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Business in Practice:

Exploring Performance and Personal Growth in VoltEDGE's
Transition to a Fully Electric Vehicle Portfolio

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Abstract:

Building on the Nova SBE Business in Practice simulation, this dissertation analyzes VoltEDGE's performance through the lenses of strategy, operations, and innovation departments. The firm pursued rapid electrification, portfolio growth, and capability development through upfront investments in factories, R&D, and sustainability. Overall, the performance was positive, with long-term value creation and market share growth outweighing short-term inefficiencies in scaling and inventory management. Complementing the firm analysis, a reflective section explores communication misalignment and feedback integration in cross-functional teamwork. The reflection translates incidents into lessons for adaptive leadership, self-awareness, and effective stakeholder alignment in consulting-oriented environments.

Keywords:

Adaptive Communication, Days of Inventory, Electric Vehicles, Factory Utilization, Feedback, First Mover Advantage, Leadership, Market Share, Misalignment, Self-awareness, Simulation, Sustainability, Value Added

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1. Firm Analysis

1.1. Introduction

The global business environment today is defined by volatility, uncertainty, complexity, and ambiguity, often referred to as **VUCA** (Dziak 2024). These conditions are especially pronounced in the automotive industry. As emphasized in the IndustryMasters (2025) guide, these forces reflect broader megatrends such as climate change, increasing urbanization, and the shift toward mobility as a service, which are together reshaping how auto manufacturers compete and create value. According to Adeola et al. (2023), electric vehicle sales surged over 90 percent in both the United States and Europe between 2020 and 2022, while growth in China exceeded 300 percent. Furthermore, OEMs are expected to invest over 500 billion dollars into electrifying their vehicle portfolios by the end of 2025.

Operating within this evolving context, VoltEDGE is a global car manufacturer competing across Europe, Asia, and the Americas. Its operations are supported by eight factories across three regions, with two more under construction. The firm's portfolio consists of six models, split evenly between electric and conventional powertrains, achieving a constant fleet electrification rate of 58% in Y1 (Graph 1). Despite strong foundations, VoltEDGE faces the ongoing challenge of scaling market share and optimizing EBIT margins, which fluctuated in Y1, being at 23.7% in Q4 (Graph 2). Additionally, the company must reduce CO₂ emissions, currently at 69.2 g/mile, in anticipation of stricter global regulations.

The following analysis explores VoltEDGE's performance by applying a critical lens to three key business functions: **strategy**, **operations**, and **innovation**. These were selected for their pivotal role in driving competitive advantage, enabling efficient delivery, and fostering long-term value creation. Each section applies relevant academic frameworks and simulation data to assess how decisions across these functions impact the company's ability to maximize Value Added, defined by high revenues, strong profitability, low WACC, and minimized CO₂ output.

1.2. Review of Strategy Function

A sound strategy begins with diagnosing the core challenge, defines a guiding approach to address it, and implements coordinated actions to execute that approach (Teece 2014). This section shows how VoltEDGE applies these three elements by analyzing its environment, setting strategic priorities, and executing aligned initiatives, based on proven frameworks.

1.2.1. Company's Environment Analysis and Strategy Formulation

VoltEDGE operates under powerful macro drivers identified by **PESTEL** analysis (Figure 1): the EU's mandate for zero CO₂ emissions from new cars by 2035 (Abnett 2023) creates urgent regulatory pressure, and customers increasingly demand sustainable, connected vehicles (Baule et al. 2024; IEA 2025). **Porter's Five Forces** (Figure 2) reveal high industry rivalry among legacy OEMs and EV specialists, significant entry barriers of capital intensity and technology, moderate to high supplier power concentrated in battery markets, and growing buyer leverage via leasing and subscription models, as well as available substitutes.

An effective strategy embodies the principle that a company applies its strengths to the most promising opportunities (Barney 1991). Robust strategy formulation at VoltEDGE begins with an integrated **SWOT** (Figure 3) and **TOWS** (Figure 4) analysis. This approach identifies key internal strengths, such as product portfolio diversification and global presence. It connects them directly to external opportunities, including autonomous driving technology adoption and expansion into new regional markets, all reflecting an offensive, growth-focused posture. Combining SWOT with TOWS provides a dynamic, iterative foundation for strategy generation, as it systematically pairs internal resources with external drivers, developing more realistic and optimal strategic options (Pesic et al. 2015; Dyson 2004). Through this comprehensive integration, VoltEDGE can shape proactive strategies that not only capitalize on the most attractive opportunities but also address vulnerabilities within a complex and rapidly evolving environment.

Together, these analyses underscore two strategic imperatives: lead the market with zero-emission vehicles and expand mass-market reach by combining cost leadership with environmental value. Those choices form the foundation for VoltEDGE's strategic roadmap.

1.2.2. Mission, Vision, and Core Values

Well-defined mission and vision statements guide organizational efforts and enhance performance by aligning stakeholders with shared goals (Baum, Locke, and Kirkpatrick 1998; Bart, Bontis, and Taggar 2001). VoltEDGE's **mission**, *"To deliver a full-stack electric mobility platform with premium technology, wide accessibility, and maximum sustainability,"* specifies its products, target customers, and ethical commitment, meeting criteria for an effective mission statement (David, David, and David 2019). Its **vision**, *"The Smart Drive for Tomorrow,"* projects an aspirational future statement that inspires innovation and market leadership.

Three core values guide VoltEDGE's strategy. Innovation drives product and process improvement. Sustainability embeds environmental responsibility and regulatory compliance. Customer-centricity ensures that mobility solutions meet user needs. Shared values like these correlate with higher employee engagement and operational excellence (Altiok 2011).

1.2.3. Initial Strategy

The firm's initial competitive positioning drew on **Porter's generic strategies** of cost leadership, differentiation, and focus (Porter 1980). VoltEDGE was set to invest heavily in AI-driven systems and Level 2+ autonomous driving to establish a unique technological foundation and production capacity in the form of factories. Building on that foundation, the company would implement overall cost leadership by scaling production, optimizing its supply chain, and offering those advanced features at market-leading price points.

Toyota's and BYD's strategies were considered to refine VoltEDGE's approach. Toyota's broad brand portfolio spans from entry-level to near-luxury models, achieving cost efficiency through shared platforms while preserving a premium image under the Lexus brand (Toyota

2024). BYD emphasizes rapid factory expansion, for example, Shenzhen's Phase III Gigafactory, and the production of over 1.7 million electric vehicles in 2024 to drive down unit costs and secure mass-market penetration (Bekker 2025; Shenzhen Daily 2024). These examples guided VoltEDGE's decision to offer a broad range of affordable models under a single brand and to pursue aggressive scaling of manufacturing capacity.

Building on Porter's generic strategies and Toyota's and BYD's examples, VoltEDGE used the **Business Model Canvas** (Figure 5) to align its resources with customer segments and clarify its hybrid cost-innovation strategy. By mapping the nine BMC building blocks, the firm identified key strategic levers in its activities. Osterwalder and Pigneur (2010) explain that visualizing interdependencies across the nine building blocks fosters holistic understanding and ensures every activity supports the overall business logic. This analysis guided VoltEDGE's investments in scalable production, validating its combination of mass-market pricing with AI and autonomous features and ensuring consistency across all operational elements.

1.2.4. Realized Strategy and Performance Analysis

VoltEDGE invested strongly and early in creating resources and capabilities. The company allocated 75% of total innovation investments by Q12, amounting to \$7,628M, focusing on core technology and advanced features. Operations also moved quickly, investing in two factories within first 8 quarters for \$1,600M, and \$770M in sustainability initiatives by Q12, which made up 69% of operations investments. This front-loaded approach reflected a clear strategy: secure capacity and technological foundation before returns.

Performance assessment centers on **Value Added** (VA) (Graph 3), a standard KPI for measuring strategic progress. VA initially declined from Q4 to Q13 due to heavy investments, then fluctuated around \$400 until Q19 as the organization integrated its new capabilities. After Q19, VA climbed steadily, reaching \$2.94K in Q28, a notable rise from the starting level of \$2.04K. This indicates that early investments had a short-term negative impact on VA but laid

the groundwork for long-term growth. If other investments had happened sooner, VA's low point might have been deeper, but the final gain could have been higher, as strong capabilities had been activated earlier.

1.2.5. Comparison with Real OEM Strategies

Benchmarking competitive positioning is widely recognized in strategic literature as a way to identify competitive advantages and guide improvements in both external conditions and internal strengths and weaknesses (Hristova 2021).

Toyota's strategy focuses on cost leadership, broad product diversity, and continuous quality improvements. The company leverages its scale to enter multiple markets, invests heavily in electrification and autonomous vehicles, and maintains global leadership by integrating innovation, efficiency, and sustainability (Thompson 2025; Toyota 2024).

BYD pursues rapid scaling and vertical integration, controlling its entire supply chain from batteries to assembly. Its "Intelligent Drive for All" initiative aims to standardize advanced driver-assist. The company aggressively expands globally, while using technology leadership and cost advantages to drive mass-market penetration (Kitishian 2025; Luan 2025).

Tesla's 2025 strategy combines disruptive innovation, deep vertical integration, and significant advances in AI and full self-driving technology. The company expands global gigafactory production and leads in cost-optimized EVs, with plans to launch an affordable compact model targeting the mass market (Frackiewicz 2025).

VoltEDGE's strategy draws on benchmarking these leaders: scaling manufacturing, integrating cost leadership with innovation, and offering advanced features at attractive prices. The positioning map (Figure 6) shows VoltEDGE's planned repositioning into the open market space between Toyota's portfolio strategy, BYD's mass-market strength, and Tesla's innovation leadership. With effective execution, VoltEDGE is poised to capture value in an

underserved segment, leveraging the synergies of the approaches above to achieve a distinctive competitive market position.

1.3. Review of Operations Function

Operations management aims to create business impact, serving as a cornerstone of the bottom line while promoting sustainability across environmental and societal dimensions (Kovács et al. 2020). This section shows how VoltEDGE leveraged key operational frameworks and managed performance dimensions to achieve strategic alignment and operational excellence.

1.3.1. Application of Operational Frameworks

The **4Vs framework** assesses operational characteristics through the dimensions of volume, variety, variation, and visibility, critically shaping operational design and performance (Slack and Brandon-Jones 2019). VoltEDGE strategically targeted high-volume production, expecting economies of scale to drive cost efficiency. Initially, a lower variety strategy was planned; however, actual operations involved higher variety, resulting in launches of nine distinct car models over the simulation period (Figure 7). This deviation was primarily driven by excess factory capacity, leading VoltEDGE to diversify model production to utilize available resources effectively. Additionally, demand variation proved higher than forecasted, especially concerning the uptake of electric vehicles. Consequently, VoltEDGE faced operational inefficiencies, including elevated inventory levels and suboptimal resource utilization, significantly affecting financial and human resources management.

Operational process design must align precisely with **operational performance objectives** to optimize performance (Slack and Brandon-Jones 2019). VoltEDGE initially prioritized sustainability and cost-effectiveness, as reflected in its operational approach (Figure 8). Emphasizing sustainability involved substantial investments in environmentally responsible manufacturing, inherently limiting simultaneous focus on flexibility and delivery speed, thus highlighting trade-offs inherent in operational strategy (Klassen and Menor 2007). The realized

operational strategy was adjusted to respond dynamically to changing market conditions. As VoltEDGE managed varying levels of production flexibility and dependability, it sustained strong alignment with overarching cost and sustainability objectives.

1.3.2. Performance Analysis of Operations

VoltEDGE's initial operations strategy targeted economies of scale via multi-line production of the same model, lifting early **Factory Utilization** but increasing sensitivity to inventory swings when demand is misaligned. VE Lux was the extreme case: overproduction on two lines drove stock to 21,372 units versus sales of 7,107, forcing utilization for this model down to 1% and inflating its stock-management ratio to 301% (Figure 9). This imbalance also spiked the VE Lux unit cost to \$849.48K in Q13, versus a normal \$60-70K range. Company-wide, the lowest utilization of 63% occurred in Q12 (Graph 4), a deliberate move to lower inventory. At the same time, a new European line opened (Graph 5), and three models were paused due to high DOI after Q11. Factory utilization rose steadily from Q13 to Q17 due to a balanced vehicle production approach. However, launching two new models in Q17 and Q18 required production shifts, temporarily lowering utilization levels and overall efficiency. Since Q21, utilization has fallen below 100% only three times, driven by model- and site-specific adjustments.

Days of Inventory (DOI) remained broadly stable around 65 days until Q11 (Graph 6), then fell to 49 as production was reduced to curb inventory accumulation, coinciding with the utilization dip. Management then rebuilt safety stocks employing economies of scale, and DOI moved into the 70-88 range through Q15-Q19; this improved stock buffer but raised warehouse costs, which required increasing variety beyond the initial scale-focused plan. At DOI near 30, for some models, sales matched output, and an invisible underserved market emerged, as vehicles were sold immediately with no buffer. As a policy benchmark, empirical research shows automakers often hover around 60 days of supply, while Toyota has historically operated materially lower than peers, indicating that sustained levels above ~60-70 days tend to amplify

working capital and storage burdens. In contrast, very low buffers raise stockout risk (Cachon and Olivares 2010).

1.3.3. VoltEDGE's Path to Sustainability

VoltEDGE executed a staged roadmap across scopes 1-3 (Figure 10), aligning projects to **SDGs** and institutionalizing KPI governance. Scope 1 focused on direct operations, improving on-site efficiency and compliance while advancing SDG6, SDG12, and SDG13. Scope 2 targeted purchased energy GHG emissions, contributing to SDG7 and SDG13. Scope 3 addressed value-chain activities, extending impact under SDG12, SDG13, and SDG15. In total, VoltEDGE invested over \$1,820M across the three scopes, establishing the basis for GHG reduction and positive CSR outcomes.

Corporate Social Responsibility (CSR) gains real traction when it is integrated with competitive context and core strategy, enabling firms to address societal issues in ways that also enhance business performance (Porter and Kramer 2006). Over the period of 7 years, the company achieved an average 64% reduction in emissions across all three scopes (Graph 7), which coincided with a marked rise in CSR reaching 100% in Q17 (Graph 8), stronger demand for VoltEDGE vehicles, and material savings from lower energy and input-material intensity. Prioritizing the reduction of air emissions, improving energy performance, and strengthening governance as leading ESG levers aligns with sector evidence that these factors have high causal influence on overall automotive ESG performance (Vijaya et al. 2025), which supports their prominence in VoltEDGE's investments.

VoltEDGE phased out combustion models to accelerate compliance; Lux 225G was liquidated in Q11 by Operations, while the remaining ICE and Hybrid platforms were discontinued in Q13 after a joint decision with Marketing and Finance. Both were already out of production in Q11 to clear remaining stock and preserve price discipline. This sequencing enabled a complete electric portfolio and delivered fleet emissions of 0 g/mile by Q13 (Graph 9).

1.4. Review of Innovation Function

In the automotive sector, firms rely on continuous product innovation, particularly in areas such as EVs, materials, and features, to meet evolving customer demands, regulatory pressure, and technology shifts, which is critical for maintaining competitive advantage and managing capabilities (Braidy, Pokharel, and ElMekkawy 2025; Gerhard, Brem, and Voigt 2008).

1.4.1. Application of Innovation Management Frameworks

The McKinsey **Three Horizons framework** offers a structured method for sustaining growth by balancing core, emerging, and future opportunities (McKinsey 2009). For VoltEDGE, Horizon One involved initiatives with immediate commercial returns, primarily the launches of new car models in established market segments. These projects used existing platforms and production capabilities to generate short-term revenue and market share gains. Horizon Two consisted of more transformational, mid-term initiatives such as R&D in AI, charging infrastructure, and the launch of second versions of existing models to mitigate trade war effects. Horizon Three included less capital-intensive but strategically important bets such as sodium battery research and next-generation drive module development (Table 1).

The **Dual Innovation model** (March 1991) complements this view by distinguishing between exploitation, which focuses on incremental improvements, and exploration, which targets new technologies and concepts with uncertain but potentially high returns. Horizon One primarily focuses on exploitation-oriented activities, optimizing proven platforms for immediate impact. Horizon Two blended exploitation with exploration, combining R&D with product launches that address both geopolitical and market shifts. Horizon Three was primarily exploration-focused, aiming to build future capabilities that could transform competitive positioning.

VoltEDGE's sequencing of these activities allowed early exploration in Horizons Two and Three to build a strong base for later exploitation, resulting in sustained Value-Added growth after Q19 (Graph 3).

1.4.2. Developing Innovation Capabilities and Strategic Resources

Building innovation capabilities requires targeted investments in assets and skills that facilitate product and technological advancement. In the automotive industry, R&D is widely recognized as a key factor in gaining a competitive advantage, allowing firms to differentiate their products and enhance efficiency. (Chamsuk, Fongsuwan, and Takala 2017). For VoltEDGE, all R&D investments were made in the first year of transformation and represented 6.6% (\$1.25B) of that year's revenue, focusing on early investments in AI, battery efficiency improvements, and advanced platforms. These projects followed a pattern consistent with the J-curve effect, where initial expenditures depressed Value Added in the short-term. Still, they generated accelerated gains in later periods as new capabilities matured (Brynjolfsson, Rock, and Syverson 2021).

A second central area of capability building was the creation of VoltEDGE's own charging infrastructure from the ground up and its expansion, amounting to \$1.6 B. Strategically, these stations were designed to generate after-sales revenue streams, while commercially, they reduced consumer range anxiety, a widely recognized adoption barrier for electric vehicles (Egbue and Long 2012). This initiative also reinforced VoltEDGE's brand positioning as a complete electric mobility provider, integrating vehicles with essential infrastructure.

The third investment category involved launching new vehicles, which translated earlier R&D efforts into tangible market offerings. VoltEDGE committed \$7,407M to vehicle launches within the first four years, making it the most capital-intensive component of its innovation strategy. These launches set the stage for strategic rollout patterns discussed in the next section.

1.4.3. Strategic Alignment of Product Innovation and Market Launch

At the end of Q28, VoltEDGE's portfolio consisted of 12 models (Figure 11). Over the course of the simulation, three models were phased out and nine new vehicles were launched. These launches can be grouped into four strategic categories: first mover advantage, replacing ICE with EV, trade war and market adaptations, and affordable mass-market models.

The first model launched, VE Micro, represented VoltEDGE's entry into a segment absent from both its own portfolio and those of its competitors. This decision directly aligned with the company's mission, filling an unmet need in the market. Research on **first-mover advantage** shows that early entrants can secure long-term market leadership through customer loyalty, technological leadership, and preemptive access to key resources (Lieberman and Montgomery 1988). From Q11 to Q21, VE Micro remained the company's best-selling model by volume (Graph 10), demonstrating the commercial impact of this pioneering position. However, the model's alignment with the original low-cost strategy was hindered by excessive features, preventing it from meeting affordability targets. This highlights the risk that early entrants may over-invest in features to differentiate, potentially lowering price competitiveness (Rhee 2006). The strategic imperative drove **the replacement** of three conventional models by their electric counterparts to reach zero emissions. This transition culminated in Q13, when VoltEDGE achieved a fully electric portfolio (Graph 9). The later launch of VE Pickup in Q15 was targeted primarily at the U.S. market, where demand for this segment was strongest, reflecting a market-specific adaptation within the broader decarbonization goal.

U.S.-China **trade war** tariffs, reaching 100% and 40% respectively, prompted portfolio changes. The City E was supplemented with VE City, enabling parallel production in both China and the U.S. Similarly, Sports E was paired with VE Sport. Additionally, the VE 4x4 was launched to restore competitiveness in a declining segment, where rivals had introduced superior-featured models, and to support factory utilization through a proven demand category. The final two launches, VE Micro Eco and VE Biz Eco, were "Economic" versions with fewer features and lower prices, designed to return to VoltEDGE's original **low-cost, mass-market positioning**. This approach mirrors strategies observed in automotive portfolio management, where low-cost models are used to capture price-sensitive segments (Adăscăliței and Guga 2020). However, such moves carry the risk of product **cannibalization**, the reduction of sales

of an existing product by a new product from the same company (Laruccia, Tristão, and Loureiro 2017). This effect was evident after Q21, when VE Micro Eco sales began eroding demand for the original VE Micro (Graph 10), illustrating the trade-off between expanding market reach and protecting existing revenue streams.

1.5. Integrated View Across Functions

Cross-functional collaboration helps organizations combine diverse knowledge into innovative outcomes, particularly when supported by shared responsibilities, trust, and goal congruence (De Clercq, Thongpapanl, and Dimov 2011). At VoltEDGE, early cross-functional work faced coordination challenges and misalignment, but over time, the team built stronger mechanisms for knowledge sharing, ultimately enabling cohesive, strategically aligned cooperation.

Strategy served as the guiding beacon, ensuring all functions, namely: operations, innovation, marketing, finance, and HR, moved in the same direction. Crafting the initial strategy and making later course corrections were shared responsibilities, requiring alignment between functional priorities and the company's long-term objectives.

The **operations function** determined production line allocation, reviewed data to expand or reduce specific model production volume, and invested in GHG improvements. It relied on innovation to deliver new models for optimal factory use, marketing to match models with regional demand and tariff conditions, finance to fund CO₂ reduction projects and new lines, and HR to ensure skilled staffing and policies that supported long-term sustainability.

The **innovation function** designed and launched new products, decided which advanced technologies to invest in, and selected features to maximize returns. It depended on finance for R&D and launch funding, marketing for market-specific customer insights, and operations to ensure timely production and efficient capacity utilization in each region.

In the simulation's early years, department-specific goals, for example, operations optimizing DOI and factory utilization and marketing pursuing high margins, cause misalignment. By year

3, the team recognized the need for a common goal and introduced quarterly 5-10 minute syncs to align factory utilization, stock, forecasts, pricing, and marketing. This coordination improved stock management, reduced financial costs, and enabled more balanced pricing strategies. Similar challenges were observed across other functions, but VoltEDGE's transition from competition to cooptation enabled the management team to work more efficiently and effectively.

1.6. Conclusion

VoltEDGE set out to win accessible electrified mobility by pairing cost leadership with distinctive technology and rapid decarbonization. Execution delivered a fully electric portfolio by Q13, sustained capability build, and a repositioning toward affordable innovative models that scaled demand while meeting regulations. Overall, intent was substantially achieved, with gaps mainly in demand-aligned scaling and inventory discipline.

First, VoltEDGE front-loaded capability builds investing 75% of total R&D by Q12, two factories in the first eight quarters, and major sustainability projects. This depressed near-term Value Added yet raised the ceiling for later growth. Second, the company completed a zero emissions pivot by Q13, discontinuing conventional platforms and coordinating operations and marketing to clear stock and protect prices. This unlocked regulatory headroom and sharpened brand positioning. Third, VoltEDGE sequenced launches to create first mover advantage with VE Micro, adapt to tariffs with regional twins, and restore affordability with Eco variants.

The trajectory is consistent with PESTEL regulation and technology pull (Figure 1), a Five Forces context of intense rivalry and moderate buyer power in the form of demand (Figure 2), and a TOWS that matched internal strengths to electrification opportunities (Figure 4). Outcomes, therefore, validate the strategy logic rather than luck.

Revenue grew at a CAGR of 10.1% (Graph 11), versus an industry forecast of 6.134% for 2025-2033 (Mali 2025). VoltEDGE's Value Added rose at a CAGR of 2.4% (Graph 12), versus a

worldwide Transportation & Vehicle Manufacturing value added outlook of 1.65% CAGR for 2025-2029 (Statista 2025). Market share from Q4 to Q28 increased in all regions (Figure 12) in the Americas by 9.75 p.p., in Asia by 3.6 p.p., and in Europe by 8.13 p.p. Together, these KPIs indicate outperformance versus market growth, successful strategic repositioning, and maturing capabilities, with an operational caveat around scale decisions and intensity.

With the results clarified above, four function-specific lessons emerged that consolidate the analysis into actionable guidance. From a strategy perspective, a clear intent proved necessary but insufficient; performance improved when the team exercised the capability to sense, seize, and reconfigure as conditions evolved, consistent with dynamic capabilities and strategy that can emerge through learning (Mintzberg and Waters 1985; Teece, Pisano, and Shuen 1997). From an operational perspective, economies of scale created advantage only when aligned with demand and product mix; our attempts to scale across multiple lines generated excess inventories and carrying costs that diluted unit cost gains, echoing lean operations where overproduction is treated as the most harmful waste (Ohno 1988). From an innovation perspective, early and patient investment in research and development temporarily reduced value added but later enabled sustained acceleration once complementary assets and learning accumulated, consistent with the documented productivity J-curve pattern (Brynjolfsson, Rock, and Syverson 2021). From a cross-functional perspective, balancing internal competition with collaboration fostered constructive coopetition that improved knowledge sharing and execution while allowing departments to meet their objectives and advance firm-level goals (Tsai 2002). Looking ahead, two focused actions follow from the evidence above. Adopt demand-aligned scaling, expand or pause production only when regional sell-through meets targets and days of inventory stay within bands, with stop rules if price realization weakens. Lock affordability for entry models protects target prices through disciplined features and prioritizes a small set of innovations that clearly lift willingness to pay.

2. Personal Reflection

2.1. Framing the Incidents and Their Significance

Reflecting has been one of the most effective ways for me to turn my experience into learning. Choosing the right incidents is crucial, as it highlights situations that reveal both personal tendencies and broader leadership challenges. The two I selected, *continuous misalignment in the team* and *peer feedback leading to enhanced self-awareness*, capture fundamental aspects of managerial development: communication and feedback.

The first incident highlights the challenge of maintaining alignment in cross-functional teams, where the paradox of knowledge sharing is evident. On the one hand, information must be exchanged to create integration; on the other, excessive or poorly timed communication risks overload and confusion. Eppler and Mengis (2004) show that information overload can undermine decision quality, while too little sharing prevents accuracy. Misalignment in my team illustrates this paradox and highlights the need to calibrate communication so it supports joint action without overwhelming others. This makes the incident a helpful lens to explore how leaders balance selective sharing, clarity, and timing.

The second incident focuses on the developmental value of peer feedback. More than a tool for evaluation, feedback helps individuals uncover blind spots and confront gaps between self-perception and how others see them. Vazire and Carlson (2011) argue that accurate self-knowledge requires integrating perspectives from both sources, as personal insights alone often miss critical behaviors. The peer feedback I received served this function by exposing unexpected gaps and challenging assumptions about my contribution, making it a strong case for exploring how feedback shapes reflective leadership and self-awareness.

Together, these incidents show two sides of managerial development: coordinating communication and aligning self-perceptions with others' views. Both stress adaptive communication and openness to feedback are qualities vital for my future career in consulting.

2.2. Incident One: Navigating Continuous Misalignment in Teamwork

2.2.1. My Starting Point in Communication Preferences and Role Orientation

My starting point in the simulation was shaped by prior experiences in academic projects and professional work at McKinsey, which trained me to value structured and concise communication. Within the BiP, a key tool for understanding my orientation was **Insights Discovery**, complemented by the 16 Personalities framework. Insights placed me as predominantly **Fiery Red**, but close to Cool Blue, highlighting a balance between decisiveness and analytical structure in my approach to teamwork. My dominant color reflects a direct, action-oriented style, while my closeness to Cool Blue grounds me in analysis and accuracy. In practice, I seek thorough but concise input before committing to decisions, a pattern consistent with the ENTJ “Commander” profile, which emphasizes goal orientation and efficiency.

The **team chart** (Figure 13) reinforced these tendencies, supporting clear values of accountability, communication, and punctuality, aligning with my preferences. As the only Fiery Red in the group, I worked smoothly with the Cool Blue members who valued structure, but often contrasted with the Sunshine Yellow finance directors, whose exploratory style conflicted with my task focus. This positioning helped balance the group dynamic by ensuring progress while testing my patience with more open-ended discussions.

An important implication of my orientation is a tendency to privilege speed over exhaustive explanation. Research shows that information overload, when too much detail is shared, may lead to lower performance, but under-sharing can also limit integration of insights (Arnold et al. 2023; Haas and Mortensen 2016). I recognized that I often erred on the side of brevity, assuming colleagues did not require full context if decisions were reached quickly.

My initial orientation highlighted both the strengths and risks of Fiery Red tendencies: while they accelerated progress, they required calibration to avoid losing critical knowledge in the drive for speed. This Fiery Red-Cool Blue balance framed the incidents that followed, as it

enabled me to combine urgency with analytical depth, but also created misalignment when colleagues expected broader contextual sharing. Recognizing this foundation was essential for understanding how my communication style shaped the team dynamics and guided my leadership development.

2.2.2. Incident Triggers Through Two Episodes of Misalignment

Misalignment in my team was not the result of a single event but developed through several episodes. Two moments were especially significant: the **client retention meeting** after year 4 and the **WACC problem** that unfolded across multiple years. Both episodes shaped my internal perspective and revealed the gap between our intended alignment and the reality of our actions. The client retention meeting, where our team had agreed that the director of innovation would lead and address general questions, while others would intervene only on role-specific matters. Once in the meeting, however, I felt growing **anxiety** watching him struggle to manage the client's questions. My Fiery Red tendency pushed me to step in, breaking the agreed structure. In hindsight, this was a mistake: my intervention confused the team, encouraged others to contradict our narrative, and led to inconsistencies. For instance, I mentioned we were preparing an ESG report, while a finance colleague later said the report was already completed. We also sent mixed signals when asked about not supporting Pride Month with adjusted logo colors, a stance reflecting how many companies avoid political positioning to maintain broader customer appeal (Deang 2025). These contradictions damaged our credibility and contributed to low scores on customer focus and objection handling, resulting in only partial retention of the account. My anxiety-driven action illustrates the **action bias**, where individuals prefer doing something over waiting, even when restraint may serve better (Patt and Zeckhauser 2000).

The second episode was the WACC problem, which persisted across the simulation. As operations director, I regularly consulted the finance department about whether green investments would lower our WACC. This reassured me that these investments were already

factored into a reduced borrowing rate of 3%. Despite my doubts, and with support from a marketing colleague who also questioned this, I relied on finance's expertise and did not escalate the issue. As our WACC rose above the benchmark between Q5 and Q20 (Graph 13), I felt growing confusion and a loss of trust in finance. My role was not passive, as I consistently sought confirmation while deferring to their authority rather than seeking external clarification. In Q23, I discovered through other teams that the mechanism worked the opposite way, as green investments unlocked lower borrowing rates. At that point, I felt furious, as WACC was a core driver of our VA score, and the damage was irreversible. My reaction reflects the **authority bias**, where individuals place undue trust in perceived experts, leading them to under-challenge flawed assumptions (Moats, DeNicola, and Malone 2021).

2.2.3. Reflecting on the Balance Between Communication and Alignment

Looking back, I realize how my reactions were influenced by the tension between acting swiftly and staying aligned. The client retention workshop exposed my Fiery Red impulse to intervene under stress, creating confusion; the WACC problem showed the risks of over-reliance on others' expertise without challenge. Both situations clarified for me that effective leadership lies in calibrating communication rather than leaning too far toward either action or deference. The paradox I faced was that sharing knowledge is essential for team performance, yet too much information can overwhelm. Evidence shows overload reduces decision quality and accuracy (Figure 14) (Eppler and Mengis 2004), while studies consistently show that information sharing is a strong predictor of team effectiveness and integration (Mesmer-Magnus and DeChurch 2009). In the workshop, stepping in with more detail amplified misalignment; in the WACC case, I under-shared concerns and deferred to finance, limiting correction.

These experiences also highlight the role of **bounded rationality** in my decisions. Under pressure, I simplified the problem, first by acting to reduce anxiety and later by trusting authority to reduce uncertainty. Both choices were understandable, but revealed how limited

information-processing capacity can lead to biased reactions (Korteling, Brouwer, and Toet 2018). Recognizing this made me more aware of decision-making biases such as action bias and authority bias, which shaped my behavior in ways I did not notice at the time.

Finally, leadership requires balancing transparency with selectivity. As Bushe (2010) argues, teams fall into “interpersonal mush” when communication lacks clarity, leading to divergent interpretations. I experienced this directly in the mixed signals we sent to the client. Clear leadership involves making choices about what to share, when to share it, and how to frame it so that alignment is maintained without overwhelming others.

2.2.4. Developing Adaptive Communication as a Leader

From these experiences, I learned that my natural drive for speed and decisiveness needs to be balanced with greater sensitivity to timing, clarity, and alignment. I realized that acting quickly can create confusion if the message is not fully coordinated, while excessive deference can delay corrections when critical assumptions are wrong. I have become more aware of my limits: I can overlook how much context others need or, conversely, hesitate to push back when experts appear confident. Yet, these limits also present growth opportunities. I can learn to pause, test my assumptions, and adjust the level of detail I share based on the audience and situation.

This recognition points to adaptive communication as a core leadership skill. Rather than choosing between complete transparency and brevity, I need to calibrate communication so that colleagues and clients receive the clarity they require without being overwhelmed. It is less about changing who I am and more about expanding how I can adopt my style.

Looking ahead, I will carry these lessons directly into consulting. The profession demands synthesizing complex information, sharing it selectively with clients, and aligning diverse stakeholders under time pressure. By practicing adaptive communication that is clear, concise, and sensitive to context, I can strengthen my leadership effectiveness and build the capacity to deliver impact in cross-functional and client-facing environments.

2.3. Incident Two: From Peer Feedback to Enhanced Self-awareness

2.3.1. Understanding My Self-assessment and Signs of Overconfidence

My self-assessment (Figure 15) reflects how I viewed my contribution to the team across five dimensions. I consistently rated myself high, as I believed I had played an active and visible role in the project.

For contributing to the team, I rated myself highly, convinced that preparing outputs such as the ESG report, sales pitch, and team chart, alongside building the Excel model, made me central to our progress. In interacting with teammates, I saw myself as proactive in supporting quieter voices, encouraging participation, and fostering informal connections through social activities. For keeping the team on track, I gave myself a four, as I often monitored progress and identified weaknesses, but sometimes pursued ideas that distracted the team from priorities. In expecting quality, I pushed myself and others to deliver at a high standard, exemplified by staying late to polish ESG slides despite uncertain benefit. Finally, I rated myself a five in relevant knowledge and skills, believing that my understanding of operations, exposure to other functions, and prior consulting experience provided a strong base for contributing effectively while applying lessons from academic sessions.

Looking back, these ratings reveal not only confidence but also signs of overconfidence. While I had reasons to justify high scores, I did not sufficiently consider the limits of my perspective or the possibility that peers might perceive my behavior differently. Research shows that self-assessment often suffers from miscalibration, where individuals overestimate their competence relative to others' evaluations (Kruger and Dunning 1999; Ostafichuk and Sibley 2019). This tendency shaped how I interpreted my role in the team, leading me to assume that my contributions were both visible and valued in the same ways by others. The misalignment between how I saw myself and how others experienced my contribution became evident once I received peer feedback, which surfaced aspects of my behavior I had previously overlooked.

2.3.2. Reflecting on Peer Feedback and Unexpected Insights

Feedback is one of the most powerful tools for growth, as it allows people to see themselves through the eyes of others and uncover blind spots (Hattie and Timperley 2007; Vazire and Carlson 2011). Upon receiving my peer feedback, I noticed alignment in three areas, but two gaps surprised me: interacting with teammates and expecting quality.

The biggest shock came from interacting with teammates, where I rated myself a five and my peers gave me an average of three (Figure 15). Due to the reasons mentioned in the previous section, I believed I was highly supportive in this area. I always showed up for integrations and even tried to create events like paddle or dinners, because I wanted us to feel like more than just a project team. When I later asked three colleagues for one-on-one feedback, I realized that what I saw as support was often felt as pressure. Some teammates admitted they did not appreciate me pushing them to speak when they preferred to stay quiet or insisting on social events when they wanted to rest. I initially felt disappointed because my intentions were positive, but I later realized that my forward approach didn't leave enough space for their preferences. I had wanted to create friendships that could last for years, while many of them wanted to keep BiP as work and protect their energy for other parts of their life.

The second area was expecting quality. I had rated myself a five because I worked hard to deliver excellent work and motivate others to do the same. Yet, peers perceived me as sometimes preferring speed over quality. This feedback hurt because I saw myself as committed to excellence, but it was also fair. I realized that my Fiery Red tendency to push progress quickly sometimes comes at the expense of giving others the time they need to refine their work. The perception of rushing echoed the misalignment I had already experienced in incident one.

Initially, I explained these differences to myself through culture. Looking at **Hofstede's dimensions**, for instance, I noticed how punctuality was essential for me and my German teammates, while Portuguese colleagues often arrived later, which I connected to motivation

towards achievement and success. Yet during the team dynamics clinic, the professor challenged me to look beyond culture and consider personalities and backgrounds. Using Insights Discovery and 16 Personalities, I could see that our preferences and communication styles explained these gaps much better than national culture alone. This was a significant turning point because I learned to avoid oversimplifying behavior through stereotypes.

The 360 assessment, the team dynamics clinic, and one-on-one feedback sessions were particularly important to me. These conversations were not always easy, but they forced me to listen, reflect, and adjust. I left with a clearer understanding of how others experience me, and with specific lessons on how to balance my energy with the needs of my teammates. Feedback, as Atwater and Brett (2005) note, can be uncomfortable but is essential to growth. For me, it was a reminder that good intentions are not always enough without adaptive communication.

2.3.3. Making Sense of Feedback Through Theory and Practice

Understanding the feedback involved going beyond initial surprise to identify patterns that explain the discrepancies between my self-ratings and my peers' assessments. (Figure 15). Instead of dwelling on the discomfort of lower scores, I asked what these gaps revealed about how I was perceived and how I could turn them into a learning opportunity. This shift marked the moment when feedback shifted from evaluation to a focus on self-awareness and growth. What stood out was how my blind spots were made visible. The **Johari Window** model explains that feedback from others expands the “blind” quadrant, revealing behaviors that we do not recognize in ourselves (Ramani et al. 2017). For me, the gap in interacting with teammates showed that while I believed I was supportive, others felt pressured by my direct style. This was not easy to hear, but it gave me insights I could not have reached alone. It also reminded me that feedback is not simply about confirming strengths but about uncovering the unintended impact of my behavior, which can be very different from my intentions. Recognizing this dynamic made me more open to receiving critical input in future settings.

Emotional intelligence was critical in how I handled this feedback. Mahmood (2024) describes it as the ability to recognize and regulate emotions, while showing empathy toward others. My first reaction was disappointment and defensiveness, but applying emotional intelligence helped me reframe the comments as constructive rather than personal. During one-on-one conversations, I learned to listen with empathy and to accept that good intentions are not always experienced as a positive impact.

Making sense of this experience has shown me the double value of feedback: it highlights strengths while clarifying areas for growth. Although it was challenging to confront the mismatch between my self-view and my teammates' perceptions, it deepened my understanding of adaptive communication and the importance of adjusting style to context. This awareness will remain essential for my future career, where consulting success depends not only on delivering work but also on how colleagues and clients experience my contributions.

2.3.4. Building Reflective Leadership Through Feedback Integration

Through the feedback process, I learned that leadership is not defined only by intentions but by how others experience my actions. I became more aware of my limits, particularly the risk of coming across as too forceful when trying to be supportive and of pushing for results too quickly instead of giving others the time they need to deliver quality. These insights made me realize that effective leadership requires humility, openness, and a willingness to adapt based on perspectives I might not immediately see.

Looking forward, I aim to integrate feedback into a continuous practice rather than a one-off event. London and Smither (2002) emphasize that leaders with a strong feedback orientation and supportive culture build greater self-awareness and sustainable growth. In consulting, I intend to seek structured input from colleagues and clients, using it to adjust my communication and leadership style. By integrating feedback this way, I aim to build reflective leadership that balances high standards with sensitivity, ensuring strong performance and relationships.

2.4. Conclusion

The two incidents examined in this reflection highlight different but connected dimensions of leadership. Both centered on communication, yet each revealed it from a different perspective: one at the level of coordinating a team, the other at the level of understanding myself. Considering them together made it possible to see how these experiences complement one another and how they contribute to my development as a leader.

The first incident showed me that communication is not about volume, but about balance. Too much detail can create overload, while too little leads to gaps and misalignment. I recognized that my preference for speed and decisiveness can be an asset, but also a limitation if it prevents others from having the clarity and time they need.

The second incident highlighted the value of feedback in uncovering blind spots. Even with good intentions, my actions were sometimes experienced differently than I expected. Facing these discrepancies was uncomfortable, but it taught me that leadership requires humility and an openness to perspectives beyond my own.

Together, these insights point to the importance of adaptive and reflective leadership. From my own perspective, adaptive leadership is about being able to adjust my style depending on the situation and the people I am working with, rather than relying on a single approach. Reflective leadership, in turn, is about questioning my own assumptions and staying open to how others experience my behavior, even when it challenges my self-image. Embracing these qualities will not only guide how I continue to grow but also shape the kind of leader I aspire to become.

In the context of my future career in consulting, these lessons are especially relevant. Consulting depends on aligning diverse stakeholders, conveying complex information clearly, and building trust across different professional and cultural settings. By applying what I learned about calibrating communication and integrating feedback, I can strengthen not only my professional impact but also my capacity to lead with resilience and authenticity.

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Appendix

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List of Abbreviations

AI	Artificial Intelligence
B	Billion
BiP	Business in Practice
BMC	Business Model Canvas
CAGR	Compound Annual Growth Rate
CO₂	Carbon Dioxide
CSR	Corporate Social Responsibility
DOI	Days of Inventory
EBIT	Earnings Before Interest and Taxes
ENTJ	Extraverted, Intuitive, Thinking, Judging
ESG	Environmental, Social, and Governance
EV	Electric Vehicle
GHG	Greenhouse Gases
HR	Human Resources
ICE	Internal Combustion Engine
K	Thousand
KPI	Key Performance Indicator
M	Million
OEM	Original Equipment Manufacturer
PESTEL	Political, Economic, Social, Technological, Environmental, Legal
Q	Quarter
R&D	Research and Development
SDG	Sustainable Development Goals
SWOT	Strengths, Weaknesses, Opportunities, Threats
TOWS	Threats, Opportunities, Weaknesses, Strengths
U.S.	United States
VA	Value Added
VUCA	Volatility, Uncertainty, Complexity, Ambiguity
WACC	Weighted Average Cost of Capital

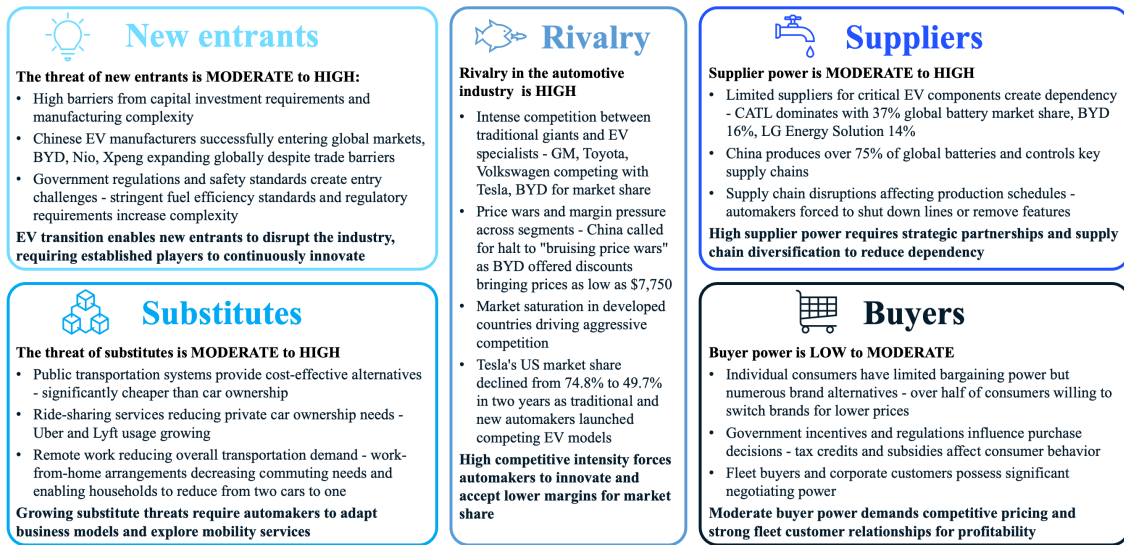
Figures

Figure 1: PESTEL Analysis



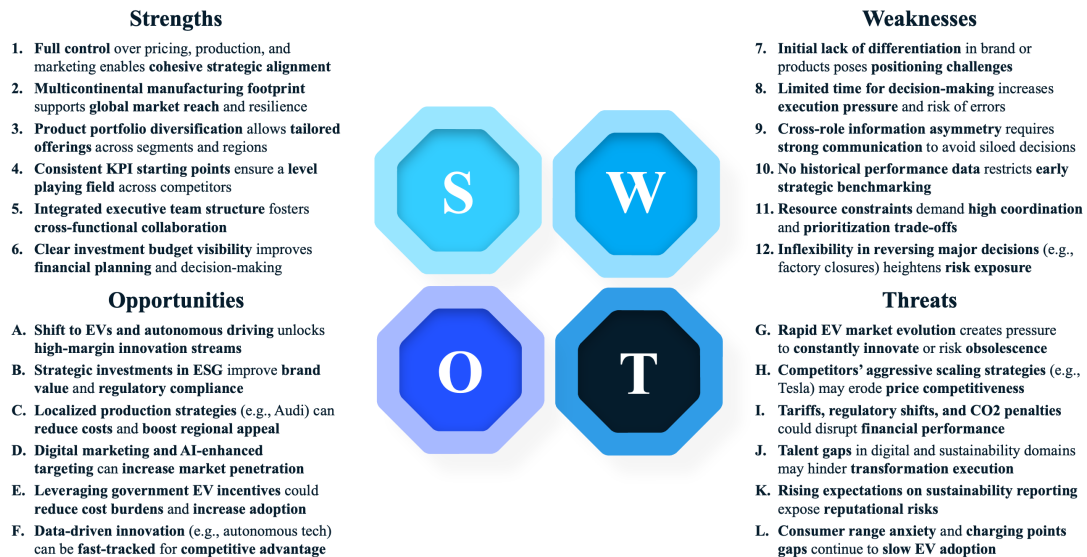
Source: Own Illustration

Figure 2: Porter's Five Forces



Source: Own Illustration

Figure 3: SWOT



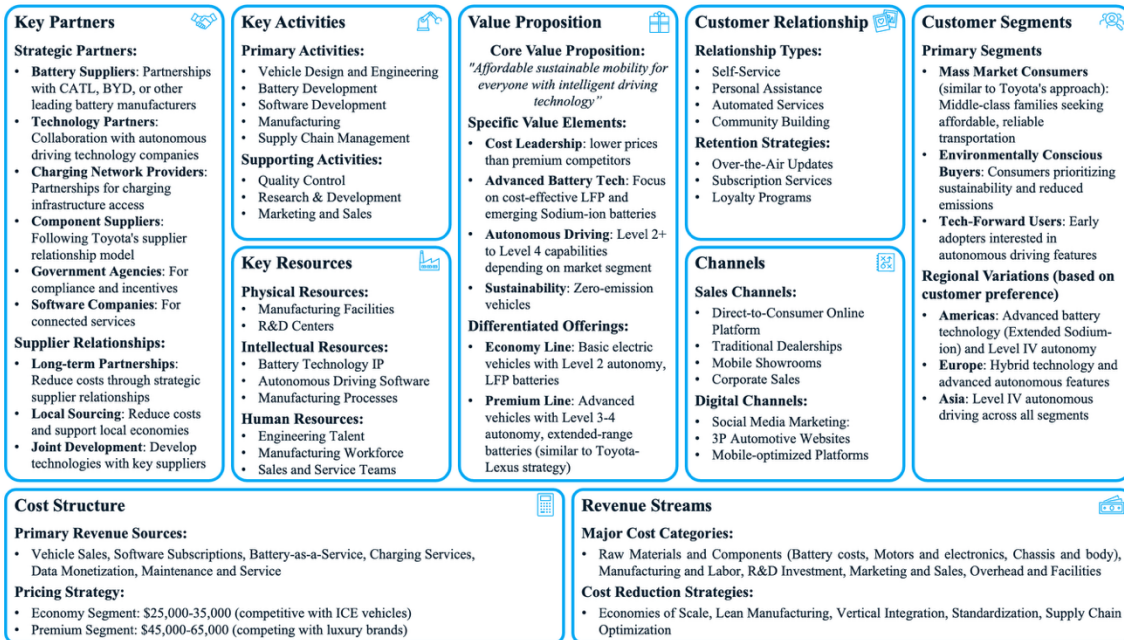
Source: Own Illustration, Adopted from IndustryMasters Simulation

Figure 4: TOWS



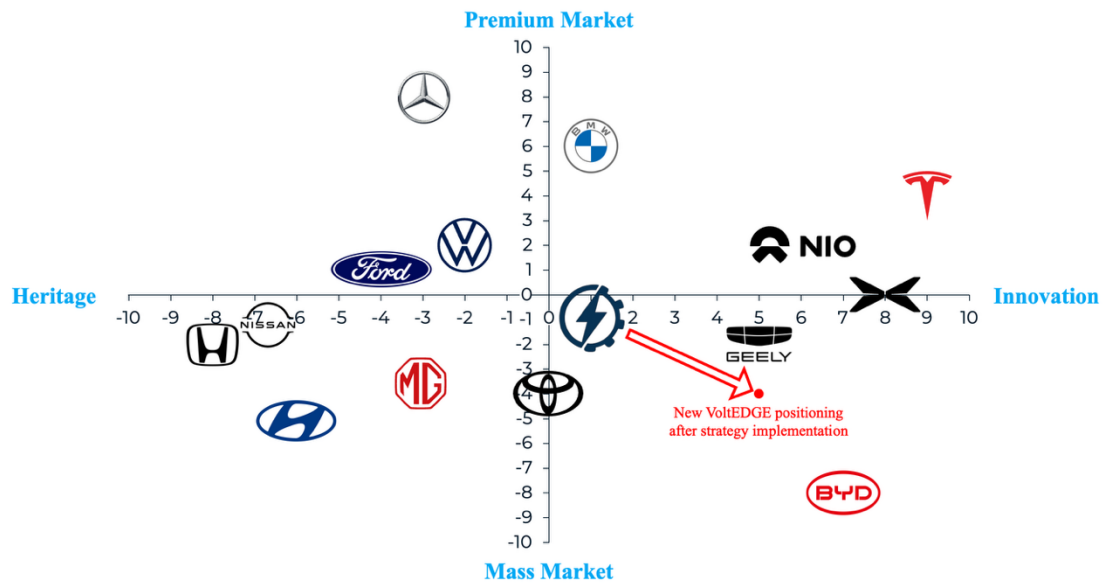
Source: Own Illustration

Figure 5: Business Model Canvas



Source: Own Illustration

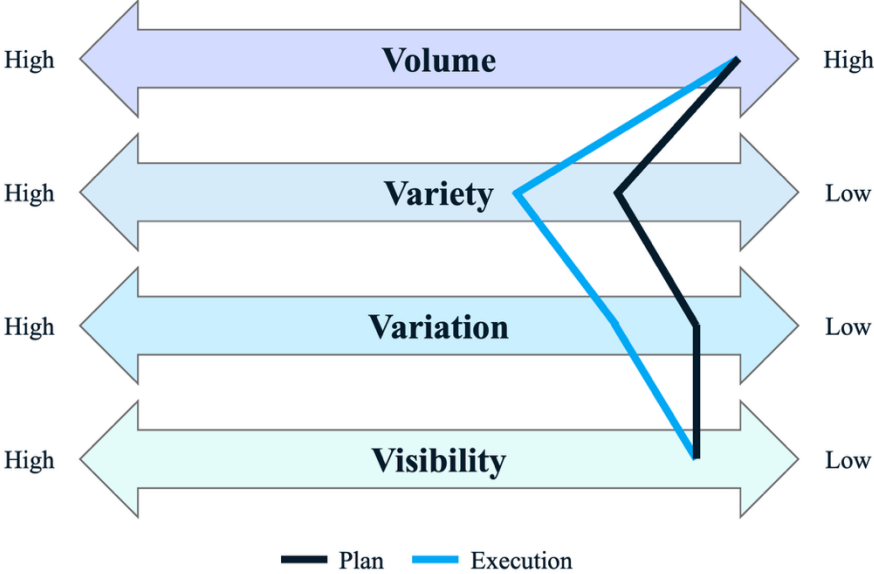
Figure 6: Positioning Map



Logo	Brand	Rational
	VoltEDGE	VoltEDGE balances innovation (58% electrification) with reliability, positioning between Chinese innovation leaders and traditional brands. This moderate innovation approach appeals to consumers seeking progressive technology without Tesla's extremism.
	BYD	BYD leads innovation with vertical integration and Blade Battery technology while targeting mass market expansion globally. Strong R&D capabilities (120,000 engineers) and affordable NEVs position it as innovation leader for accessible markets.
	Geely	Geely transforms into technology leader with AI integration and Full-Domain AI systems while maintaining affordable positioning. Multi-energy platforms and satellite constellation demonstrate innovation commitment beyond traditional automaking.
	MG	MG leverages British heritage credibility while targeting millennials with modern tech-enabled affordable vehicles. "Do More" campaign balances traditional brand recognition with contemporary innovation appeal for younger demographics.
	NIO	NIO establishes premium positioning with cutting-edge technology like steer-by-wire and battery swapping ecosystem. Big market share in luxury EV segment demonstrates successful high-end positioning with innovation leadership.
	XPeng	XPeng leads AI-first innovation with Turing chip technology and autonomous driving focus, earning Fortune Tech 50 recognition. End-to-end AI models and flying car development position it as extreme innovation leader targeting tech-savvy premium buyers.
	Tesla	Tesla pioneers maximum innovation in EVs and autonomy with software-defined vehicles and Supercharger network. Premium positioning combines breakthrough technology leadership with aspirational brand appeal for sustainable mobility.
	Toyota	Toyota pioneers hybrid technology (1997 Prius) and hydrogen fuel cells while maintaining heritage reliability foundation. Innovation leadership in alternative powertrains balances with proven mass market dependability and gradual electrification.
	Ford	Ford maintains traditional automaker heritage while pushing moderate innovation in EV/hybrid profitability and carbon neutrality. Balanced approach combines established manufacturing expertise with strategic electrification investments.
	Hyundai	Hyundai balances heritage and innovation with growing EV portfolio while maintaining strong value positioning in mass market. Moderate innovation approach focuses on tech features and competitive pricing rather than breakthrough technologies.
	BMW	BMW combines premium luxury positioning with innovation leadership through Neue Klasse tech revolution and in-house battery development. Luxury heritage provides foundation for advanced technology integration in high-end market segments.
	Mercedes-Benz	Mercedes-Benz leverages luxury heritage positioning while pursuing sustainability ambitions and EV dominance by 2039. Premium brand equity supports transition to electric luxury vehicles with established high-end market credibility.
	Volkswagen	Volkswagen adopts balanced approach with modular BEV platforms and software ecosystems while focusing on cost control. Traditional manufacturing efficiency combines with strategic electrification investments for mass market transition.
	Honda	Honda maintains heritage-focused reliability leadership with conservative electrification strategy in mass market positioning. Traditional dependability reputation balances with gradual technology adoption for established customer base.
	Nissan	Nissan maintains slight heritage positioning despite early EV experience with 2010 Leaf but slower subsequent innovation pace. Early electric vehicle leadership hasn't translated to sustained innovation momentum compared to newer competitors.

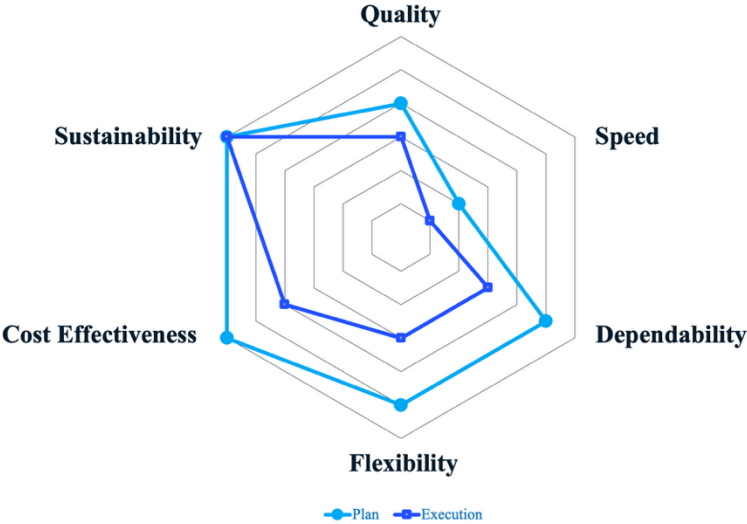
Source: Own Illustration

Figure 7: 4Vs Framework



Source: Own Illustration

Figure 8: VoltEDGE Operational Performance Objectives Polar Diagram



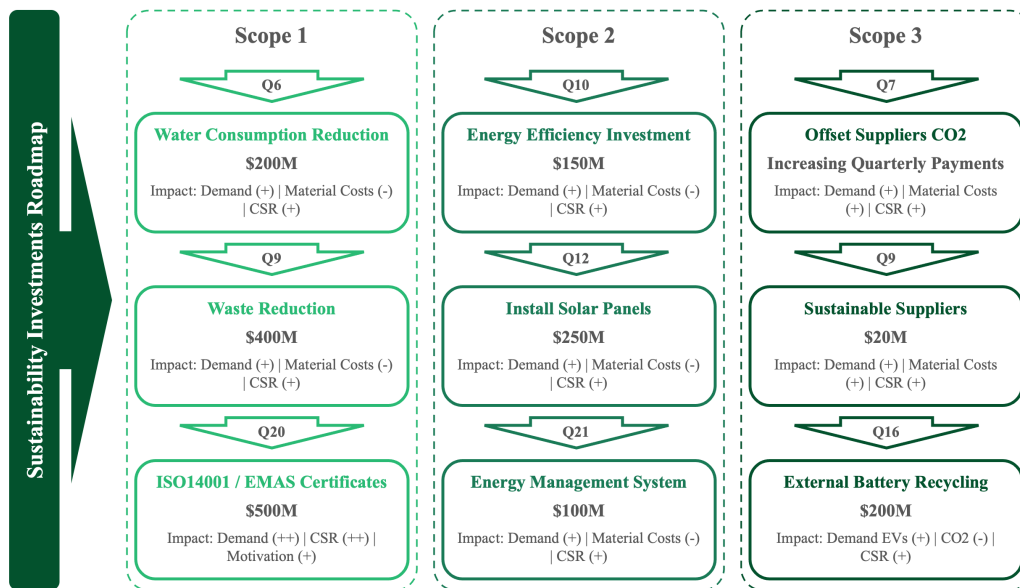
Source: Own Illustration

Figure 9: Excel Tool for Operational Management

Operations		Q12														MANAGEMENT OF PRODUCTION CAPACITY					
City	Days of Inventory	# of factories	Production capacity	Utilization	Production Output / Volume	Sales	Stock/ Inventory Units	Warehouse Capacity	Production Cost/Unit	Material Cost/Unit	Staff Cost/Unit	Warehouse Capacity Ratio	STOCK MANAGEMENT	STOCK Q1 + Average 3 months of Sales	Stock Q1 + Production Q1 - Sales Q1	Days of Inventory	# of factories	Production capacity	Utilization	Production Output / Volume	Sales
EUROPE	444 E	30.97	1	12,000	100%	12,000	12,841	11,475	16,000	\$36,620.00		28%	91%	19,834	30.06	1	12,000	100%	12,000	7,403	
	Business 135 H	89.42	0													0					
	Lux 225G	0	0													0					
	Sport E	0	0													0					
	VE Biz	44.20	3	45,000	100%	45,000	19,824	39,917	60,000	\$29,719.98		33%	201%	65,093	79.83	2	30,000	88%	25,870	21,183	
	VE 444	0	0													1	24,000	83%	20,091	7,891	
	City E	0	0													0					
	VE Biz Eco	0	0													0					
	VE Micro Eco	0	0													0					
	VE City	0	0													0					
VE Lux	0	0													0						
CHINA	City E	0	0													0					
	VE Micro	70.66	2	43,000	100%	43,000	29,229	48,542	56,000	\$11,076.68		13%	166%	61,313	104.06	1	21,000	33%	7,000	26,354	
	VE City	0	0													2	38,000	83%	30,000	14,098	
USA	Sport E	0	0													1	13,500	83%	11,251	11,689	
	FU 225G	0	0													0					
	Lux 225G	0	0													0					
	Business 135H	0	0													0					
	VE Lux	52.38	2	18,000	100%	18,000	7,167	21,373	24,000	\$52,280.00		11%	301%	32,265	108.80	1	6,000	1%	80	9,412	
	VE Sport	0	0													0					
	VE 444	0	0													0					
	VE Biz	0	0													0					
	Business 135 H	0	0													0					
	Lux 225G	0	0													0					
Out of Production	444 E	0	0													0					
	FU 225G	127.4	1	0	0%	0	12,993	4,002	0	0	0	0	0	0	0	0					
	Sport E	103.9	1	0	0%	0	10,345	4,044	0	0	0	0	0	0	0	0					
	City E	0	0													0					
	VE Lux	0	0													0					
	VE Sport	0	0													0					
	VE Micro Eco	0	0													0					
	VE Pickup	0	0													0					
	VE 444	0	0													0					

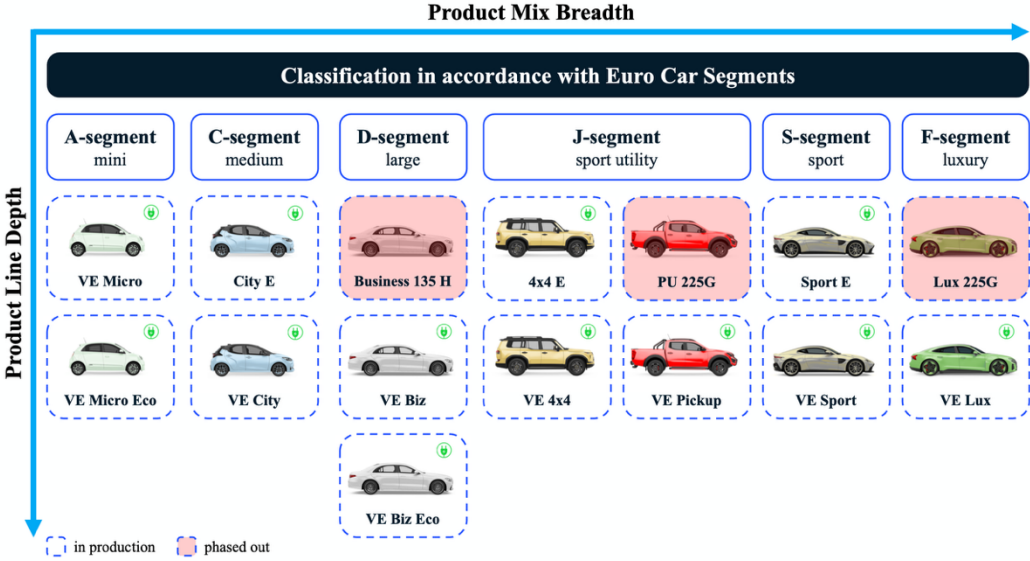
Source: Own Illustration from the Operations Excel Tool

Figure 10: Sustainability Investment Roadmap



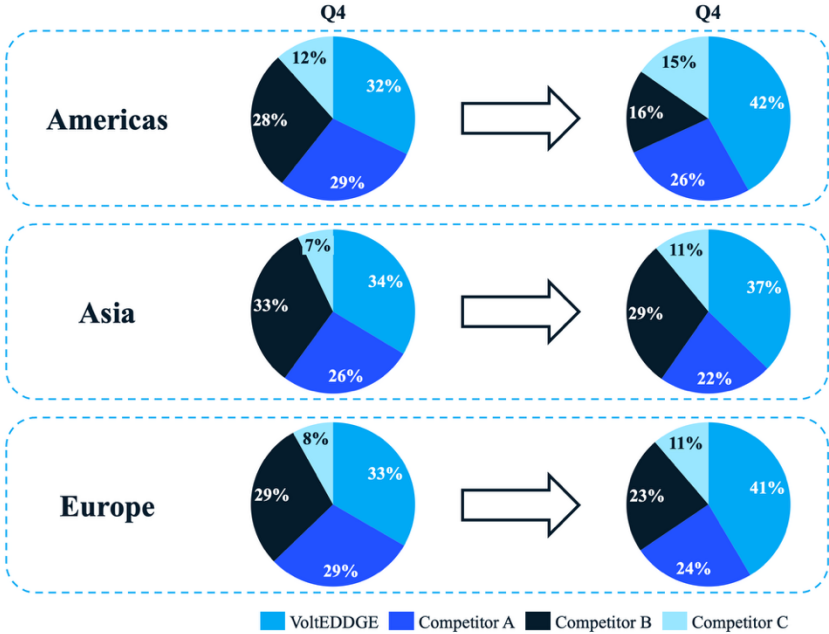
Source: Own Illustration, Based on IndustryMasters Simulation

Figure 11: VoltEDGE Product Portfolio



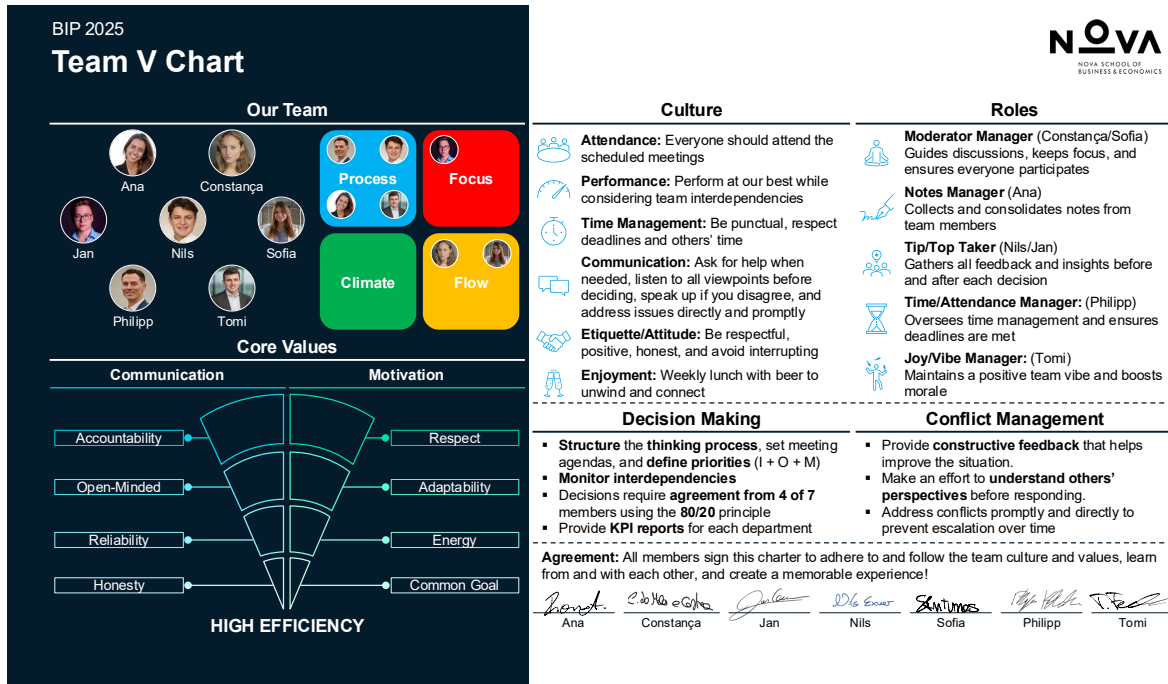
Source: Own Illustration, Based on IndustryMasters Simulation

Figure 12: Market Share Evolution



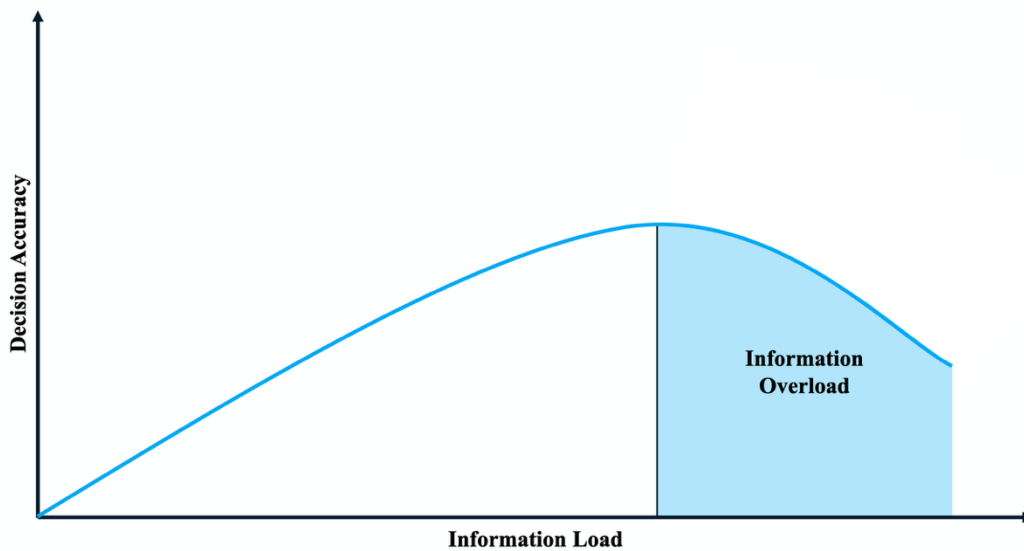
Source: Own Illustration, Based on IndustryMasters Simulation

Figure 13: Team Chart



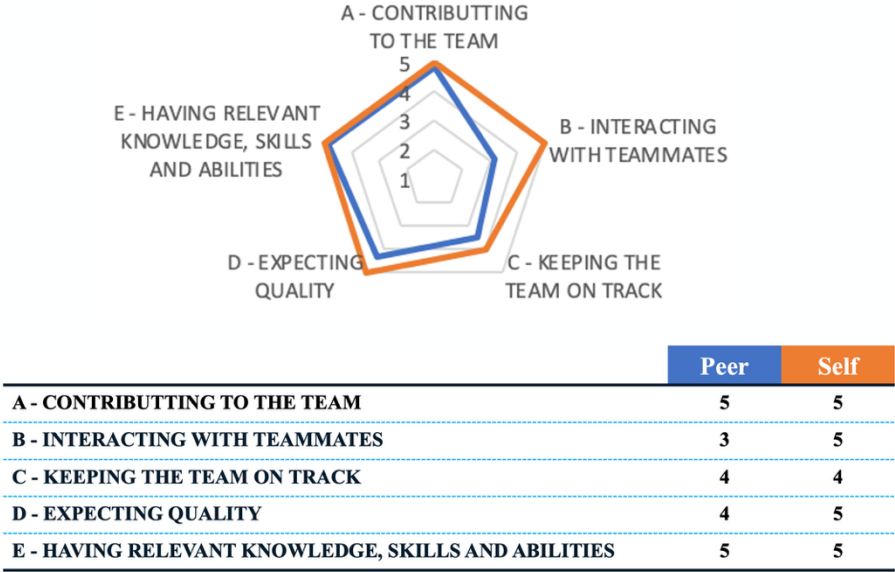
Source: VoltEDGE Own Illustration

Figure 14: Information Overload as the Inverted U-curve



Source: (Eppler and Mengis 2004)

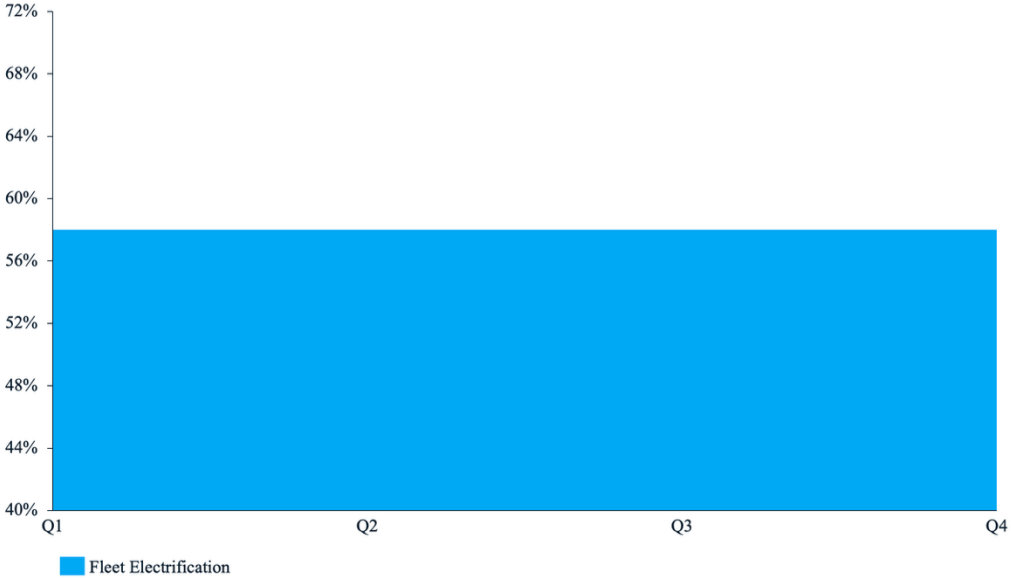
Figure 15: Peer and Self Evaluation



Source: Own Illustration, Based on BiP Peer Evaluation

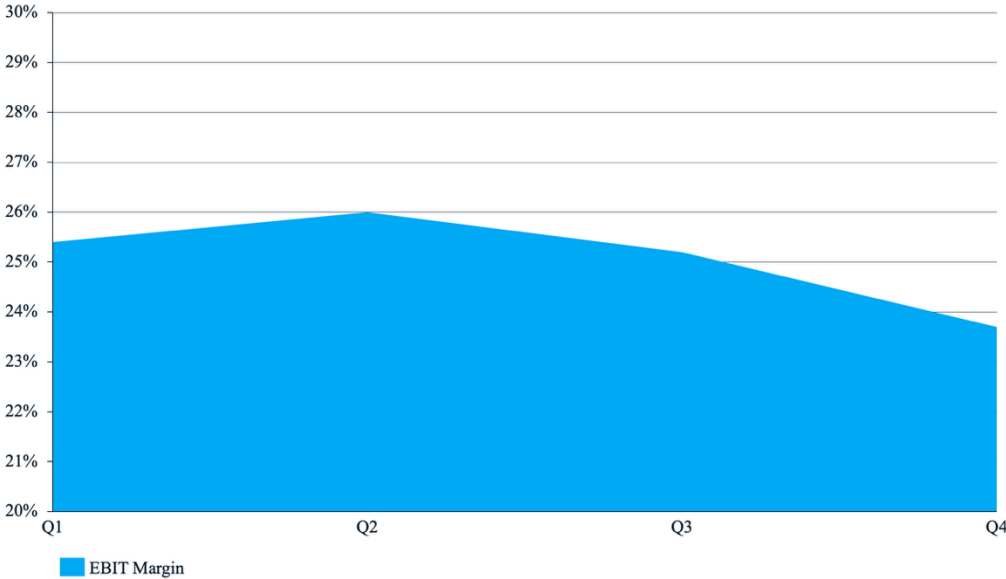
Graphs

Graph 1: VoltEDGE Fleet Electrification Y1



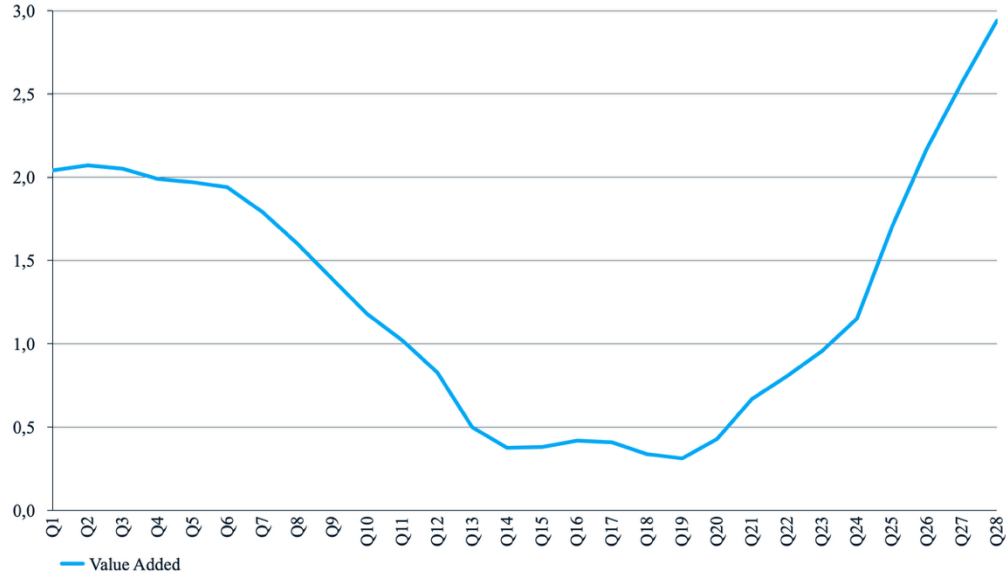
Source: Own Illustration, Based on IndustryMasters Simulation Data

Graph 2: VoltEDGE EBIT Margin Y1



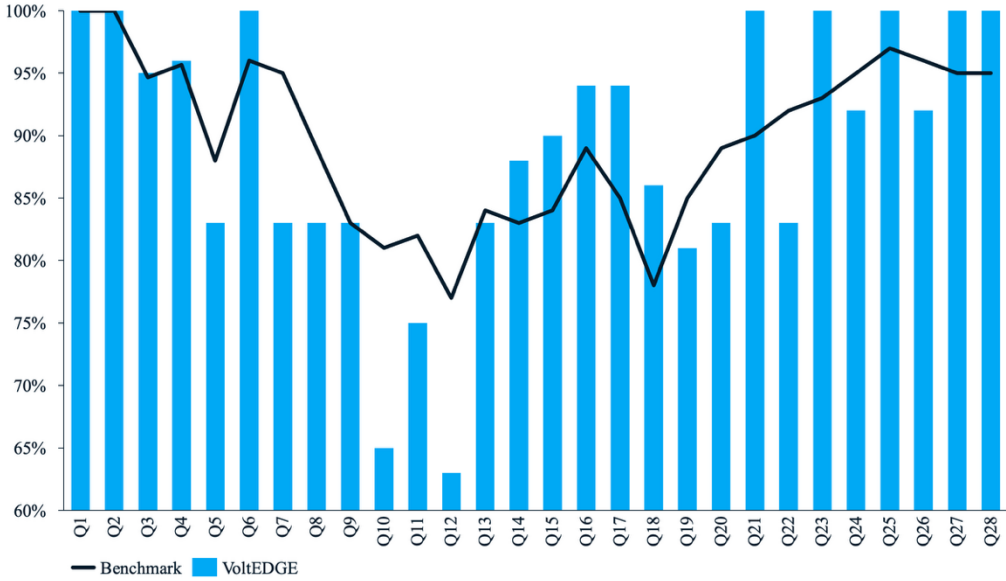
Source: Own Illustration, Based on IndustryMasters Simulation Data

Graph 3: VoltEDGE Value Added Score



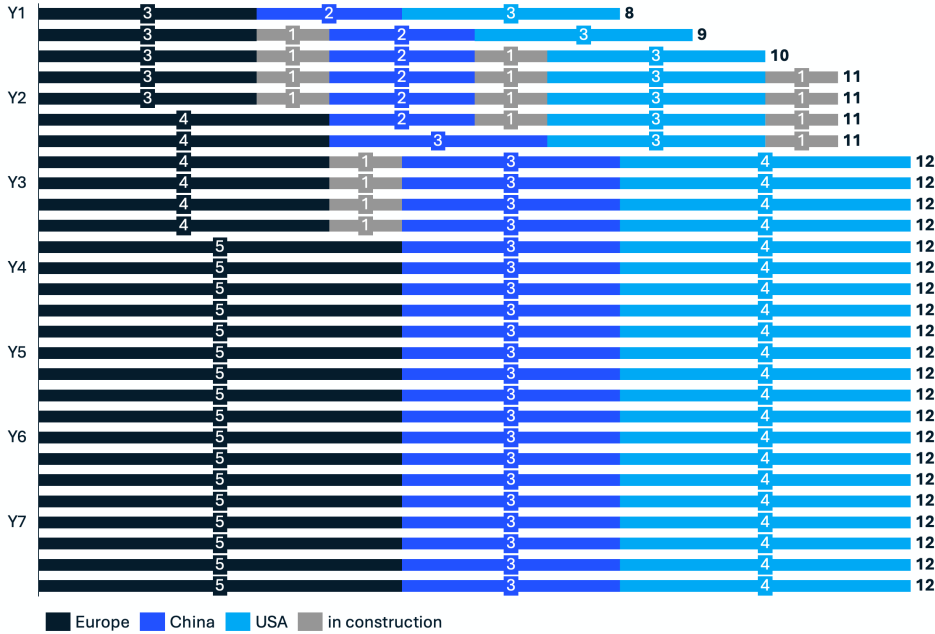
Source: Own Illustration, Based on IndustryMasters Simulation Data

Graph 4: Factory Utilization and Benchmark



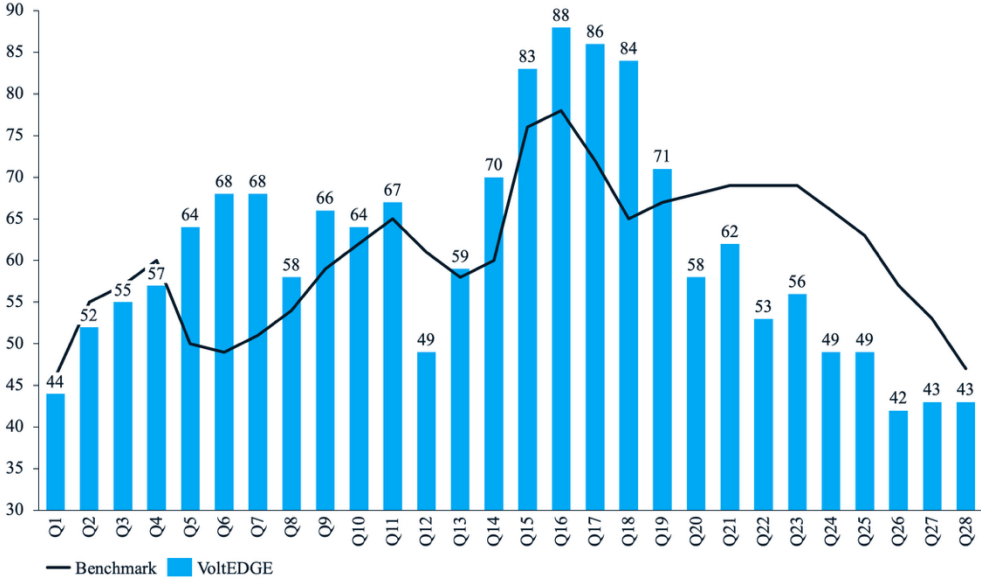
Source: Own Illustration, Based on IndustryMasters Simulation Data

Graph 5: Number of VoltEDGE Factories per Region Across Timeline



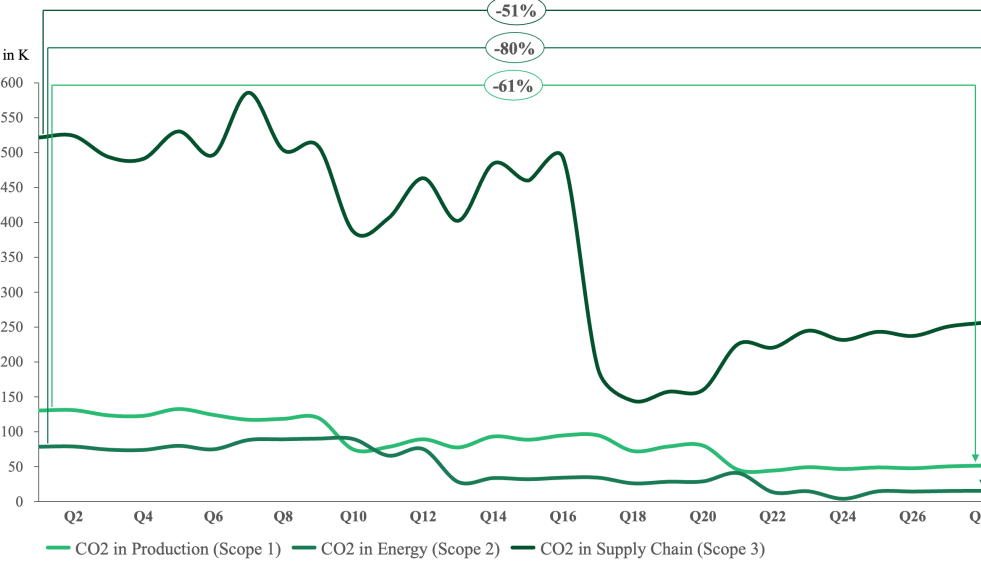
Source: Own Illustration, Based on IndustryMasters Simulation Data

Graph 6: Days of Inventory: VoltEDGE vs. Benchmark



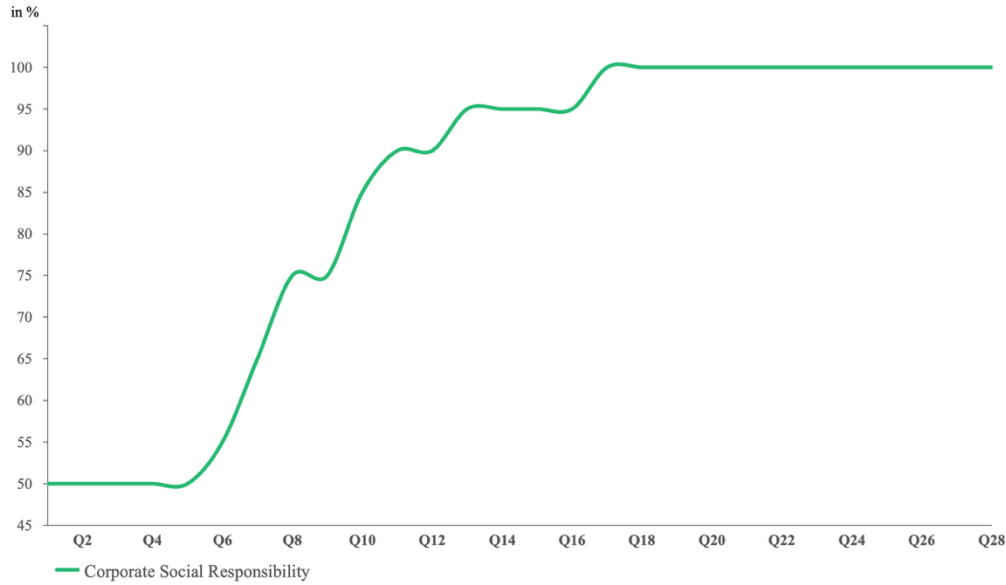
Source: Own Illustration, Based on IndustryMasters Simulation Data

Graph 7: CO₂ Emissions Reductions Across Scopes 1-3



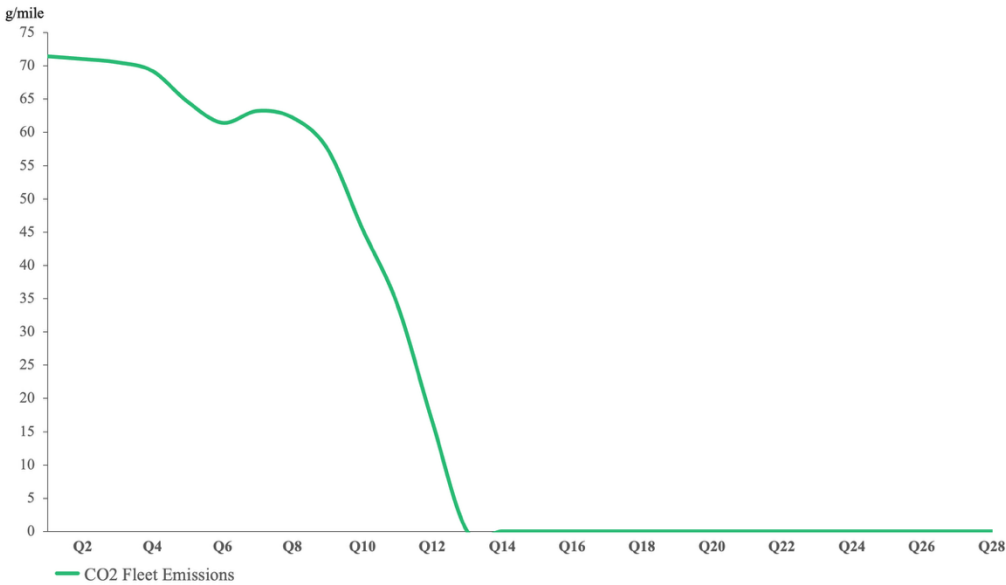
Source: Own Illustration, Based on IndustryMasters Simulation Data

Graph 8: VoltEDGE Corporate Social Responsibility



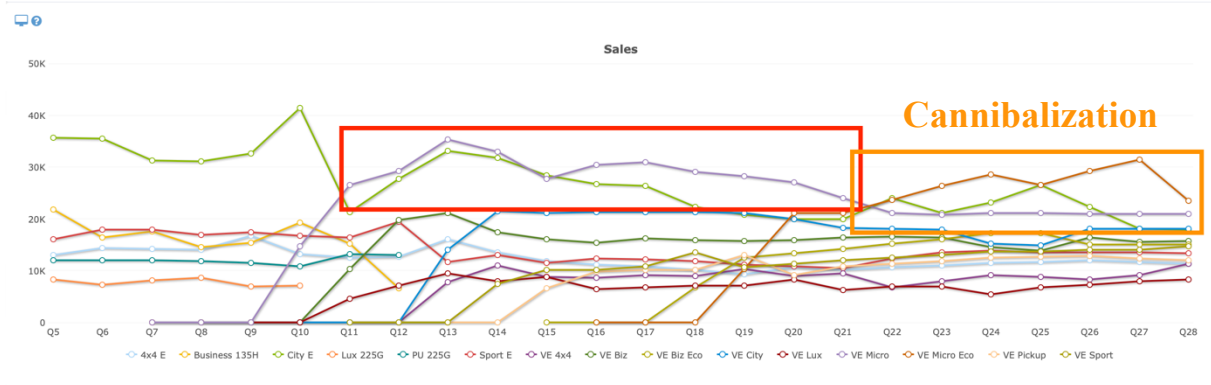
Source: Own Illustration, Based on IndustryMasters Simulation Data

Graph 9: CO₂ Fleet Emissions



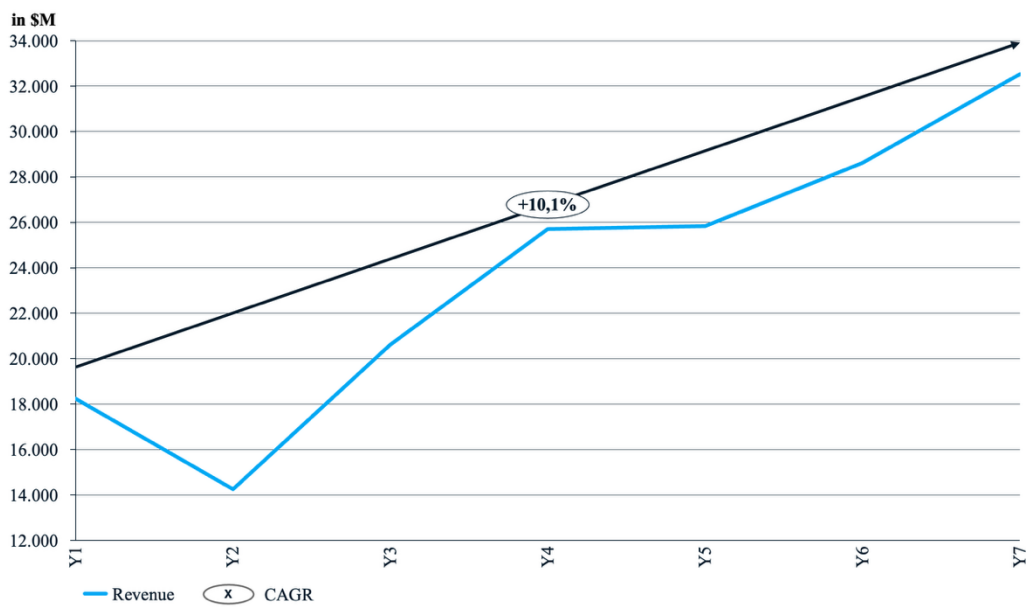
Source: Own Illustration, Based on IndustryMasters Simulation Data

Graph 10: Sales by Volume with Cannibalization Visualization



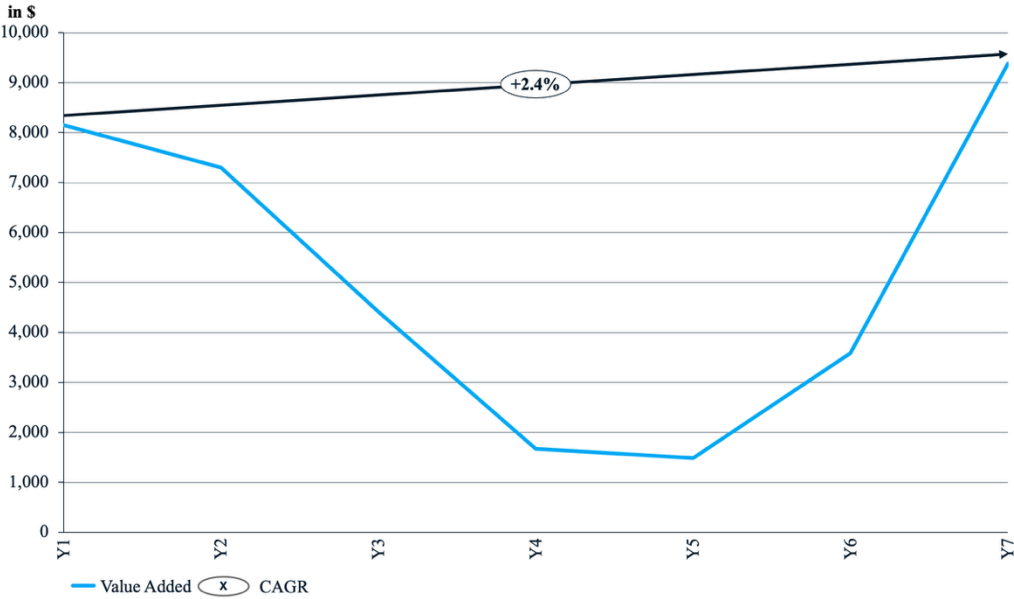
Source: IndustryMasters Simulation

Graph 11: VoltEDGE YoY Revenues and CAGR



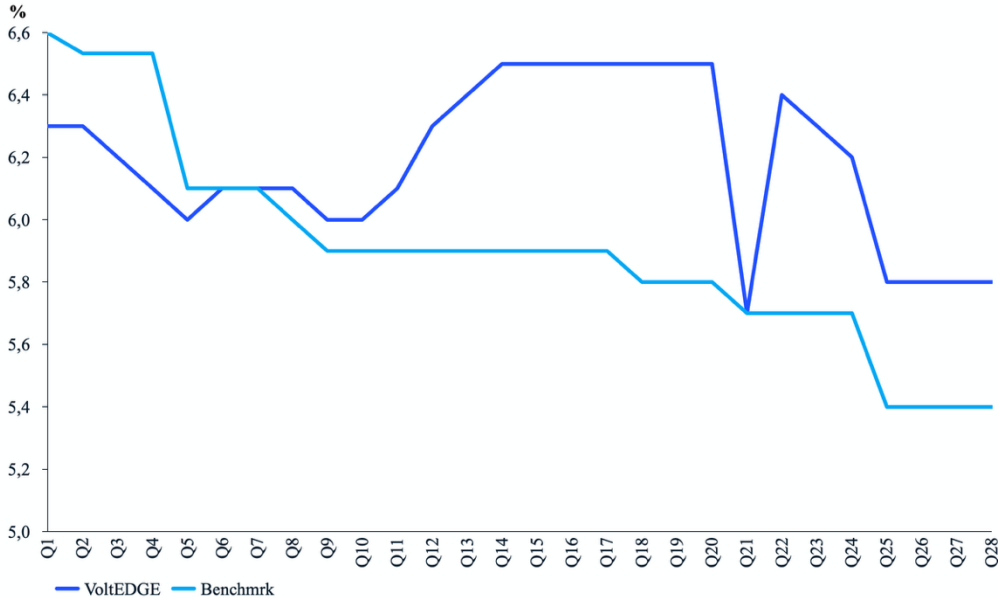
Source: Own Illustration, Based on IndustryMasters Simulation Data

Graph 12: VoltEDGE YoY Value Added and CAGR



Source: Own Illustration, Based on IndustryMasters Simulation Data

Graph 13: WACC: VoltEDGE vs. Benchmark



Source: Own Illustration, Based on IndustryMasters Simulation Data

Tables

Table 1: Three Horizons Framework Applied to VoltEDGE

Time of Investment	Investment	Investment Value (in \$M)	Time to implement	Green Bonds Applicable	Horizon
Q4	Sodium-Ion Batteries	250	2Q	No	III
Q5	AI Implementation	500	2Q	No	II
Q6	Next Gen E-Drive Modules	300	2Q	Yes	III
Q7	Launch VE Micro	641	2Q	No	I
Q7	Launch VE Lux	1030	3Q	No	I
Q7	V2V Communication	200	1Q	No	III
Q8	Build out Charging Infrastructure	1200	4Q	No	II
Q8	Launch VE Biz	801	2Q	No	I
Q9	Launch VE 4x4	1125	3Q	No	II
Q10	Launch VE City	680	2Q	No	II
Q11	Launch VE Sport	901	2Q	No	II
Q12	Charging Network Expansion	400	3Q	Yes	III
Q12	Launch VE Pickup	816	2Q	No	I
Q15	Launch VE Biz Eco	785	2Q	No	I
Q16	Launch VE Micro Eco	628	2Q	No	I

Source: Own Illustration, Based on IndustryMasters Simulation Data