-making process, will be presented.

Operations management is involved in planning and, conducting the production process, as well as in redesigning business operations and production of goods or services. It requires organizing and inspecting the organization's processes to balance revenues and costs and ultimately achieve the highest possible operating profit (Heizer et al., 1999). Operations management is a dynamic function that constantly implements changes according to market trends (Educationleaves, 2021). It involves all activities related to the conversion of raw materials into finished products. The goal is to achieve the optimal amount of efficiency (productivity ratio of output to input) and capacity utilization (ratio of theoretical maximum output and actual production output) (Fig. 23).

The management team recognized the need to harmonize its diverse departments. To this end, it developed a process sheet inspired by the IMS, which offers a comprehensive approach to managing and aligning an organization's management systems, processes, and standards within a unified structure (Jørgensen et al., 2005). The team chose this process sheet to enhance efficiency and ensure alignment across all departments. The sheet served as a communication tool, helping to avoid duplication of efforts. Additionally, it helped the team in staying on schedule, serving as an effective time management tool. By effectively coordinating the tasks

assigned to each department, a streamlined flow of information was established that greatly enhanced the team's decision-making process. The fact that the team better understood the consequences of its action allowed for decisions to be made in alignment with *Curro Cars*' core mission and vision.

The process followed a repetitive sequence of steps which was repeated in every business quarter. First, the process consisted of gathering information and data from various sources, including the market, production sites, and the broader industry landscape, such as changing tariffs in specific regions and managerial challenges which needed to be addressed. Second, these insights were considered in the next steps of the process, sequentially including the Operations, Marketing, HR, Innovation, and concluding with the Finance department, with an emphasis on inter-functional cooperation among all departments (Fig. 24).

The collaboration between the Marketing and Operations departments resulted in Operations receiving sales estimates for current and future products, broken down by market and quarter. This valuable information guided decisions about when to expand or downsize specific car models and which locations to prioritize for factory expansion. In return, Operations supplied Marketing with data on inventory levels and production constraints, offering insights into which products to emphasize in various regions for their campaigns and pricing adjustments, ultimately contributing to improved performance on both fronts (Hausman et al., 2002). Furthermore, Operations worked closely with the Human Resource (HR) and Innovation department to ensure sufficient factory staffing for both current and projected production needs, aiming at optimal capacity utilization. Simultaneously, financial discussions and negotiations were conducted with the Finance department to prioritize strategic and efficient investments in the supply chain and production (Fig. 25).

Since the Operations team consisted of two people, communication responsibilities were split between Marketing and HR, with each aspect being overseen by one of the Operations

managers. This measure significantly enhanced the workflow within the initially struggling Operations department, as elaborated upon in the following chapter. The practice of having two dedicated Operations managers, each with specialized knowledge in different organizational functions, enhanced the overall quality of team discussions. This, in turn, led to more constructive proposals and decisions on data-driven insights. To implement a data-driven approach, the Operations department prioritized KPIs, including Factory Utilization, Product Life Cycle, and Cost.

To maximize factory utilization, the Operations managers had to closely cooperate with the HR and Marketing departments. HR was responsible for maintaining an adequately staffed and motivated workforce to ensure a balanced workload, while Marketing played a key role in coordinating Production and Warehouse Capacity to align with Sales numbers and prevent overproduction or supply shortages in response to market demand. Furthermore, the Operations team recognized that minimizing production line shifts to other factory sites was essential to optimize factory utilization and that the minimum stock number of a vehicle was set at 5,000 units, serving as a fundamental benchmark for the Operations department (Fig. 26, 27).

An Excel-based tool was devised to translate the gathered market and production data into a set of quantitative metrics (Fig. 28). Leveraging this data, the team attempted to forecast sales figures for the upcoming business quarters and optimize decision-making.

The Product Life Cycle acted as a timing tool for Curro Cars, ensuring that the portfolio maintained a well-balanced range of cars at various maturity stages, with a preference for those in the Introduction and Growth phases rather than those in the Maturity and Decline phases.

In line with the strategy of providing affordability to young customers, the Operations department aimed to cut costs by concentrating on two key aspects of Operations: volume and variety. Emphasizing high volumes and reducing unit variety in operations and processes offered advantages such as enhanced repeatability, specialization, routine efficiencies, and most

importantly, lowered unit costs through standardization (Fig. 29), enabling competitive pricing in the market. This became particularly evident in the overall vehicle portfolio, which included nine cars in Q28, with two scheduled for discontinuation. This reduction in car variety enabled the maximization of economies of scale by optimizing and aligning vehicle lines at the appropriate facilities (Fig. 30).

Curro Cars recognized the significance of investing in carbon-related greenhouse gas (GHG) improvements to enhance its ESG performance. However, it strategically prioritized technological advancements in line with the core *mission* and *vision* of becoming the market leader in EVs, much like Tesla's vision to "create the most compelling car company of the 21st century by driving the world's transition to EVs" (Fig. 31).

Overall, the Operations department successfully integrated processes consistent with the company's strategy by implementing elements of IMS. Through the effective use of tools that facilitated data-driven decisions across all functions, management was empowered to make well-informed decisions that were in sync with market developments. However, the employed tools were rudimentary and constrained by the limitations of the simulation platform, which only led to a partial understanding of optimal decision-making. Consequently, *Curro Cars* occasionally ended up choosing suboptimal alternatives, despite the overall successful implementation of processes aligned with the company's strategy through IMS.

1.5 Conclusion

Curro Cars embarked on a transformative journey balancing between the preservation of continuity and change. The urgency of addressing climate changes, demanded *Curro Cars* to continuously evolve and refine its strategy to foster a culture of innovation and adaption in a rapidly changing market. *Curro Cars*' strategy was based on the *vision* of shaping a net-zero future by driving electrification through breakthrough technologies, with the *mission* of

becoming the leader in EVs. A procedural framework was employed, facilitating the methodical progression of strategic analysis, creation, alignment, and evaluation, and paving the way for the transition from conventional combustion engine vehicles to innovative electric counterparts. Market research highlighted the demand for EVs and shifting generational preferences, emphasizing purpose and sustainability over mere status symbols. Competitive analysis revealed both challenges and opportunities, with competitors serving as benchmarks for *Curro Cars*' own journey. The company adopted an incremental innovation approach, striving for gradual yet significant technological improvements while maintaining affordability. This approach, combined with the emphasis on a sporty lifestyle and advanced technology, enabled *Curro Cars* to cater to the evolving desires of its target audience.

The Innovation department played a pivotal role, driving the implementation of *Curro Cars*' strategy. Through adaptability and innovation, the company turned challenges into opportunities, successfully transforming CO2 penalties into bonuses. The transition to an all-EV fleet reflected the dynamic response to market demands, establishing *Curro Cars* as an industry leader. Likewise, the Operations department played a critical role in this transformation, effectively managing resources and coordinating inter-functional cooperation. The implementation of an IMS streamlined communication and decision-making, aligning actions with the company's core *mission* and *vision*. Efficiency and data-driven insights enabled *Curro Cars* to address market trends and optimize its production processes.

In conclusion, fostering a culture of innovation allowed *Curro Cars*' to adapt to rapidly changing markets, and to realize its *vision* and *mission*. *Curro Cars*' journey towards sustainability, innovation, and market leadership underscores the importance of strategic alignment, inter-departmental collaboration, and adaptability in navigating the complex landscape of the automotive industry.

2. Personal Reflection and Critical Incidents

BiP places a strong emphasis on both personal development and team dynamics. In the following discussion, I will focus on our team (Team 1 - *Curro Cars*) and explore its composition and dynamics. Additionally, two significant incidents that occurred within the three-week period will be investigated. These incidents have presented valuable opportunities for personal growth, and they will be thoroughly described and analyzed to gain insights into my personal experience. Furthermore, actions to improve my learning process in the future will be identified.

2.1 Team Composition

Team *Curro Cars* comprised seven members who were distributed across five departments. The HR, Innovation, and Marketing roles on the board were represented by a single individual each, whereas Finance and Operations had two assigned members. I was designated to the Operations department and thus had to share my role with another team member. Notably, our team consisted of four members from Germany, including myself, while the remaining positions were filled by one member each from Italy, Spain, and Israel. The lack of geographical diversity within our team was evident when compared to other groups. Additionally, the familiarity and long-time friendship between the other German members (hereinafter referred to as "the group of three"), who had previously studied and lived together, also contributed to the situation described in the following. Consequently, these circumstances became the primary factors behind the occurrence of the two critical incidents that took place during the simulation. The program presented us with an opportunity to undergo a personality test, aiming to gain a better understanding of our team's composition and dynamics. Each team member was categorized using the color-coded personality model (Insights Discovery 2023), which serves as a tool to enhance self-awareness and improve communication within teams.

In our team, three individuals had "Cool Blue" personalities, known for analytical thinking and valuing data and logic. Three members embodied "Sunshine Yellow" personalities, characterized by creativity and openness to new ideas. Lastly, we had one "Fiery Red" personality, driven by action and urgency. Notably, we lacked an "Earth Green" personality, which embodies harmony and empathy.

At the beginning of the BiP program, our team's dynamics were influenced by the imbalance in the existing relationships among team members, creating a perceived incompatibility (Toegel, Barsoux, 2016). Further, the team consisted of strong characters, each wanting to be heard and assert their voice in the decision-making and agreement processes. These factors contributed to the initial challenges in establishing a cohesive dynamic within the team, which subsequently led to the occurrence of the following incidents.

2.2 Incident 1: A Sense of Exclusion

One month prior to the official start of the program, I took proactive measures by initiating contact with all team members via email. My goal was to introduce myself, facilitate connections, and create a WhatsApp group. My intent was to establish effective communication within the team, offer support for any queries that may arise, and schedule an initial meeting to foster familiarity with each other and the simulation system.

Description: A week before the start of the program, we held an online meeting to get acquainted with and practice the simulation. During the meeting, I noticed that „the group of three” seemed quite familiar with each other and conversed in German despite the presence of other team members. This pattern persisted throughout the session, but the issue remained unaddressed.

After the start of the program, we gathered for a simulation practice session on the 2nd day at a Café in Lisbon. It became evident that all team members were facing difficulties in grasping

the simulation, resulting in unorganized work processes that negatively impacted time management and the work atmosphere. In response to this challenge, I suggested implementing specific processes, such as creating a data sheet in Excel to track and visualize all relevant numbers given by the simulation. However, the team's response to my suggestions was notably low, and I felt unheard by my fellow team members, particularly „the group of three“. Nonetheless, I collaborated with the Marketing director and proceeded to develop the data sheet, working on crafting a reusable template for future tasks.

Throughout the session it became apparent that the German team members tended to communicate predominantly with each other, sometimes even in German. Their more outspoken and proactive nature further accentuated this communication imbalance, leading to discussions where only parts of the team were actively involved, with the majority being the German members, including myself. This dynamic made it difficult for other members to present counter-arguments as they found themselves outnumbered by „the group of three“.

As the Operations manager, I had to share my role with one of the German members and work closely with the HR department manager.

However, they often engaged in discussions among themselves, excluding me and making decisions without my input, especially concerning the assignment of cars and their production locations — a core responsibility of the Operations manager. Consequently, my Operations partner independently assigned and changed production locations without consulting me.

Response: Upon realizing that the production assignment had been changed without my consent, I decided to address the issue directly with my Operations partner. I asked her who made the changes, and she admitted that she had done so, believing that it had been discussed and agreed upon. I clarified that I was not involved in that decision and was unaware of the situation and that I disliked it. The conversation ended abruptly as I shifted my attention to another team member and started a different conversation. After that incident, I encountered

difficulty in both professional and personal interactions with my Operations partner and the HR department manager. The feelings of exclusion, not being fully appreciated, and the absence of a sense of security (West, 2012) affected me, influencing both my behavior and my self-assurance.

Analysis: Upon reflection, I acknowledge that I reacted emotionally and felt frustrated about the unfolding situation during the simulation. It was evident that each team member experienced a certain level of frustration, and I, too, felt overwhelmed by the extensive amount of information we had to process.

Several factors contributed to my discomfort. Firstly, the simulation platform and the data provided were vast, leaving me uncertain about how to proceed and which steps to take next. Secondly, it was the first time I worked with this particular team in person, and I faced the challenge of striking a balance between maintaining a professional demeanor and establishing a common social ground with six strangers. Lastly, dealing with a group of friends who strongly supported each other regardless of the circumstances reduced my sense of comfort, as I felt unfairly treated and unheard in the decision-making process. As a result, I found myself unable to share my feelings, fearing that displaying vulnerability would result in me being perceived negatively, due to the absence of trust (Lencioni, 2002).

It is worth mentioning that "the group of three" comprised intelligent, well-educated, and skilled individuals who appeared to be knowledgeable and exude a high level of confidence, particularly when working together as a group. This, in turn, had an impact on my own confidence. I began to doubt myself and my intelligence, feeling inadequate compared to the other members, especially since I struggled with grasping the system. Furthermore, my self-assurance was further undermined by the fact that the ideas I put forward were disregarded, giving the impression that the opinions of the other team members were less valued by "the

group of three." This created a sense of exclusion and made me question the worth of my contributions within the team.

As a consequence, I experienced an emotional reaction, prompting me to enter a defensive mode where I expressed my frustration and defended myself verbally. In order to prevent further conflict and maintain harmony within the team, I chose to abruptly end the conversation and to redirect my attention to another team member. This decision was driven by the fear that engaging in a discussion with both the other Operations and the HR manager could potentially escalate (Lencioni, 2002), leading to the need to defend myself against two parties once again.

Reflection: I seized the opportunity to integrate myself into the group by proactively taking initiative. I started the communication by sending out the first internal emails and creating a WhatsApp group. My motivation stemmed from an inner commitment to contribute as a team player, fostering an environment defined by confidence and engagement (West, 2012). However, upon reflection, I realized that my past experiences during my master studies at Nova SBE made me slightly concerned about the possibility of encountering a dysfunctional group dynamic. Additionally, I held some biases regarding groups with a high number of German management students, based on my prior experiences, where I found working with some of my fellow students from Germany challenging on a personal level.

As discussed in the leadership workshop, I developed an explanation for my colleagues' behavior before talking to them for the first time (Fig. 32). Despite my efforts to be a team player, my endeavor was already compromised due to the impact of my concerns and hidden biases towards specific team members, which stopped me from collaborating effectively with them (Mahzarin et al., 2003). These factors laid the groundwork for a tendency to react emotionally rather than objectively when confronted with situations that fell short of my expectations. This resulted in the development of a confirmation bias disposition (Nickerson, 1998), which caused me to react to situations in a way that aligns with my existing beliefs,

particularly directed towards my German team members. Moreover, it seemed that my attempts to integrate myself into the group were unsuccessful, intensifying the impact on my self-esteem and plunging me into a negative spiral of thoughts where I began to question the team's composition and dynamic.

Moving forward, I aim to prevent past experiences from influencing my interactions with new team members. I commit to providing everyone a fair chance, regardless of their background. Additionally, I will work on understanding my colleagues and seeing things from their perspective, especially when facing stressful situations that require effective problem-solving. My Operations partner may have overlooked my input while making decisions, yet she was also navigating a novel environment and leaning on the support of the HR manager. If I decide to give specific feedback, improving how I communicate will be a priority. Strengthening my ability to respond objectively will naturally make my communication clearer, helping my counterpart to better understand my points.

2.3 Incident 2: Unexpected Support and Change of Perspective

The following incident consists of two critical instances (A and B) that unfolded during the teamwork process. These moments were interconnected and had a significant impact on the team dynamic. As a result, it also includes two responses from my side, closely linked to one another, which greatly shifted my perspective of our team. These responses enabled me to gain deeper insights into my teammates' behavior and reshaped the way I perceived our collective efforts.

Description A: At the beginning of the third week, just prior to the Team Dynamic Clinics, a disagreement took place between the Innovation manager and me. This incident unfolded amidst a highly positive team atmosphere. In terms of performance, we stood out as one of the top teams in the simulation with smoothly running processes. Our communication had notably

improved since the program's start, allowing us to identify and either resolve or enhance issues that were negatively impacting us. This achievement was a direct result of our dedication to investing additional time in refining the team charter (Fig. 33) and internal group guidelines. One of our primary guidelines revolved around granting every manager the opportunity to contribute, particularly when delving into our work processes and making decisions that related to specific departments. This guideline emerged from the realization that our team had been deficient in this aspect, leading to less efficient communication. During our participation in the simulation for the fourth year, we were engaged in a discussion about the decisions made by the Marketing department, during which the Marketing manager was sharing his insights. However, during the Marketing manager's presentation, he got consistently interrupted or spoken over by the Innovation manager.

Response A: As this pattern continued to repeat, I intervened and requested that we allow the Marketing manager to speak without interruption and that we could provide input afterwards. This action triggered an emotional reaction from the Innovation manager, stating that she was not the only one interrupting others and accusing me of unfairly targeting her. I replied that it was not a personal matter, but rather a rule we commonly agreed upon. The other Operations manager backed me up by highlighting that we had previously addressed this concern and that it aligns with our guidelines to allow the responsible manager to present their insights prior to sharing our own opinions. This prompted the Innovation manager to decline further communication with us for the rest of the session, which had a detrimental impact on the overall atmosphere.

Description B: The day following the incident, the other Operations manager raised the matter during the Team Dynamic Clinics. She conveyed a sense of regret regarding the situation and expressed her desire that she had held back from intervening, as she felt responsible for the negative shift in the work atmosphere.

Response B: At this point, I stepped in and expressed my appreciation for her support during that moment. I pointed out that it marked the first time the discussion was not confined to "the group of three" against us other team members, and that a genuine disagreement had arisen between members within that circle, with one of them aligning themselves with an external member.

Analysis: I found myself becoming frustrated due to the Innovation manager's disregard for our group guidelines, resulting in the Marketing manager being interrupted during the simulation. Reflecting on the situation, my frustration stemmed not solely from the rule being violated, but rather from the sense that the input provided by the Marketing manager was not properly appreciated and respected by the Innovation manager. Additionally, the Marketing manager was someone who tended to avoid conflict and rarely voiced his opinions, which compelled me to step in and offer support when he was unable to do so.

Initially, I hesitated to address the issue because I had no intention of casting the Innovation manager in a negative light in front of our fellow team members. My goal was to avoid any adverse impact on the work atmosphere. Additionally, I felt a certain level of anxiety about the possibility that other German team members might have sided with her, which could have escalated the situation into a larger discussion and potentially divided the group. This, in turn, could have worsened the negative effects on our team dynamic, particularly during a crucial period where we were required to make significant decisions under time pressure. Therefore, I aimed to respond in an objective and rational manner to her emotional reaction.

In the end, I was even more astonished when the other Operations manager stepped in and confirmed my position. Her support was unexpected, and I valued it greatly; it relieved me from the pressure of being the individual pointing out a fellow team member's mistakes.

The following day, I expressed my gratitude during the Team Dynamic Clinics when the other Operations manager admitted feeling uneasy about what had occurred. It was important for me

to communicate my feelings to her, to make her realize the significance of her supportive gesture. This also allowed me to open up about my emotions regarding the tendency of “the group of three” to unite against us during discussions. I disclosed that this circumstance led me to adopt a more defensive and cautious stance than I typically would, solely to evade discussions involving all three of them.

Reflection: After the Clinic, we gathered, and the German team members admitted they were unaware of the impact of their behavior. They found the insight valuable, and mentioned that it was the first time such a concern had been raised. They attributed their strong mutual trust to their shared personal and professional history, leading to frequent agreement and respect for each other’s expertise. They admitted not considering how their interactions could impact the rest of the team and committed to being more mindful in the future. Furthermore, the Innovation manager explained that her reaction on the prior day stemmed from her feeling unfairly singled out by the two Operations managers. She perceived herself as the only one getting our attention in that context.

These interconnected incidents within our team had a profound impact on how I perceived my team, ultimately facilitating a deeper sense of empathy towards all my teammates, particularly “the group of three”. Reflecting about the described situations enabled me to comprehend and certain moments from different perspectives, highlighting how different people perceive the same situations (Fig. 34) and how emotional responses can significantly differ among individuals. Moreover, it reaffirmed the significance of communication, emphasizing that it is not solely about the content spoken, but also about the way it is conveyed. Most importantly, it underscored the potential for enhancing human interaction by prioritizing active listening and understanding (Fig. 35) over merely expressing personal thoughts to fellow team members.

Conclusion: As discussed in the leadership workshop, the simulation provided me with the opportunity to grasp and experience the significance of emotional intelligence. It highlighted

how it affects my ability to recognize and understand emotions in myself and others, and how I can use this awareness to manage my behavior and relationships (Bradberry, Greaves, 2009). Collaborating with a team of complete strangers while constantly receiving guidance on human interactions and teamwork offered me substantial insights into team dynamics and their functioning. I gained a comprehensive understanding of how a team's composition can profoundly influence overall performance (Jackson, Ruderman, 1995), as well as how it affects my individual emotions and consequently my confidence and behavior within the team and among specific team members. I have gained a deeper self-awareness through this experience, becoming more adept at recognizing my strengths and their positive impact on the team. Equally significant, I have come to understand how my weaknesses, biases, and negative habits can affect myself and other team members, and subsequently lead to suboptimal performance and human interactions. Through this project, I have recognized that I need to focus on improving my attentiveness and trust (Bennis, 1987) in my colleagues. To this end, I will dedicate efforts towards enhancing my conflict-prevention skills by initiating preemptive conversations and addressing perceived incompatibilities immediately (Toegel, Barsoux, 2016).

In terms of the Peer and Self-assessment, my capacity for self-reflection regarding my performance closely aligns with the perception of my team members (Fig. 36). However, I acknowledge that there is still room for further development. Given my "Sunshine Yellow" personality, I recognize the necessity of controlling my impulsiveness. I tend to act on emotions without fully weighing the potential consequences. Additionally, I acknowledge the importance of refining my knowledge and expertise. Frequently, my strong soft skills conceal areas where my hard skills can be improved. This is also evident in the peer evaluation, where segment Q5 (having relevant Knowledge, Skills, and Abilities) falls below a value of 4.5.

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Appendix

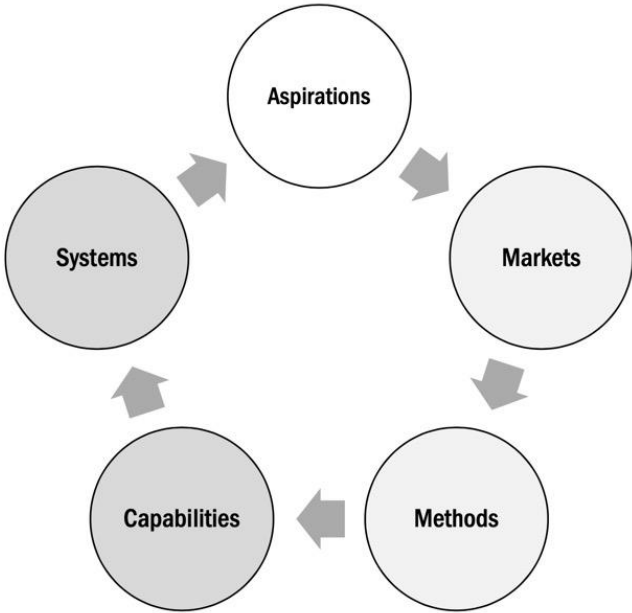


Figure 1: Procedural Framework (Slide 8), retrieved from BiP Strategy Academic Session (2023)

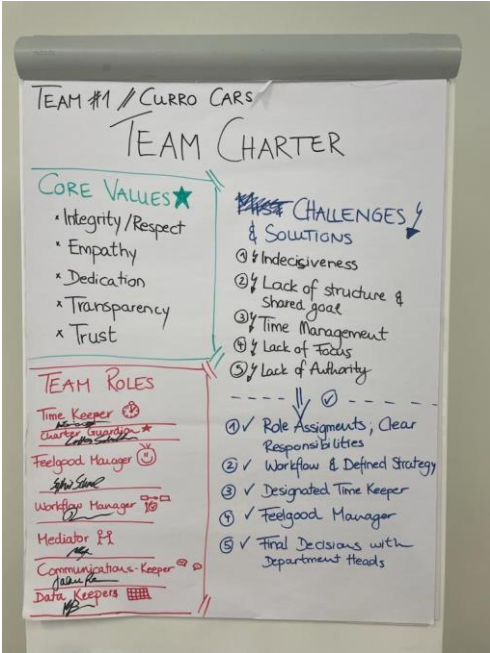
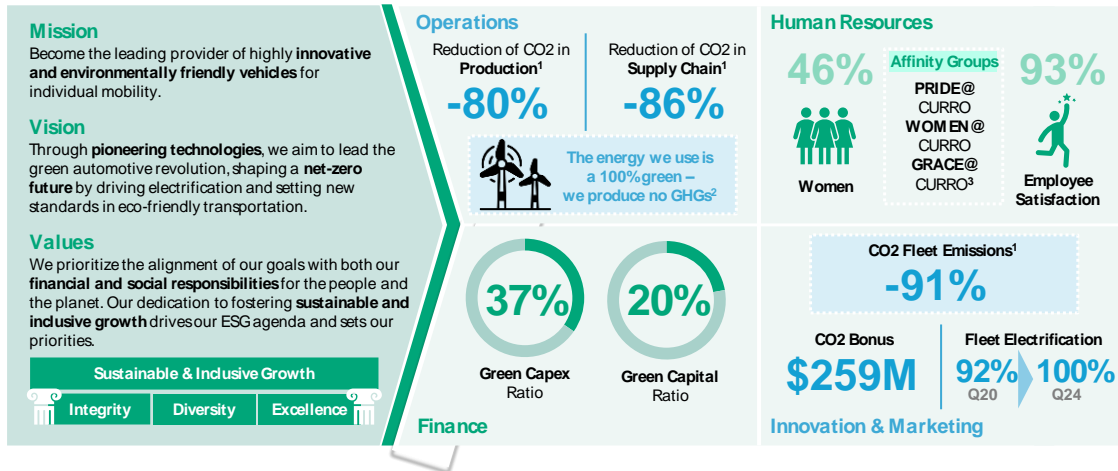


Figure 2: Curro Cars Team Charter



At Curro Cars, we strive for sustainable and inclusive growth and follow this principle across all business functions.



2

¹ From Q1 to Q20; ² Green House Gas Emissions; ³ Global Race and Cultural Ethnicity Network

Figure 3: Curro Cars Mission, Vision, and Values

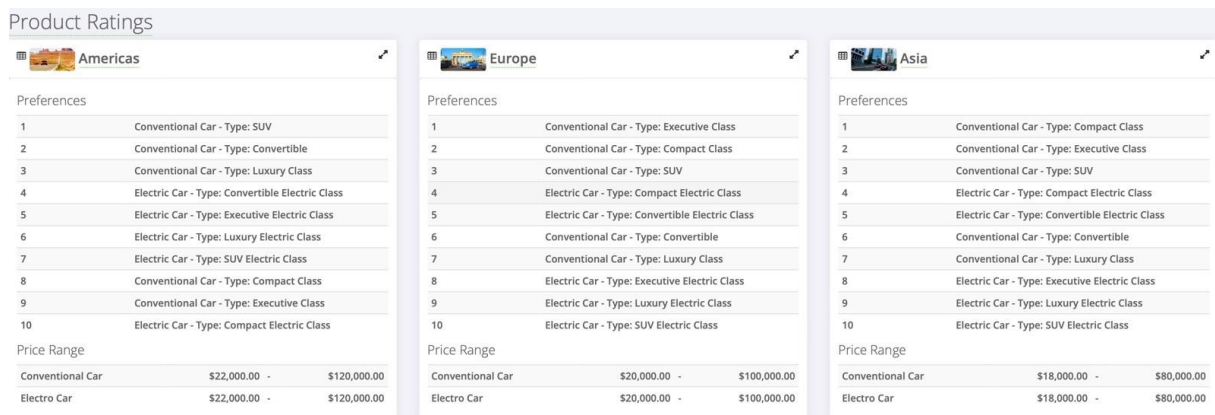


Figure 4: Product Ratings, BiP Simulation, retrieved from IndustryMasters (2023)

Rank	Corporation	Marketing Mix	Credit Rating	Debt Ratio	Revenue	EBIT Margin	Share Capital	CO2	Value Added
1	Competitor B (6*)	C T P T	BBB	52%	\$4,978M	23.1%	\$10,000M	116.58g/mile	1,523.50
2	Competitor A (5*)	C T P T	A+	38%	\$4,397M	22.9%	\$10,000M	104.22g/mile	1,401.80
3	Voltwagen (5*)	C T P T	A-	47%	\$4,152M	21.3%	\$10,000M	130.66g/mile	1,369.00
4	Competitor C (3*)	C T P T	AAA	18%	\$1,873M	8.0%	\$10,000M	0.00g/mile	-220.40

* Number of Products

Figure 5: Competitor Analysis. BiP Simulation, retrieved from IndustryMasters (2023)

Total Sales by Product							Segment Selection
Rank	Product	Manufacturer	Type	Sales	Price	Revenue	Segment Market Share
1	B 4 100G	Competitor B	Luxury Class	18,860	\$88,555.66	\$1,556M ▲	10.1%
2	C 1 140E	Competitor C	Luxury Electric Class	17,779	\$86,665.50	\$1,387M ▲	9.0%
3	A 2 100H	Competitor A	Executive Class	30,000	\$46,887.34	\$1,286M	8.3%
4	A 4 135H	Competitor A	Luxury Class	14,034	\$101,027.47	\$1,276M ▼	8.3%
5	Lux 225H	Volkswagen	Luxury Class	13,019	\$102,837.20	\$1,205M ▼	7.8%
6	B 1 100H	Competitor B	Executive Class	29,992	\$42,833.92	\$1,165M	7.6%
7	A 3 100D	Competitor A	SUV	18,362	\$60,212.12	\$983M	6.4%
8	A 1 75H	Competitor A	Compact Class	29,999	\$31,718.93	\$852M	5.5%
9	B 2 100D	Competitor B	SUV	13,554	\$63,834.32	\$771M ▲	5.0%
10	City 75G	Volkswagen	Compact Class	30,000	\$28,610.33	\$764M	5.0%
11	B 5 100G	Competitor B	Compact Class	29,999	\$28,486.00	\$760M	4.9%
12	4x4 100D	Volkswagen	SUV	13,058	\$62,810.40	\$752M ▲	4.9%
13	B 3 135D	Competitor B	Convertible	14,689	\$55,784.14	\$727M	4.7%
14	Air 135G	Volkswagen	Convertible	15,000	\$54,491.47	\$725M	4.7%
15	Biz 135D	Volkswagen	Executive Class	19,201	\$40,699.00	\$707M ▲	4.6%
16	C 2 100E	Competitor C	Compact Electric Class	14,999	\$36,878.07	\$487M	3.2%

Figure 6: Market Analysis, Total Sales by Product in Q4. BiP Simulation, retrieved from IndustryMasters (2023)



Figure 7: Market Shares. BiP Simulation, retrieved from IndustryMasters (2023)

Product	Age	Emissions	DDI	Revenue	Sales Price	Market Share	Contribution Margin
Lux 225H	5 Quarters	150 g/mile	66 days ▲	\$1,205M ▼	\$92,589	8.9%	40.7%
Biz 135D	5 Quarters	126 g/mile	134 days	\$707M ▲	\$36,810	5.2%	24.5% ▼
City 75G	8 Quarters	114 g/mile	30 days	\$764M	\$25,456	5.6%	42.0%
4x4 100D	8 Quarters	144 g/mile	93 days ▲	\$752M ▲	\$57,552	5.6%	37.6% ▼
Air 135G	9 Quarters	142 g/mile	30 days	\$725M	\$48,307	5.4%	39.9%

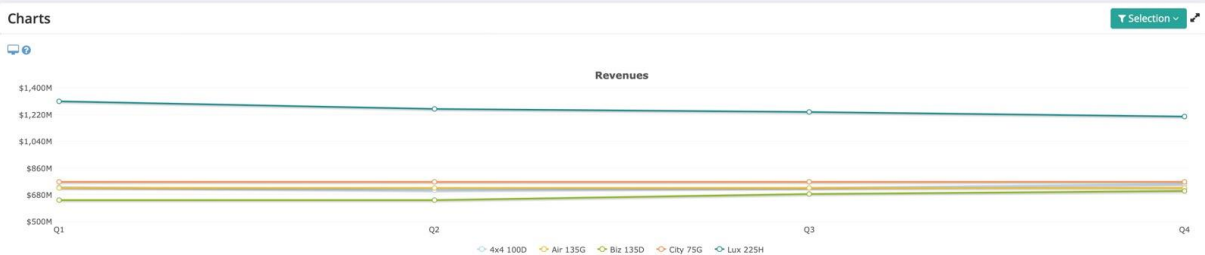


Figure 8: Curro Cars Car Portfolio in Q4. BiP Simulation, retrieved from IndustryMasters (2023)

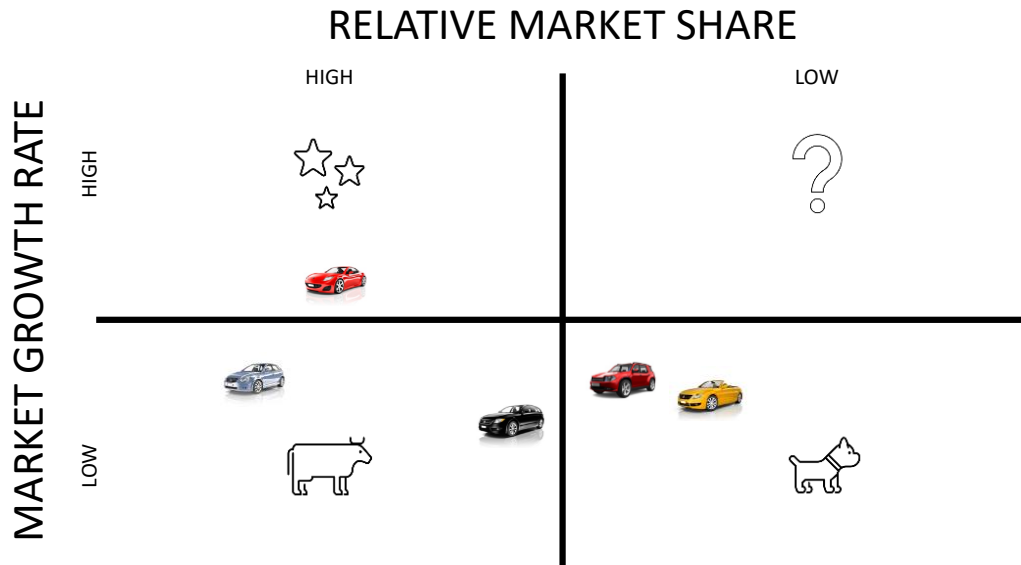


Figure 9: Curro Cars Car Portfolio BCG Matrix

So, What is innovation?

- Innovation is about growth (business, social) – about recognizing opportunities for doing something new and implementing those ideas to create some kind of value
- Innovation is also a survival imperative
- And it contributes to competitive success in many different ways – strategic resource

Figure 10: What is Innovation? (Slide 7), retrieved from BiP Innovation Academic Session (2023)



- Intrapreneurship as an approach to **achieve innovations** and business sustainability
- intrapreneurship as a principle guiding **businesses to adapt to environmental changes** and enhance their performance.

Though scholars often adopt the terms CE and intrapreneurship interchangeably several studies suggest that:

- **CE** represents entrepreneurial activities which **are initiated top-down** within the firm,
- whereas **intrapreneurship** implies entrepreneurial activities pursued **bottom-up** by the firm's employees

(Narayanan et al., 2009), Stam (2013)

Figure 11: Corporate Entrepreneurship (Slide 12), retrieved from BiP Innovation Academic Session (2023)

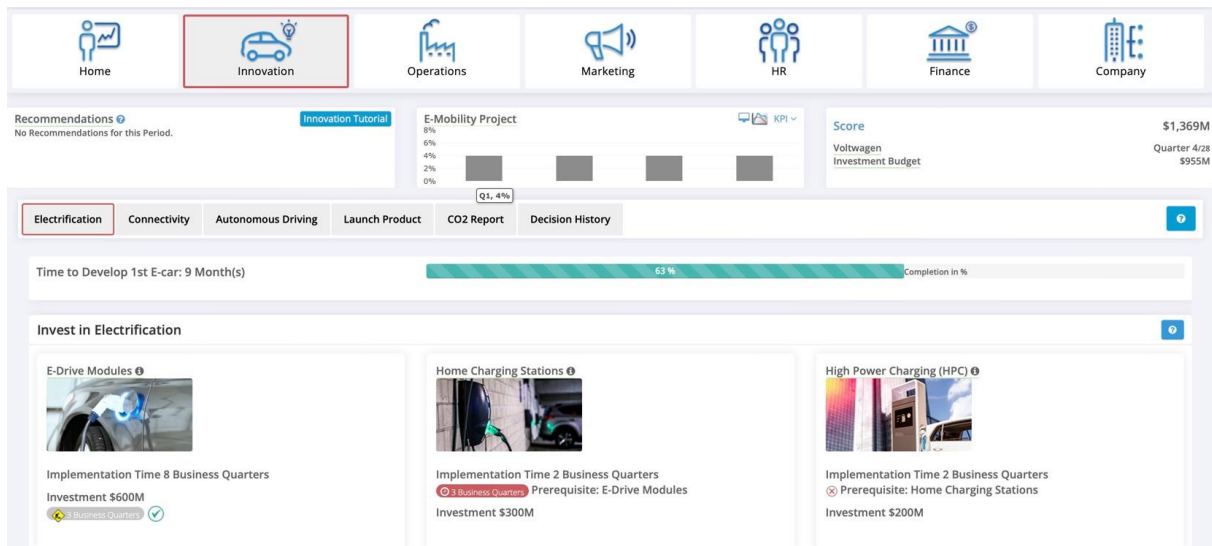


Figure 12: Curro Cars Innovation department in Q4. BiP Simulation, retrieved from IndustryMasters (2023)

Disruptive vs Incremental Innovation



Figure 13: Disruptive vs Incremental Innovation (Slide 20), retrieved from BiP Innovation Academic Session (2023)



Figure 14: Curro Cars Model "Porto". BiP Simulation, retrieved from IndustryMasters (2023)

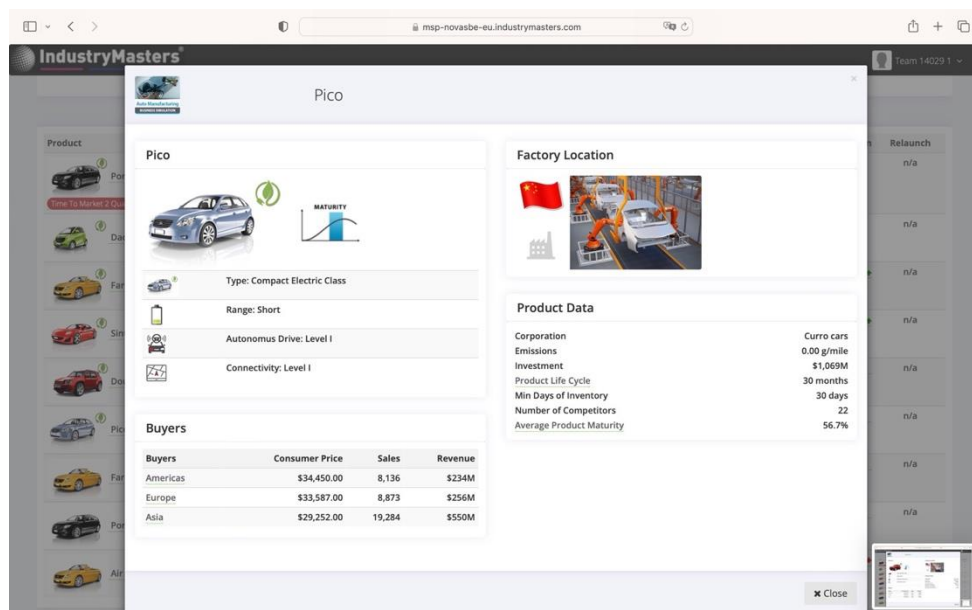



Figure 15: Curro Cars Model "Pico". BiP Simulation, retrieved from IndustryMasters (2023)

Management Issue



Battery technologies are crucial for economic success and the achievement of sustainability in electromobility. Decide about the future battery technology of your fleet.

LFP: Existing Chemistry, Limited Energy Density at a cell level, Inherent Safety means competitive performance at a pack level. This equates to limited range (about 250 miles range), but does allow for fast charging rates (30min. for 80%). Less technology innovation needed. Using more abundant raw materials (carbon, A Lithium iron phosphate (LFP) battery is a type of lithium-ion battery that is capable of charging and discharging at high speeds compared to other types of batteries).

Solid State: Requires innovation on chemistry and pack level. Whereas solid-state batteries use a solid electrolyte and provide a smaller size with higher energy density, longer lifespan, and increased safety.

Be aware of the economical, ecological and ethical impacts.

LFP-Blade Technology B

View

Solid State Technology B

View


You have made 5 out of 1 allowed choices

You cannot proceed to the next period without making a decision.

Figure 16: Management Issue in Q6 Battery Technology. BiP Simulation, retrieved from IndustryMasters (2023)

Management Issue

New Battery Technology FO



You have to decide which of the available battery variants you will use for your cars. The cheaper variant enables considerable cost savings, but is not certified to the EU & UN specifications (Ethical Sourcing & Recycling) yet. This could possibly lead to problems later and thus also to dissatisfaction among your customers.

Your Response

LFP-Blade Expensive
 Select a more expensive supplier with great sustainability credentials.

Alternative Responses

LFP-Blade Cheap
 Select a cheaper but less sustainable supplier.


Solid State Expensive
 Select a more expensive supplier with great sustainability credentials.

Figure 17: Management Issue in Q10 Battery Technology. BiP Simulation, retrieved from IndustryMasters (2023)

IndustryMasters

Porto-E Plus

Porto-E Plus



Type: Executive Electric Class

Range: Long


Autonomous Drive: Level III

Connectivity: Level IV

Buyers

Buyers	Consumer Price	Sales	Revenue
Americas	\$49,854.71	5,500	\$245M
Europe	\$45,443.58	7,531	\$336M
Asia	\$52,775.81	5,975	\$264M

Factory Location



Product Data

Corporation	Curro cars	
Emissions	0.00 g/mile	n/a
Investment	\$745M	
Product Life Cycle	30 months	
Min Days of Inventory	30 days	
Number of Competitors	25	n/a
Average Product Maturity	103.3%	

Relaunch: n/a

Close

Figure 18: Curro Cars Car full EV portfolio in Q22. BiP Simulation, retrieved from IndustryMasters (2023)

Total Sales by Product							Segment Selection
Rank	Product	Manufacturer	Type	Sales	Price	Revenue	Segment Market Share
1	Sintra-E Plus	Curro cars	Luxury Electric Class	16,084	\$85,473.60	\$1,262M	6.2%
2	Douro-E Plus	Curro cars	SUV Electric Class	17,840	\$71,538.26	\$1,169M	5.7%
3	Porto-E Plus	Curro cars	Executive Electric Class	24,215	\$49,644.36	\$1,081M	5.3%
4	Sintra-E	Curro cars	Luxury Electric Class	14,640	\$78,785.70	\$1,057M	5.2%
5	Lux-E	Competitor B	Luxury Electric Class	12,881	\$79,873.91	\$937M	4.6%
6	Lux-E	Competitor A	Luxury Electric Class	13,024	\$76,462.17	\$913M	4.5%
7	Pico-E Plus	Curro cars	Compact Electric Class	30,021	\$34,078.21	\$910M	4.4%
8	Blz-E	Competitor A	Executive Electric Class	25,360	\$39,922.88	\$904M	4.4%
9	Faro-E	Curro cars	Convertible Electric Class	17,985	\$55,091.96	\$894M	4.4%
10	Douro-E	Curro cars	SUV Electric Class	15,519	\$63,047.95	\$894M	4.4%
11	C 1 140E	Competitor C	Luxury Electric Class	12,898	\$75,406.08	\$891M	4.4%
12	Air-E	Competitor B	Convertible Electric Class	20,003	\$46,329.71	\$839M	4.1%
13	Micro-E	Competitor B	Micro Electric	36,063	\$26,519.16	\$837M	4.1%
14	Air-E	Competitor A	Convertible Electric Class	17,879	\$51,056.57	\$830M	4.1%
15	4x4-E	Competitor A	SUV Electric Class	14,186	\$63,455.96	\$823M	4.0%
16	B 6 100E	Competitor B	Compact Electric Class	30,908	\$29,763.01	\$810M	4.0%
17	C 2 100E	Competitor C	Compact Electric Class	25,488	\$34,759.33	\$794M	3.9%
18	4x4-E	Competitor B	SUV Electric Class	12,696	\$65,410.00	\$752M	3.7%
19	C 3 140E	Competitor C	SUV Electric Class	11,022	\$71,542.22	\$723M	3.5%
20	Dao-E	Curro cars	Micro Electric	30,000	\$27,046.14	\$716M	3.5%

Figure 19: Market Analysis, Total Sales by Product in Q28. BiP Simulation, retrieved from IndustryMasters (2023)

Operations role:

Automotive companies must determine and build the distinctive capabilities (unique processes, tools, knowledge, skills, and organization) that will allow them to deliver a unique value proposition, better than anyone else and create a clear right to win.

Figure 20: Operations Role (Slide 6), retrieved from BiP Operations Academic Session (2023)

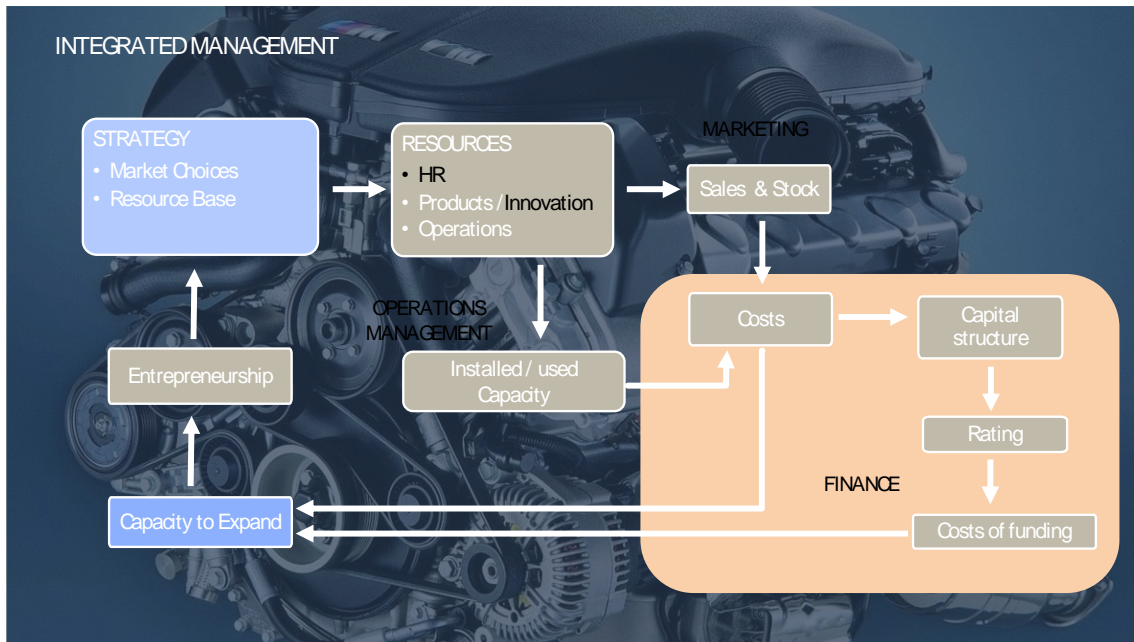


Figure 21: Integrated Management System Sslide 8), retrieved from BiP Operations Academic Session (2023)

Inter-functional cooperation and communication are essential antecedents of business success (Hausman et al., 2002)

Integrating all business areas is a complex task since the company needs to take into account different – often conflicting – perspectives and must be consistent with the company's strategy and technology roadmap.

Figure 22: Inter-functional Cooperation (Slide 9), retrieved from BiP Operations Academic Session (2023)

3) Efficiency and utilization

Efficiency is a measure of productivity: it relates an output with the inputs that were used to generate that output.

Capacity utilization is a measure of how well an organization uses its productive capacity. It's the relationship between potential or theoretical maximum output and the actual production output.

- Capacity decisions influenced by:
 - Current utilization of the manufacturing facilities
 - Existing stocks
 - Sales and demand forecasts
 - Competition
 - Industry trends
 - Upstream delivery capacity
 - Finance
 - Contribution margin of each vehicle

Figure 23: Efficiency and Utilization (Slide 14), retrieved from BiP Operations Academic Session (2023)

Row	Category	Task	Status	Notes
1		All		Space for Notes
2				TARIFFS INCREASED IN CHINA For cars from the US from 15% to 20%; we won Pilot project: extra REV of 960M, additional gross profit of 384M
3		Update sheets	Complete	
4	Operations	EU: Porto (2x), Faro (2x); China: Introduction of Pico (2x), City (1x) America: SUV back in (1x), Lux out, Air remodels (1x)	Complete	Market for e-compact rose from 50% to 75%; that's why we decide to introduce with two production slots for Pico; we still want to make use of the phasing out of City75G, as there is still demand for it; As warehouse of SUV is low and we want to make use of the phasing out, Lux is low on sales and high on inventory, factory utilization will anyways be lower than 85% (which arise from switching factories); Be not back into production because: warehouse is still full and CO2 penalty is high -> is just a bad product not demanded
5	Allocate Factories		Complete	
6	Recommendations	Replace Product - City 75G -> ignore	Complete	
7	Marketing			
8	Adjust Prices	Air: reduced Price Pico: Marketing 2%, Biz: reduced Marketing to 2% from 2.5% Lux: reduce marketing to 2% from 2.5% Fero: Price 51.8k, Marketing: 2.7%	Incomplete	Recommendations: Biz 135D: decrease price 35.3k to 34.6k; DOI 113 - avg. Market 39.2k Porto: decrease price from 41.5k to 40.85k; DOI 79 - avg market 39.2k Lux 225H: decrease price from 86.3k to 84.6k; DOI 133 - avg market 81.5k 4x4 100D: increase price from 49.9k to 50.9k; DOI 30 - avg market 49.9
9	Adjust Marketing spend		Incomplete	
10	Adjust Continent Pricing		Incomplete	
11	Marketing Mix	D-Q-I-J	Incomplete	
12	HR			
13	Recommendations & Hiring	Hired team for Pico and HR person for Douro SUV	Complete	
14	Factory personnel	Increase salary in EU & China to 5200 to make up for higher workload; keys	Complete	
15	Sustainability Training	Did training for 3 more managers	Complete	
16	Motivation & Salaries	Increased to level compo ratio	Complete	
17	Investment			
18	Innovation	Solar Panels postponed as we drop to BBB rating	Incomplete	
19	Operations Investments	Lux 5710M	Complete	
20	Car Development		Incomplete	
21	HR sustainability policies	available but postponed sustainability awareness training	Complete	
22	HR Investments		Complete	
23	Margin/CF evaluation		Incomplete	
24	Loan		Incomplete	
25	Finalize		Incomplete	
26	All			
27	Decision Log		Incomplete	

Figure 24: Curro Cars Process Sheet

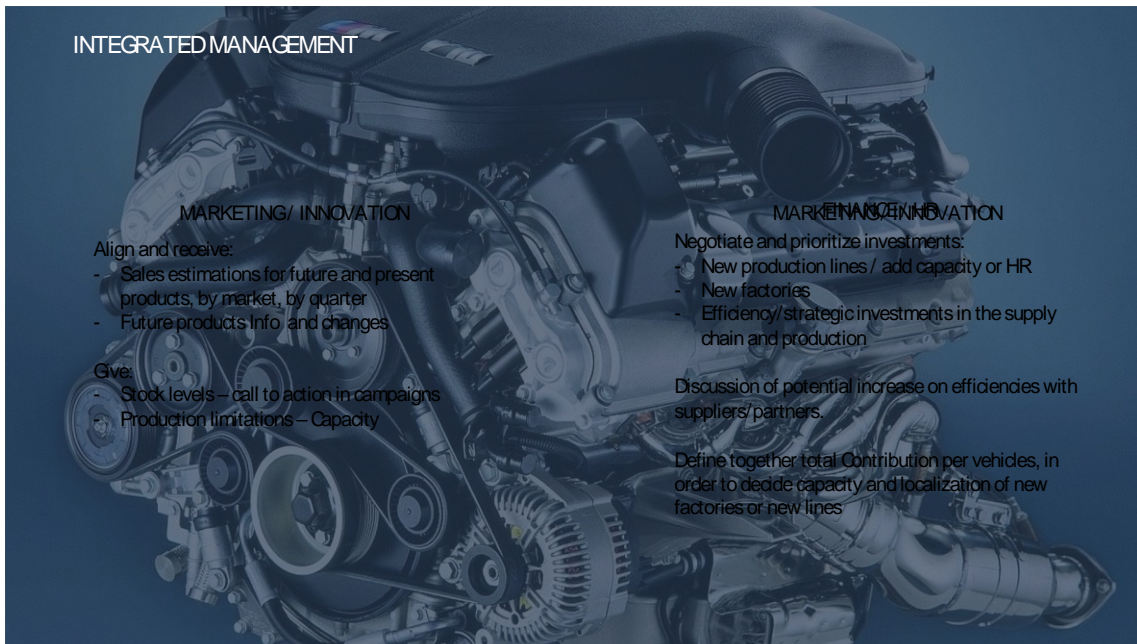


Figure 25: IMS departmental cooperation (Slide 8), retrieved from BiP Operations Academic Session (2023)

Europe 5/8x, Production Capacity 75,000 / Quarter, Factory Occupancy 100.00%

Production

Product	Production Output	Utilization	Sales	Stock	Warehouse Capacity	Production Capacity
Faro-E	15,000	100%	17,985	5,002	20,000	15,000
Pico-E Plus	30,000	100%	30,021	10,001	40,000	30,000
Dao-E	30,000	100%	30,000	10,001	40,000	30,000

Close

Figure 26: Curro Cars Factory Utilization in Europe in Q28. BiP Simulation, retrieved from IndustryMasters (2023)

China 3/10x, Production Capacity 45,000 / Quarter, Factory Occupancy 100.00%

Production

Product	Production Output	Utilization	Sales	Stock	Warehouse Capacity	Production Capacity
Pico	14,815	99%	19,815	5,002	20,000	15,000
Porto-E Plus	29,631	99%	24,215	10,417	40,000	30,000

Close

Figure 27: Curro Cars Factory Utilization in China in Q28. BiP Simulation, retrieved from IndustryMasters (2023)

Quarter	Region	Model	Stock	# of Sales	Delta	Slots	Production	at least 5k needed	Comments
Q24	Europe	Dao-E (4th REV of these 5)	27.515	34.689	7.174	2	30.000	22.826	
Q24	Europe	Faro-E (1st REV of these 5)	14.235	20.803	6.568	1	15.000	8.432	
Q24	Europe	Pico-E Plus (5th REV of these 5)	5.002	20.481	-15.479	2	25.002	9.523	moved to Europe because Europeans are "willing to pay more"
Q24	Asia	Porto-E Plus (3rd REV of these 5)	21.240	19.409	1.831	1	12.501	14.332	moved to Asia, we can afford to lose 2 weeks of production
Q24	Asia	Pico (2nd REV of these 5)	10.020	34.176	-24.156	2	30.000	5.844	
Q25	Europe	Dao-E (4th)	22.826	34.689	-11.863	2	30.000	18.137	
Q25	Europe	Faro-E (1st)	8.432	20.803	-12.371	2	30.000	17.629	
Q25	Europe	Pico-E Plus (5th)	9.521	20.481	-10.960	1	15.000	4.040	least impact on REV according to REV list (PNL check needed!)
Q25	Asia	Porto-E Plus (3rd)	14.331	19.409	-5.078	1	15.000	9.922	
Q25	Asia	Pico (2nd)	5.844	34.176	-28.332	2	30.000	1.668	
Q26	Europe	Dao-E (4th)	18.137	34.689	-16.552	2	30.000	13.448	
Q26	Europe	Faro-E (1st)	17.629	20.803	-3.174	1	15.000	11.826	
Q26	Europe	Pico-E Plus (5th)	5.001	20.481	-15.480	2	30.000	14.520	
Q26	Asia	Porto-E Plus (3rd)	9.922	19.409	-9.487	1	15.000	5.513	
Q26	Asia	Pico (2nd)	16.668	34.176	-17.508	2	30.000	12.492	
Q27	Europe	Dao-E (4th)	15.312	34.689	-19.377	2	30.000	10.623	
Q27	Europe	Faro-E (1st)	11.826	20.803	-8.977	1	15.000	6.023	
Q27	Europe	Pico-E Plus (5th)	5.001	20.481	-15.480	2	30.000	14.520	
Q27	Asia	Porto-E Plus (3rd)	5.513	19.409	-13.896	1	15.000	1.104	3.896
Q27	Asia	Pico (2nd)	12.492	34.176	-21.684	2	30.000	8.316	-3.316

Figure 28: Curro Cars Factory Allocation Tool

The implications of high and low **Volume** in operations and processes...

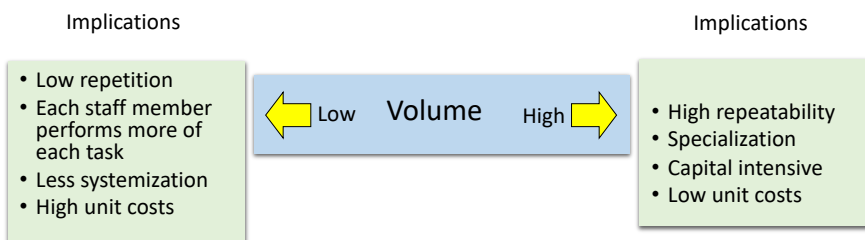


Figure 29: Volume in Operations and Processes (Slide 20), retrieved from BiP Operations Academic Session (2023)

Simulation Operations decisions

- “Factory expansion is necessary to achieve economies of scale - while fully staffed production lines working at maximum capacity are critical”

As the Director of Operations you are responsible for:

- Determining when and where new production lines should open or close
- Maximizing economies of scale by determining and adjusting which vehicle lines should be produced at which facilities
- Reviewing Production, Warehouse, and Controlling data to determine which lines should expand or downsize production
- Invest in Carbon-related GHG improvements in Scopes 1, 2 and 3 to build ESG performance
- Providing operations insights to others as they contemplate decisions related to their roles

Figure 30: Economies of Scale (Slide 41), retrieved from BiP Operations Academic Session



Figure 31: Tesla's Mission and Vision Statement (Slide 24), retrieved from BiP Operations Academic Session (2023)

We all face conflict in our day-to-day life, and surely during your time in the BiP this will be no exception

- Talk openly to your colleagues about their interests, priorities, and motivations to get a better sense of their perspective and the cause of the issues
- Look at ways the rest of the team can adjust behaviours to better support the individual
- Look for opportunities to better utilise your colleague's specific skill set if needed, use this opportunity to revisit the team's purpose and goals as a whole

- **Develop an explanation for your colleague's behaviours without talking to them first**
- Ostracise the team member in question. Promote more interactions to create better group cohesion
- Assume everyone knows what they're supposed to be working on. Clarify team members' roles so that people know what is expected of them

Figure 32: Conflict Management (Slide 25), retrieved from BiP Leadership in Practice Workshop Day 2 (2023)

Team #1 // Curro Cars

Team Charter

Core Values

- Integrity & Respect
- Empathy
- Dedication
- Transparency
- Trust

Team Roles

- Timekeeper: Sabbie
- Charter Guardian: Lotta
- Feelgood Manager: Antonio
- Workflow Manager: Sophia
- Mediator: Miguel
- Communications Keeper: Valerie
- Data Keepers: Manon

Challenges & Solutions

Nr.	Identified Challenges	Evaluation after Y1-Y3
1	Indecisiveness	-
2	Lack of structure & shared goal	+
3	Time Management	++
4	Lack of Focus	+/-
5	Lack of Authority	+

- to be improved
 +/- improving
 + good
 ++ excellent

Nr.	Solutions
1	Role Assignments, Clear Responsibilities
2	Workflow & Defined Strategy
3	Designated Timekeeper
4	Feelgood Manager
5	Final Decision with Department Heads

Nr.	New Challenges after Y1-Y3
6	Information Sharing
7	Inclusion of all team members in major decision-making
8	Distraction by phone/different websites

Nr.	New Solutions
6	Information ownership
7	Announcement of discussion round for major decisions (investment roadmap)
8	No-phone policy during simulation

Figure 33: Updated Curro Cars Team Charter

Emotional Intelligence is an executive function that helps you manage your emotions and pay attention to others

Emotional Intelligence refers to how well we handle ourselves and our relationships

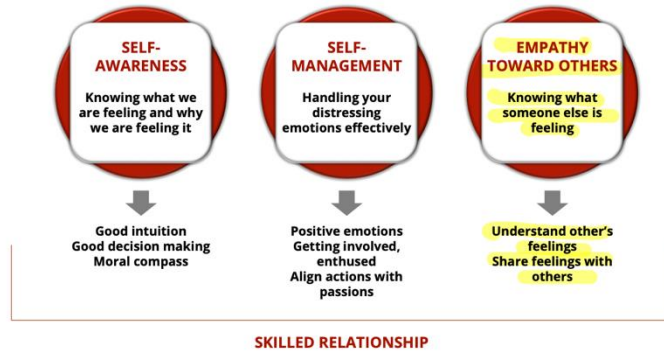


Figure 34: Emotional Intelligence (Slide 23), retrieved from BiP Leadership in Practice Workshop Day 1 (2023)

We all face conflict in our day-to-day life, and surely during your time in the BiP this will be no exception

When faced with challenging individuals, someone who is not 'pulling their weight', someone who is causing friction or if you're struggling to be heard...

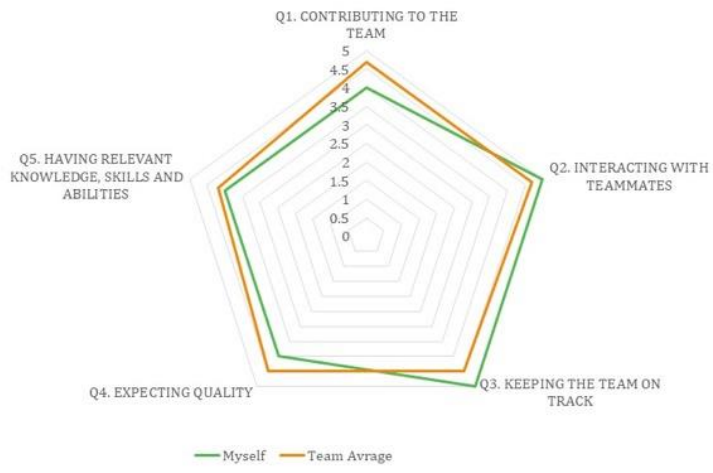
- Use your new self-awareness knowledge...how can you apply it?
- Reflect on how and why you think you're finding this person challenging or feeling a certain way
- Assess if you can adjust your own behaviour or if there are personal actions you can take



- What could he/she be thinking and feeling about the situation?
- How is he/she different from me? In which way are we similar?
- What can I do to make her/him feel better about this situation and about me?

Figure 35: Active Listening (Slide 24), retrieved from BiP Leadership in Practice Workshop Day 2 (2023)

56028_Sawpneel Rai



Peer & Self-assessment

Team 1

9

Figure 36: Peer and Self-assessment, retrieved from Insights Discovery (2023)