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BUSINESS IN PRACTICE: SUSTAINABLE TRANSITION SUCCESS CASE UNDER
COLLABORATIVE CULTURE & LEADERSHIP –
THE VIRTUAL CASE OF *QUATTRO MOTORS*

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Abstract

In the face of climate change and the urgent need for a green transition, the automotive industry is undergoing profound economic changes. This study explores *Quattro Motors'* Team experiences during 26 rounds of a 3-week *Industry Masters*® simulation in the context of electrification. Despite originating from a virtual simulation, this work emphasizes the essential role of effective team dynamics and leadership. It includes an in-depth analysis of *Quattro Motors'* challenges, strategy execution, and achievements, as well as a personal reflection on two critical leadership events at individual and team levels.

Keywords

Cross-functional management, Leadership, ESG, Business in Practice, Electrification, Team-working, Automotive Industry, Self-reflection, Strategy, Innovation, Operations, Value Generation, Pioneering, EVs, Self-leadership, Diversity, Company Culture.

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1. Company Analysis

1.1 Quattro Motors – an ambitious team powered by diversity.

Quattro Motors was a successful virtual automotive company operating in the USA, Europe, and Asian markets that was led by a team composed of 5 different nationalities from 4 distinct continents around the world, with a unique constellation of characteristics that created a robust culture focused on self-leadership, process empowerment and synergies of departments, as shown in Appendix Figure 1.

Klemm, Sanderson, and Luffman (1991) argued that mission and vision statements can be powerful tools for guiding decision-making, inspiring people in the company, and creating a solid culture.

In that sense, empowered by the statement “Towards change, we lead.”, *Quattro Motors* was able to succeed in innovation and leadership in the automotive industry under eminent transition into green cars, becoming the leading company in the market value added in the market as shown in the Appendix Figure 2 as well as fully transitioning to complete electrification of its fleet in 5 years. The company made those achievements by positioning itself in the harmony of four pillars: “*Performance, Product, People, and Planet*” (see appendix figure 9), which served as the means to operationalize its mission and values.

Performance stands for the commitment to developing innovative cars with high standards of perceived quality. It refers to its management principles of balancing effectiveness within the ownership of self-leadership, decision-making, and process empowerment. At the same time, *Product* reframes the strategy of developing products that are both innovative and sustainable. Further, *People* refers to the decision-making setup focused on empowering individuals in a high-complexity reality. *Planet* reminds us of the responsibility that is implicitly taken when assuming all externalities caused by operating a car manufacturing company.

Given that introduction, the company analysis section of this paper will focus on three critical dimensions of *Quattro Motors*’ structure, starting from its innovation strategy (Marketing and innovation Role), moving into the execution of the operation setup (Operations Role), and concluding with characterization of the financial performance under the Economic Value Added metric (Finance Role).

1.2 Innovation Strategy – “Towards Change”

The report entitled “Sustainability in Automotive: From Ambition to Action” (Capgemini Research Institute 2022) underscores the significance of investing in Research and Development (R&D) to foster innovation in the automotive sector. These investments not only ensure sustainable production practices but also confer strategic advantages to companies amidst evolving customer preferences towards eco-friendly and digital solutions.

1.2.1 Primordial Force: Customer Preferences

Making use of co-join analysis techniques, De Wilde et al. (2023) explore the shifting demand towards sustainable solutions, prominently highlighting the preference for hybrid cars as a bridge to eventual full electrification.

Additionally, as emphasized in the “Automotive Revolution - Perspective towards 2030” report by McKinsey & Company (2016), the market anticipates significant changes in consumer preferences beyond electrification, particularly concerning automation and connectivity.

This growing inclination towards environmentally conscious choices and more technologically advanced cars affirms the central role of innovative concerns in the industry’s transition, serving as the guidelines of the product portfolio of *Quattro Motors* (see appendix figure 5), which is divided into three eras: *Pre-Electrification Era*, *Transition Era*, and *High-Tech Electric Era*

1.2.2 *Quattro Motors*' Approach to Innovation

Considering these identified factors, *Quattro Motors* has devised its innovation strategy by vigilantly monitoring evolving consumer preferences, ensuring the delivery of the values framed by *Quattro Motors*' *Product* and *Performance* pillars. This approach entails a robust Innovation Capital Expenditure (InnCAPEX) plan across various innovation domains (see appendix figure 3), solidifying the company's position as the market pioneer in launching products featuring the newest technologies.

1.2.3 Parties Involved and Structing Decision Making

The role of the Innovation Director at *Quattro Motors* encompasses the management of the innovation process concerning selecting features to be researched and launching new products, which involves determining the type of cars to be developed and the features to be implemented on them. In accordance with this responsibility, the Board of *Quattro Motors* has stipulated that the departments of Innovation and Marketing must collaborate closely to optimize the innovation features to fit with the market demand (Calantone and Rubera 2012).

The aforementioned paper elucidates the confluence between the Innovation and Marketing domains, emphasizing the critical role of cohesive cooperation in conceiving and delivering products that align precisely with customer preferences. In that sense, the allocation of process leadership to the directors of the Innovation and Marketing departments was an intentional organizational design to foster seamless coordination and effective communication between these functional entities (Shafique, Ahmad, and Kalyar 2019).

This structure has been carefully devised to facilitate the timely and efficient development and introduction of products that cater to changing customer needs, thereby aiming to maximize the company's profitability in the electrification process (Langerak, Hultink, and Griffin 2008)

As a result, the following internal process was established, attributing the ownership and responsibility to directors of both the Innovation and Marketing departments and entitled them to guide the team in the co-creation process of *Quattro Motors*’ style cars.

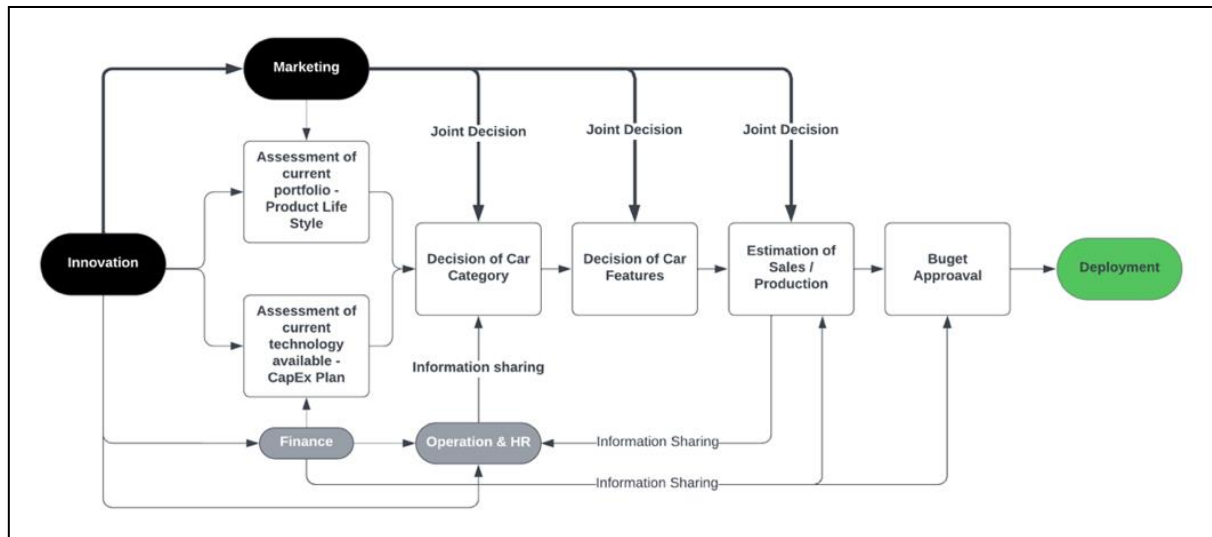


Figure 1 - Process Diagram of New Product Development & Deployment Expounding the Leadership and Joint Decision-making of Innovation and Marketing – Source: Own Production. 2023.

This structure resulted in strong and effective communication between these critical organizational units, facilitating the timely and efficient development and introduction of products that resonate with the target customer base, thereby enhancing profitability and achieving the desired business outcomes (Pauwels et al. 2004).

That synergy between both departments resulted in a product portfolio that matched the company strategy of investing in state-of-art technology, delivering a unique constellation of products that embodied superior technologies compared to market competitors (see appendix figure 7) while making use of market insights, especially in the assurance of a gradual transition to full electrification using hybrid cars.

1.2.4 Harvesting the Value Generated

This approach assisted in ensuring profitability levels of, on average, 20% throughout the six years of management, reaching around 30% at the end of year six, a figure that is approximately 3.7x of the industry according to the Automotive Profitability: How OEM and Supplier Margins Are Faring” by Bain & Company (2023), it ensured the market leadership in 4 out of 5 segments that *Quattro Motors* were competing on by the end of year 6, and the top 4 cars in terms of revenues in the same year, as shown below:

Rank	Product	Manufacturer	Type	Sales	Price	Revenue	Segment Market Share
1	 Goiania	Quattro Motors	Executive Electric Class	29,752	\$47,231.67	\$1,264M 	6.1%
2	 Berlin GTX	Quattro Motors	Luxury Electric Class	12,828	\$96,642.26	\$1,128M 	5.4%
3	 Berlin E	Quattro Motors	Luxury Electric Class	12,659	\$93,738.48	\$1,093M 	5.3%
4	 Kyoto E	Quattro Motors	SUV Electric Class	15,000	\$75,045.80	\$1,033M 	5.0%
5	 Lux-E	Competitor B	Luxury Electric Class	13,901	\$79,873.91	\$1,012M 	4.9%
6	 Biz-E	Competitor A	Executive Electric Class	27,356	\$39,922.88	\$976M 	4.7%
7	 Lux-E	Competitor A	Luxury Electric Class	13,559	\$77,978.97	\$970M	4.7%
8	 Porto E	Quattro Motors	Compact Electric Class	29,994	\$36,139.75	\$966M 	4.7%

Figure 2 - *Quattro Motors* Leadership in Executive Electric, Luxury Electric, SUV Electric, and Compact Electric – Source: BiP Industry Masters® - *Quattro Motors* Marketing Panel. 2023

However, the evolution of the successful implementation of this innovation strategy under the team *Quattro* management was considerably uneven as the average profitability of the *Quattro Motors*’ portfolio during the *High-Tech Green Era* began at 27% (with *Kyoto-E* performing at 19.6% - the lowest during that era) and reached 36% in the 6th year (with *Porto-E* reaching 45% - the highest margin of all Eras) (reference to appendix figure 5), reassembling the performance of Tesla, a very innovation-oriented company that, within six years between 2017 and 2023, was able to dramatically increase its profitability indicators.

According to its financial reports (Tesla Inc. 2017; 2022), Tesla started with extremely low operating profit margins (around -13.87%), further achieving 16.76% with a steady increase from 2018 forwards. That was the same “path” *Quattro Motors* traveled through, experiencing

a boost of its Operating Margin from 11.5% in Q14 to around 30% in the last simulation quarter (see appendix figure 6), displaying a figure several times higher than the industry current average of 8.1% (Bain & Company, 2023).

As *Quattro Motors*, according to the Harvard Business Review 2020 article “Lessons from Tesla’s Approach to Innovation,” Tesla employed a core strategy of introducing technologies to the market and taking the lead in their development and implementation. Consequently, both companies exhibited a parallel trajectory of outcomes. Despite *Quattro Motors* starting from a notably more profitable position, both companies swiftly attained revamped results due to their substantial return on investments in innovation, driven by the later market acceptance of the technologies developed.

1.3 Operations Management – “We Lead”

A crucial step when structuring a strategy is the implementation, as Crittenden and Crittenden (2008) describe it as a vital ally when assessing the market opportunities and responsible value generation, ensuring that the company thrives in its mission and vision in the long term.

At *Quattro Motors*, the critical step during the implementation phase was planning and managing the production of high-tech pioneer cars while being able to enjoy the benefits of economies of scale in the context of a *just-in-time* production setup. This is a background that prioritizes efficient asset usage (factory utilization), as it represents a key role in profitability levels within the automotive industry (Kušar et al. 2014).

As described by Martin and Patterson (2009), an essential factor regarding the efficiency of the production operation of a company is inventory management, as it represents the ability of the company to deliver its products to the market. Therefore, it is an indicator of how efficiently an enterprise can generate economic value. On this matter, the report “Automotive Inventory”

(S&P Global, 2022) references a “normal” range for days of inventory in the automobile industry as 55 to 65 days.

1.3.1 First Mover Curse – Pioneering Drawbacks

However, *Quattro Motors* operations experienced very onerous challenges managing a lean production that was capable of efficiently meeting current demand, which resulted in high days of inventories for its electric cars during quarters 12 to 22, with at least five models reaching over 120 days of inventory (a figure 2x times higher than the industry average according to S&P Global (2022)), as demonstrated in the graph below:

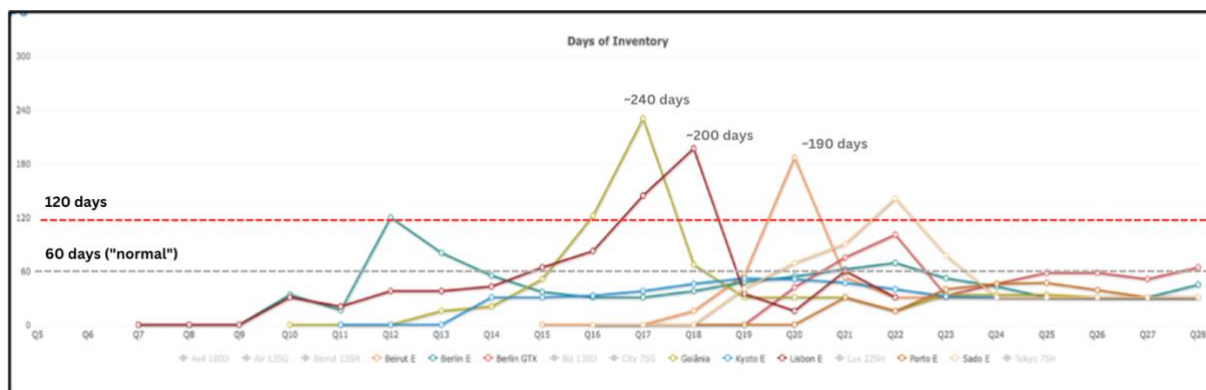


Figure 3 - *Quattro Motors High-Tech Electric Cars Days of Inventories, challenges within Q12 to Q22* – Source:: *BiP Industry Masters® – Quattro Motors Operations Panel, Days of Inventory. 2023.*

Despite the fruitful collaboration between the marketing and innovation teams, the pioneer and innovation-oriented strategy approach of *Quattro Motors* faced key challenges when effectively creating value within quarters 12 and 22. Those challenges closely reasssembled the ones faced by *market first-movers*¹ as framed by the work paper “Phases of the Adoption of Innovation in Organizations: Effects of Environment, Organization, and Top Managers” (Damanpour and

¹ A first mover refers to a product or service that displays a competitive edge by being the initial entrant in the market with that offering.

Schneider 2006), which reasons for the reduced demand for the highly innovative cars developed by *Quattro Motors* within the period mentioned.

As also observed in *Figure 3 - Quattro Motors High-Tech Electric Cars Days of Inventories, challenges within Q12 to Q22.*” The company was able to stabilize and optimize the days of inventories of many of its cars from Q23 to Q26. In this regard, those achievements were made possible due to the effectiveness of the decision-making structure of the company that was based on context monitoring and cross-functional contribution, as referenced in the *Know-how 4 Excellence* section on the appendix figure 1 – “*Team (Company) Charter - DNA, Pillars, Success Values, Responsibilities, and Core Approach to Problem-Solving.* 2023).”

1.3.2 Acting: Resilience and Cross-Functional Response

When it comes to the context-monitoring aspect of the aforementioned structure, the paper “Misfits in Organization Design: Information Processing as a Compensatory Mechanism” (Luo and Donaldsen 2013) suggests that companies adapt their organizational structures to align with changes driven by contextual factors, aiming to enhance their overall performance.

In the management of *Quattro Motors*, it represented a vital aspect of the problem-solving effectiveness as the clarification of the context of low sales (relative to production) driven by a reduced demand² mobilized, not only the Operation Team & Finance Team (the directly impacted ones), but the executive board as a whole – resolving in a general mobilization that took place on quarter 16.

On the other hand, this holistic approach ensured that the complexity of the problem was effectively tackled without deviations from the company values and mission while exploring the boundaries of the company’s core strategy, not only making use of quantitative methods

² Derived from the *first mover* challenge from Damanpour & Schneider, 2006

(led by Finance and Operations) but also exploring cross-expertise derived by the involvement of all departments (Beach et al. 2001).

This approach led to several resolutions that took place in Q16 after an extensive analysis conducted by the Finance and Operation leaders. The decisions taken, under the light of the holistic approach, were related to portfolio re-planning, revisiting the technology implementation schedule, and boosting market awareness.

Regarding re-planning the portfolio, *Quattro Motors* chose to move towards a growing demand segment (Micro Cars), exemplified by the introduction of *Sado-E* with specs that were only marginally more advanced than the main competition.

Parallely, the company slowed down the deployment of new technologies that were too advanced by restraining the introduction of cars with level IV of Autonomous Driving (refers to Appendix 5) while delaying the development of the Cross-Platform Technology in the Connectivity Area (refer to appendix figure 3).

At the same time, *Quattro Motors* made use of marketing actions such as increasing expenditure and reducing prices in quarters 17 and 18 (see appendix figure 8), an effort that was designed to generate enough demand to ensure the appropriated enjoyment of the value created by the deployment of new technologies, a decision supported by the paper “Resolving the Capability–Rigidity Paradox in New Product Innovation” (Atuahene-Gima 2005) that effectively contributed to the normalization of the days of inventory.

1.4 Finance Performance x Green Transition – “Value out of the Green”

Under the context of the *Industry Masters*® simulation, the company’s overall performance is accounted for by an indicator called EVA (Economic Value Added), which stands for a holistic approach that incorporates both financial and non-financial aspects of value creation, aiming to capture the value generated by a strategy implementation. Based on the working paper “The

Validity of the Economic Value Added Approach: An Empirical Application” by Kyriazis & Anastassis (2007), this metric considers factors such as the cost of capital and amount invested as subtractive factors, englobing the investment strategy while confronting it with the total operating profits (after tax) which indicates the total monetary value generated by the company, measuring the management efficiency in creating value out of the amount invested. Therefore, making a comprehensive measure for evaluating the value created by a company, as shown by the following form

$$EVA = Net\ Operating\ Profits\ After\ Tax - (Invested\ Capital * WACC)$$

Given that, under the construction and implementation of *Quattro Motors*’ strategy focused on innovation and sustainability, this section will analyze the most insightful outcomes derived from the company’s investment strategy.

1.4.1 J-Curve Novel

Overall, the *Quattro Motors*’ performance on EVA resembled a J-Curve. It refers to a pattern of change in a company’s performance or growth over time as it undergoes innovation processes.

The J-curve suggests that, initially, there may be a decline or stagnation in performance as the company invests resources and effort into innovation. However, over time, as the innovation takes hold and begins to generate positive outcomes, the company’s performance starts to improve and surpass its previous levels (Beliaeva et al. 2019), as demonstrated below:

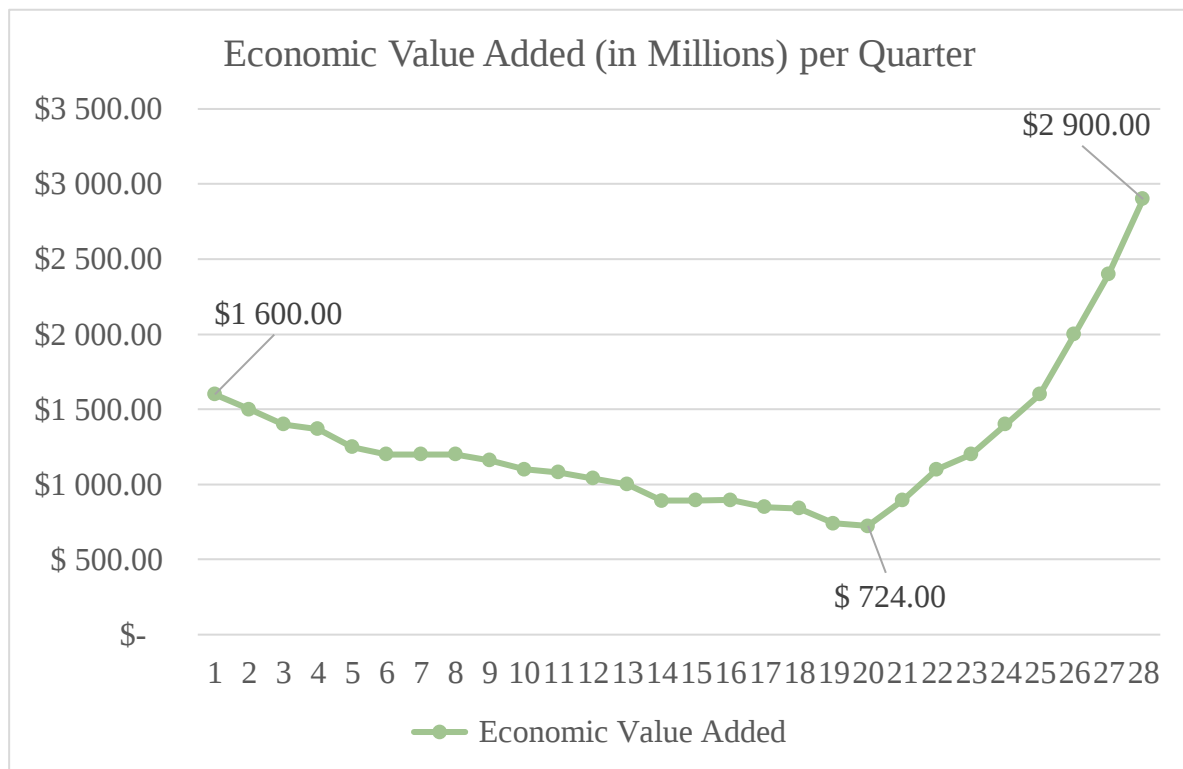


Figure 4 - J-Curve Evidence on EVA's Performance of Quattro Motors – Source:: BiP Industry Masters® - Company Panel. 2023.

According to evidence in the empirical work paper by Wilhelm & Dolfsma (2018), the shift towards electrification requires significant investments in research and development, infrastructure, and production capabilities. These investments can initially impact a company's financial performance before the benefits of electrification, such as increased market share and improved sustainability, are realized. However, as the company progresses in its electrification efforts and overcomes the initial challenges, it can experience a positive turnaround in performance. That can include benefits such as improved brand reputation, increased customer demand for electric vehicles, and potential cost savings from reduced reliance on fossil fuels.

The situation described resembles the case of *Quattro Motors*, with a more intense bias towards innovative technology development that went beyond electrification, entering the fields of connectivity and autonomous driving (see Appendix Figure 3). The commitment to meeting the

purpose of the company's *Product* and *Performance* pillars (see appendix 9) framed within the previously described company strategy ended up pressuring the “valley” of the J-Curve during the investment phase due to the pioneering drawbacks previously presented.

However, the cross-functional alignment and the resilience in maintaining the company culture and values while exploring the limits of the company innovation strategy were deemed indispensable in ensuring favorable returns on the investments made by *Quattro Motors*. It resulted in returns on Net Assets that reached 31% at the end of the 6th year of operations (see appendix figure 4), representing a figure 2.5x above the industry average and close to the industry leader on that performance ratio according to CSIMarket Company, (2023)

1.4.2 Investing Beyond, Impacting Even Further – *Quattro* shades of Green

On the other side of the CapEx planning, there was also an intense focus on green investments in the Operation and People & Culture (refer to appendix figure 10 & 11), as it promotes not only greater production efficiency and boosts the company's (Indriastuti and Chariri 2021) but also unlocked more favorable finance options to mitigate the burden of the heavy investment mobilized by *Quattro Motors'* strategy by controlling the cost of capital (see appendix 12). Therefore, it serves as an incentive to prioritize those investments, which resembles the same behavior found by Ning et al. (2022).

Consequently, the value creation derived from the close integration of the finance team with the Operations and People and Culture departments in implementing the investment strategy promoted strong positive results. These outcomes can be observed not only in improvement financial performance but also in terms of environmental impact, as it mobilized over 11.7 billion dollars³ of green capital expenditure (refer to appendix figure 14), a figure that is equivalent to over 4% of all wealth produced in Portugal in 2020, according to the World Bank.

³ Including the development of Electric Vehicles

The outcomes of this investment strategy transcended the boundaries of financial substance. Financially, those projects yielded over 334M extra quarterly revenues, sustained an increase of 0.18% EBITDA Margin every quarter, prompted over 320M quarterly CO2 Emission bonuses (see appendix figure 15), and drove the deployment of highly profitable vehicle cars. Regarding the impacts on the planet, *Quattro Motors* promoted an astonishing reduction of 93.8% of the total carbon emissions, led by extraordinary changes in production, energy consumption, supply chain management, and the complete electrification of the fleet (see Appendix Figure 13).

1.5 - Conclusion and Learning Insights

In conclusion, the analysis of *Quattro Motors* reveals a company that embraced innovation, sustainability, and diversity as key pillars of its success. Led by a diverse team spanning five nationalities and four continents, *Quattro Motors* fostered a culture of self-leadership, process empowerment, and cross-functional collaboration. Their mission, “Towards change, we lead,” became the driving force behind their innovation and leadership in the automotive industry’s transition to green cars.

Regarding the innovation strategy, the company aligned its innovative efforts with evolving consumer preferences, particularly the shift toward sustainable and eco-friendly solutions. Their product portfolio evolved across three eras, from *Pre-Electrification* to *High-Tech Electric*, reflecting their commitment to staying ahead of market trends while revealing the importance of close collaboration between the Innovation and Marketing departments to ensure products resonated with customer demands and maximized profitability.

However, *Quattro Motors* faced challenges during its *High-Tech Green Era*, similar to the early struggles faced by Tesla. In terms of operations, *Quattro Motors* prioritized efficient production while navigating the complexities of lean manufacturing and high-tech cars. They faced

inventory challenges in the transition to electric vehicles but successfully stabilized and optimized their inventory levels through a holistic approach, involving all departments and utilizing quantitative methods.

On that matter, the leadership team's resilience and cross-functional response were the key factors that led the company to overcome hurdles and optimize its portfolio, leading to a revamped return to profitability and ensuring market leadership at the end of year 6.

Financially, *Quattro Motors* demonstrated a J-Curve pattern in Economic Value Added (EVA), aligning with the challenges and benefits of shifting towards electrification. The company's investments in research and development, infrastructure, and green initiatives initially impacted financial performance, yielding positive outcomes, such as an increase of almost 200% of its EVA while reducing 93.4% of its total CO2 emissions within six years.

In summary, *Quattro Motors'* success can be attributed to its diverse and empowered team, strategic alignment with consumer preferences, and a resilient commitment to its innovation and sustainability values. Despite challenges along the way, the company's ability to adapt, collaborate, and invest strategically allowed it to thrive and become the best-performing company in the simulated competition scenario.

2. Personal Reflection – Practical Application of Leadership in Two Levels

In this section, this paper is settled to discuss and provide insights about actual occurrences along the 3-weeks of the simulation powered by *Industry Masters®*. Therefore, according to the scope of this work, the focus will be the practical application and challenges of leadership in a very diverse context, alongside personal notes and auto-reflection of my learnings within this team dynamics.

Quattro Motors' team was very harmonious, with an outstanding balance of diverse cultures from 5 different countries from 4 distinct continents of very distinct cultural dimensions.

Further, analyzing the team in the *Insights Discovery*® colors personality test, we can see that the team was also a harmonious mix (see appendix figure 16) dominated by cool blue (Showing no bias, Objective, Detached, Cautious, Analytical, Precise, Questioning and Formal) and fiery red (Positive, Affirmative, Bold, Assertive Competitive, Decisive, Strong-willed, Demanding, and Task/Goal focused) types with some balance from sunshine yellow (Social, Dynamic, Demonstrative, Expressive, and Creative) and earth green (Still, Tranquil, Calming, Soothing Sharing, Patient, Amiable, Caring, and Encouraging) types, as me being positioned as a fiery red with a substantial influence of sunshine yellow.

According to an article produced by McKinsey & Company (2022), leadership is defined as a set of behaviors used to help people align their collective direction, execute strategic plans, and continually renew an organization. These three key insights are accurate dimensions of the core skills that a leader must have: the technical skills that relate to situational competencies, social/relational skills to maintain and create fruitful relationships, conceptual/strategic skills to assimilate the different levels of complexity of the reality, and (the most relevant) self-leadership which refers to the ability of a leader of manage him/her/themselves directing towards discipline, avoiding lousy behavior that could affect the application of the previous three skills (Rego and Pina e Cunha 2022).

Even though the constant improvement and confluence amongst all four leadership instances are clearly indispensable, self-leadership skills are revealed as the most relevant at all stages of a leader's career. In contrast, the upper management levels require better Conceptual/Strategic and Social/Relational expertise (Rego and Pina e Cunha 2022).

Given the introduction of those concepts, this personal reflection will tackle two critical incidents, one that required the usage of the self-leadership framed within an introspective level

analysis as well as the conceptual/strategic skills in the context of the team dynamics (relational/social skills).

2.1 Self-leadership Stage – You Can Be Your Own Harshest Scrutiny

2.1.1 – Description of the event

The event marked an unexpected turning point in my self-perception and how I evaluated my performance throughout the simulation. This revelation unfolded during our team clinics, where we assessed how the team perceived itself and each member's contributions to our work. To my surprise and dismay, it became evident that I had been overestimating my contributions, as the team's assessment rated me lower than I had anticipated (see Appendix 17).

In the aftermath, I found myself in an intense self-questioning position, trying to figure out where I had gone wrong and why I had received below-average scores on almost all performance metrics.

Externally, I couldn't help but feel a profound sense of embarrassment, as an internal feeling of self-doubt made me assess every contribution I had made. That was especially disheartening considering what I understood to be an immense personal effort I had poured into the simulation, which included conceiving the decision-making process, devising the CapEx plan, reorganizing our team structure, brainstorming the logo, designing the team chart, and spearheading the creation of the ESG Report. Despite these substantial efforts, it appeared that my contributions had fallen short.

I also found myself pondering why I had not noticed that my team, a group I felt so close to and cared deeply about, did not view me as valuable or deserving of greater recognition.

Even during our team clinic session, designed for open discussions, I hesitated to share my situation. I felt too embarrassed and, in a way, undeserving of a response. After the session, I

tried my best to put the experience behind me and evade that lingering sense of inadequacy. Which, indeed, did not affect the team mood, however, at the expense of my own self-scrutiny.

2.1.2– Personal Evaluation of the Event

Even though this feedback did not directly affect my involvement with the team, I was embroiled in a profound internal self-examination. This process led me to reconsider various aspects of how I perceived my contributions to the team. Regrettably, this self-reflection took a negative turn as I succumbed to feelings of embarrassment. Therefore, instead of seeking further clarification to understand where I had fallen short, I chose to remain silent and engage in rigorous self-scrutiny.

2.1.2.1 - I Was My Own Hang-Man

After taking some time to reflect on the event, I realized how harsh I was to myself regarding my internal reaction to the unexpected event.

First, after some reflection, I could notice that the marks were not very low (all of them went beyond 3.5). However, the source of all my negative feelings was the difference in how I saw myself and how people perceived me, as if the contribution I judged purposeful was not enough. Therefore, I was a failure to them, acting as a perfectionist (Lv et al., 2023)

This amalgamation of self-scrutiny and embarrassment had a decidedly detrimental effect on my confidence, subsequently impacting my overall performance in the immediate aftermath of the event (Bandura and Locke, 2003). This pervasive insecurity seemed to shadow me throughout the entire day, leading me to overanalyze and second-guess every single action I took that day.

Nevertheless, simultaneously, there existed a profound urge to validate my worthiness. I felt indebted to my team for not perceiving me as the proficient contributor I believed to be. This sensation, which later became a source of motivation, finds its origins in my Japanese cultural

background. The notion of “saving face” holds profound significance in Japanese culture. As elucidated by Zhang et al. (2005), interpersonal harmony is paramount in Japanese society. This means individuals strive to maintain positive relationships and avoid conflict or embarrassment. The fear of “losing face” or being perceived negatively by others can drive individuals to work harder and prove themselves to gain recognition and avoid negative judgment.

2.1.2.2 – Was it unfair? Was it bad luck? Was I indeed not contributing well? I will never know

Another very critical evaluation of the event was the fact that I felt too embarrassed to ask for constructive feedback. Instead, I remained silent and self-embraced the situation.

That proved to be a very destructive action, as, until now, I am not very sure about what indeed led my team to give me that evaluation, making me not fully “heal” my mind from that situation. Blanchard and Johnson (1983) explain the importance of feedback regarding self-leadership as it helps individuals recognize their self-deceptions and find solutions to overcome them by revealing blind spots and fostering good and open communication, crucial elements of a functional team (Lencioni 2002).

2.1.2.3 – Self-awareness as a key to overcome bad feelings

Despite the suffering I endured and its negative impact on my performance that day, not everything unfolded in a wholly detrimental manner. Later in the evening, as I made my way back home (a 30-minute journey from the campus), I seized that opportunity to engage in introspection, as I realized that it could be a way of effectively assessing how that situation affected me without the shadows of embarrassment and feeling of failure. I contemplated my emotions surrounding the incident and its effects on my self-esteem.

Until that point, I did not realize that I was over-criticizing myself or that I was overthinking that whole situation. Indeed, something else might have affected the scorings, as all my

contributions and many of my suggestions were accepted and implemented by the team, as I had received great feedback on the design of the logo, the team chart, and the process settings I have suggested to the team.

During that time, carefully revisiting my thoughts was very important in expanding my understanding of what was beyond the meaning of the scores my team gave to me. Therefore, it opened the way for practicing self-compassion as a way of embracing the bad feelings (shame and failure) that harmed me that day, making me feel better (Sutton 2016).

2.1.3– Conclusion, Learning Outcomes & Future Action

The negative emotions, particularly embarrassment and self-doubt, were driven mainly by the disparity between my self-perception and how others perceived my contributions. This internal struggle led to overthinking and insecurity, which, in turn, adversely affected my performance.

The most important aspect I failed to capitalize on was seeking constructive feedback from my team. My reluctance to do so, even after my introspection, led by embarrassment and the feeling of failure (influenced by my cultural background), proved to be a detrimental choice. As a result, I remained unsure about the exact reasons behind the team's evaluation, hindering my ability to learn and grow from the experience.

However, the episode also provided an opportunity for self-awareness and personal growth. Through introspection and self-compassion, I realized that I had been overly critical of myself and had failed to acknowledge my contributions that had been well-received by the team, relieving the feeling of being extremely demanding of myself (Liu, Wei, and Russell, 2023).

For future improvements, I recognize the need to develop a more resilient mindset that can better withstand setbacks and feedback, both positive and negative. That involves cultivating a balanced perspective on self-assessment and learning to seek constructive criticism without fear

of embarrassment, as it represents necessary actions toward better leadership (Wayment, Bauer, and Sylaska 2015).

Also, this experience has proven the importance of seeking feedback, not only for creating the conditions for a functional team (Lencioni 2002) but also to develop self-leadership skills, as it represents a crucial step in being a successful leader (Manz and Neck 2004).

2.2 Leading with Others – Good Culture & Sharing Space

Beyond the recognition and usage of the strategical and conceptual skills to tackle and solve problems (Edmondson 2012), a functional team must be able to create an environment that allows people to share, construct, and incorporate their understanding of complex problems, as it contributes to effective problem solving (Hackman 2002).

When it comes to the skills of *Quattro Motors*', it could be seen that it was indeed strongly polyvalent as it was made of 7 people with Finance, Management, Data, Entrepreneurship, Marketing, and Innovation backgrounds, with different levels of professional experience.

The last event will describe how significant the confluence of strategic and interpersonal skills was in leading our team toward good results.

2.2.1 – Description of the event

During the beginning of the last week of the simulation, a client retention challenge took place. It started with an e-mail from a very important client who was unsatisfied with some aspects of our delivered cars and wanted us to have an urgent meeting. Since it was our second role play in Sales, just four of us could participate: me, two fiery red people, and one earth green (the only one in our team).

Shortly after the announcement, I honestly felt anxious as our “*Sales Super Star*” member (a sunshine yellow) had already gone to the first challenge, and it led us to four people (me included) who did not have much experience in sales. Further, within the framework of

personality colors, we found ourselves predominantly composed of fiery red individuals, known for their inclination towards aggression, intolerance, and assertiveness when confronted with adversity, with only one earth-green person who could show calm, patience, and caring.

A few hours before the meeting, we settled on a meeting to discuss and prepare ourselves to tackle this new challenge. At that time, I had already exposed my concern about the suitability of the team representatives to the sunshine yellow teammate, as she pointed me as the person who was mostly able to lead the section. Therefore, our team decided to work together at that meeting to prepare us four to face the unhappy client.

However, those moments were the most important ones as the team first shared the insights and knowledge each one retained from the academic section⁴ related to Sales and some of our strategical values that could be used to defend our company within our values and mission. Further, under the tutorship of our sunshine yellow team member, we simulated scenarios where some of us pretended to be the angry client while trying to empathize, relate, convince, and deal with the client's objections to retain that valuable customer.

Then, the time approached, and we found ourselves sitting in front of the unsatisfied client. That conversation started well as we went through the objections with straightforward and brief arguments (typical for a fiery red personality), even though we felt some tension. At that point, we were able to manage, distribute, and interfere with our speech harmoniously.

However, there was a “hairy” question that destabilized the whole fiery red energy – the client asked us why we did not change our logo to support the pride month. Until then, our team dealt well with questions related to pricing, vehicle quality, and overall satisfaction. However, that

⁴ During the simulation, some academic sections took place to help us understand and tackle real world problems as well as simulation related dynamics.

specific question touched our ego with no guard, as it was made clear that most of us were not prepared to answer accordingly.

That was when the extraordinary talent of our earth green showed member bloomed; she took an unimaginable approach for our fiery red personalities – she empathized and demonstrated apologies for the mistake, recognizing the incident and showing openness to develop a solution with the client. After her speech, the rest of us noticeably felt relief and continued the conversation.

Then, some hours later, we received our results: an outstanding performance that guaranteed client retention (refer to Appendix Figure 19).

4.2.2 – Personal Evaluation of the Event

4.2.2.1 - Sharing Expertise (Confluence of Conceptual/Strategical Skills & Interpersonal Abilities)

Conceptual/Strategical skills refer to capabilities such as defying problems, analyzing their root cause, planning and setting scenarios, thinking creatively as well as the ability to form a sense of the surrounding reality and define ways of dealing with it (Mumford, Campion, and Morgeson 2007).

In the context of the described event, I felt that the ability to share those capabilities and being able to absorb further knowledge and practical insights during the first phase of the preparation meeting proved to be the first essential step in the process of preparing the four team members to tackle the challenge (Jamshed and Majeed, 2019), as it served as a moment to enrich our perception of the critical sales practices that could be effectively used in the challenge.

4.2.2.2 – Training and Learning from Experience

Another vital aspect was our team's ability to recognize the previous experience and listen to the insights of a member who had previous experience in the field, actively listening to her

insights and contributing to the assimilation of the challenge with constructive inputs (Riebe et al. 2010).

This second step meant a chance to use and improve the relational skills of the team members, as the usage of active listening and recognizing each other talents are essential aspects of a functional team (Hoegl and Parboteeah 2006). Therefore, improving the team's overall performance and empowering the four representative members with important insights from someone with relevant experience (the “Sales Super Star” member).

4.2.2.3 – A Stage to Shine

Like the tutorship of the sunshine yellow person, the space, respect, and appreciation our team showed towards the earth-green member while demonstrating her talent were a strong demonstration of the social skills needed for good leadership.

According to De Cooman et al. (2016), these factors foster the sentiment of supplementarily belonging to a team, revamping the perception of contribution, and creating a safe space where members can demonstrate, apply, and improve their talent. Factors that are crucial to effective team performance and well-being – as was the case of *Quattro Motors*’ team client retention achievement.

4.2.3 – Conclusion, Learning Outcomes & Further Action

In conclusion, the described event within the *Quattro Motors* context underscores the importance of developing a culture that encourages collaboration and sharing expertise within a functional team. This event elucidates crucial learning outcomes that hold significance not only for *Quattro Motors* but also for any teams within any organization that aspire to excel.

The event unequivocally shows that the ability to disseminate conceptual and strategical competencies within our team was an indispensable factor in effectively tackling complex challenges. Through the synergistic exchange of knowledge and insights, our team enriched its

understanding of crucial sales practices and strategies. This collaborative approach to problem-solving confers valuable matters for any organization, engendering a comprehensive and nuanced perspective to address multifaceted issues (Jamshed and Majeed 2019).

Moreover, the event highlights the importance of recognizing and appraising knowledge held by team members who own relevant expertise. In this instance, our team demonstrated an active commitment to assimilating the insights shared by the sunshine yellow member, thereby enhancing their readiness for facing the challenge.

Further, the described situation demonstrates the essential aspects of creating an environment wherein each team member can showcase their unique talents and strengths (De Cooman et al. 2016). By allowing the earth green team member to manifest her capacity for empathy and apology, our team not only mitigated a challenging situation but also engendered a profound sense of inclusivity and meaningful contribution. That positively underscores the import of embracing the distinctive proficiencies of individual team members, a factor that improves overall team performance and its well-being – a responsibility that must be replicated in the future throughout the development of our careers.

Finally, the delineated event within *Quattro Motors* serves as a great example of how collaborative teamwork is fostered by sharing perceptions of reality, learning from experts, and appreciation of talent. Those were also the critical success factors that allowed *Quattro Motors* to successfully achieve their strategic goals during the simulation (as explained in the first section of this paper).

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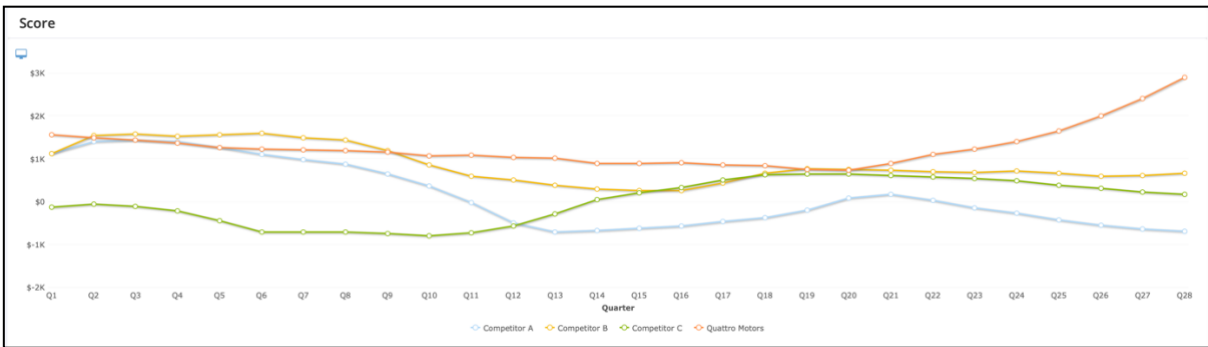
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Appendix



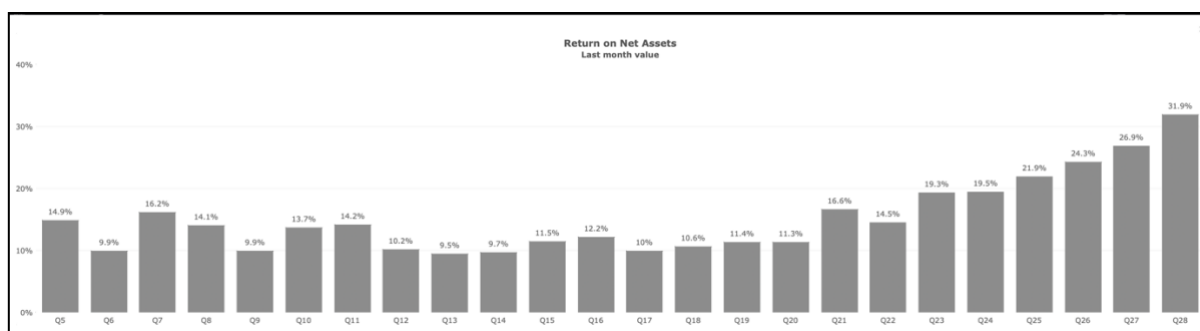
Appendix Figure 1 - Team (Company) Charter - DNA, Pillars, Success Values, Responsibilities, and Core Approach to Problem-Solving. 2023.



Appendix Figure 2 - Quattro Motors Leading the Market under the Added Value Metric with a Steeper Growth from the 20th Quarter – Source: BiP Industry Masters® - Company Panel, Value Added. 2023.

INNOVATION			
Eletrification			
Availability	Starting Quarter	Tech	Dependency
Done	4	e-drives modules	-
Done	7	Home Charging Station	e-drives modules
Done	9	High Power Charging	Home Charging Station
Total	\$ 500,00	Total Quarters	7
Connectivity			
Availability	Starting Quarter	Tech	Dependency
Done	4	Connectivity Tech	-
Done	8	Infotainment Services	Connectivity Tech
Done	10	Big Data	Infotainment Services
Not Chosen	-	Cross-Platform	Big Data
Total	\$ 760,00	Total Quarters	7
Autonomous			
Availability	Starting Quarter	Tech	Dependency
Done	5	Automated Parking	Connectivity Tech
Done	8	Driver Assistance	Automated Parking
Done	10	Cloud Connection	Driver Assistance
Done	14	Secure Infrastructure	Cloud Connection
Total	\$ 1 450,00	Total Quarters	8

Appendix Figure 3 - Quattro Motors Innovation InnCapEx Plan, Targeting Full Development of Key Technology in the Context of the Innovation Strategy – Source: Team Produced Spreadsheet, Management Files. 2023.



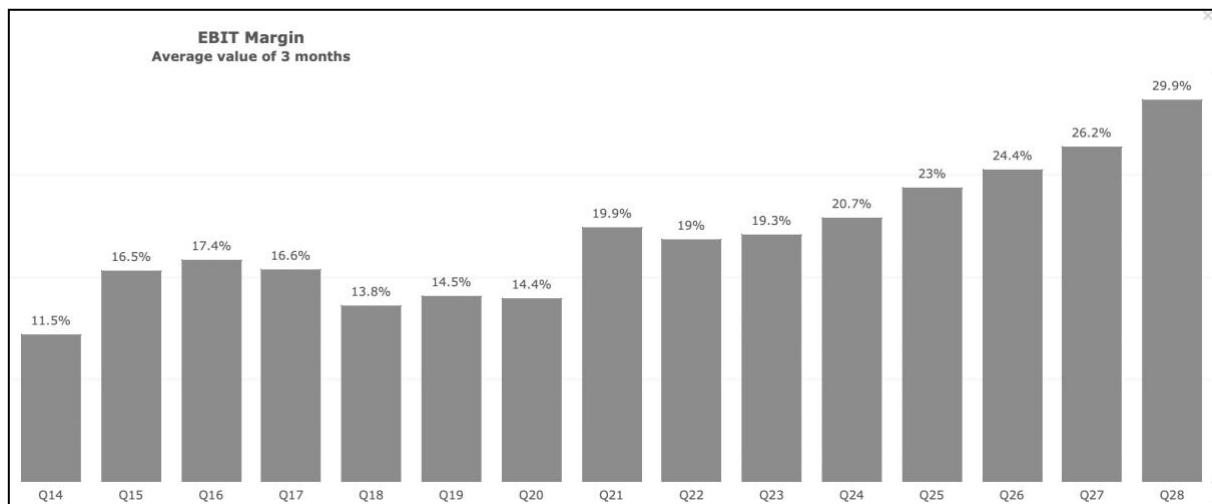
Appendix Figure 4 - Return on Net Assets per Quarter - Revealing the Returns on the Innovation Investments Made by Quattro Motors. – Source: BiP Industry Masters® - Quattro Motors Finance Panel. 2023.

Period	Team 4 Management?	Name	Fuel	Class	Features	Profitability Levels	Introduction Quarter	Discontinuation Quarter
Pre-Electrification Era	No	4x4 100D	Diesel	SUV	-	37,6% to 35%. Average of: 36,1%	-	Q7
	No	Air 135G	Gas	Convertible	-	44,3% to 39,7%. Average of: 42,2%	-	Q9
	No	Biz 135D	Diesel	Executive	-	36,8% to 22,1%. Average of: 29,7%	-	Q12
	No	City 75 G	Gas	Compact	-	45,4% to 27,2%. Average of: 40,1%	-	Q13
	No	Lux 225H	Hibrid	Luxury	Elegant, 75H, Anti-collision, Navigation	40,7% to 33,2%. Average of: 36,3%	-	Q9
Transition Era	Yes	Tokyo 75 H	Hibrid	Compact	Elegant, 135H, Anti-collision, Navigation	39,7% to 16,9%. Average of: 31,1%	Q7	Q19
	Yes	Beirut 135H	Hibrid	Convertible	Elegant, 135H, Anti-collision, Navigation	38,4% to 14,9%. Average of: 29%	Q8	Q20
High-tech Electric Era	Yes	Lisbon-E	Electric	Compact	Extra long battery, Connectivity level 1, Autonomous Driving level 1	36,2% to 21,1%. Average of: 28,3%	Q10	Q23
	Yes	Berlin-E	Electric	Luxury	Extra long battery, Connectivity level 1, Autonomous Driving level 1	35,2% to 19,9%. Average of: 26,2%	Q10	-
	Yes	Goiânia-E	Electric	Executive	Medium Range Battery, Connectivity level 2, Autonomous Driving level 2	38,4% to 23,3%. Average of: 30,9%	Q13	-
	Yes	Kyoto-E	Electric	SUV	Extra-long Range Battery, Connectivity level 2, Autonomous Driving level 3	40,7% to 19,6%. Average of: 35%	Q15	-
	Yes	Beirut-E	Electric	Convertible	Medium Range Battery, Connectivity level 2, Autonomous Driving level 3	41% to 23,1%. Average of: 32,4%	Q19	-
	Yes	Sado-E	Electric	Micro	Short Range Battery, Connectivity level 2, Autonomous Driving level 1	44% to 33%. Average of: 39%	Q20	-
	Yes	BerlinGTX-E	Electric	Luxury	Extra Long Battery Range, Connectivity level 3, Autonomous Driving level 4	38,3% to 21,7%. Average of: 29,4%	Q21	-
	Yes	Porto-E	Electric	Compact	Extra long battery, Connectivity level 3, Autonomous Driving level 2	45% to 20,3%. Average of: 36,7%	Q22	-

Appendix Figure 5 - Quattro Motors Portfolio Along 6 Years of Operation Elucidating the Transition Strategy and Innovation Focus – Source: Own Illustration. 2023.

As displayed in the figure above, the periods referred to elucidate the ones mentioned in this paper's Innovation Strategy Section, which explains the approach to the electric transition.

Further, notice that the name of the models is inspired by the cities of the countries that each member of the Direction Board is from, referencing the global aspects of the company and embracing the diversity within the top management, a crucial element of the success of the company culture.



Appendix Figure 6 - Quattro Motors' Operating Margin from Q14 to Q28. Source: BiP Industry Masters® - Finance Panel, EBIT Margin. 2023.

Comparison of Top Selling Cars by Segments



Closest Competitors

Micro Cars



Compact Cars



SUV Cars



Luxury Cars



Executive Cars



Appendix Figure 7 – Technical Features of the Cars Competing with Quattro Motors by Segment – Quattro Motors' Innovation Leadership. Source: Own Illustration. 2023.

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Quarter 18

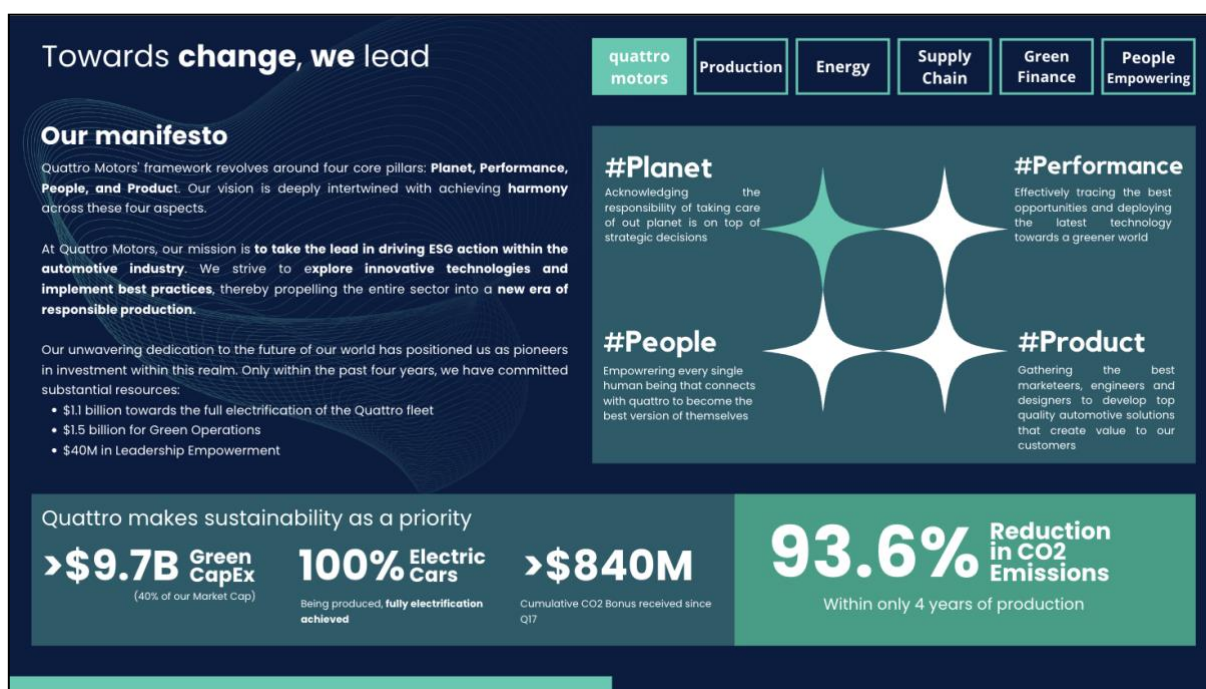
Image	Category	Value
	Marketing Mix TV Campaign	80%
	Marketing Mix Print Campaign	80%
	Marketing Mix Training / Service	80%
	Marketing Mix Customer Promotions / POS	80%
	Increased Marketing <u>Kyoto</u> £	1.5%
	Increased Marketing <u>Lisbon</u> £	3%
	Reduced Price <u>Kyoto</u> £	\$66,813.60
	Reduced Price <u>Berlin</u> £	\$77,182.00
	Reduced Price <u>Lisbon</u> £	\$30,223.79

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Quarter 17

Image	Category	Value
	Increased Marketing <u>Lisbon</u> £	2%
	Reduced Marketing <u>Sado</u> £	0.5%
	Increased Price <u>Berlin</u> £	\$78,736.00
	Increased Price <u>Sado</u> £	\$24,480.00
	Reduced Price <u>Godina</u>	\$37,016.36
	Reduced Price <u>Lisbon</u> £	\$30,840.60

Appendix Figure 8 - Decision Making from Marketing in Q17 and Q18. Source:: BiP Industry Masters® - Quattro Motors' Company Records. 2023.



Appendix Figure 9 - Quattro Motors Pillars (from Quattro Motors Sustainability Report).

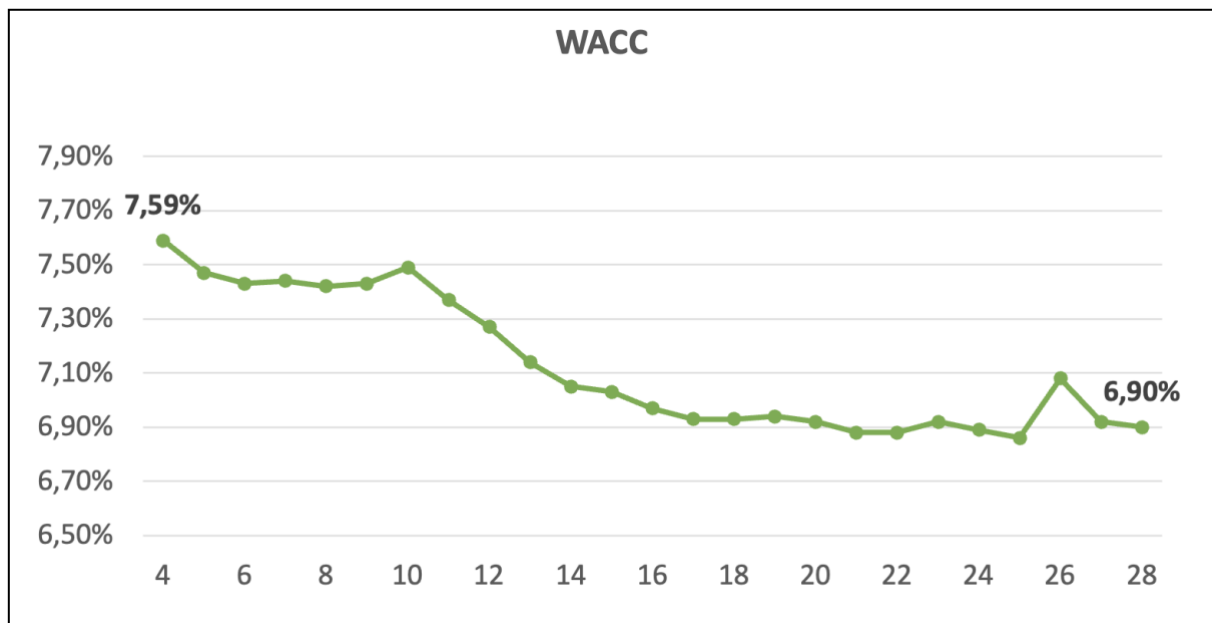
Source: Quattro Motors' ESG Report. 2023.

OPERATIONS			
Figures in Millions of Dollars			
Production			
Availability	Starting Quarter	Action	OP Availability
Done	5	Water Consumption Reduction	Done
Done	7	Waste Reduction	Done
Done	9	ISO14001 / EMAS certificates	Done
			Investment
Total	\$	1 100,00	
Energy			
Availability	Starting Quarter	Action	OP Availability
Done	5	Energy Efficiency	Done
Done	7	Install Solar Pannels	Done
Done	9	Energy Management Systems	Done
		Investment	
Total	\$	410,00	
Supply Chain			
Availability	Starting Quarter	Action	OP Availability
Done	5	Offset Suppliers CO2	Done
Done	5	Choose Sustainable Supplier	Done
Done	7	Co-Invest with Supplier	Done
		Investment	
Total	\$	60,00	

Appendix Figure 10 - Green Operations CapEx - the Path to Improve the Environmental Impact of Car Production. Source: Own Illustration. 2023.

People and Culture		
Figures in Millions of Dollars		
Availability	Starting Quarter	Policy
Available	5	Create sustainability policy
Not Available	7	Sustainability Policy Training
Not Available	9	Sustainability Awareness Training
		Investment
Total	\$	40,00

Appendix Figure 11 - Empowering People at Quattro Motors to face a green transition. Source: Own Illustration. 2023.



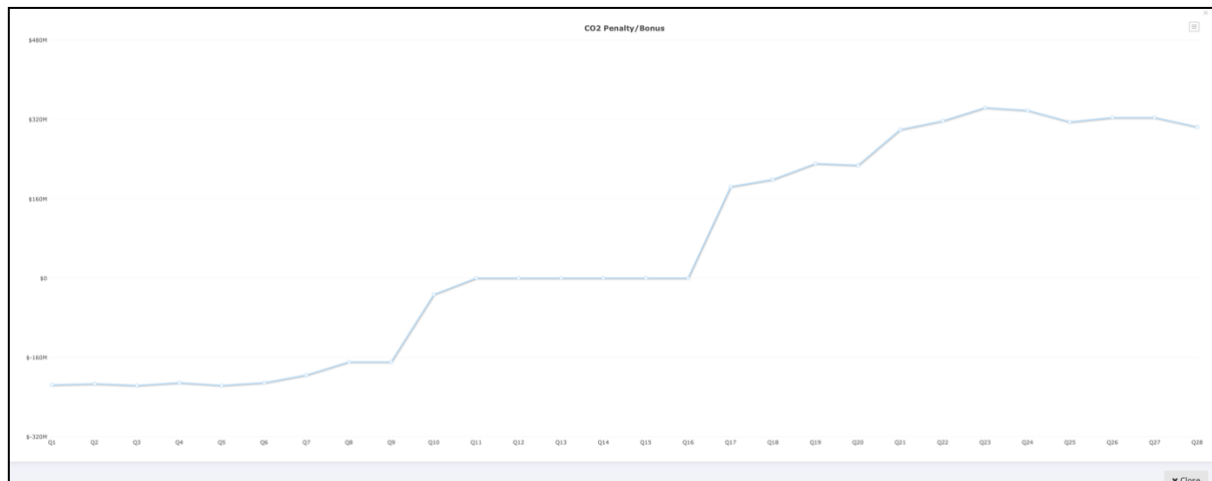
Appendix Figure 12 -Quarterly Reduction of the WACC Due to Debt Substitution by Green Bonds. Source: Own Illustration, Data from BiP Industry Masters® - Quattro Motors Finance Panel. 2023.



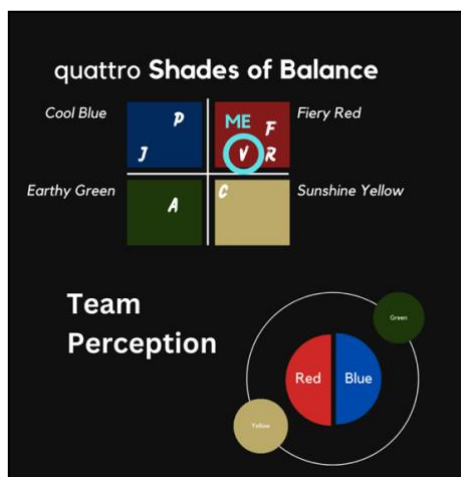
Appendix Figure 13 - Quattro Motors Sustainability Dashboard Showing Astonishing Results in Reducing CO2 Emissions. Source: BiP Industry Masters® - Quattro Motors Sustainability Panel. 2023.



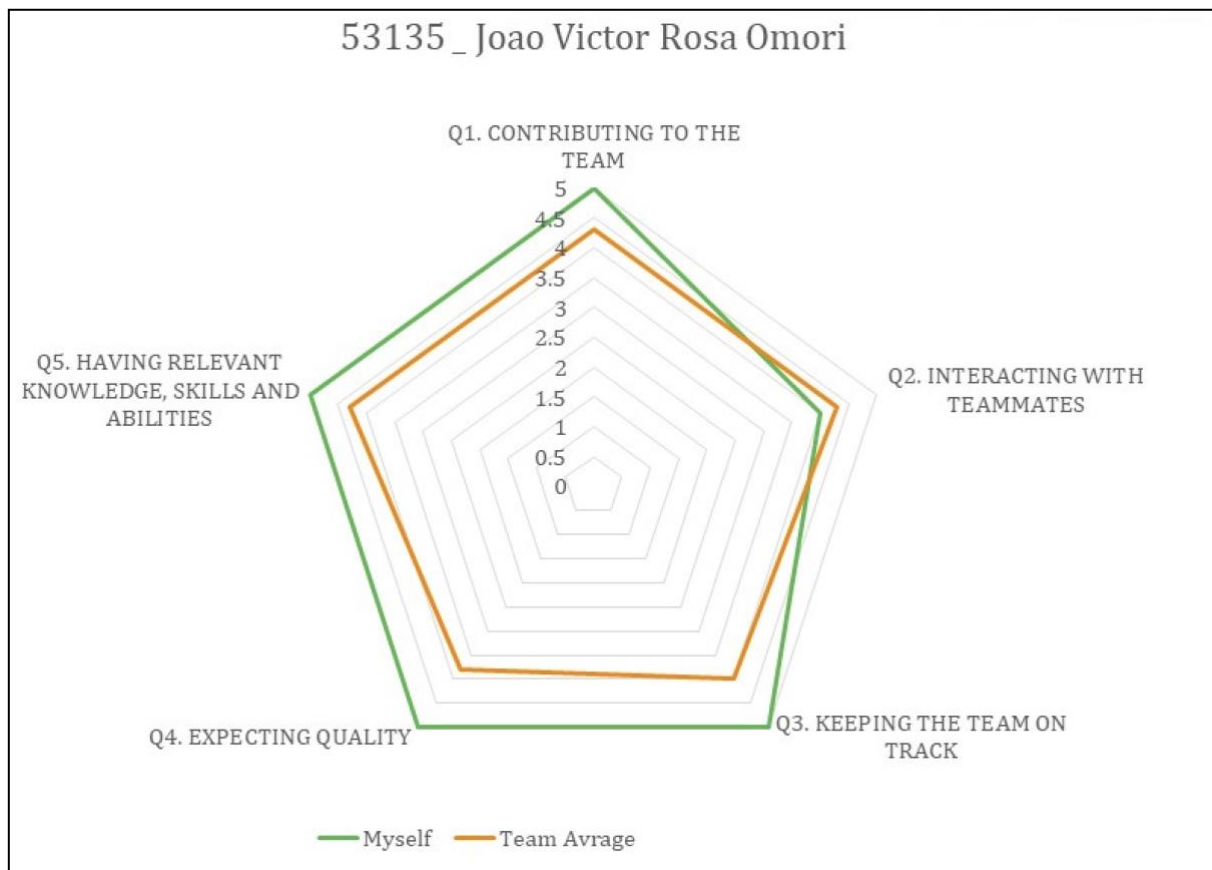
Appendix Figure 14 - Quattro Motors' Robust Green CapEx Mobilization by Quarter. Source: BiP Industry Masters® - Quattro Motors Finance Panel. 2023.



Appendix Figure 15 - Quarterly Evolution of the Quattro Motors CO2 Penalties/Bonuses. Source: BiP Industry Masters® – Quattro Motors Sustainability Panel. 2023.



Appendix Figure 16 - Team Personality Composition and Our Perception: Very Strong Blue/Red Core with Balancing Yellow and Green. Source: Own Illustration. 2023.



Appendix Figure 17 - My Scores vs. My Team Scores – a great shock. Source: BiP Industry - Masters®Peer Review Results. 2023.



Appendix Figure 18 - Good and Bad Sides of Each Personality Color from Insight Discovery. Source: https://www.mudamasters.com/sites/default/files/styles/medium_2/public/field/image/insights_colors_en_0.png?itok=Z0bdwFn7. 2023.

Client Retention



Great! You retained your customer!

QUATTRO MOTORS						
	Very unsatisfying					Very satisfying
Skill / Behaviour	1	2	3	4	5	
Body language: eye contact, smile, gestures, body position					X	
Open questions & active listening: assumptive, relevant, straight to the point, brief, simple, confident				X		
Rapport/Empathy: establishing trust, keep it natural and familiar, conversational				X		
Customer Centric Dialogue: focus on customer needs and seller's differentiators, or focus on product specificities				X		
Dealing with objections / Stress handling				X		
Compromise / Follow up / Call to action					X	
Finding concerns / problems					X	
Extra 2min: Ability to answer posed questions, objections, etc.				X		
	0	0	0	5	3	35

Appendix Figure 19 - Client Retention Success with Excellent Performance on Follow-up and Finding Concerns. Source: BiP Jury Team & Industry Master - Quattro Motors Company Dashboard, Client Retention Challenge. 2023.