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Navigating the Automotive Industry with Enovia:
Business in Practice Analysis and Personal Reflection

PEDRO MIGUEL TEIXEIRA TELES

Work project carried out under the supervision of:

JOÃO BAPTISTA, PhD

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Abstract

This dissertation analyzes Enovia's management performance throughout a six-year immersive simulation developed by IndustryMasters® (Business in Practice), where it navigated the automotive industry's transformation toward electrification, technology and sustainability.

The first section focuses on the company's decisions on Strategy, Innovation and Finance, highlighting the critical role of cross-functional management and drawing on real-world comparisons to evaluate Enovia's strategic decisions and financial outcomes.

The second section of the dissertation contains a personal reflection on two critical incidents from the three-week simulation, providing insights into leadership, team dynamics, team decision-making and personal development.

Keywords

Business in Practice; Automotive Industry; Sustainability; Electric Vehicle; Strategy; Innovation; Corporate Finance; Economic Value Added; Cross-Functional Management; Team Decision-Making; Team Conflict; Psychological Safety

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1. Corporate Analysis of Enovia's Performance in the Automotive Industry

1.1 Introduction

At its inception, Enovia was a player of a highly competitive global market characterized by the industry-wide transition from internal combustion engine vehicles (ICEVs) to electric vehicles (EVs), resulting in substantially lower CO_2 emissions (Zaino et al. 2024). Decarbonization within the automotive sector is essential to achieving net-zero targets, as road vehicles account for nearly 15% of global CO_2 emissions (Möller and Schaufuss 2022). This transformation is further reinforced by evolving consumer preferences, with more than 40% intending to purchase an EV as their next vehicle (Heineke, Kampshoff and Möller 2024). Within this complex context, our goal was to achieve the highest Economic Value Added (EVA) among all fourteen participating teams by repositioning Enovia through a strategy centered on sustainable growth.

1.2 An Analysis on Strategy

According to Porter (1996), strategy concerns how a firm positions itself, balances competing choices and aligns its activities in a mutually reinforcing manner. Within the simulation, our objective was to transition from Enovia's existing paradigm by formulating a long-term strategy in which sustainability serves as a central pillar (Audoin et al. 2022). The initial step involved stating vision, mission and values – we aim to "lead the future of mobility through innovation and sustainability" by "delivering cutting-edge innovation, investing in sustainable operations, empowering our people and putting consumers at the heart of everything we do". According to David, David and David (2023), this step marks the beginning of strategy formulation and the start of the strategic management cycle.

1.2.1 *Status Quo*

Prior to the simulation, Enovia was already operating as an established entity, shaped by a variety

of internal and external factors (David, David and David 2023). Externally, as *Table 1* shows, the market for EVs is generally shaped by government incentives, regulation and shifting consumer behavior (Heineke, Kampshoff and Möller 2024; Zaino et al. 2024). Specifically, throughout the simulation, Enovia directly encountered elements such as trade tariffs, the emergence of China as a dominant E-car manufacturer, an economic recession and stricter environmental regulations (*Table 2*). Within the automotive industry, a diagnosis using Porter's Five Forces framework (Porter 2008) made clear that the sector is experiencing significant structural shifts (*Figure 1*). The pervasive emergence of new technology giants and startups significantly heightened the threat of new entrants, as noted by Gao et al. (2016).

Also, a SWOT framework (David, David and David 2023) indicates Enovia's suboptimal internal positioning at Quarter 4 (Q4), leading to missed opportunities (*Figure 2*). For example, at that point, nearly half of Enovia's sales originated from ICEVs and hybrid vehicles (*Table 3*). Furthermore, the company's product sophistication was notably low, resulting in an uncompelling value proposition for potential customers. However, as exhibited by *Figure 3*, skilled staff and a forward-thinking new board are considered sustained and unused competitive internal advantages (Barney 1991).

1.2.2 *Renovialution*

Inspired by the real-world "Renaulution" process, we developed a strategic plan for *Renovialution* by relying on Hambrick and Fredrickson's (2001) "Strategy Diamond" as the baseline across its five dimensions (Renault Group 2021) (*Figure 4*).

In terms of arenas, we opted for a broad product portfolio with all seven types of cars (pick-up, city, sports, luxury, micro, 4x4 and business), typically maintaining the maximum number of products in the market (twelve). A core decision was to exclusively launch fully EVs and phase out all ICEVs and hybrid models at an optimal juncture, aligning with the industry's shift

towards electric mobility (Conzade et al. 2021). Enovia continued operations in its three default geographic areas (United States, China and Europe), which account for nearly all global EV sales (Alšauskas et al. 2024).

Beyond traditional vehicle sales, Enovia launched a subscription-based model, capitalizing on the "Mobility-as-a-Service" (MaaS) trend, in response to younger consumers' preferences for on-demand mobility solutions (Kuhnert, Stürmer and Koster 2018; Walker and Proff 2025). This model diversified revenue streams while bundling vehicle, insurance, maintenance and roadside assistance into a flexible quarterly subscription (*Figure 5*). Enovia's model was structured to avoid the pitfalls observed in "Care by Volvo", a real-world comparable initiative – specifically, Enovia adopted a more competitive pricing strategy and offered higher contractual flexibility for cancellation (Kirby 2025). Also, Enovia highly invested in marketing channels, specifically TV, online and brand awareness campaigns, complemented by staff training, customer promotions and partnerships with social media influencers (*Figure 6*).

Enovia's differentiator was premium technological sophistication offered at a mid-premium price, filling a gap in the positioning map relative to the three NPC competitors in the simulation and aligning with company's mission to democratize access to technology and sustainability (*Figure 7*). The economic logic was to maximize sales volume while ensuring the slightly higher cost was justified by higher perceived value. A real-world parallel is Polestar, an EV brand also positioned in the mid-premium segment, offering premium cars at prices below ultra-luxury brands but above mass-market alternatives (Buckley 2024). Like Enovia, their competitiveness arises from a disproportionately high perceived value (technology and design) relative to its actual price (Brand Vision 2024). Based on this differentiator, according to Porter's "Generic Strategies", Enovia adopted a broad differentiation approach, as shown by *Figure 8* (Porter 1985). At the same time, its strategy focuses predominantly on market penetration and product development (*Figure 9*). Market penetration was pursued through frequent relaunch of existing

models, marketing campaigns and a subscription-based model, while development was achieved by launching fully EVs across all models and integrating sophisticated features.

Based on the initial BCG Matrix (David, David and David 2023), we decided to relaunch City E three times, making it the only car sold throughout all 24 quarters, and subsequently introduced two new models, City E50 and City Light, to maximize the potential of this segment (*Figure 10*). Also, despite discontinuing Sport E, we launched two more technologically advanced sports cars, Sport MN and Sporty E10.

However, throughout the six years of operations, financial and operational constraints led to deviations from the initial strategic pillars. As Mintzberg (1978) state, besides a plan of actions made in advance, strategy is the pattern of decisions that emerges over time. One such adjustment involved the sequencing of investments and product discontinuation (*Table 4*). By delaying the discontinuation of PU 225G and Business 135H, including relaunching PU 225G once and keeping it until Q16, Enovia prioritized optimizing short-term factory utilization over long-term strategic consistency. This misalignment temporarily undermined Enovia's EV-focused differentiation strategy, keeping its fleet emissions higher than competitors and contributing to weaker sustainability performance until Year 3 (Y3). Additionally, we contradicted the suggestions from BCG Matrix: we relaunched 4x4 E car three times, retained it until the end of Y5 and introduced a more technologically advanced model (16 E) while it had been classified as a "pet". Finally, we contradicted the initial positioning strategy by launching City Light for a relatively lower price – incorporating a mid-technology level positioned between City E and City E50, Enovia aimed to capture mid-tier customer segment.

1.2.4 Strategy Performance Evaluation

Enovia demonstrated substantial progress toward establishing itself as a global leader in EV manufacturing – by the conclusion of the simulation, the company ranked second in revenue,

nearly doubling its initial performance and approaching USD 10 billion in total revenue (*Figure 11*, *Graph 1*). A key success was embedding sustainability into the core of the strategy – this improved the sustainability rating from 15% to 83%, the fifth highest score at Q28 (*Graph 2, Figure 12*) and led CSR (Corporate Social Responsibility) to the maximum score by Q14 *(Graph 3*). These outcomes directly reflect the strategic adoption of a social dimension into the firm's value proposition (Porter and Kramer 2006). Quantitatively, the Triple Bottom Line results at the conclusion of the simulation further illustrate this commitment (*Figure 13, Figure 14*).

Overall, Enovia's strategic choices – establishing relatively affordable prices for a high perceived value, transitioning to new business models and massively investing in technology – effectively addressed the primary barriers to EV adoption (Zaino et al. 2024).

However, Enovia's deviations from its strategic frameworks produced diverse outcomes. First, relaunching 4x4 E and introducing 16 E proved beneficial: the first maintained stable performance until Y5, while the second became the firm's top-revenue model (*Graph 4*). Similarly, launching City Light yielded positive results – total revenues from the city models rose from USD 1.3 billion at Q18 to USD 2.2 billion at Q28, with City Light as the highest contributor (*Graph 4*). In contrast, retaining non-EVs until Q19 adversely harmed performance, resulting in high CO_2 penalties and a weaker sustainability rating, as detailed in the following sections.

1.3 An Analysis on Innovation

The "Way to Play" tool developed by Strategy& (n.d.) positions Enovia as an innovator player, driven by its sustainability objectives. According to Mendoza-Silva (2021), this ability to innovate is currently a crucial factor in whether a company succeeds.

As noted by Zaino et al. (2024), the biggest technological challenges within the automotive industry involve both the limitations of battery range and the need to expand charging systems.

Furthermore, besides electrification, the industry is shaped by four other major consumer trends: autonomous driving, car-sharing, connectivity and yearly software updates, which are making driving an easier, safer, cheaper and more comfortable experience (Schmidt, Kofler and Schreiber 2018).

1.3.1 Innovation Strategy

Building on the defined strategy, Enovia implemented product, process, organizational, positioning and paradigm innovations (Braidy, Pokharel and ElMekkawy 2025).

Product innovation at Enovia initially focused on electrification, marked by the launch of ten new EVs and the achievement of a fully electric fleet by Q19 (*Table 4*). These new models incorporated progressively more advanced attributes, including feature packages, autonomous driving and battery technologies (*Figure 15*). As shown by *Table 5,* seven of the ten newly launched models – Kiss 700, City E50, Sport MN, Sporty E10, 16 E, Piggy E and Luxy 2 – achieved the highest level of technological sophistication, featuring Extended Sodium-ion battery systems, Level IV autonomous driving and Level IV feature packages. In contrast, earlier models such as Kiss 500 and Business E (launched at Q4 and Q7) were introduced when Enovia had not yet completed the necessary investments to support full technological advancement. Besides, as already described, City Light model was intentionally equipped with less sophisticated technology.

Enovia's technological innovation pathway involved a series of strategic investments (*Table 6).* The first investment (at Q4) focused on sodium-ion batteries, offering a more cost-effective alternative to lithium-ion batteries. At Q5, the company introduced artificial intelligence (AI) in its vehicles, establishing the foundation for autonomous driving (Braidy, Pokharel and ElMekkawy 2025). A real-world parallel is Tesla's "Full Self-Driving" (FSD) initiative, which comprises features designed to reduce driver workload and enhance safety (Tesla 2025). At Q6,

investment shifted toward next-generation E-drive modules, which facilitated flexible battery installation, thereby reducing production costs. At Q7, Enovia advanced its connectivity capabilities through the adoption of vehicle-to-vehicle (V2V) communication, allowing real-time data exchange to improve road safety and overall traffic flow. At Q11, the company prioritized cybersecurity, protecting passengers' privacy and safety systems from potential cyber threats. Finally, at Q19, Enovia completed all possible technological investments with cloud connectivity. By aligning with consumer trends, these innovations were expected to substantially increase demand for EVs by enhancing product performance and affordability.

These product innovations – primarily EVs and autonomous driving – also represent paradigm innovations, as they are fundamentally transforming industry practices and driving significant progress within the automotive sector (Braidy, Pokharel and ElMekkawy 2025).

From a process innovation perspective, Enovia focused on enhancing the sustainability of its upstream, downstream and internal operations, addressing all three scopes of greenhouse gas (GHG) emissions (*Figure 16, Table 7*). In addressing scope 1 emissions, the company introduced measures including reductions in water usage, waste minimization and the adoption of ISO 14001/EMAS environmental certifications, specifically targeting emissions arising directly from its operational activities. Furthermore, Enovia sought to reduce scope 2 emissions – arising from purchased electricity, steam, heat and cooling – by investing in energy-efficiency initiatives, installing solar panels and adopting an energy management system. To mitigate scope 3 emissions – indirect emissions generated across the value chain – the company pursued carbon offset programs, supported external battery recycling efforts and maintained ongoing collaboration with suppliers. With regard to batteries, Enovia took an additional step by investing in in-house recycling facilities. Similarly, Renault's "Re-Factory" has become a benchmark for circular economy practices in Europe, focusing on vehicle and battery refurbishment and recycling (Renault Group 2020). This enabled the company to maintain full control over the

recycling process and optimize materials recovery, thereby contributing to long-term reductions in material costs (*Figure 17*).

As detailed by *Figure 18*, in terms of organizational innovation, Enovia established a proprietary charging network at Q8, enabling the company to address consumers' concern over limited driving range and to retain full control over technology standards and user experience (Zaino et al. 2024). As exhibited by *Table 8,* the network was expanded five quarters later to increase its coverage. A relevant real-world example is Tesla's "Supercharger" network – with over 70,000 charging connectors worldwide and open access to non-Tesla EVs, the company has significantly contributed to accelerating EV adoption (Kane 2025). Regarding positioning innovation, *Table 8* also shows Enovia's investment in personalized services – through the Internet of Things (IoT), this ultimately supports accident prevention by facilitating exchange of data between vehicles and enhancing the safety of autonomous driving technologies.

These initiatives undertaken by Enovia reflect both the external and internal dimensions of innovation, respectively by introducing new products, services and market approaches and by implementing enhanced organizational methods (Mendoza-Silva 2021).

1.3.2 Factors Affecting Innovation

Innovation was predominantly constrained by social and political uncertainty, while technological and market direction were relatively clear (Jalonen 2012). Moreover, financial constraints also influenced the innovation process, regarding both the extent and the pace of the activities (Braidy, Pokharel and ElMekkawy 2025). As a result, certain initiatives – such as the investment in cloud connectivity (Q19) and the launch of the Sport MN model (Q21) – were delayed beyond their initially intended timelines. These delays, intended to avoid premature entry, may have cost market opportunities (Sinha and Noble 2005). However, throughout the process, all the four key inputs of innovation were met: board's commitment to innovation,

investments in technology, launch of ten new cars and a SWOT-based innovation strategy (Braidy, Pokharel and ElMekkawy 2025).

1.3.3 Innovation Performance Evaluation

Enovia's culture of openness to innovation and capability to develop an innovation strategy are both considered critical success factors, as well as meeting all the four inputs of innovation (van der Panne, van Beers and Kleinknecht 2003; Braidy, Pokharel and ElMekkawy 2025).

Consequently, the company's innovation process delivered strong outcomes, reflected in the EV sales growth from 307,000 to nearly 4 million units over the six years (*Graph 5*). Such growth stemmed from strong market adoption of newly launched models, with all vehicles sustaining consistently high revenues, including during the first quarters of sales (*Graph 4*). This performance was largely driven by strategic initiatives such as the charging network, subscription services and battery recycling, as further validated by qualitative feedback from the simulation (*Figure 5, Figure 17, Figure 18*). This illustrates how the strategic combination of market penetration and innovation can drive sustained growth (Braidy, Pokharel and ElMekkawy 2025).

By the midpoint of the simulation period, we were among only five teams still operating with ICEVs, which negatively impacted sustainability performance – as shown by *Figure 19*, at the end of Y3, Enovia ranked second worst in fleet CO_2 emissions. However, we acted on this insight in time – shifting investments exclusively toward new EVs, sustainable technologies and cleaner processes, while fully discontinuing ICEVs, yielded strong results (*Graph 6, Graph 7).* Firstly, CO_2 emissions from fleet decreased sharply from nearly 70 g/mile at the beginning of the simulation to full decarbonization by the end of Y4. Secondly, CO_2 emissions across the three operational scopes dropped substantially: scope 1 emissions fell by 58% (from 123,950 to 52,080), scope 2 emissions declined by nearly 80% (from 74,370 to 15,620) and scope 3

emissions decreased by more than 47% (from 496,800 to 260,390).

1.4 An Analysis on Finance

1.4.1 Investing Decisions

Throughout the six years, Enovia focused on front-loading capital expenditures (CAPEX) early in the simulation. Consequently, two distinct phases emerged: until Q18, Enovia invested USD 21.2 billion, followed by a reduced investment phase from Q19 to USD 5.4 billion (*Graph 8*).

The allocation of these funds deeply integrated sustainability considerations, as regulatory frameworks provide strong incentives for green investments. Firstly, access to green bonds – a lower-cost financing source – was subject to a key restriction: the credit limit was capped at the value of Enovia's CAPEX on green investments (as defined in the simulation) or on the launch of new EVs. Secondly, the government established penalties and bonus based on fleet's CO_2 emissions (*Table 9*). Accordingly, the main destinations of these expenditures were EV launches (43%), predominantly green new technologies (14%), factory expansions (13%), relaunches of existing models (12%) and reduction of emissions across operations (10%) (*Graph 9*).

Therefore, Enovia's green CAPEX ratio increased to 58.4% at Q28, with cumulative green CAPEX rising to USD 18.6 billion over the period. (*Graph 10, Graph 11*). Enovia was affected by CO_2 penalties from Q6 to Q10 and benefited from a net bonus at Q11 and Q12. From Q13 onwards, CO_2 regulations had no impact on Enovia as the bonus were suspended (*Graph 12*).

Additionally, discontinuing five car models (including two ICEVs and one hybrid model) was pivotal in the company's transformation, costing nearly USD 2 billion – it generated USD 3.7 billion in liquidation proceeds from assets with book value of USD 5.7 billion (*Table 10*).

1.4.2 Capital Structure and Financing Decisions

As a large firm, Enovia prioritized the use of internal funds, followed by debt financing and

equity issuance (Frank, Goyal and Tao 2020). Debt was employed primarily because internal funds were insufficient to meet financing needs (Dsouza et al. 2024). To align financing incentives and investing plans, Enovia relied heavily on green bonds, issuing a total of USD 23.6 billion and representing 96.5% of total debt at Q28 (*Graph 13*, *Graph 14*) - this was the most convenient financing option, costing annually 3% (Gianfrate and Peri 2019). This reflects real-world practices such as Volkswagen green bonds' issuances to accelerate investments in EVs (Volkswagen AG 2020). When the green bond credit limit was reached, the company resorted to bank loans, raising USD 18.7 billion (*Graph 15*). Bank loans (4.85% annually) remained cheaper than issuing equity (8%) despite credit spread fluctuations (*Graph 16*). However, at Q4 and Q6, Enovia issued new shares for two reasons – preserving future borrowing flexibility by strengthening the equity base (Modigliani and Miller's 1963) and capitalizing on relatively high share prices before a forecasted decline (*Graph 17*). In total, Enovia raised over USD 2.5 billion through equity issuances (*Figure 20*).

Regarding dividends, the simulation applied automatic payouts at the end of each year equivalent to 40% of net income, cumulating over USD 7 billion over the six-year period (*Graph 18*). We strongly disagree with this policy as shareholder payouts should have been deprioritized in favor of ensuring long-term corporate viability until Y4. A more appropriate alternative was share repurchases, implemented by the board at Q22, Q23 and Q27. This allowed the company to return value to shareholders without compromising its capacity to invest and to meet debt obligations, while maintaining the optimal debt ratio (between 45% and 50%). In total, we bought back USD 6.9 billion in shares (*Figure 21*). Nevertheless, we acknowledge that Enovia incurred net financial losses, as the repurchase price was over three times higher than the issuance price (*Graph 17*) – contradicting the Pecking Order Theory at the beginning of the simulation proved to be detrimental (Frank, Goyal and Tao 2020).

The debt ratio fluctuated between 40% and 54%, aligning with the initial target, especially from

Q19 onwards, when the level of investment began to decline and stabilize (*Graph 19*). Relying on leverage, we could expect the company to achieve better financial returns, particularly within the automotive industry (Glova and Panko 2025). Enovia's significant growth also ran counter to Kim and Sorensen's (1986) claim that firms experiencing rapid growth tend to rely less on debt rather than increasing it. This strategy enabled Enovia to maintain a credit rating of at least A- in order to secure favorable borrowing conditions. On few occasions, massive investments in sustainability rose short-term costs and lowered credit rating to BBB (Ererdi and Genç 2025). However, the rating recovered to A- within one quarter as a result of substantial debt repayments (*Table 11*). As a result, we reduced WACC to its six-year minimum of 5.2% by the end of the simulation, ranking as the second lowest among the fourteen teams (*Graph 20, Figure 22*) – green bonds were pivotal in lowering this cost of capital (Agliardi and Agliardi 2019).

Finally, Enovia's financing cash flow symmetrically reflects investing cash flow (*Graph 21*). Until Q18, the company recorded net financing inflows from green bond issuances, new bank loans and share issuances (USD 5.2 billion). Afterwards, net financing outflows totalized USD 15.1 billion, driven by the debt repayments, share buybacks and higher dividend distributions.

1.4.3 Liquidity Management Decisions

Ensuring a shorter cash conversion cycle (CCC) is generally associated with higher profitability (Tekin and Gör 2022). Enovia's CCC started at 427 days, peaked at Q17 and ended at 448 (*Graph 22*). At the end of Y2 and Y4, we tightened the customer credit term from 30 to 15 days to accelerate revenue collection, despite an expected 2% revenue decline. This reduced the CCC by 23% (159 days) and 17% (175 days) within one year, improved all three liquidity ratios and boosted operating cash flow by 224% and 423% in a single quarter (*Graph 23, Graph 24*). Conversely, paying suppliers 15 days earlier in Y4 to gain a projected 1% cost reduction proved detrimental, reducing flexibility amid heavy investments: operating cash flow fell to negative

USD 400 million at Q17 while CCC peaked at 705 days.

1.4.4 Financial Performance Evaluation

We concluded the business simulation with an EVA of USD 3.98 billion. Until Q19, EVA declined consistently from nearly USD 2 billion to a low of USD 636.28 million. However, from that point onward, it increased sixfold within just nine quarters. (*Graph 25*).

According to IndustryMasters®, EVA represents a moving average of its net operating profit less adjusted taxes (NOPLAT) deducted by its cost of capital (WACC * net assets). First, NOPLAT's evolution is highly correlated with EVA's as it experienced exponential growth from Q19 onwards – it went from USD 521.3 million to USD 1.85 billion (*Graph 26*). In terms of cost of capital, WACC reduction to 5.2% partially compensated for the increase of nearly 67% in net assets' value to USD 33.5 billion (*Graph 27*). As a consequence of massive investments, Enovia had one of the five highest values for this metric at Q28 (*Figure 23*).

Enovia's EBIT margin, return on sales (ROS), return on net assets (RONA) and return on equity (ROE) followed a "U-shaped" trend: all steadily declined to half of its initial value or even lower (12%, 8%, 6% and 1%) and then rose significantly until the end of simulation, peaking at 28%, 20%, 23% and 9.7% respectively (*Graph 28*, *Graph 29*, *Graph 30*, *Graph 31*). For EBIT margin and ROS, Enovia performed the third-highest values among all teams, while performing seventh in terms of RONA (*Figure 24, Figure 25, Figure 26*), illustrating the short-term asset burden of sustainability investments (Glova and Panko 2025). A declining phase followed by a recovery across all profitability indicators reflects vulnerability during the transition, as heavy upfront investments were not matched by immediate returns. Although recovery occurred later, CAPEX was insufficiently phased with revenue generation, leading to periods of reduced profitability.

An analysis of Enovia's free cash flow (FCF) reveals the same two phases (*Graph 32*). Until Q19, FCF remained negative in all but two quarters (cumulative outflow of USD 8.5 billion).

From Q20 onwards, however, FCF became consistently positive, totaling USD 13.8 billion – at Q28, Enovia achieved the fourth-highest FCF among all teams (*Figure 27*). Following the same trend, the share price declined to USD 260 by Q19 and then grew exponentially, reaching over USD 932 by the end (*Graph 17*). This reflects investors' increasing confidence in Enovia's growth prospects and its strengthening position as a leading EV manufacturer.

1.5 Key Takeaways: Enovia's Journey in the Automotive Industry

Although the fourth-place finish was a strong result, it was achieved despite several missteps that delayed exponential growth and prevented an even higher ranking (*Figure 28*).

Enovia's experience in navigating this sector yielded several crucial lessons. One was that integrating sustainability concerns proved central to value generation (Elkington 1994). By the midpoint of the simulation, reliance on ICEVs negatively impacted financial performance, which was recovered afterwards by a full transition to EVs (Palea and Santhià 2022). Second, this journey showed the importance of long-term vision and early heavy investment, as the key financial metrics followed a "U-shaped" curve. Both points validate that ESG focus tends to strengthen long-term financial performance (Ererdi and Genç 2025).

Finally, at Enovia, a cross-functional approach was critical. As explained by David, David and David (2023), the formulation, implementation and assessment of cross-functional decisions are the definition of strategic management and guide a company towards success. The company's strategy of becoming a market leader in EVs through broad differentiation could only be executed with an innovation strategy focused on product and process advancements. These advancements, in turn, were directly enabled by investing and financing decisions – for instance, the extensive use of green bonds lowered cost of capital while simultaneously funding sustainable investments. The ability to manage these interconnected functions allowed Enovia to pivot from a struggling company to a leading EV manufacturer.

2. Personal Reflection: Two Critical Incidents

2.1 Introduction

Toegel and Barsoux (2025) argue that differences in team members' personalities and backgrounds often lead them to adopt distinct ways of solving problems and making decisions, being the primary trigger of conflict within teams. During the three-week Business in Practice simulation, I served as one of two CFOs on Enovia's executive board, which was characterized by a strong shared purpose, clearly defined responsibilities, high interdependence across functions and well-established norms (Hadley and Mortensen 2022).

In this section of the dissertation, I will present two critical incidents which happened throughout the three weeks while navigating through the challenges of team-decision making: one related to conflict management and one related to silence under ambiguity.

2.2 Critical Incident 1: "My Way or The Highway"

2.2.1 Description

West (2012) observes that teams can sometimes be dominated by individuals who either monopolize discussion or push back so strongly against others that their own perspective takes precedence, which is precisely what occurred in this incident. As Duhigg (2016) notes, teams dominated by a single individual tend to experience a decline in collective intelligence.

At the start of Y5 (decisions for Q20), one of the two Chief Innovation Officers (CIO) put forward a proposal to launch a new sports car. My position as one of the two CFOs, strongly supported by the other one, was a clear disagreement with this initiative. Pursuing a major new investment would have been inconsistent with our financial strategy, which was intentionally focused on reducing CAPEX in the later years. Moreover, at that stage, the firm did not have sufficient financial resources to support such a project.

Although the other CIO and the COO (Chief Operations Officer) agreed with our financial

assessment, the CIO in question responded with marked frustration. This was, notably, the first time a collective decision was made that directly contradicted his strong opinions. He openly expressed his vehement disagreement towards me and the other CFO, who maintained our consistent position as that investment was not truly feasible in that quarter. This adherence to financial expertise aligned with our decision-making rule to "let the experts present their ideas", stated on the team charter built together before the beginning of the simulation (*Figure 29*).

His emotional response intensified, as he stated that he no longer cared about our team decisions and encouraged me to make decisions on my own, while directing a personal accusation toward me: "Pedro, you did not even try to understand!", according to my journal notes of that day. According to Lencioni (2002), such behaviors signal "lack of commitment" and "inattention to results" – two typical dysfunctions of teams – as he prioritizing his own ego over the collective goals of the team. The Head of Marketing promptly clarified that, in her view, I had indeed made an effort to understand him, although I did not agree with his position.

I then reaffirmed that this decision was the only viable option for Enovia to preserve financial equilibrium and emphasized that he was personalizing the disagreement, despite it being a professional disagreement. To contribute more effectively to the team, I aimed to encourage constructive conflict – debate that remains respectful and often leads to solutions superior to the initial proposals (Toegel and Barsoux 2025) – as well as task conflict, which research shows can have particularly positive effects on both group and individual outcomes (Jehn 1995). The problem is that it was degenerating into relationship conflict, which hurts team effectiveness, especially in interdependent teams like our case (De Dreu and Weingart 2003; Jehn 1995).

The team's reaction was varied but ultimately led to a conclusive decision. The other CFO, demonstrating what I perceived as inefficiency, continued attempting to comprehend the CIO's numbers for approximately twenty minutes even after the decision had already been finalized. The Head of Marketing, while acknowledging the CIO's underlying point, understood our

rationale and recognized that his reaction was excessive. Both the other CIO and the COO aligned themselves with our position. Ultimately, since consensus could not be reached, the team proceeded to a "democratic vote" to make the decision, as outlined in the conflict management guidelines of our team charter (*Figure 29*). Haas and Mortensen (2016) emphasize that establishing shared norms is particularly critical in teams composed of members from different national and organizational cultures – a situation reflected in our group, which included three nationalities and varied professional backgrounds. Likewise, De Dreu and Weingart (2003) argue that procedures are necessary to manage relationship conflict, which reinforced the importance of implementing our team charter.

This incident was not an isolated occurrence regarding the CIO's attempts to exert inappropriate influence beyond his direct department. In fact, over the three weeks of decision-making, he had a consistent record of successfully persuading other managers, primarily from Marketing and Operations, to adopt his individual positions as collective decisions, even when those decisions fell outside his departmental authority and when he had no special expertise (West 2012).

Edmondson (1999) describes psychological safety as the collective perception within a team that it is acceptable to take risks and speak up without fear of negative consequences. The described pattern suggests an existing lack of psychological safety within the team that prevented others from consistently challenging the CIO's proposals. This is such a critical point, as without psychological safety, involvement, commitment and creativity of team members are at risk (West 2012). This also highlights another form of team dysfunction – "fear of conflict" – where team members engage in indirect discussions and cautious remarks (Lencioni 2002). The persistent tendency of others to yield to his authority further illustrates how a "competing" conflict style prioritizes personal interests over those of others and can unduly shape team decisions if left unchecked (Thomas and Kilmann 1974).

According to Insights Group Limited (2024) framework, both the CIO and I share "Fiery Red"

energy (*Figure 30*). This color energy is characterized by individuals who are active and predominantly results-driven, moving in a positive and determined direction (Insights Group Limited 2024). However, our manifestations of this energy diverged significantly, which highlights the importance of self-awareness, self-management and empathy toward others in a collective decision-making context (Goleman 1996).

De Dreu and Weingart (2003, 748) argue that task conflict is beneficial only when it is managed constructively and when the team demonstrates openness, psychological safety and mutual trust. At the stage of this incident, however, those conditions were not in place.

2.2.2 Acknowledgement and Following Decisions

Despite the initial tension, we ultimately decided to postpone the car launch. In the subsequent quarter, our FCF reached an exceptionally high level, creating the necessary financial capability to proceed with the investment. Both CIOs confirmed this still aligned with our strategy, leading to the successful launch of the new car: “Sport MN”.

The morning following the intense meeting, the CIO approached me and offered an apology. He acknowledged that he had been too rude and obsessed with the decision – it was “his way or the highway”. This statement highlights a shift from a position of "inattention to results" and “lack of commitment” towards an acknowledgment of his past inability to engage in good conflict (Lencioni 2002; Toegel and Barsoux 2025). This recognition revealed self-awareness as he realized what he had felt and why, returning towards our team's core values of “empathy" and "accountability" (*Figure 29*) (Goleman 1996).

2.2.3 Personal Growth: A Reflection

For me, as the youngest member of the team and the only one without professional experience, this entire experience had a profound impact on how I manage conflict. The persistent

questioning and confrontation from the CIO initially led me to question my own judgment and instilled a fear that making the decision I believed to be the best might be used against me later, which reveals lack of psychological safety (Edmondson 1999).

However, this outcome was unexpected and reinforced my confidence as I effectively managed the CIO's consistent attempts to impose his own views. My approach, characterized by being both empathetic to his emotional state and simultaneously decisive in adhering to our principles, demonstrated effectiveness. This aligns with my peer feedback of 5/5 for "interacting with teammates", which suggests my colleagues perceived my firm-but-empathetic stance as constructive rather than confrontational (*Figure 31*). This approach is crucial in managing pressure and interpersonal disagreement, especially when faced with and emotionally charged pushbacks from more dominant team members.

2.3. Critical Incident 2: The Consequences of Not Asking the Right Questions

2.3.1 Description

Whereas the first incident centered on explicit conflict and emotional confrontation, the second incident highlighted the opposite challenge: remaining silent in the face of ambiguity.

Morrison (2011) explains that team members generally remain silent due to unknown motives outweighing the intention to speak up and not due to a lack of desire to improve. My experience in the simulation was profoundly shaped by critical decisions made under conditions of personal apprehension, complacency and incomplete information, which combined harmed my capacity to communicate potential problems to the team (Morrison 2011).

Until Y3, half of our six-year simulation, our strategic financial decisions (as CFOs) were compromised by ambiguities in the finance dashboard of the business simulation platform.

Firstly, the "investment committed" figure consistently appeared with substantial values at the start of each quarter, preceding any formal CAPEX decisions. This lack of transparency meant

we were making investment decisions without rigorous understanding of where funds were already allocated. Secondly, there was a persistent misunderstanding regarding short-term debt, largely driven by the other CFO. He insisted that any long-term loan nearing maturity (less than four quarters remaining) automatically converted to "short-term debt", necessitating cash reserves. My intuition strongly suggested this was incorrect, but under the immediate pressure of making rapid financing mix decisions, I chose not to challenge his assumption – I implicitly validated his interpretation, reinforcing a pattern where confidence was mistaken for accuracy.

As Morrison (2011) notes, fear can be a powerful emotion that at times disrupts deliberate decision-making as individuals' decisions to speak up are shaped by their assessment of the potential risks or adverse consequences of doing so. Also, Edmondson (1999) points out that team members sometimes avoid mentioning errors that could improve future performance, as they fear being perceived as incompetent – an attitude that leads them to overlook the negative impact their silence has on the team. Both explain my lack of courage to face two potential huge mistakes we had been committing for too many quarters of the simulation. This was the first time I recognized myself adopting an "accommodating" conflict style as I neglected my own concerns and satisfied those of the other CFO (Thomas and Kilmann 1974).

Thirdly, as a cross-functional issue affecting Operations, Marketing and Finance, our strategy for discontinuing two declining and unsustainable car models unexpectedly led to significant losses as these cars consistently showed zero sales in their final quarter despite having thousands of units available. Finally, I realized that dividends were being distributed to shareholders at the end of each year without our direct control over the amounts. As Bazerman and Moore (2025, 5) suggest, as decision makers, we opted for solutions which were merely sufficient or acceptable, rather than striving for the most optimal choices. This generated increasing confusion and anxiety as the described core decision mechanisms remained opaque for too long.

My realization of the critical errors came belatedly, but definitively, through exploring the

supportive context offered by IndustryMasters® (Haas and Mortensen 2016). After the end of Y3, I finally took the initiative to query the simulation's support team for the finance dashboard issues (*Figure 32*). Also, in the Sim Clinics, we became aware that cars would only be sold if their Days on Inventory (DOI) exceeded 30 and about the automatic distribution of dividends amounting to 40% of annual net income.

While these confirmations validated some of my earlier concerns, they also deepened our frustration – particularly my own – for not having taken earlier action. According to Knight (2015, 101), this presence of negative emotions indicates that "the status quo is troublesome" and encourages individuals to identify problems, diagnose their causes and seek improvements. Moreover, this shared sense of frustration was further amplified by the necessary implementation of major changes in the decision-making process. Having to correct these mistakes after the first half of the simulation undermined the group's morale, as it challenged the progress that we had already taken pride in (Ford and Sullivan 2004).

The consequences of operating under these incorrect guidelines for half of the simulation (until Y3) had an adverse impact on our final EVA. The lack of clarity around "investment committed" meant we made suboptimal and non-rigorous investments, negatively affecting our future operating cash flows. Additionally, the short-term debt misinterpretation directly led to our company falling into actual short-term debt, which was highly detrimental by making financing much more expensive. Also, the DOI oversight, in turn, resulted in more than USD 100 million in losses from unsalable inventory of the two cars. Finally, the late discovery of the default dividend distribution misled our cash flow management, as we consistently underestimated financing outflows at the end of each year.

2.3.2 Acknowledgement and Following Decisions

Recognizing these misunderstandings marked a turning point in the project, serving as an "alarm

clock" that sharpened team members' awareness and prompted reflection on team's current progress versus our initial objectives (Knight 2015, 102).

Since gaining this crucial information and clear explanations from the support team of IndustryMasters®, our team decisions became notably more optimal – specifically, in the finance department, our positions were no longer constrained by these costly misunderstandings. Together with the other CFO, I developed an efficient model that allowed us to forecast funds allocation for upcoming quarters, considering both investment commitments, financing needs and distribution of dividends. Additionally, we continued to implement our initial strategy of discontinuing underperforming car models, successfully phasing out three more, this time with a clear awareness of the DOI rule. Seeking external answers to our concerns was a pivotal decision that helped steer the team toward success, fostering a mindset where members actively look for answers about their concerns (Johnson, Heimann and O'Neill 2000).

2.3.3 Personal Growth: A Reflection

According to Morrison (2011), how actively team members share suggestions, raise concerns and communicate problems upward can significantly influence an organization's effectiveness. This incident served as a profound learning experience, fundamentally reshaping my approach to collective decision-making in contexts characterized by uncertainty. I now realize that my delay in querying support, despite persistent doubts, was driven by a fear of appearing unprepared in front of my teammates. I assumed that questioning their interpretations – especially those spoken with confidence – would reflect poorly on my credibility. This was a significant personal misstep, underscoring that I need to deal with personal and team frustration more constructively and not letting fear impair the quality of my critical reasoning (Morrison 2011). Since I was being affected by fear, then I could not perform at my best (Goleman 1996), which is evidenced by the later discrepancy between my self-assessment (5/5) and peer feedback

(4/5) on “keeping the team on track” (*Figure 31*). Finally, I recognize that our most detrimental decisions stemmed directly from lack of fundamental information – collective decision-making requires not only analytical ability but also the courage to challenge assumptions.

2.4 Self-Assessment vs Peer Assessment

While these reflections capture my self-perception, the peer assessment offered an external challenge to these insights (*Figure 31*). Overall, the feedback largely confirmed my strengths, while also revealing blind spots that were not immediately evident to me during the simulation. Two areas of convergence were particularly notable. First, I received a score of 5/5 from my peers for “expecting quality,” fully aligned with my self-evaluation. This confirmed that my sustained emphasis on rigor and on attention to details was also valued by the rest of the team. Second, I was rated 5/5 on “interacting with teammates”, which indicated that my approach to managing team conflict, as demonstrated in the first critical incident, was perceived as a consistent and recurring behavioral pattern.

At the same time, the peer feedback also surfaced areas for improvement. The most salient example was the small but significant discrepancy in “keeping the team on track,” where I rated myself 5/5 but was scored 4/5 by peers. Although the difference appears minor, it challenged my initial perception and highlighted moments where my tendency toward an “accommodating” style may have been dominant (Thomas and Kilmann 1974). This result corroborates my reflection on the second critical incident and, importantly, confirmed that this limitation was not merely self-perceived but also observed by others.

In two additional dimensions – “contributing to the team” and “having relevant knowledge, skills and abilities” – my peers rated me more highly than I rated myself (5/5 compared with 4/5), which indicated that my contributions were more highly valued than I had self-assessed. In light of my earlier reflections, this suggests that my reluctance to challenge assumptions stemmed not

only from concerns about credibility but also from internal self-doubt, perhaps driven by being the youngest team member and the only one lacking prior professional experience.

2.5 Personal Reflection: Future Application

Working in a group of seven individuals from diverse backgrounds posed significant challenges, resulting in numerous meaningful experiences which I consider to be a turning point for my growth. Building on the lessons gained, the next step is to consider how they can develop my ability to contribute more effectively to collective decision-making in my professional career.

First, the initial critical incident taught me that respectful assertiveness is an effective way to prevent relationship conflict from escalating while still protecting the integrity of collective decisions. To sustain this ability in the future, I will apply the Thomas-Kilmann Conflict Mode Instrument – balancing assertiveness and cooperativeness will ensure that strong personalities do not override collective principles, transforming potentially destructive conflicts into constructive discussions that strengthen team cohesion (Thomas and Kilmann 1974).

Additionally, following the second critical incident, I recognized that challenging assumptions and voicing concerns at an earlier stage are crucial skills, as they help prevent missed opportunities and enhance the quality of decision-making (Morrison 2011). In the future, I intend to adopt the role of devil's advocate when appropriate as a tool for questioning the teams' assumptions more proactively, even if colleagues present them with confidence.

Overall, I became more aware of the importance of fostering psychological safety within teams, particularly under conflict and pressure (Duhigg 2016). In the first critical incident, CIO's excessive assertiveness suppressed potentially valuable contributions, while in the second incident the other CFO led me to defer to his conviction. In the future, I intend to promote open discussion by actively engaging with team members who appear to agree only superficially, encouraging them to share their genuine perspectives and applying the same exercise to myself.

3. References

Agliardi, Elettra, and Rossella Agliardi. 2019. "Financing environmentally-sustainable projects with green bonds." *Environment and Development Economics* 24 (6): 608–23. https://research.ebsco.com/linkprocessor/plink?id=5a46763a-6bbc-3c07-837d-4b6313920f96.

Alšauskas, Oskaras, Elizabeth Connelly, Mathilde Huismans, Ethan Jenness, Javier Jorquera Copier, Jean-Baptiste Le Marois, Teo Lombardo, Shane McDonagh, Vera O'Riordan, Apostolos Petropoulos, and Jules Sery. 2024. *Global EV Outlook 2024.* Paris: International Energy Agency. Accessed July 30, 2025. https://www.iea.org/reports/global-ev-outlook-2024/executive-summary.

Audoin, Alexandre, Markus Winkler, Pascal Feillard, Jean-Marie Lapeyre, James Robey, Sebastian Tschödrich, Siegfried Adam, Vera Schneemann, and Maryem Sahnoun. 2022. *Sustainability in Automotive: From Ambition to Action*. Paris: Capgemini Research Institute. Accessed July 30, 2025. https://www.capgemini.com/insights/research-library/sustainability-in-automotive/.

Barney, Jay. 1991. "Firm Resources and Sustained Competitive Advantage." *Journal of Management* 17 (1): 99. doi:10.1177/014920639101700108.

Bazerman, Max H., and Don A. Moore. 2025. *Judgment in Managerial Decision Making*. John Wiley & Sons. https://research.ebsco.com/linkprocessor/plink?id=605dd5f0-f3b2-36c7-a51a-135d2a637f40.

Braidy, Abedassalam, Shaligram Pokharel, and Tarek Y. ElMekkawy. 2025. "Research Perspectives on Innovation in the Automotive Sector." *SUSTAINABILITY* 17 (7): 2795. doi:10.3390/su17072795.

Brand Vision. 2024. "A Deep Dive Into Polestar's Comprehensive Marketing Strategy." *Brand Vision*. Accessed August 1, 2025. https://www.brandvm.com/post/polestars-marketing.

Buckley, Ginny. 2025. “Polestar 2 Running Costs, Insurance & Pricing.” *Electrifying.com*. Accessed August 1, 2025. https://www.electrifying.com/reviews/polestar/2/pricing.

Conzade, Julian, Andreas Cornet, Patrick Hertzke, Russell Hensley, Ruth Heuss, Timo Möller, Patrick Schaufuss, Stephanie Schenk, Andreas Tschiesner, and Karsten von Laufenberg. 2021. *Why the Automotive Future Is Electric*. McKinsey Center for Future Mobility. Accessed July 30, 2025. https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/why-the-automotive-future-is-electric.

David, Fred R., Forest R. David, and Meredith E. David. 2023. *Strategic Management: Concepts and Cases a Competitive Advantage Approach*. Pearson. https://research.ebsco.com/linkprocessor/plink?id=2b02bfa1-24a5-3831-b911-77e424f44141.

De Dreu, Carsten K. W., and Laurie R. Weingart. 2003. “Task versus Relationship Conflict, Team Performance, and Team Member Satisfaction: A Meta-Analysis.” *Journal of Applied Psychology* 88 (4): 741–49. doi:10.1037/0021-9010.88.4.741.

Dsouza, Suzan, Krishnamoorthy K, Umar Nawaz Kayani, and Hassan Nasseredine. 2024. “Variables That Sway the Capital Structure! Evidence from the US Automotive Industry.” Cogent Social Sciences 10 (1). doi:10.1080/23311886.2023.2293309.

Duhigg, Charles. 2016. “What Google Learned From Its Quest to Build the Perfect Team.” *The New York Times Magazine*. Accessed July 24, 2025. https://www.nytimes.com/2016/02/28/magazine/what-google-learned-from-its-quest-to-build-the-perfect-team.html.

Edmondson, Amy. 1999. “Psychological Safety and Learning Behavior in Work Teams.” *Administrative Science Quarterly* 44 (2): 350–83. doi:10.2307/2666999.

Elkington, John. 1994. “Towards the Sustainable Corporation: Win-Win-Win Business Strategies for Sustainable Development.” *California Management Review* 36 (2): 90–100. doi:10.2307/41165746.

Ererdi, Ertunç, and Elif Güneren Genç. 2025. “Short-Term Costs and Long-Term Benefits of Environmental, Social, and Governance Performance on Corporate Credit Ratings.” *International Journal of Finance & Banking Studies* 14 (1): 90–97. doi:10.20525/ijfbs.v14i1.4014.

Frank, Murray Z., Vidhan K. Goyal, and Shen Tao. 2020. “The Pecking Order Theory of Capital Structure: Where Do We Stand?” *SSRN Electronic Journal ; ISSN 1556-5068*, January. doi:10.2139/ssrn.3540610.

Gao, Paul, Hans-Werner Kaas, Detlev Mohr, and Dominik Wee. 2016. *Disruptive Trends That Will Transform the Auto Industry*. McKinsey & Company. Accessed July 30, 2025. https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/disruptive-trends-that-will-transform-the-auto-industry.

Gianfrate, Gianfranco, and Mattia Peri. 2019. “The Green Advantage: Exploring the Convenience of Issuing Green Bonds.” *Journal of Cleaner Production* 219 (May): 127–35. doi:10.1016/j.jclepro.2019.02.022.

Glova, Jozef, and Matúš Panko. 2025. “The Effects of Environmental, Social, and Governance Factors on Financial Performance and Market Valuation in the European Automotive Industry.” *International Journal of Financial Studies* 13 (2): 82. doi:10.3390/ijfs13020082.

Goleman, Daniel. 1996. *Emotional Intelligence: Why It Can Matter More Than IQ*. BLOOMSBURY. https://research.ebsco.com/linkprocessor/plink?id=5e8f4333-c8c0-377a-b58f-7708ac7b4bad.

Haas, Martine, and Mark Mortensen. 2016. “The Secrets of Great Teamwork.” *HARVARD BUSINESS REVIEW* 94 (6): 70–76. https://research.ebsco.com/linkprocessor/plink?id=c0082d9e-e919-303b-8140-17da156c4572.

Hadley, Constance Noonan, and Mark Mortensen. 2022. “Do We Still Need Teams?” *Harvard Business Review Digital Articles*, April, 1–7. https://research.ebsco.com/linkprocessor/plink?id=49207121-5c18-3d1c-a443-6a58c46b430c.

Hambrick, Donald C., and James W. Fredrickson. 2005. “Are You Sure You Have a Strategy?” *The Academy of Management Executive (1993-2005)* 19 (4): 51–62. https://research.ebsco.com/linkprocessor/plink?id=47ece56d-f19f-30d1-b05e-494af7942d81.

Heineke, Kersten, Philipp Kampshoff, and Timo Möller. 2024. *Spotlight on Mobility Trends*. McKinsey & Company. Accessed July 30, 2025. https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/spotlight-on-mobility-trends.

Insights Group Limited. 2024. "The essential guide to Insights Discovery colour energies and how to use them at work." *Insights Blog*. Accessed July 24, 2025. https://blog.insights.com/en-gb/blog/the-essential-guide-to- insights-discovery-colour-energies-and-how-to-use-them-at-work.

Jalonen, Harri. 2012. “The Uncertainty of Innovation: A Systematic Review of the Literature”. *Journal of Management Research* 4 (1): 1-47. https://research.ebsco.com/linkprocessor/plink?id=3eb26903-5065-32dd-a6f3-36d8927cc9f6.

Jehn, Karen A. 1995. “A Multimethod Examination of the Benefits and Detriments of Intragroup Conflict.” *Administrative Science Quarterly* 40 (2): 256–82. doi:10.2307/2393638.

Johnson, Pamela R., Virginia L. Heimann, and Neill, Karen O’Neill. 2000. “The Wolf Pack: Team Dynamics for the 21st Century.” *Journal of Workplace Learning* 12 (4): 159–64. doi:10.1108/13665620010332813.

Kane, Mark. 2025. "Tesla Supercharging Network: Q2 2025 Report." *EV Charging Stations*. Accessed August 30, 2025. https://evchargingstations.com/chargingnews/tesla-supercharging-network-q2-2025-report/.

Kim, Wi Saeng, and Eric H. Sorensen. 1986. “Evidence on the Impact of the Agency Costs of Debt on Corporate Debt Policy.” *Journal of Financial & Quantitative Analysis* 21 (2): 131–44. doi:10.2307/2330733.

Kirby, Dan. 2025. "Why Volvo's Car Subscription Model Didn't Work." *Tomorrow's Journey*. Accessed August 30, 2025. https://www.tomorrowsjourney.co.uk/industry-insights/why-volvos-car-subscription-model-didnt-work.

Knight, Andrew P. 2015. “Mood at the Midpoint: Affect and Change in Exploratory Search Over Time in Teams That Face a Deadline.” *Organization Science* 26 (1): 99–118. https://research.ebsco.com/linkprocessor/plink?id=0697dd50-90e5-3d45-add8-f955f1e669c2.

Kuhnert, Felix, Cristoph Stürmer, and Alex Koster. 2018. *eascy - Five trends transforming the Automotive Industry*. PricewaterhouseCoopers. Accessed August 30, 2025. https://www.pwc.com/gx/en/industries/automotive/assets/pwc-five-trends-transforming-the-automotive-industry.pdf.

Lencioni, Patrick. 2002. *The Five Dysfunctions of a Team: A Leadership Fable*. Jossey-Bass. https://research.ebsco.com/linkprocessor/plink?id=9aee19a4-ebc6-340c-b174-b4135c20c977.

Mendoza-Silva, Andrea. 2021. "Innovation Capability: A Systematic Literature Review." *European Journal of Innovation Management* 24 (3): 707–34. doi:10.1108/EJIM-09-2019-0263.

Mintzberg, Henry. 1978. "Patterns in Strategy Formation." *Management Science* 24 (9): 934–48. https://research.ebsco.com/linkprocessor/plink?id=82796b72-fcd6-33a0-8af5-904ce885bb38.

Modigliani, Franco, and Merton H. Miller. 1963. "Corporate Income Taxes and the Cost of Capital: A Correction." *The American Economic Review* 53 (3): 433–43. https://research.ebsco.com/linkprocessor/plink?id=e42c5dc3-ac0a-3444-b2b3-2ea35d9045ba.

Möller, Timo, and Patrick Schaufuss. 2022. *Road Mobility*. McKinsey & Company. Accessed July 30, 2025. https://www.mckinsey.com/capabilities/sustainability/our-insights/spotting-green-business-opportunities-in-a-surging-net-zero-world/transition-to-net-zero/road-mobility.

Morrison, Elizabeth W. 2011. "Employee Voice Behavior: Integration and Directions for Future Research." *Academy of Management Annals* 5 (1): 373–412. doi:10.5465/19416520.2011.574506.

Palea, Vera, and Cristina Santhià. 2022. "The Financial Impact of Carbon Risk and Mitigation Strategies: Insights from the Automotive Industry." *Journal of Cleaner Production* 344 (April). doi:10.1016/j.jclepro.2022.131001.

Porter, Michael E. 1985. *Competitive Advantage: Creating and Sustaining Superior Performance*. The Free Press.

https://research.ebsco.com/linkprocessor/plink?id=d90544bf-1f77-39e0-b78f-5bb45161b0bf.

Porter, Michael E. 1996. “What Is Strategy?” *Harvard Business Review* 74 (6): 61–78. https://research.ebsco.com/linkprocessor/plink?id=349624db-8116-3f14-bd1c-6880452de2d3.

Porter, Michael E. 2008. “The Five Competitive Forces That Shape Strategy.” *Harvard Business Review* 86 (1): 78–93. https://research.ebsco.com/linkprocessor/plink?id=0d7ccc43-2558-3627-8c2c-dc904020a1eb.

Porter, Michael E., and Mark R. Kramer. 2006. “Strategy & Society: The Link Between Competitive Advantage and Corporate Social Responsibility.” *Harvard Business Review* 84 (12): 78–92. https://research.ebsco.com/linkprocessor/plink?id=76e5a3b4-7859-3ed8-934e-4788e32c1e1d.

Renault Group. 2020. *Refactory: the Flins site enters the circle of the circular economy*. Renault Group. Accessed August 30, 2025. https://www.renaultgroup.com/en/magazine/sustainable-development/re-factory-the-flins-site-enters-the-circle-of-the-circular-economy/.

Renault Group. 2021. *Renaulution: a four-year plan to transform our Group*. Renault Group. Accessed August 30, 2025. https://www.renaultgroup.com/en/group/our-strategy/.

Sinha, R.K., and C.H. Noble. 2005. “A Model of Market Entry in an Emerging Technology Market.” *IEEE Transactions on Engineering Management, Engineering Management, IEEE Transactions on, IEEE Trans. Eng. Manage* 52 (2): 186–98. doi:10.1109/TEM.2005.844467.

Strategy&. n.d. *Way-to-play tool*. Strategy&. Accessed August 1, 2025. https://www.strategyand.pwc.com/gx/en/unique-solutions/capabilities-driven-

strategy/way-to-play-tool.html.

Tekin, Bilgehan, and Yusuf Gör. 2022. “Cash Conversion Cycle and Its Relationship with Profitability as a Cash Management Tool in Companies: An Application on Companies Trading in Borsa Istanbul.” *Theoretical & Applied Economics* 29 (3): 113–30. https://research.ebsco.com/linkprocessor/plink?id=88c4e00b-236b-36ec-abe6-31e3b6f78d92.

Tesla. 2025. *Full Self-Driving*. Tesla. Accessed August 30, 2025. https://www.tesla.com/fsd.

Thomas, Kenneth W., and Ralph H. Kilmann. 1974. *Thomas-Kilmann Conflict Mode Instrument*. Tuxedo, NY: Xicom. https://doi.org/10.1037/t02326-000.

Toegel, Ginka, and Jean-Louis Barsoux. 2025. “How to Preempt Team Conflict.” *Harvard Business Review* 103 (June): 98–103. https://research.ebsco.com/linkprocessor/plink?id=99a6768d-018b-3de7-b30b-cc799b40483f.

van der Panne, Gerben, Cees van Beers, and Alfred Kleinknecht. 2003. “Success and Failure of Innovation: A Literature Review.” *International Journal of Innovation Management* 7 (3): 309. doi:10.1142/S1363919603000830.

Volkswagen AG. 2020. *Volkswagen Successfully Places First Green Bonds with a Volume of €2 Billion*. Wolfsburg: Volkswagen AG. Accessed August 30, 2025. https://www.volkswagen-group.com/en/press-releases/volkswagen-successfully-places-first-green-bonds-with-a-volume-of-2-billion-16716/download?disposition=attachment.

Walker, Lisa, and Harald Proff. 2025. *2025 Global Automotive Consumer Study.* Deloitte. Accessed July 30, 2025. https://www.deloitte.com/global/en/Industries/automotive/perspectives/global-automotive-consumer-study.html.

West, Michael A. 2012. *Effective Teamwork: Practical Lessons from Organizational Research*. Wiley-Blackwell. https://research.ebsco.com/linkprocessor/plink?id=b47badc7-61a1-3ad5-ad97-269da2d465bf.

Zaino, Rami, Vian Ahmed, Ahmed Mohamed Alhammadi, and Mohamad Alghoush. 2024. "Electric Vehicle Adoption: A Comprehensive Systematic Review of Technological, Environmental, Organizational and Policy Impacts." *World Electric Vehicle Journal* 15 (8): 375. doi:10.3390/wevj15080375.

4. Appendice

4.1 Figures

Figure 1: Porter's Five Forces Analysis of Enovia at Q4
Source: Author's Illustration. Adapted from "The Five Competitive Forces That Shape Strategy" (Porter 2008)

Strengths	Weaknesses
• Competitive Pricing: A key advantage, with products offered at a lower price point, making them attractive in cost-sensitive markets. • Focused Resource Allocation: The limited product range and simpler operational structure allow for concentrated investment in chosen strategic areas, avoiding resource dilution. • Necessary Funding for Investments: Financial capacity required to support essential strategic initiatives. • Skilled Workforce: The company benefits from a highly capable and proficient employee base – and with potential for more • Production Capabilities in Three Continents: The company operates manufacturing facilities across Europe, Asia, and America, which enhances market reach • Brand Awareness: This recognition facilitates marketing efforts, builds initial customer trust, and provides a foundation for fostering brand loyalty. • Forward Thinking: The new board of the company reveals orientation towards anticipating future industry trends and strategic positioning.	• Absence of Sustainability Programs: A significant disadvantage, as there are no environmental initiatives or ESG alignment currently in place. • Carbon Emission Penalties: Resulting from the lack of green efforts, fines due to high fleet emissions represent a financial burden and regulatory non-compliance. • Outdated Technological Capabilities: Characterized by limited investment in innovation and a reliance on older product features, indicating a substantial gap in technological readiness compared to current industry trends. • Restricted Product Line: A narrow range of offerings provides little diversity in vehicle types or market segments, limiting market reach and the ability to meet varied customer needs. • No EV Development Plan: Crucially, there are few electric vehicles available and none currently under development, signaling a lack of preparedness for the automotive industry's inevitable shift to electric mobility. • Heavy Reliance on Traditional Models: Implicitly, a strong dependence on conventional internal combustion engine (ICE) vehicles, which face decreasing demand and increasing regulatory pressure.
Opportunities	**Threats**
• Regulatory Support for Green Transition: Existing incentives and regulations mandate a move towards environmentally friendly operations and product offerings • Market Expansion Potential: Opportunities exist to grow into new areas, such as different geographic regions or market segments, as the industry evolves and demand increases. • Untapped Electric Vehicle Market Segments: A significant rise in demand for electric and hybrid vehicles presents substantial uncaptured market potential for companies capable of adapting effectively. • Technology Collaborations: Possibilities to partner on R&D and battery technology help overcome internal technological shortcomings and accelerate the creation of competitive EV products. • Evolving Consumer Preferences: Growing demand for eco-friendly and technologically advanced vehicles create a receptive market for businesses that address these requirements.	• Regulatory & Geopolitical Pressures: Changing regulations and tariffs impact both raw material costs and final product prices, introducing uncertainty and potentially increasing expenses. • Rapid Technological Obsolescence: Quick innovations by rival companies can rapidly render existing products outdated, posing a constant threat to market relevance, especially given the company's limited technological advancement. • Strong Buyer Influence: Customers wield considerable power, and their expectations span various segments the company cannot currently serve, creating pressure on product offerings and potentially eroding profit margins. • Economic Downturns: General economic contractions can reduce consumer spending on discretionary items like new cars, affecting sales volumes across the industry. • Heightened Competition: Beyond just new market entrants, the overall intense rivalry among established players for market share in the transforming automotive sector remains a significant threat.

Figure 2: SWOT Analysis of Enovia at Q4
Source: Author's Illustration. Adapted from "Strategic Management: Concepts and Cases a Competitive Advantage Approach" (David, David and David 2023)

	V	R	I	O	
Capabilities	*Valuable?*	*Rare?*	*Inimmitable?*	*Organized?*	*Competitive Advantage?*
Necessary Funding for Investment					**Competitive Parity**
Skilled Workforce					**Sustained Competitive Advantage**
Production in Three Continents					**Temporary Competitive Advantage**
Brand Awareness & Loyalty					**Temporary Competitive Advantage**
Forward-Thinking					**Unused Competitive Advantage**

Figure 3: VRIO Analysis of Enovia at Q4
Source: Author's Illustration. Adapted from "Firm Resources and Sustained Competitive Advantage" (Barney 1991)

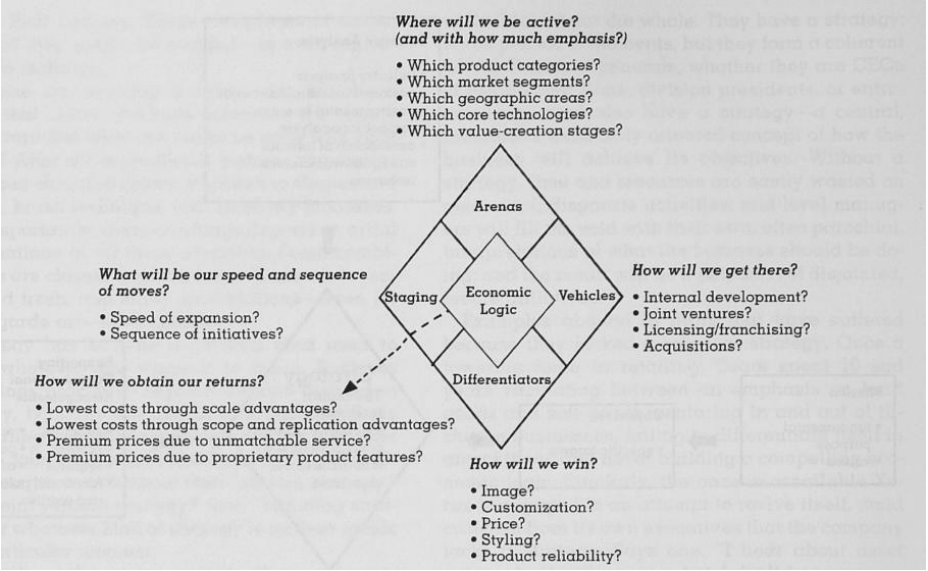


Figure 4: The Strategy Diamond
Source: "Are You Sure You Have a Strategy?" (Hambrick and Fredrickson 2001)

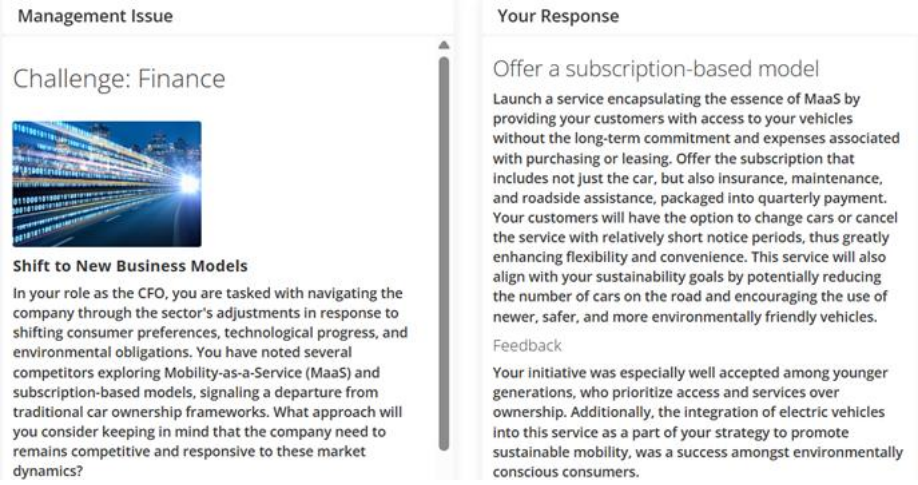


Figure 5: Management Issue: Offering a Subscription-based Model
Source: IndustryMasters® Simulation. 2025.

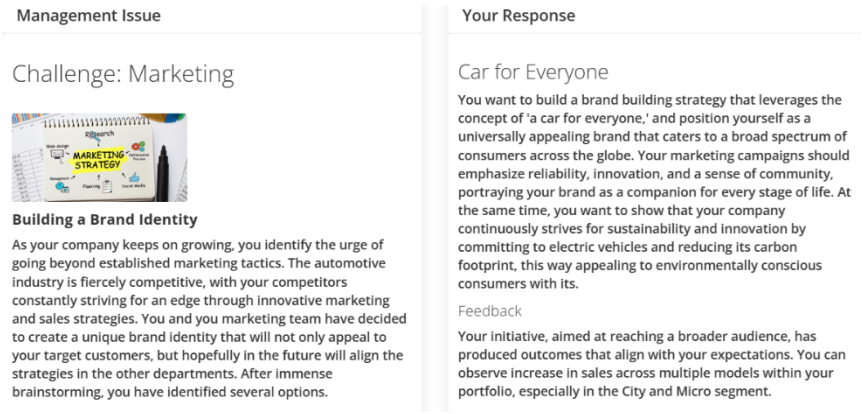


Figure 6: Decision to Build a New Brand Identity
Source: IndustryMasters® Simulation. 2025.

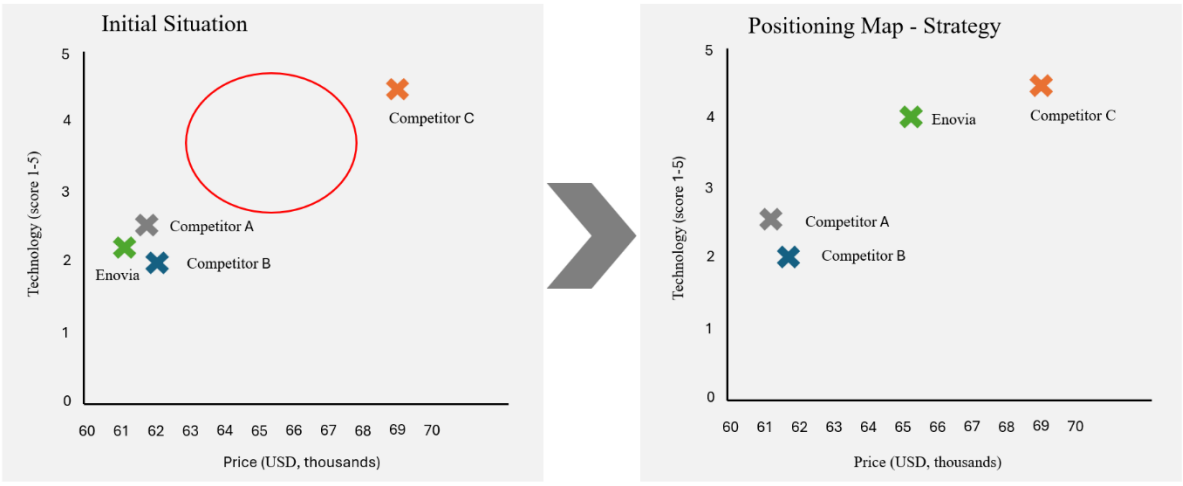


Figure 7: Enovia's Strategy Based on Positioning Map (at Q4)
Source: Author's Illustration.

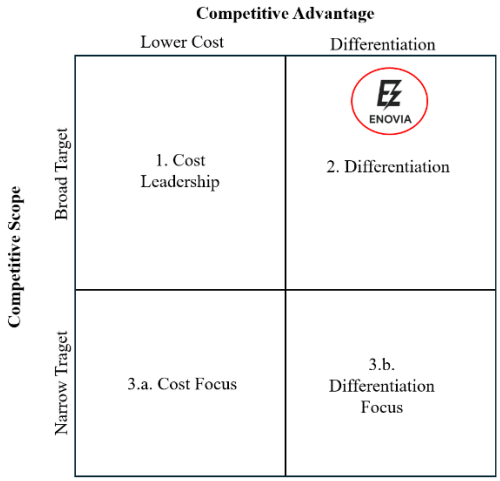


Figure 8: Enovia's Strategy Based on Porter's "Generic Strategies"
Source: Author's Illustration. Adapted from *Competitive Advantage: Creating and Sustaining Superior Performance* (Porter 1985)

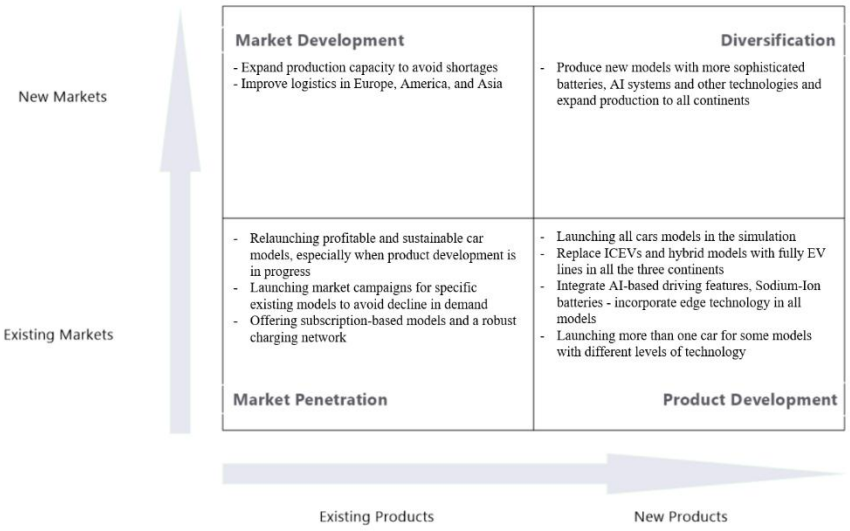


Figure 9: Enovia's Strategy Based on Ansoff Matrix
Source: Author's Illustration.

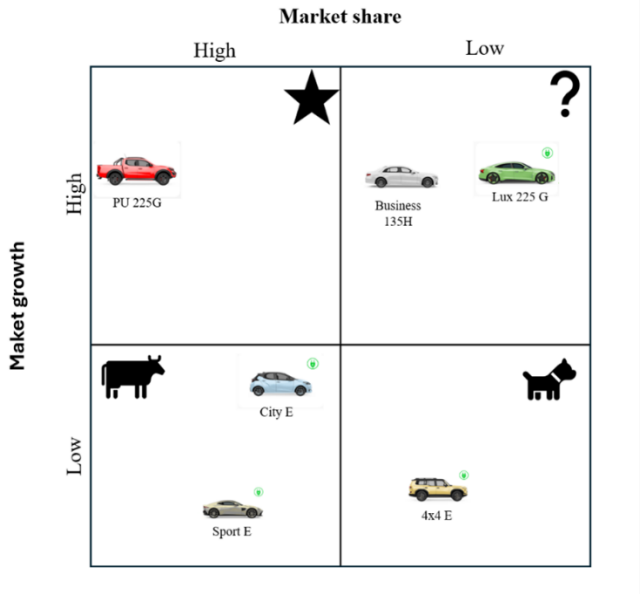


Figure 10: Enovia's Strategy Based on BCG Matrix (at Q4)
Source: Author's Illustration. Adapted from "Strategic Management: Concepts and Cases a Competitive Advantage Approach" (David, David and David 2023)

Nova SBE - BiP 2025 - KPI: Revenue (M$)

NOVA MSP - Course #14186

1.	9,687.50	EVolva (Team 14186 14) [Round 1/1, tick 84]
2.	9,512.20	Enovia (Team 14186 2) [Round 1/1, tick 84]
3.	9,274.50	Evolv3rs (Team 14186 3) [Round 1/1, tick 84]
4.	9,259.70	EvoMotion (Team 14186 9) [Round 1/1, tick 84]
5.	9,056.80	FCM Auto (Team 14186 10) [Round 1/1, tick 84]
6.	8,958.20	LYNX (Team 14186 8) [Round 1/1, tick 84]
7.	8,862.00	eNOVAtion (Team 14186 1) [Round 1/1, tick 84]
8.	8,539.60	VoltEDGE (Team 14186 5) [Round 1/1, tick 84]
9.	8,243.80	OLYM (Team 14186 12) [Round 1/1, tick 84]
10.	7,825.70	Trans4Motive (Team 14186 4) [Round 1/1, tick 84]

Figure 11: Ten Highest Scores on Revenue (at Q28)
Source: IndustryMasters® Simulation. 2025.

Nova SBE - BiP 2025 - KPI: Sustainability Rating (%)

NOVA MSP - Course #14186

1.	85.03	FCM Auto (Team 14186 10) [Round 1/1, tick 84]
2.	84.10	EvoMotion (Team 14186 9) [Round 1/1, tick 84]
3.	84.07	Evolv3rs (Team 14186 3) [Round 1/1, tick 84]
4.	84.03	Trans4Motive (Team 14186 4) [Round 1/1, tick 84]
5.	83.07	Enovia (Team 14186 2) [Round 1/1, tick 84]
6.	82.60	EVolva (Team 14186 14) [Round 1/1, tick 84]
7.	82.07	LYNX (Team 14186 8) [Round 1/1, tick 84]
8.	81.50	Flash (Team 14186 6) [Round 1/1, tick 84]
9.	80.47	NovaMotive (Team 14186 13) [Round 1/1, tick 84]
10.	79.53	NEXO (Team 14186 7) [Round 1/1, tick 84]

Figure 12: Ten Highest Scores on Sustainability Rating (at Q28)
Source: IndustryMasters® Simulation. 2025.

Triple Bottom Line (TBL) is an economic theory that encourages companies to focus on social and environmental concerns in the same way they have historically focused on profits. TBL theory posits that instead of one bottom line, there should be three: profit, people, and the planet. A TBL seeks to gauge a corporation's level of commitment to corporate social responsibility and its impact on the environment over time.

The target dimensions of sustainable, more bearable, more equitable and more viable management are shown in the left Triple Bottom Line Diagram. The better you have managed the target dimensions, the more the area of the triangle is filled in.

Figure 13: Triple Bottom Line's Dimensions
Source: IndustryMasters® Simulation. 2025.

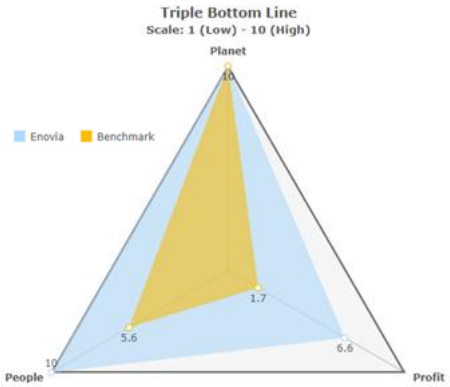


Figure 14: Enovia's Scores on Triple Bottom Line
Source: IndustryMasters® Simulation. 2025.

Feature Package (only EVs):

Level 1: Autonomous Valet Parking (AVP): AVP enables vehicles to autonomously find parking spaces, park, and retrieve themselves when summoned by the driver via a smartphone app. Biometric Driver Identification: This system use facial recognition or fingerprint scanning to authenticate the driver's identity, allowing for personalized vehicle settings and enhanced security.

Level 2 includes Level I, plus Vehicle-to-Infrastructure (V2I) Communication: Allows vehicles to communicate with infrastructure such as traffic lights, and traffic management systems, providing real-time traffic information and optimizing traffic flow. Dynamic Vehicle Morphing: Dynamic vehicle morphing technology enables vehicles to change their shape or size based on driving conditions, optimizing aerodynamics, and energy efficiency.
Benefit: Demand (+)

Level 3 includes Level I+II, plus Biometric Health Monitoring: Tracks the driver's vital signs such as heart rate and blood pressure, providing alerts and recommendations to ensure driver well-being and safety. Augmented Reality Windshield Display: Displays overlay digital information, such as navigation directions, traffic alerts, and points of interest, onto the windshield, enhancing situational awareness and reducing distraction.
Benefit: Demand (++)

Level 4 Feature Package includes Level I-III, plus Modular Battery Design: Electric vehicles with variable battery enables automakers to customize the size and capacity of the battery pack to meet different vehicle specifications and performance requirements. Flexible Placement: Variable battery installation allows for flexibility in the placement of battery packs within the vehicle. Batteries can be located in different areas, to optimize weight distribution and vehicle handling.
Benefit: Demand (+++)

Autonomous Driving (only EVs)

Level 1: Driver Assistance: At this level, the vehicle features driver assistance systems such as cruise control or lane-keeping assistance. The driver remains responsible for monitoring the environment and controlling the vehicle at all times.

Level 2: Partial Automation: Vehicles at this level can perform certain driving tasks, such as steering, acceleration, and braking, under specific conditions. However, the driver must remain engaged and ready to take over control of the vehicle at any time. Benefit: Demand (+)

Level 3: Conditional Automation: At this level, vehicles can perform most driving tasks under certain conditions or environments, such as highway driving. The vehicle can manage acceleration, braking, and steering without constant driver supervision. However, the driver must be prepared to intervene if the system requests, typically with a sufficient warning time. Benefits: Demand (++)

Level 4: High Automation: Vehicles at this level can perform all driving tasks under specific conditions or within defined environments without human intervention. The vehicle can operate autonomously without requiring driver intervention in most situations. Benefits: Demand (+++)

Battery Technology (only EVs)

Standard Li-ion: Lithium-ion batteries are known for their high energy density, which allows them to store a large amount of energy in a relatively small and lightweight package. They are relatively expensive compared to other battery technologies.
Benefit: Demand (+)

Extended Li-ion: Lithium-ion batteries are known for their high energy density, which allows them to store a large amount of energy in a relatively small and lightweight package. They are relatively expensive compared to other battery technologies.
Benefit: Demand (+)

Standard Sodium-ion: Sodium-ion batteries have the potential to be more cost-effective than lithium-ion batteries, as sodium is more abundant and less expensive than lithium.
Benefit: Demand (++), Cost (-)

Extended Sodium-ion: Sodium-ion batteries have the potential to be more cost-effective than lithium-ion batteries, as sodium is more abundant and less expensive than lithium.
Benefit: Demand (+++), Cost (--)

Figure 15: Levels of Sophistication of Cars' Attributes
Source: IndustryMasters® Simulation. 2025.

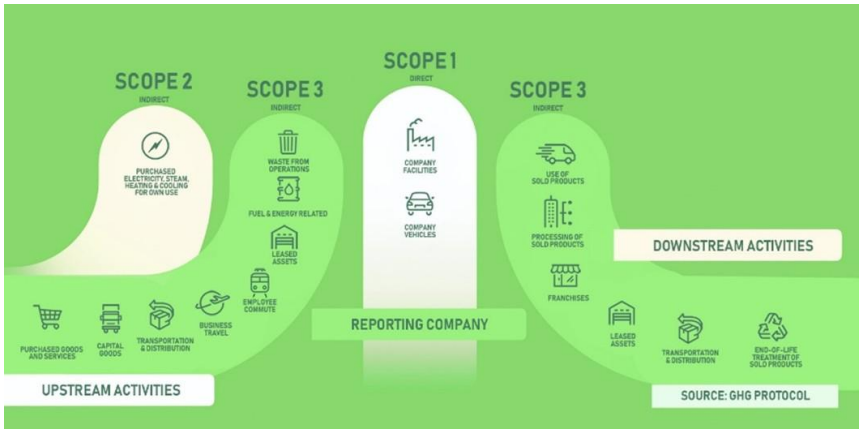


Figure 16: Greenhouse Gas Emissions (GHG) across All the Scopes of Production
Source: IndustryMasters® Simulation. 2025.

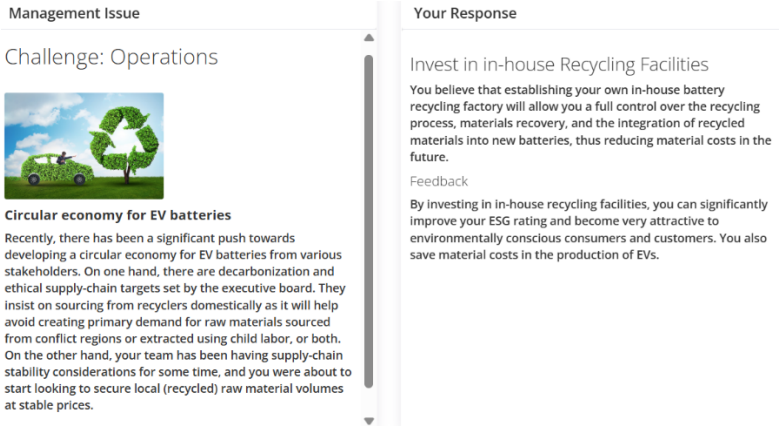


Figure 17: Management Issue: Investing in in-house recycling facilities
Source: IndustryMasters® Simulation. 2025.

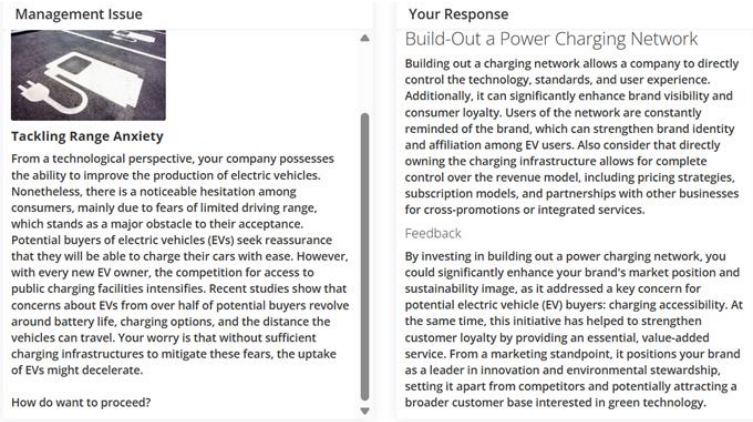


Figure 18: Management Issue: Building-out a Power Charging Network
Source: IndustryMasters® Simulation. 2025.

Nova SBE - BiP 2025 - KPI: CO2 Fleet Emissions (g/mil)

NOVA MSP - Course #14186

1.	0.00	eNOVAtion (Team 14186 1) [Round 1/0, tick 48]
2.	0.00	Evolv3rs (Team 14186 3) [Round 1/0, tick 48]
3.	0.00	Trans4Motive (Team 14186 4) [Round 1/0, tick 48]
4.	0.00	VoltEDGE (Team 14186 5) [Round 1/0, tick 48]
5.	0.00	EvoMotion (Team 14186 9) [Round 1/0, tick 48]
6.	0.00	FCM Auto (Team 14186 10) [Round 1/0, tick 48]
7.	0.00	Ace (Team 14186 11) [Round 1/0, tick 48]
8.	0.00	OLYM (Team 14186 12) [Round 1/0, tick 48]
9.	0.00	NovaMotive (Team 14186 13) [Round 1/0, tick 48]
10.	0.00	EVolva (Team 14186 14) [Round 1/0, tick 48]
11.	5.70	LYNX (Team 14186 8) [Round 1/0, tick 48]
12.	10.60	NEXO (Team 14186 7) [Round 1/0, tick 48]
13.	18.10	Enovia (Team 14186 2) [Round 1/0, tick 48]
14.	24.20	Flash (Team 14186 6) [Round 1/0, tick 48]

Figure 19: Scores on CO_2 Fleet Emissions (at the end of Y3)
Source: IndustryMasters® Simulation. 2025.

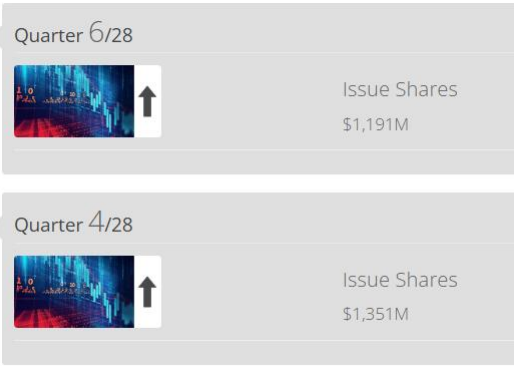


Figure 20: Shares' Issuances by Enovia
Source: IndustryMasters® Simulation. 2025.

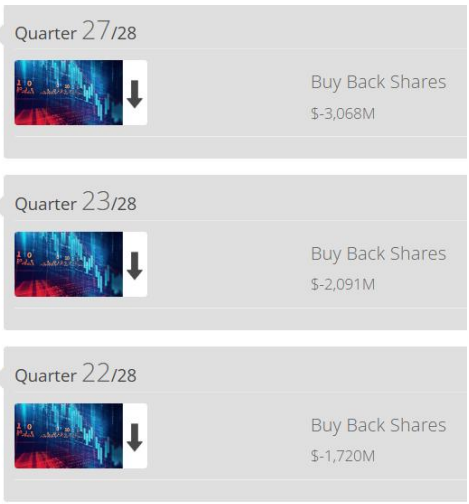


Figure 21: Shares Buybacks by Enovia
Source: IndustryMasters® Simulation. 2025.

Nova SBE - BiP 2025 - KPI: WACC (%)

NOVA MSP - Course #14186

1.	5.03	LYNX (Team 14186 8) [Round 1/1, tick 84]
2.	5.20	Enovia (Team 14186 2) [Round 1/1, tick 84]
3.	5.27	FCM Auto (Team 14186 10) [Round 1/1, tick 84]
4.	5.27	NovaMotive (Team 14186 13) [Round 1/1, tick 84]
5.	5.30	NEXO (Team 14186 7) [Round 1/1, tick 84]
6.	5.30	EVolva (Team 14186 14) [Round 1/1, tick 84]
7.	5.33	eNOVAtion (Team 14186 1) [Round 1/1, tick 84]
8.	5.40	Evolv3rs (Team 14186 3) [Round 1/1, tick 84]
9.	5.40	Flash (Team 14186 6) [Round 1/1, tick 84]
10.	5.40	EvoMotion (Team 14186 9) [Round 1/1, tick 84]

Figure 22: Ten Lowest Values of WACC (at Q28)
Source: IndustryMasters® Simulation. 2025.

Nova SBE - BiP 2025 - KPI: Net Assets (M$)

NOVA MSP - Course #14186

1.	19,889.00	Ace (Team 14186 11) [Round 1/1, tick 84]
2.	23,953.00	NovaMotive (Team 14186 13) [Round 1/1, tick 84]
3.	26,179.00	Trans4Motive (Team 14186 4) [Round 1/1, tick 84]
4.	26,316.00	OLYM (Team 14186 12) [Round 1/1, tick 84]
5.	28,179.00	NEXO (Team 14186 7) [Round 1/1, tick 84]
6.	28,323.00	FCM Auto (Team 14186 10) [Round 1/1, tick 84]
7.	28,863.00	Flash (Team 14186 6) [Round 1/1, tick 84]
8.	29,076.00	eNOVAtion (Team 14186 1) [Round 1/1, tick 84]
9.	29,976.00	EvoMotion (Team 14186 9) [Round 1/1, tick 84]
10.	29,987.00	VoltEDGE (Team 14186 5) [Round 1/1, tick 84]

Figure 23: Ten Lowest Values of Net Assets (at Q28)
Source: IndustryMasters® Simulation. 2025.

Nova SBE - BiP 2025 - KPI: EBIT Margin (%)

NOVA MSP - Course #14186

1.	28.97	EvoMotion (Team 14186 9) [Round 1/1, tick 84]
2.	28.00	FCM Auto (Team 14186 10) [Round 1/1, tick 84]
3.	27.80	Enovia (Team 14186 2) [Round 1/1, tick 84]
4.	27.77	eNOVAtion (Team 14186 1) [Round 1/1, tick 84]
5.	27.67	Trans4Motive (Team 14186 4) [Round 1/1, tick 84]
6.	26.73	Evolv3rs (Team 14186 3) [Round 1/1, tick 84]
7.	26.37	NovaMotive (Team 14186 13) [Round 1/1, tick 84]
8.	25.07	EVolva (Team 14186 14) [Round 1/1, tick 84]
9.	25.00	LYNX (Team 14186 8) [Round 1/1, tick 84]
10.	24.70	VoltEDGE (Team 14186 5) [Round 1/1, tick 84]

Figure 24: Ten Highest Scores on EBIT Margin (at Q28)
Source: IndustryMasters® Simulation. 2025.

Nova SBE - BiP 2025 - KPI: ROS (%)

NOVA MSP - Course #14186

1.	20.67	EvoMotion (Team 14186 9) [Round 1/1, tick 84]
2.	19.67	eNOVAtion (Team 14186 1) [Round 1/1, tick 84]
3.	19.67	Enovia (Team 14186 2) [Round 1/1, tick 84]
4.	19.67	FCM Auto (Team 14186 10) [Round 1/1, tick 84]
5.	19.33	Trans4Motive (Team 14186 4) [Round 1/1, tick 84]
6.	18.67	Evolv3rs (Team 14186 3) [Round 1/1, tick 84]
7.	18.67	NovaMotive (Team 14186 13) [Round 1/1, tick 84]
8.	17.67	LYNX (Team 14186 8) [Round 1/1, tick 84]
9.	17.67	EVolva (Team 14186 14) [Round 1/1, tick 84]
10.	17.00	VoltEDGE (Team 14186 5) [Round 1/1, tick 84]

Figure 25: Ten Highest Scores on Return on Sales (at Q28)
Source: IndustryMasters® Simulation. 2025.

Nova SBE - BiP 2025 - KPI: Return on Net Assets (%)

NOVA MSP - Course #14186

1.	25.50	EvoMotion (Team 14186 9) [Round 1/1, tick 84]
2.	25.30	FCM Auto (Team 14186 10) [Round 1/1, tick 84]
3.	24.50	eNOVAtion (Team 14186 1) [Round 1/1, tick 84]
4.	24.20	NovaMotive (Team 14186 13) [Round 1/1, tick 84]
5.	23.90	Trans4Motive (Team 14186 4) [Round 1/1, tick 84]
6.	23.50	Evolv3rs (Team 14186 3) [Round 1/1, tick 84]
7.	22.70	Enovia (Team 14186 2) [Round 1/1, tick 84]
8.	21.20	EVolva (Team 14186 14) [Round 1/1, tick 84]
9.	20.70	LYNX (Team 14186 8) [Round 1/1, tick 84]
10.	19.80	VoltEDGE (Team 14186 5) [Round 1/1, tick 84]

Figure 26: Ten Highest Scores on Return on Net Assets (at Q28)
Source: IndustryMasters® Simulation. 2025.

Nova SBE - BiP 2025 - KPI: FCF (M$)

NOVA MSP - Course #14186

1.	2,797.00	Ace (Team 14186 11) [Round 1/1, tick 84]
2.	2,750.00	FCM Auto (Team 14186 10) [Round 1/1, tick 84]
3.	2,548.00	EvoMotion (Team 14186 9) [Round 1/1, tick 84]
4.	2,439.00	Enovia (Team 14186 2) [Round 1/1, tick 84]
5.	2,354.00	Evolv3rs (Team 14186 3) [Round 1/1, tick 84]
6.	2,352.00	EVolva (Team 14186 14) [Round 1/1, tick 84]
7.	2,262.00	LYNX (Team 14186 8) [Round 1/1, tick 84]
8.	2,204.00	eNOVAtion (Team 14186 1) [Round 1/1, tick 84]
9.	2,204.00	NEXO (Team 14186 7) [Round 1/1, tick 84]
10.	1,938.00	VoltEDGE (Team 14186 5) [Round 1/1, tick 84]

Figure 27: Ten Highest Scores on Free Cash Flow (at Q28)
Source: IndustryMasters® Simulation. 2025.

Nova SBE - BiP 2025 - Highscores

NOVA MSP - Course #14186

1.	4,577.83	EvoMotion (Team 14186 9) [Round 1/1, tick 84]
2.	4,392.34	EVolva (Team 14186 14) [Round 1/1, tick 84]
3.	4,105.13	FCM Auto (Team 14186 10) [Round 1/1, tick 84]
4.	3,981.47	Enovia (Team 14186 2) [Round 1/1, tick 84]
5.	3,673.81	eNOVAtion (Team 14186 1) [Round 1/1, tick 84]
6.	3,239.65	Trans4Motive (Team 14186 4) [Round 1/1, tick 84]
7.	3,188.56	Evolv3rs (Team 14186 3) [Round 1/1, tick 84]
8.	3,026.89	NovaMotive (Team 14186 13) [Round 1/1, tick 84]
9.	2,941.47	VoltEDGE (Team 14186 5) [Round 1/1, tick 84]
10.	2,847.77	LYNX (Team 14186 8) [Round 1/1, tick 84]

Figure 28: Ten Highest Scores on Economic Value Added (at Q28)
Source: IndustryMasters® Simulation. 2025.

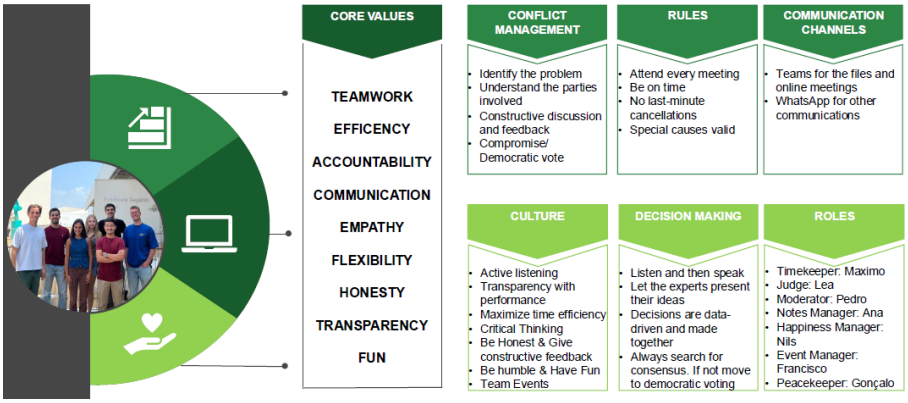
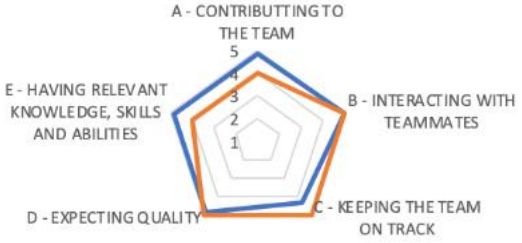


Figure 29: Enovia's Team Charter
Source: Author's Illustration

Figure 30: Distribution of Enovia's Team Members across Energy Colors
Source: Author's Illustration. Adapted from " The essential guide to Insights Discovery colour energies and how to use them at work " (Insights Group Limited 2024)



Peer Self

	Pedro Teles	
	Peer	Self
A - CONTRIBUTTING TO THE TEAM	5	4
B - INTERACTING WITH TEAMMATES	5	5
C - KEEPING THE TEAM ON TRACK	4	5
D - EXPECTING QUALITY	5	5
E - HAVING RELEVANT KNOWLEDGE, SKILLS AND ABILITIES	5	4

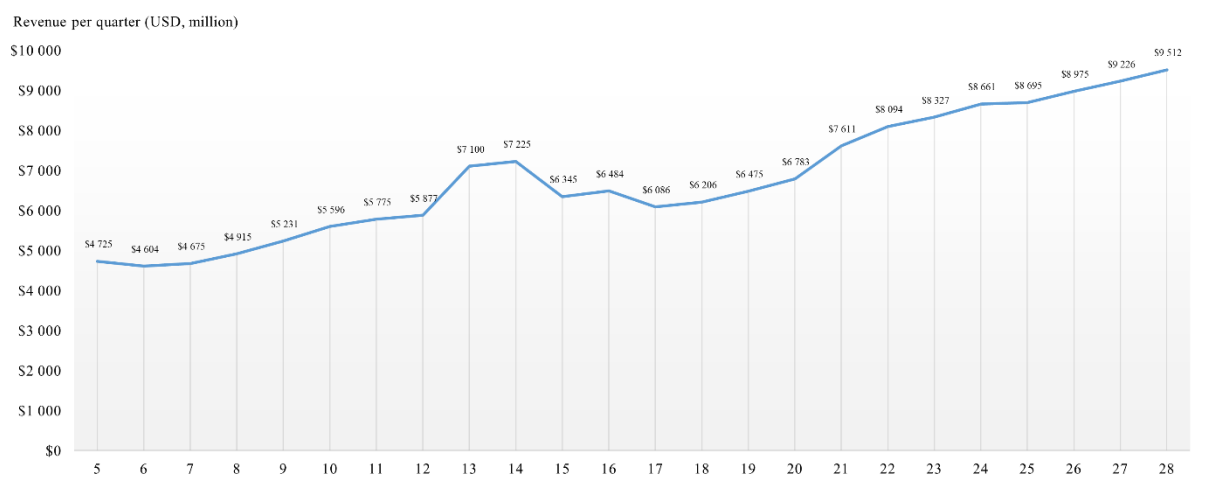
Figure 31: Peer and Self Evaluation's Results

Source: IndustryMasters® Team. 2025.

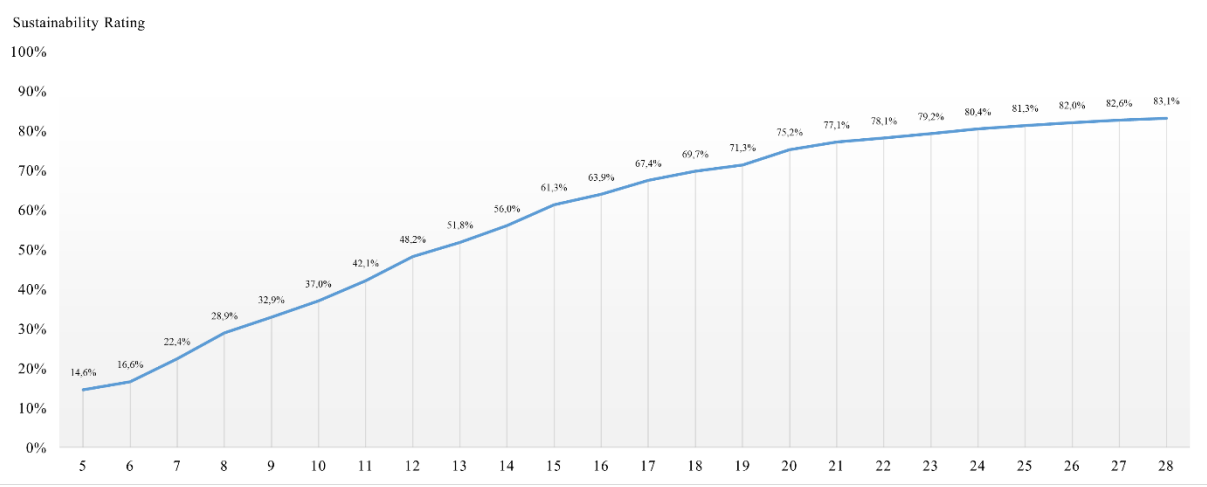
2025-06-19 15:29:29	Closed	Regarding our last question: If the cash gets not paid out immediatly, is there a clear structure of how it will be devided or is that random. For example if one investment costs 400M and it takes two business quarters, does that mean that in both quarters 200M will be needed or can the distribution be different? Because right now the numbers in committed capital just seem to be super random and hard to be planned with.	For any given investment, the cash gets paid out equally over each period of the time to market and gets reduced from the committed capital accordingly. The numbers seem random because the committed capital also includes leftover cash payment from investments made before you took over as the company's management. If you trace the time to market and the decision round those investments were made, you will find that the cash payment is equal each period for any given investment.
2025-06-19 15:27:36	Closed	Hey! My question is: does "short-term debt" have anything to do with our long-term debt terms going below 4 quarters, i.e., below 1 year of maturity?	Short term gets automatically taken when the working capital and investment capital needs of the preceding quarter have exceeded the cash sources for that period. It has nothing to do with LT debt terms going below 4 quarters.

Figure 32: Interaction with IndustryMasters® Support Team
Source: IndustryMasters® Simulation. 2025.

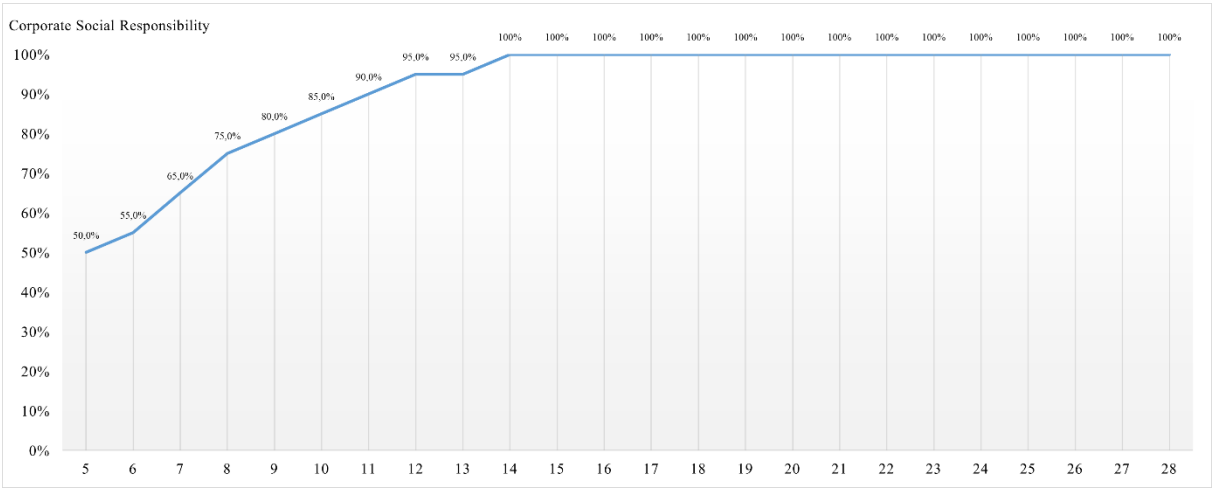
Graphs



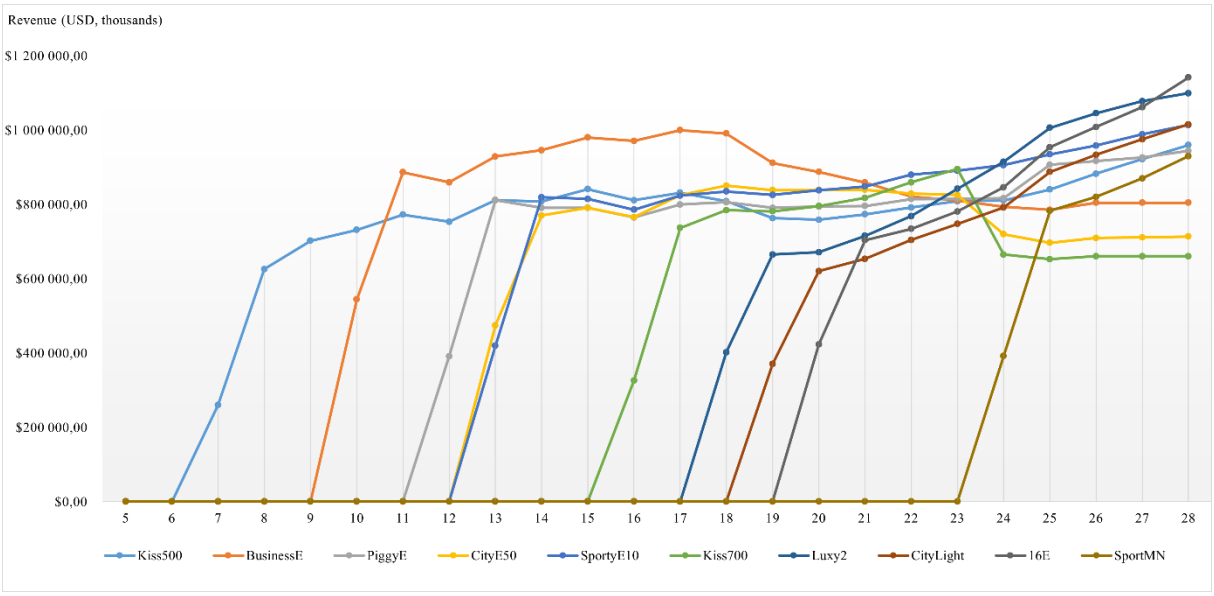
Graph 1: Enovia's Revenues, per quarter
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.



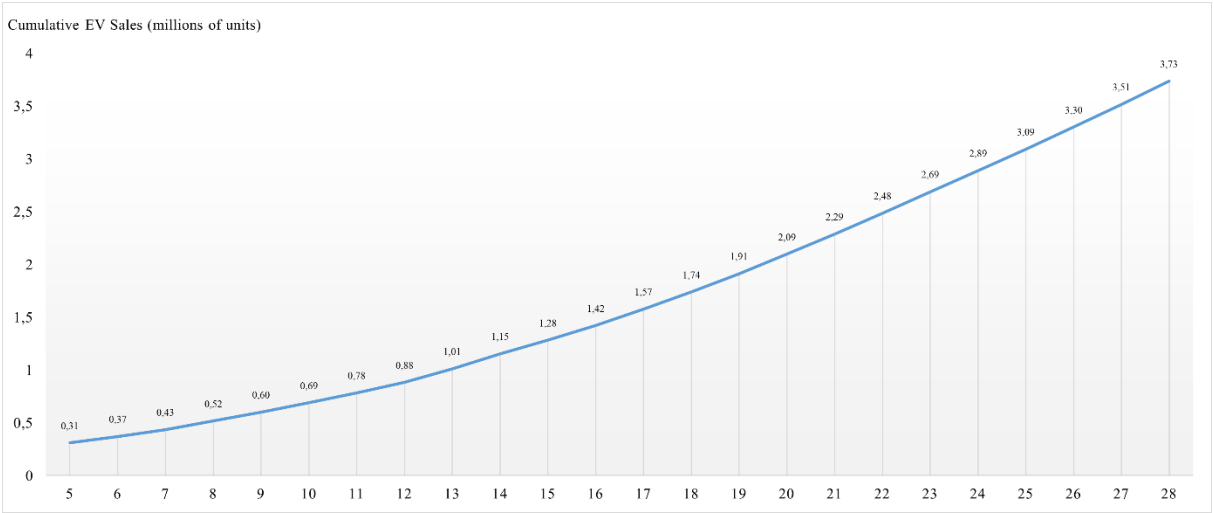
Graph 2: Enovia's Score on Sustainability Rating, per quarter
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.



Graph 3: Enovia's Score on Corporate Social Responsability, per quarter
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.



Graph 4: Revenues of Enovia's launched cars, per quarter
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.



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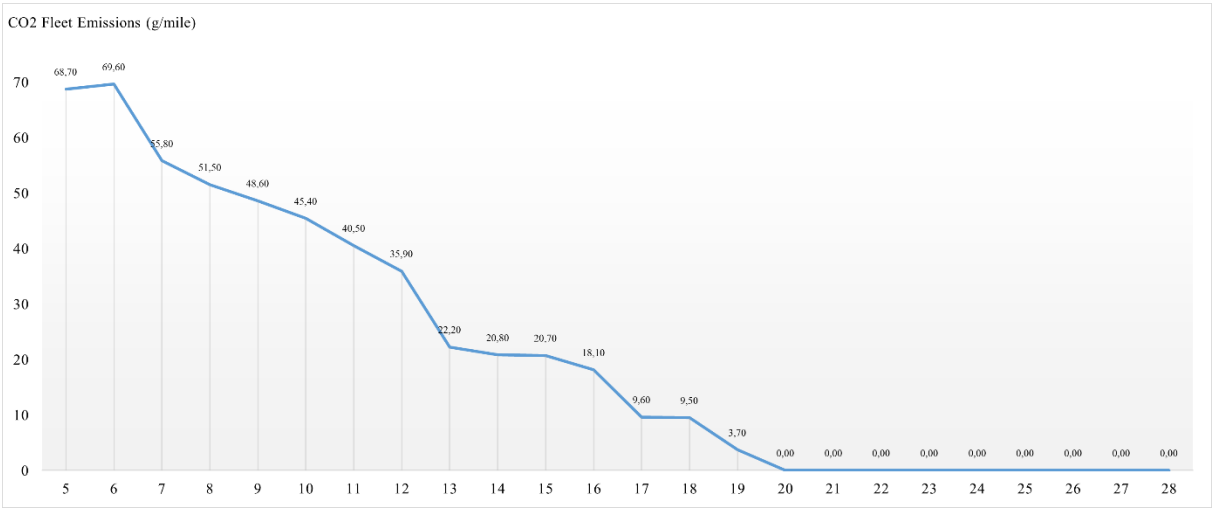
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.



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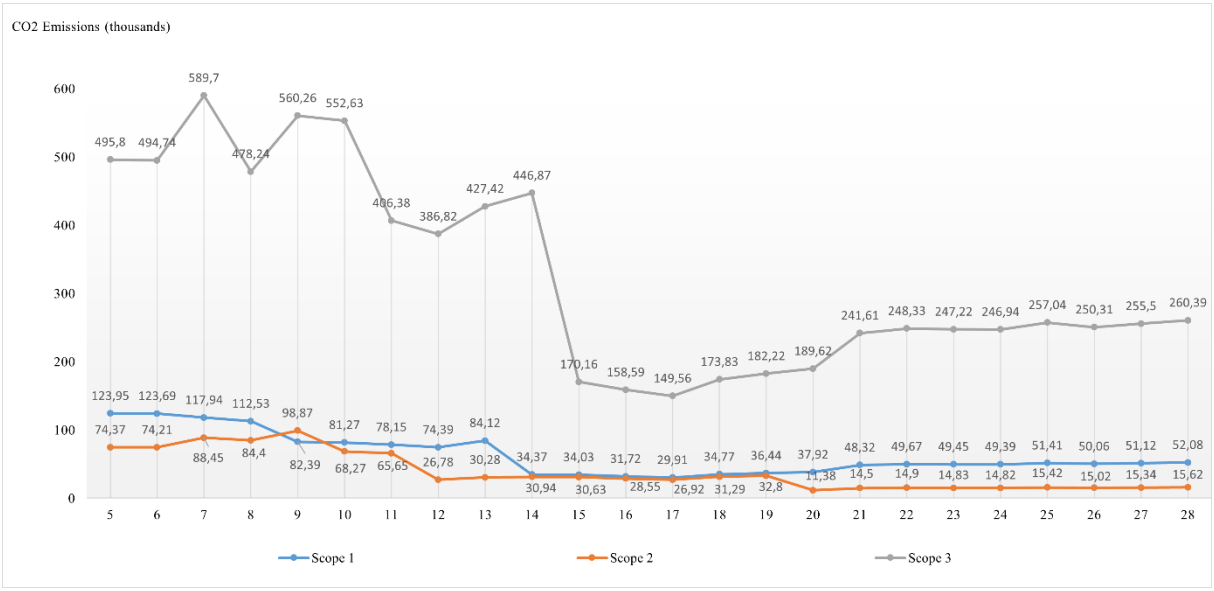
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.



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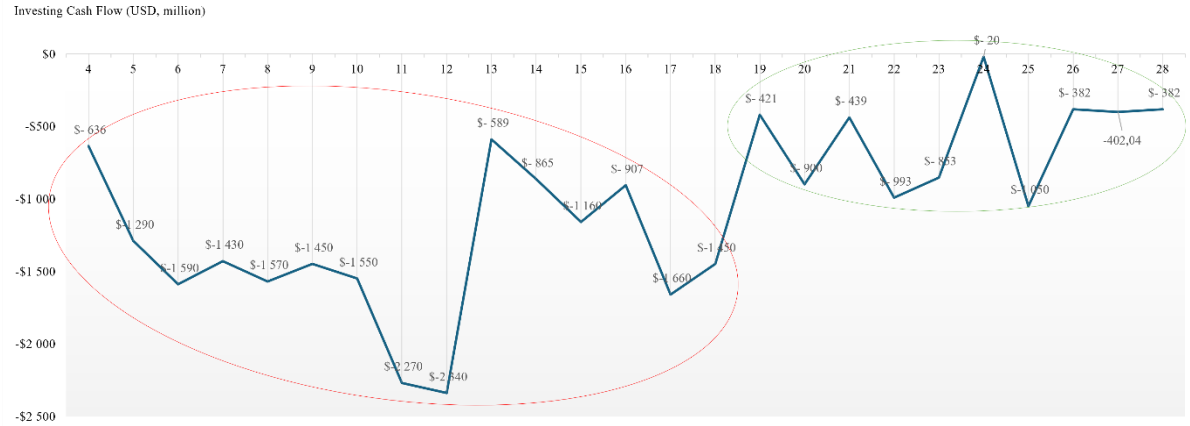
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.



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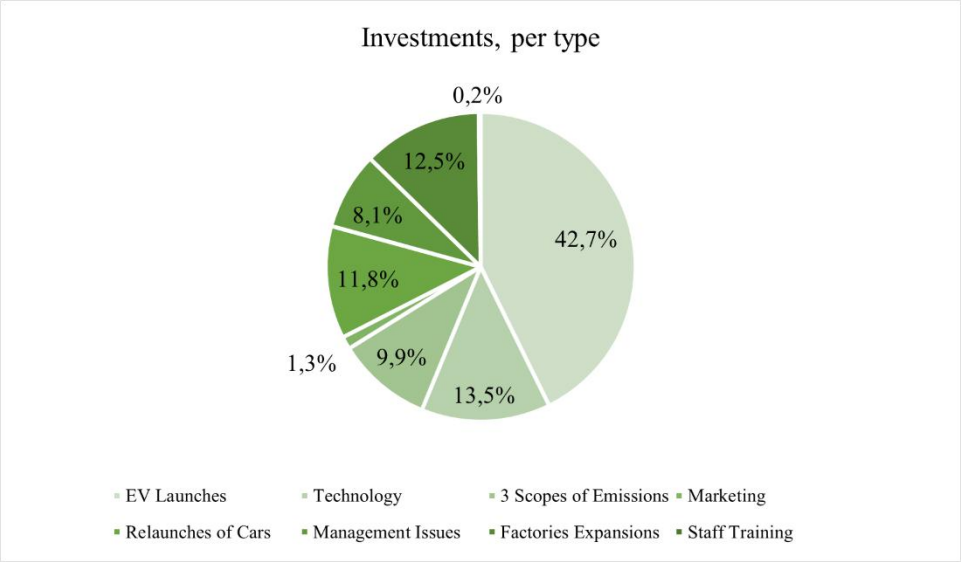
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.



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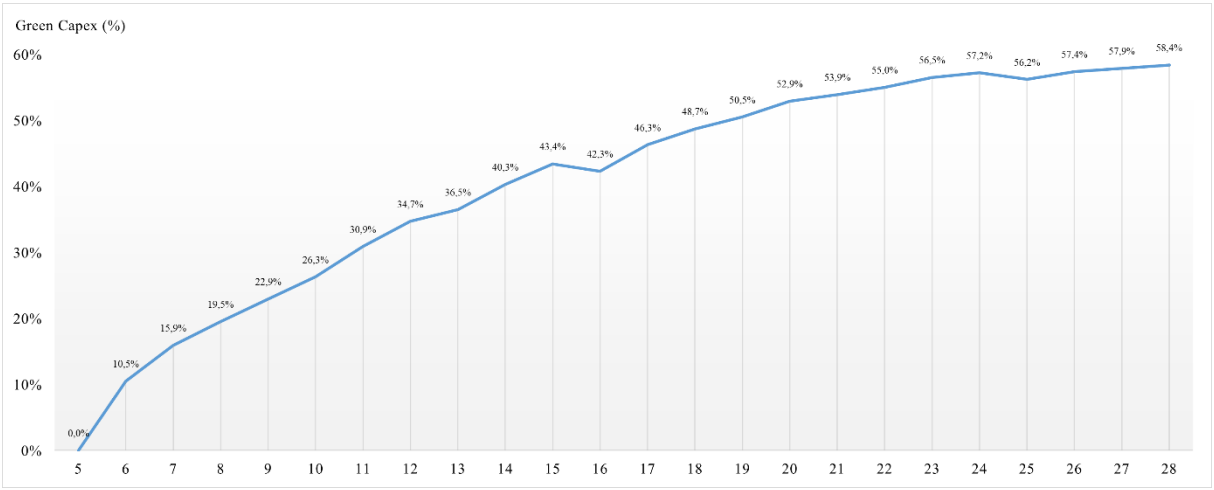
Source: Author's Illustration



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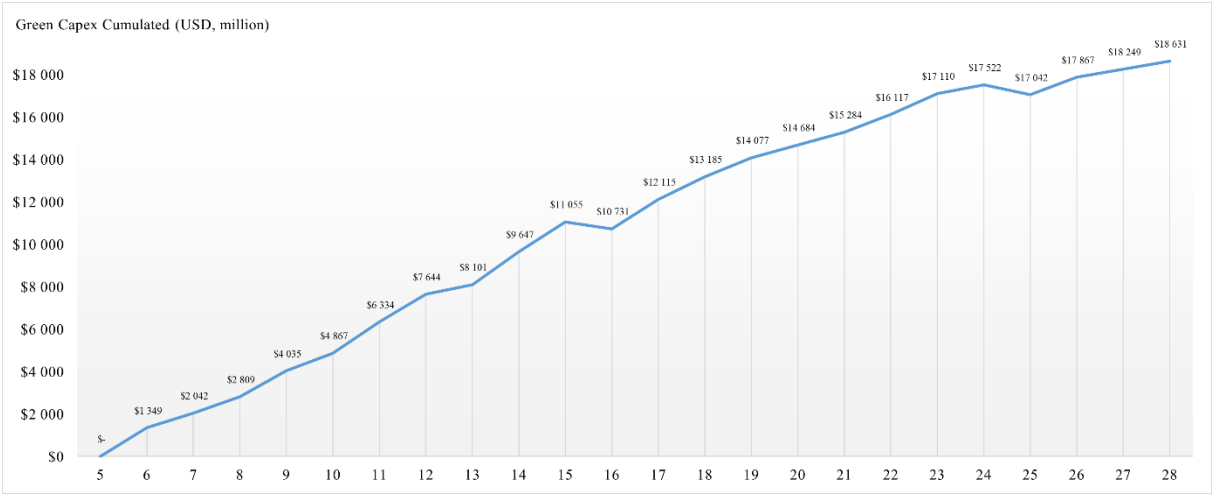
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.



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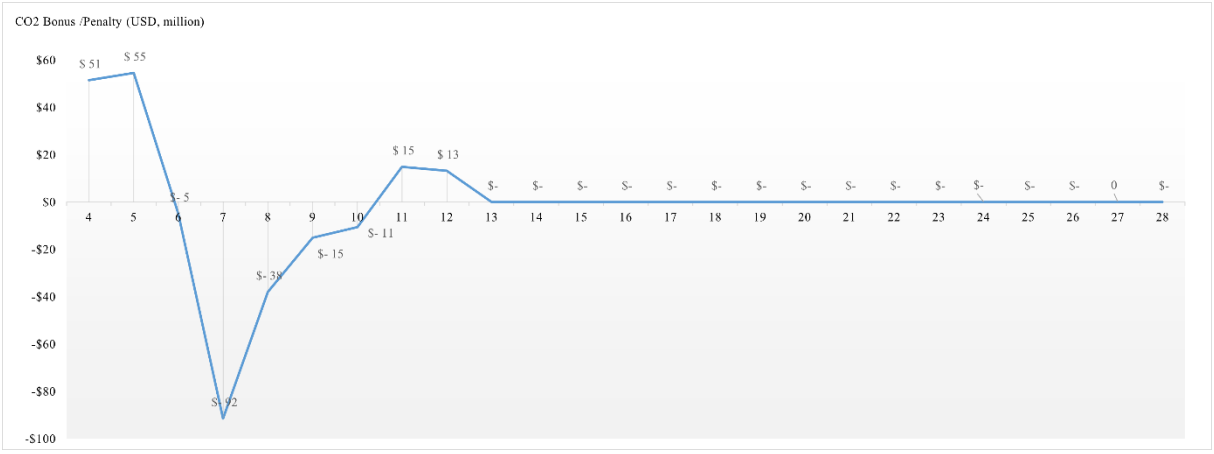

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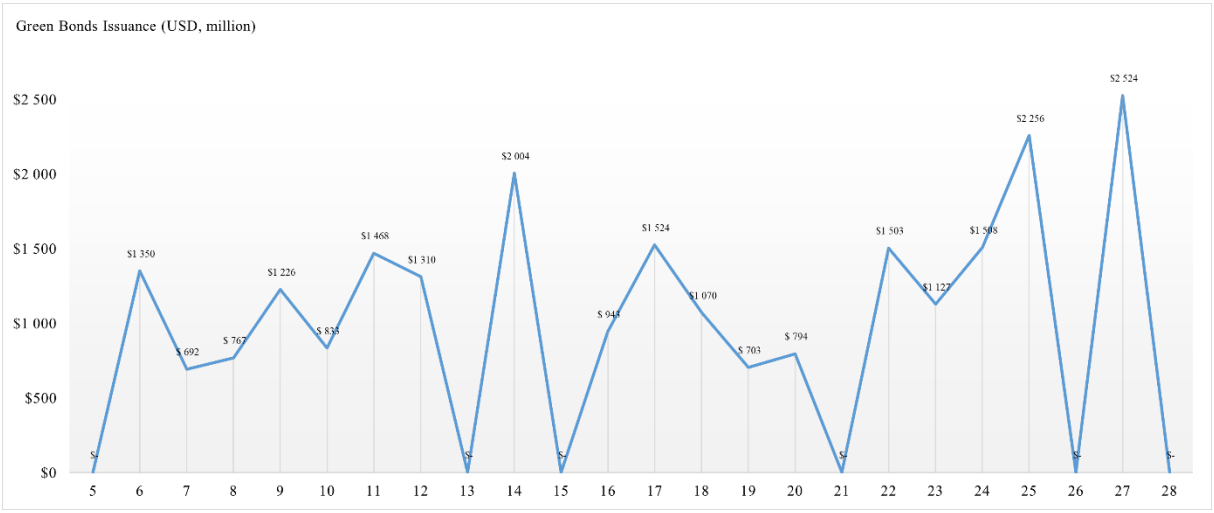
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.



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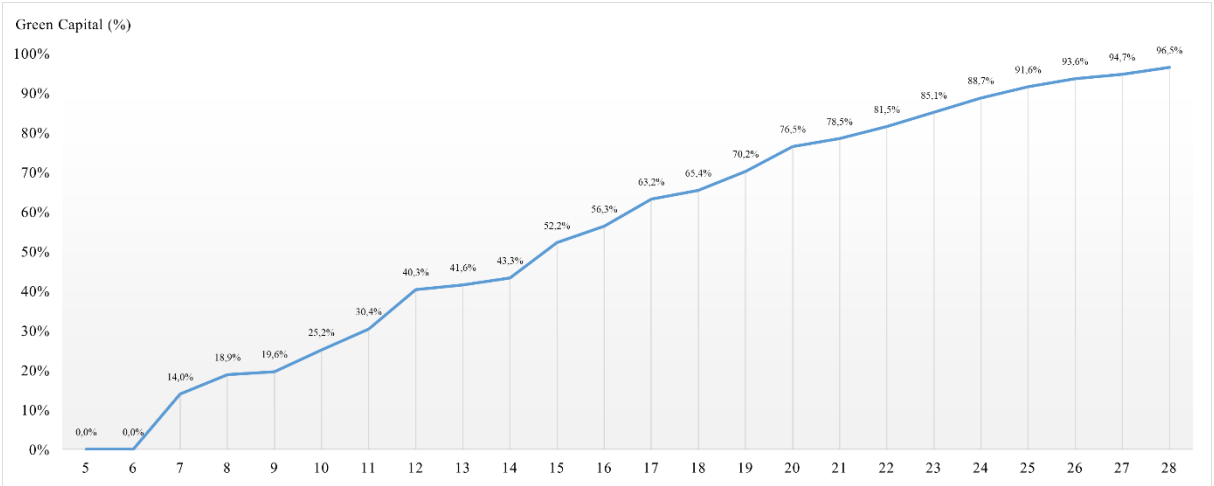
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.



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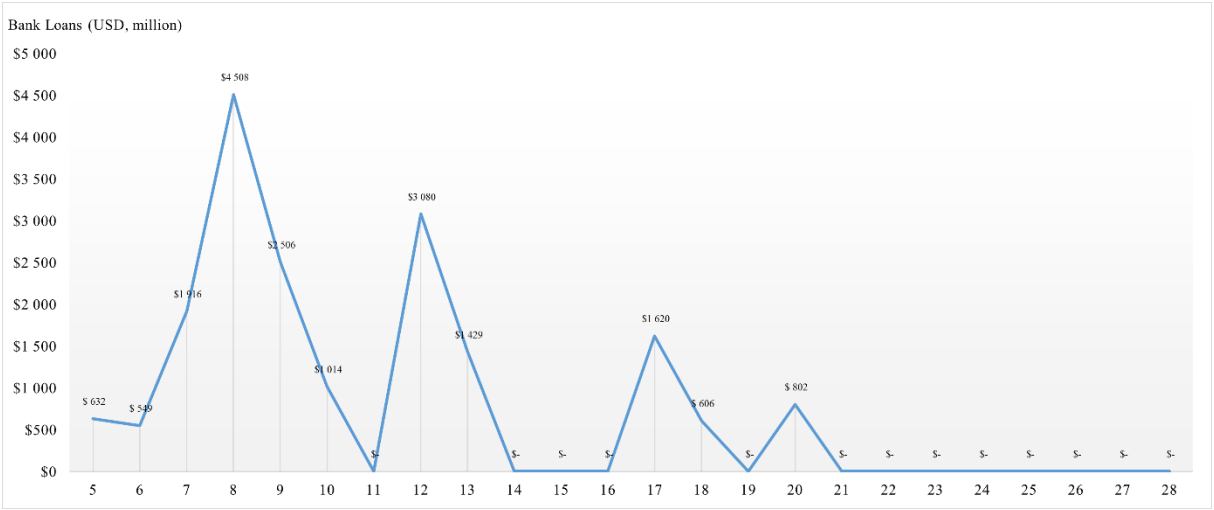
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.



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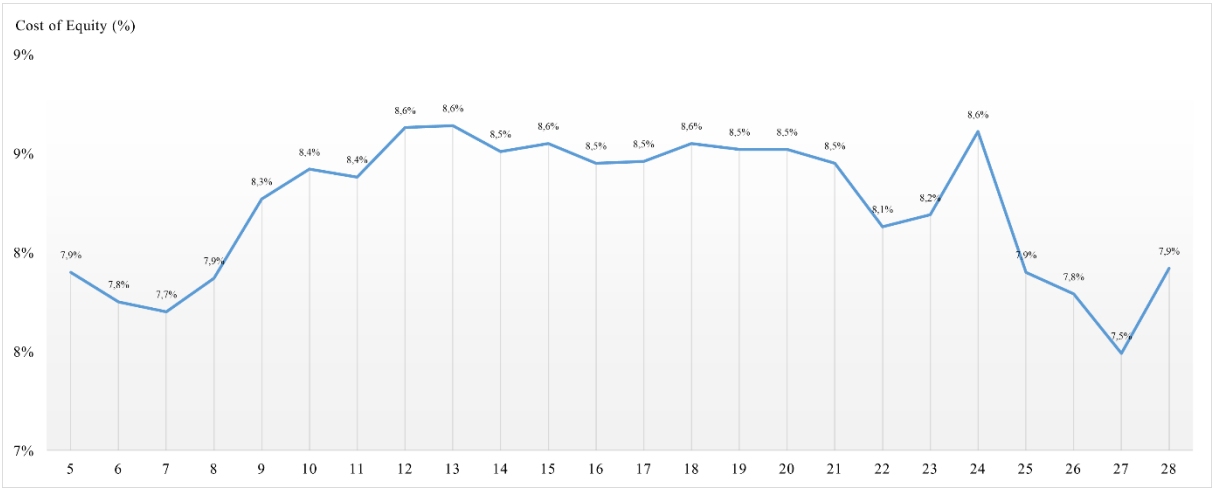
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.



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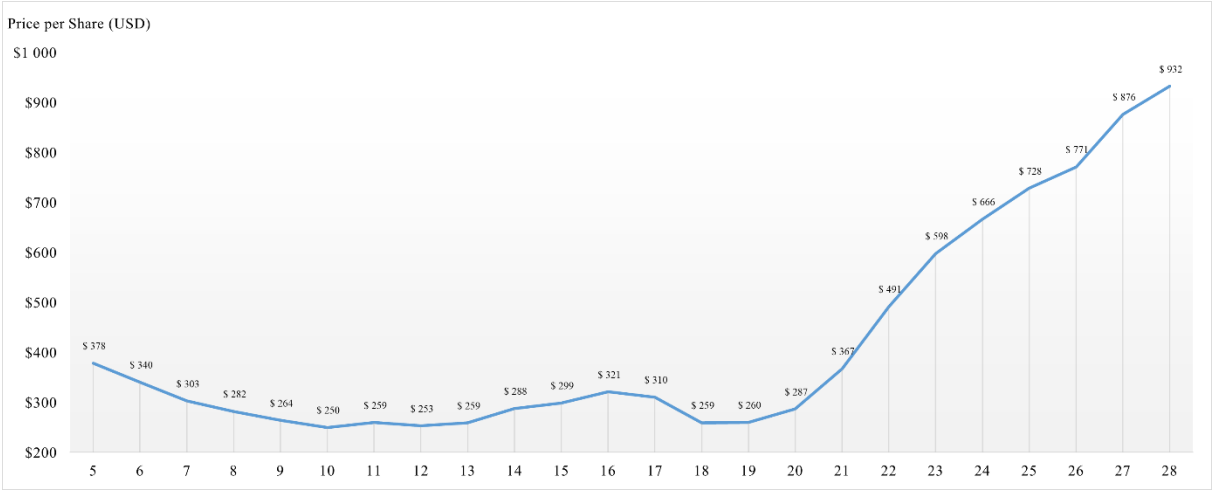

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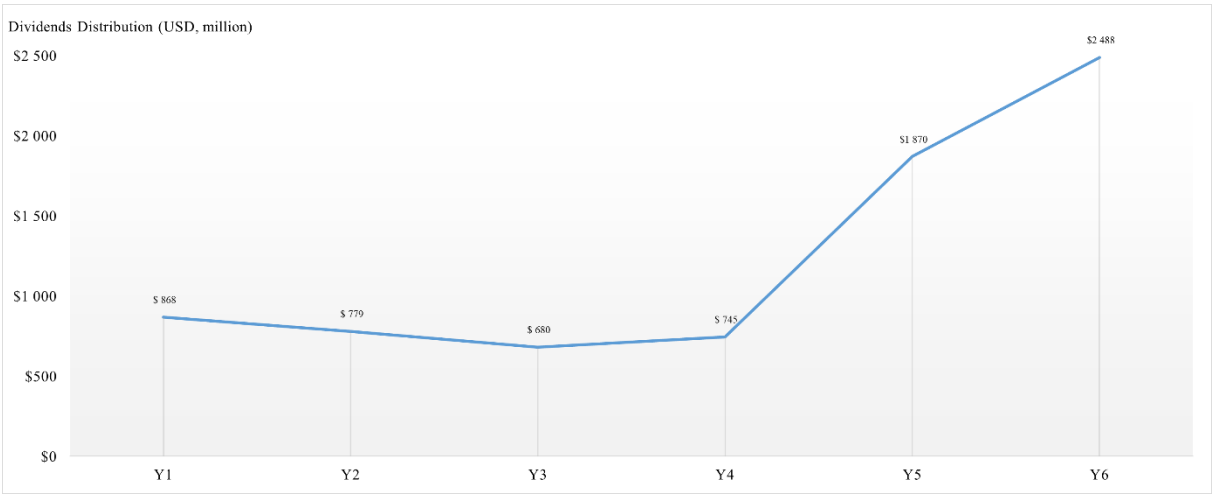
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.



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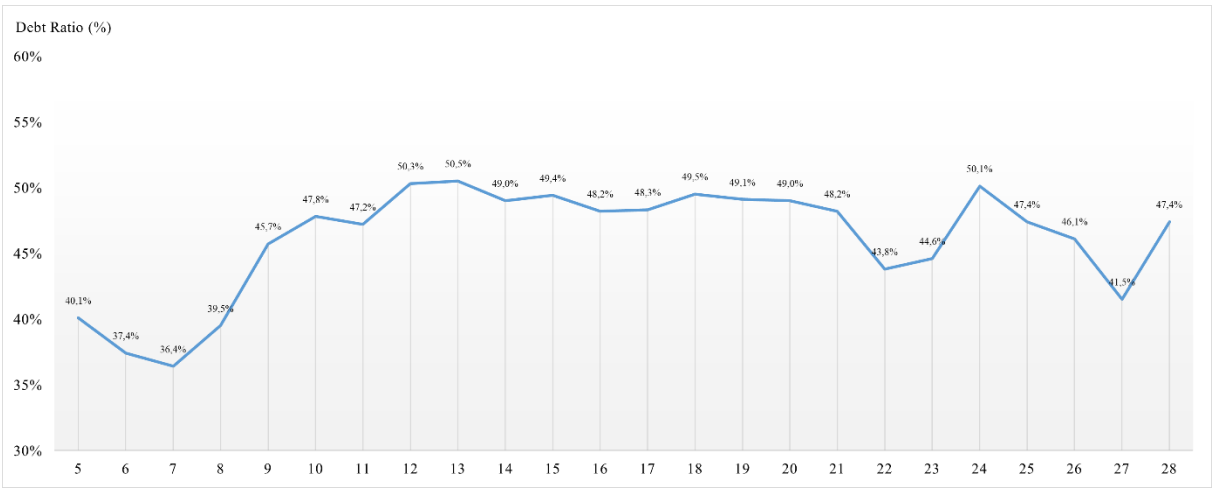

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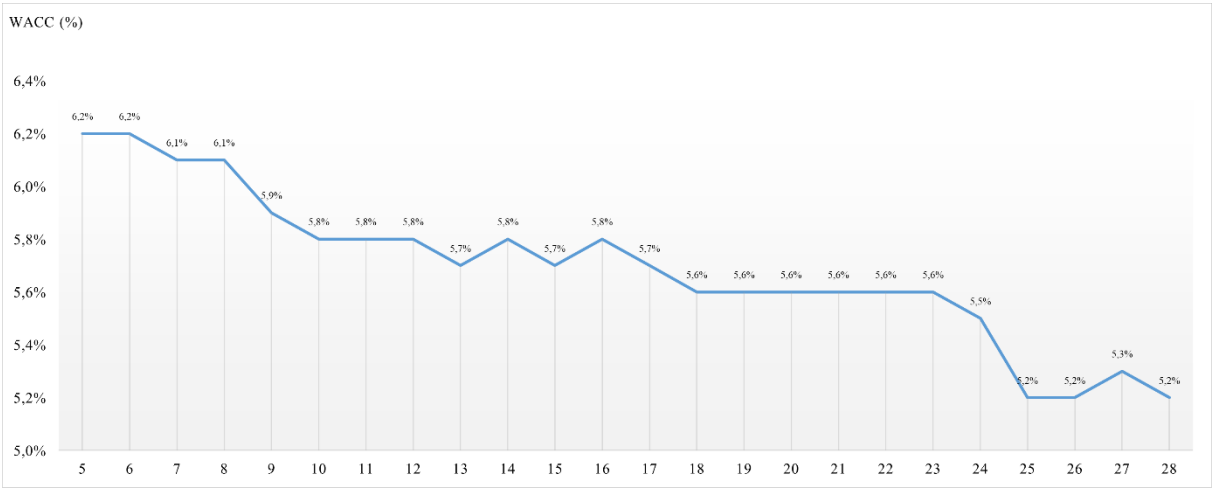
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.



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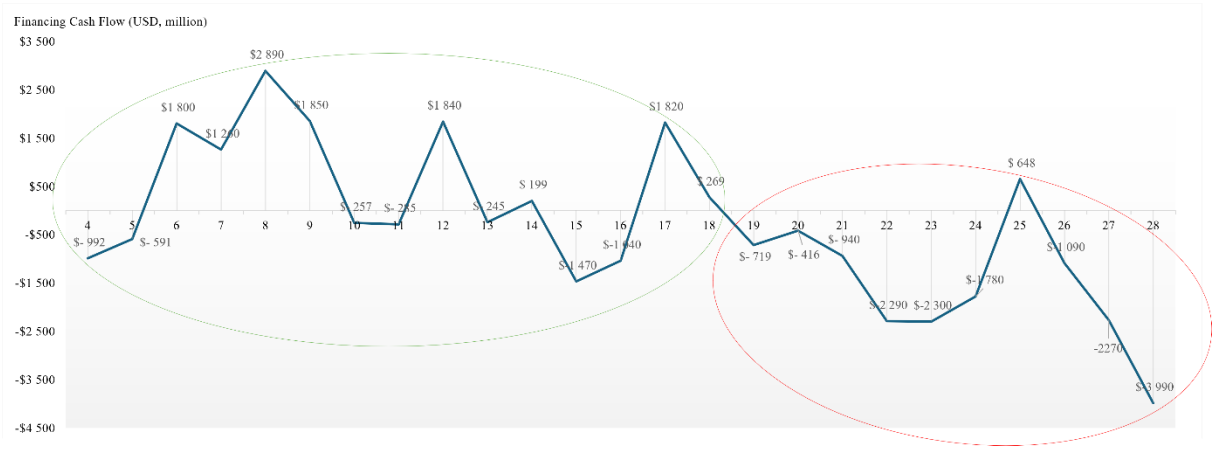
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.



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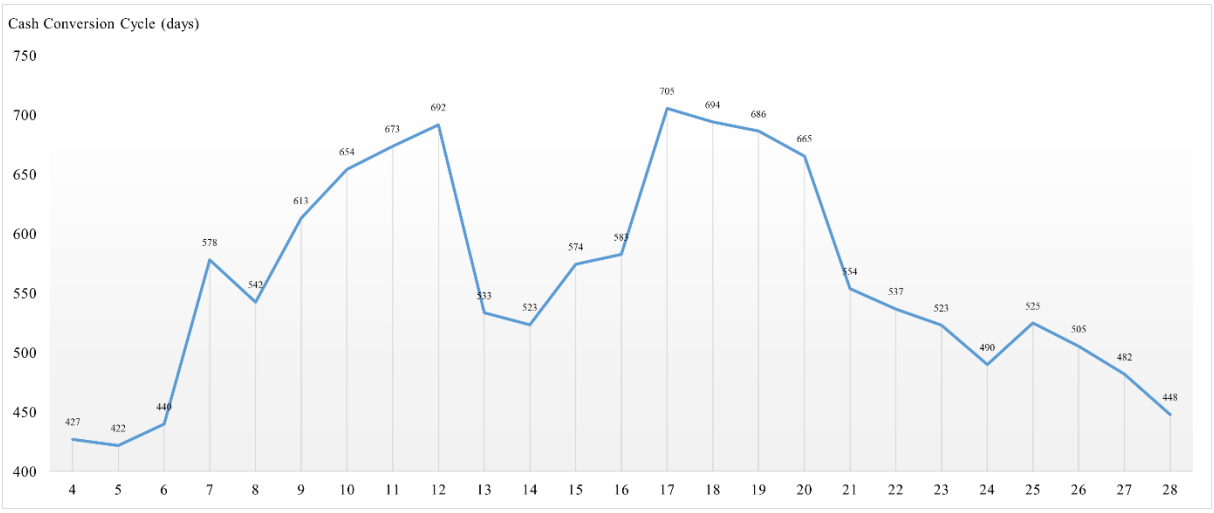

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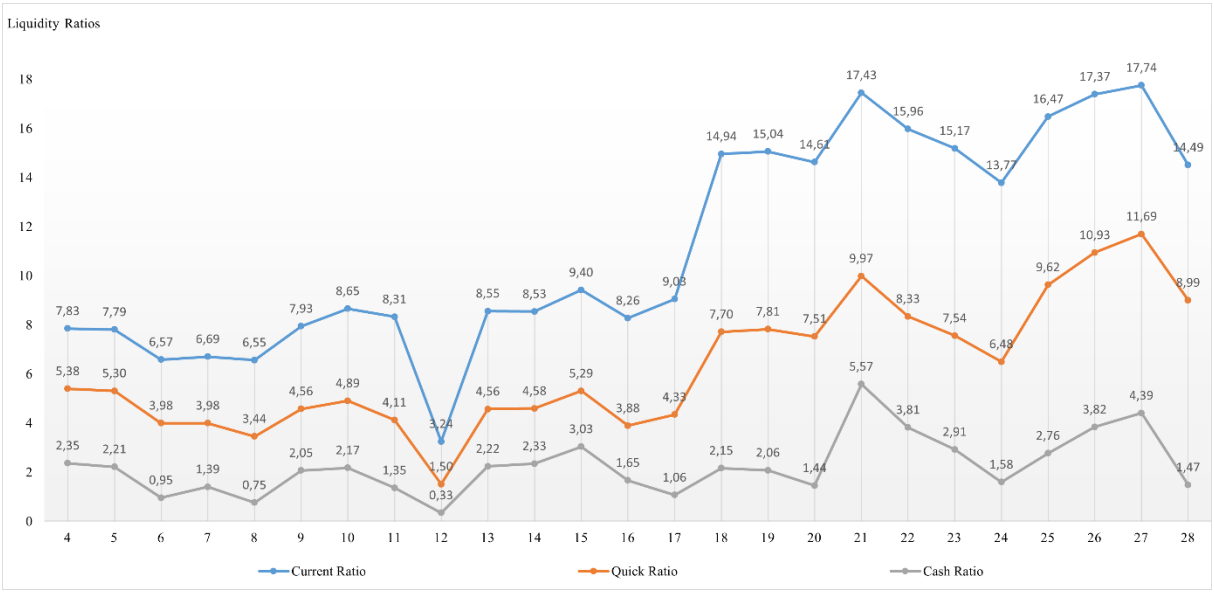
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.



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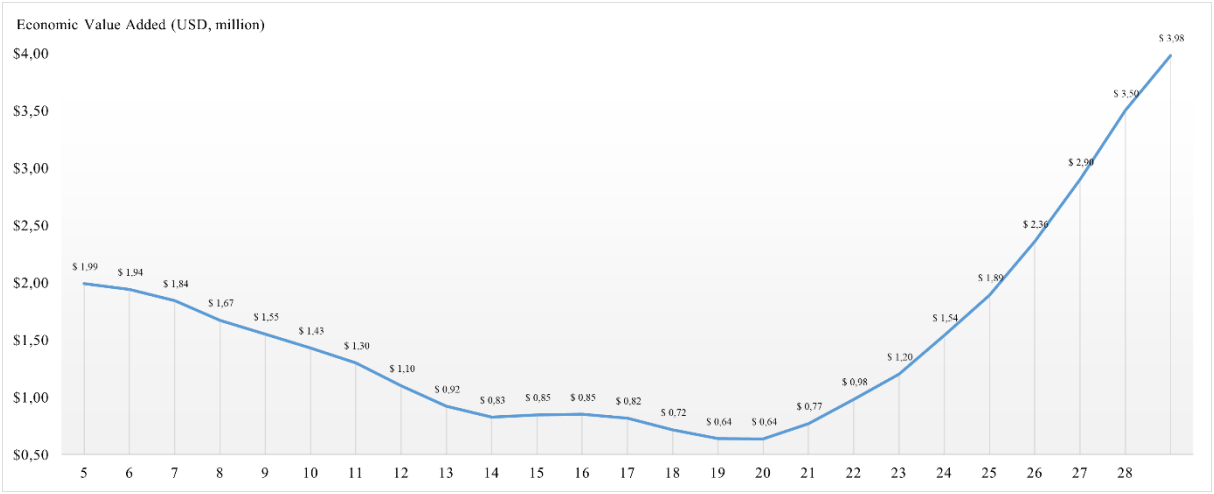

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Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.

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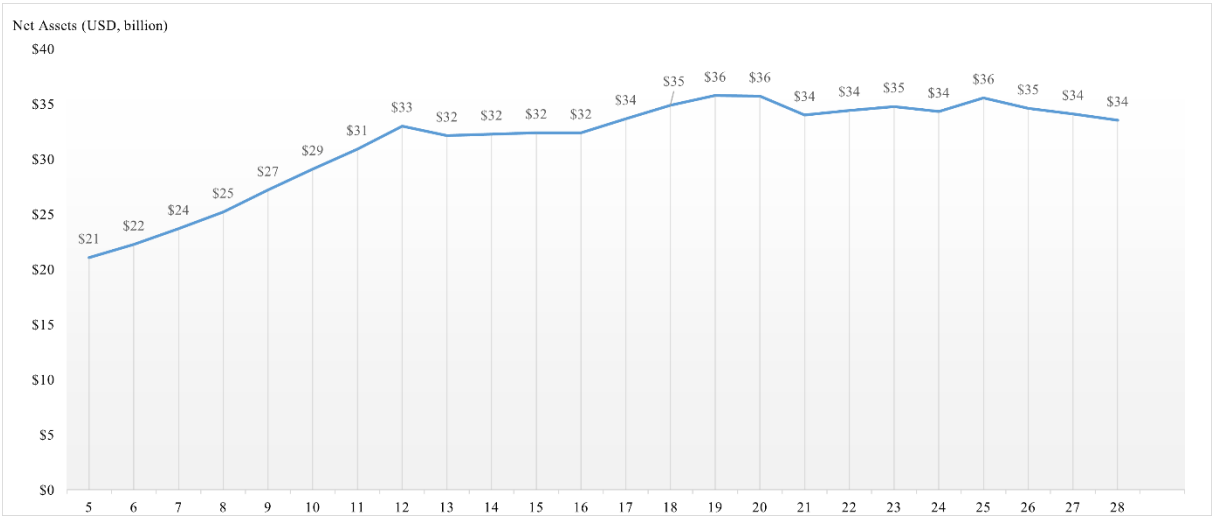
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.



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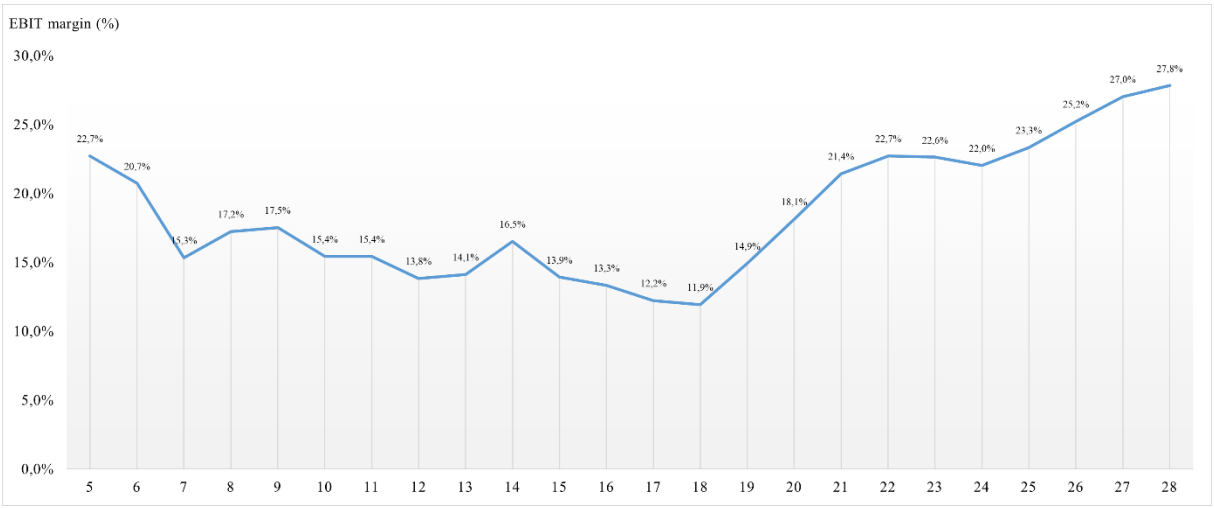
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.



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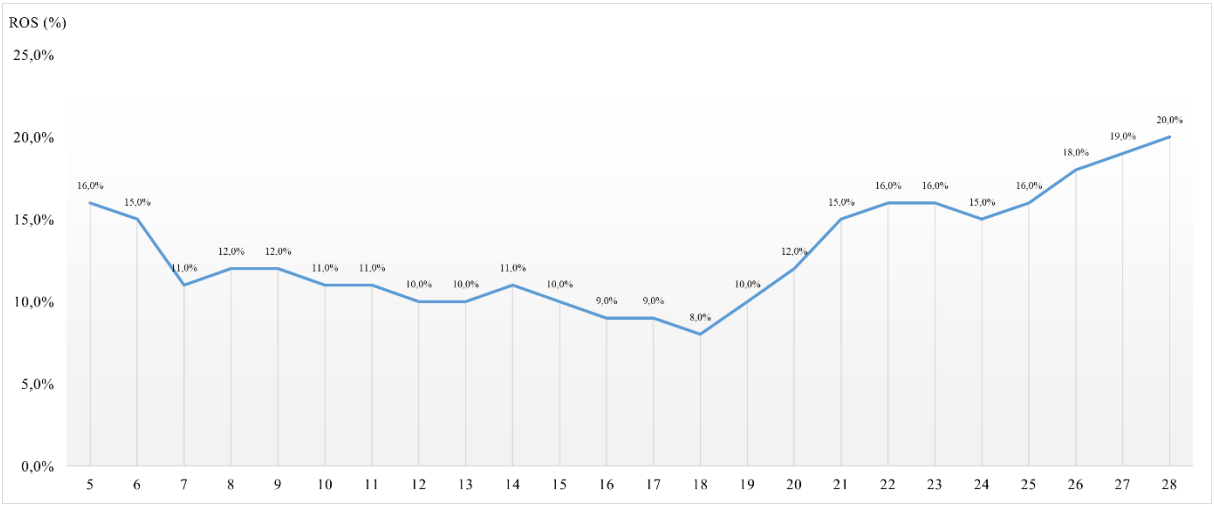
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.



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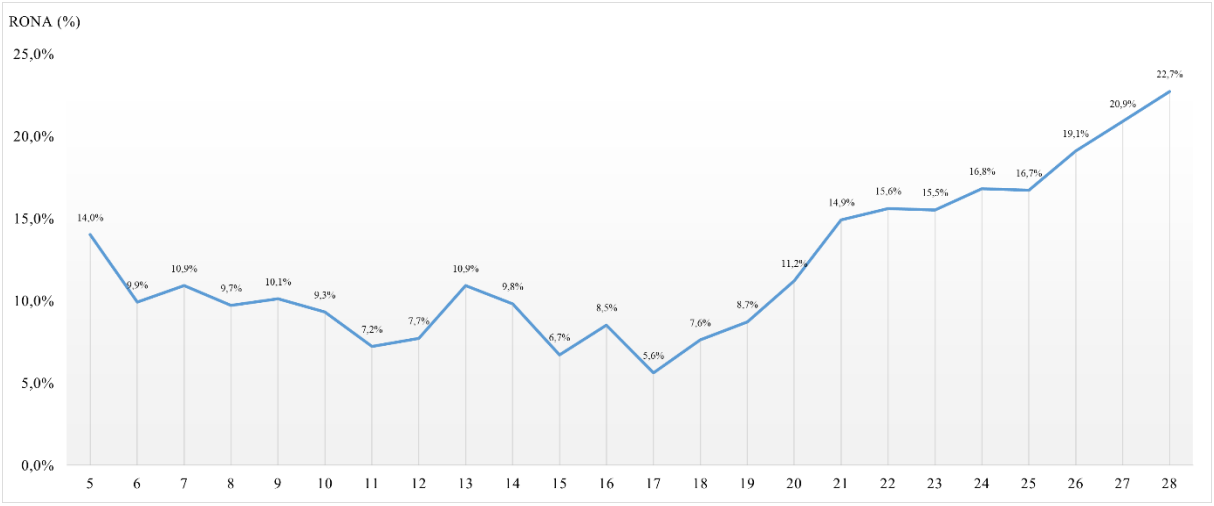
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.



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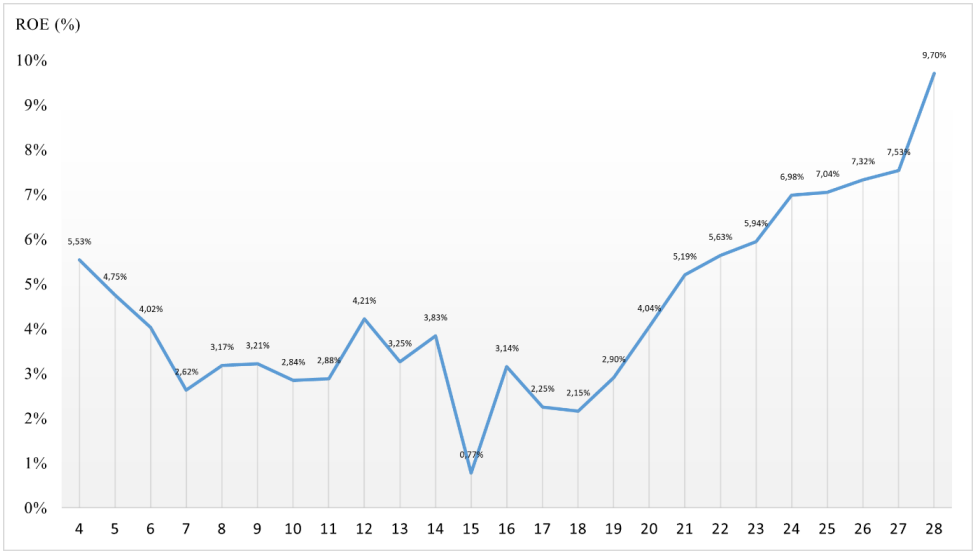
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.



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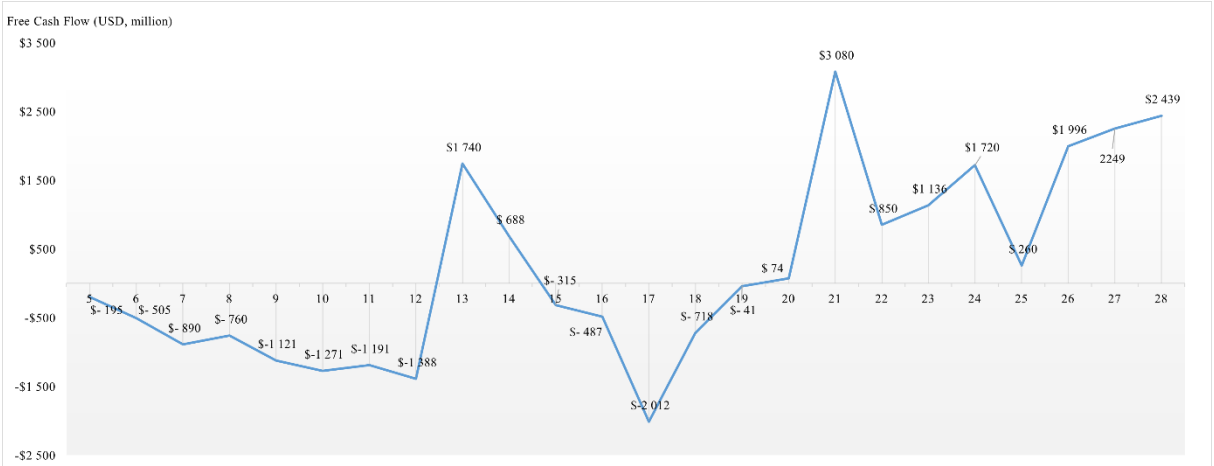

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Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.

Tables

PESTEL	Key Points
Political	- Supportive EV incentives across key markets (EU, U.S., Asia) - Government investment in green infrastructure (e.g. charging stations) - Increasing political pressure to meet emissions targets and transition from ICE vehicles
Economic	- Cost efficiency through diversified global manufacturing (Europe, Asia, America) - Rapid global growth in the electric vehicle market - Access to local supply chains helps reduce logistics costs and tariffs - Incentives for green investments through cheaper financing (green bonds)
Social	- Growing consumer preference for electric and sustainable mobility - Rising demand for smart, connected vehicles - Environmental awareness influencing purchase behavior, especially in urban and Nordic markets
Technological	- Strong EV R&D ecosystems in Asia and North America - Integration of AI and autonomous driving technologies into new models (extend - Charging infrastructure varies regionally (more mature in Europe, growing in U.S. and Asia)
Environmental	- Carbon neutrality goals set by the EU, U.S., and China - Heightened scrutiny on battery materials and supply chain sustainability - Increasing demand for low-emission manufacturing processes and recyclability
Legal	- Vehicle safety and compliance standards differ by region and must be localized - Varying data privacy laws impact in-car tech and connected features - Regional labor and environmental regulations influence factory operations

Table 1: PESTEL Analysis of Enovia at Q4
Source: Author's Illustration.

Quarter	External Factors
4	- **Rise of China as E-Car Manufacturer**: China solidifies its position as a global leader in electric vehicle technology, achieving breakthroughs in battery technology, autonomous driving systems, and energy-efficient designs. As a result, Chinese electric vehicle manufacturers gain a significant competitive advantage over their global counterparts. Our automotive company, with a focus on the Chinese market, benefits from access to cutting-edge EV technology developed in China. This allows the company to enhance the performance, range, and features of its electric vehicle models, strengthening its competitive position in both domestic and international markets. - **New Environmental Regulations**: average CO2 allowance per unit sold = 95g/mile; emissions premium per gram CO2 above allowance = USD 60. For each car sold with emissions below the CO2 limit a bonus of USD 20 is paid.
5	- **New Emission Standards Announced**: Regulators have announced new, stringent vehicle emissions standards, forcing all car manufacturers to retool their production lines to meet them. The announcement of the new laws have led to an immediate drop in demand for conventional vehicles currently in production as consumers anticipate the introduction of new, more energy efficient models such as electric cars. Companies will need to invest in new technologies and processes, driving up labor and material costs, but potentially opening the door for collaborations and partnerships in new technologies.
6	- **New Trade Tariffs USA / China**: By imposing higher tariffs of 100% on imported Chinese EVs, the USA aims to level the playing field for its own electric vehicle manufacturers and support the growth of the domestic EV industry. - **New Environmental Regulations**: Contrary to expectations, the EU has already decided to tighten the CO2 limits. The new average CO2 allowance per unit sold = 47,5g/mile (Cars). Emissions premium per gram CO2 above allowance = $60
9	- **Trade War Sparks Supply-Chain Shocks**: International trade relations have become strained, resulting in an ongoing trade war. Auto manufacturing is hit hard as tariffs are increased on a variety of imported materials, forcing costs upwards and causing supply chain shocks. The steep rise in demand decreases as many cars become too expensive for the ordinary consumer. - **New Trade Tariffs China / USA**: In response to the introduction of higher tariffs on Chinese electric vehicles, China is increasing tariffs on American imports of electric vehicles from 25% to 40%.
12	- **CO2 Bonus payments are suspended**: The government has suspended all bonus payments for cars below the CO2 limit.
24	- **Economic Recession**: A recession has hit the global economy, causing a significant decrease in consumer confidence and disposable income. As a result, the demand for vehicles plummets, causing staff costs to rise relative to revenues as underutilized capacity becomes a problem. Materials costs may also drop, however, as suppliers lower prices in a bid to retain their customers. The interest rate would also be expected to decrease as the central bank attempts to invigorate the economy.

Table 2: External Factors Presented by the Simulation
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.

Model	Type	Revenue (USD, million)
Lux 225G	ICEV	$ 766
PU 225G	ICEV	$ 631
% of ICVE		*30,5%*
Business 135H	Hybrid	$ 854
% of Hybrid		*18,6%*
% of ICE + Hybrid		*49,2%*
4x4 E	EV	$ 775
Sport E	EV	$ 708
City E	EV	$ 845
% of EV		*50,8%*
Total	-	$ 4 579

Table 3: Enovia's Revenues per car and car type (at Q4)
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.

		Quarter																							
Model	Type	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Lux 225G	ICEV	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales														
PU 225G	ICEV	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Relaunch	Sales	Sales	Sales	Sales	Sales	Sales	Sales										
Business 135H	Hybrid	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales												
4x4 E	EV	Sales	Sales	Sales	Sales	Relaunch	Sales	Sales	Sales	Sales	Sales	Relaunch	Sales	Sales	Sales	Sales	Sales	Relaunch	Sales	Sales	Sales	Sales				
Sport E	EV	Sales	Sales	Sales	Relaunch	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales													
City E	EV	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Relaunch	Sales	Sales	Sales	Sales	Sales	Relaunch	Sales	Sales	Sales	Sales	Sales	Relaunch	Sales	Sales	Sales	Sales
Kiss500	EV	Launch	Development	Development	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Relaunch	Sales	Sales	Sales	Sales	Sales	Relaunch	Sales	Sales	Sales
Kiss700	EV										Launch	Development	Development	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales
City E50	EV							Launch	Development	Development	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Relaunch	Sales	Sales	Sales
City Light	EV													Launch	Development	Development	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales
Business E	EV				Launch	Development	Development	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Relaunch	Sales	Sales	Sales	Sales	Sales	Sales
SportMN	EV																		Launch	Development	Development	Sales	Sales	Sales	Sales	Sales
SportyE10	EV							Launch	D	D	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Relaunch	Sales	Sales	Sales
16E	EV													Launch	Development	Development	Development	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales
Luxy2	EV											Launch	Development	Development	Development	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales
PiggyE	EV						Launch	Development	Development	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Sales	Relaunch	Sales	Sales	Sales	Sales

Table 4: Launch, Development, Sales, Relaunch and Discontinuing of Enovia's cars, per quarter
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.

Model	Type	Battery Technology	Autonomus Drive	Feature Package
Kiss700	EV	Extended Sodium-ion (NA)	Level IV	Level IV
CityE50	EV	Extended Sodium-ion (NA)	Level IV	Level IV
SportMN	EV	Extended Sodium-ion (NA)	Level IV	Level IV
SportyE10	EV	Extended Sodium-ion (NA)	Level IV	Level IV
PiggyE	EV	Extended Sodium-ion (NA)	Level IV	Level IV
Luxy2	EV	Extended Sodium-ion (NA)	Level IV	Level IV
16E	EV	Extended Sodium-ion (NA)	Level IV	Level IV
Kiss500	EV	Extended Li-ion	Level II	Level II
BusinessE	EV	Extended Sodium-ion (NA)	Level IV	Level II
CityLight	EV	Extended Sodium-ion (NA)	Level II	Level II

Table 5: Technology Sophistication of New Launched Models by Enovia
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.

Technology	Description	Investment (USD, mllion)	Impact
Sodium-ion Batteries	Sodium-ion batteries (Na-ion batteries) are an emerging technology being explored as an alternative to lithium-ion batteries (Li-ion batteries) for electric vehicles (EVs). The materials used in Na-ion batteries, such as sodium and carbon, are generally less expensive than those used in Li-ion batteries, such as lithium and cobalt. This could lead to lower production costs and, potentially, more affordable EVs for consumers. This Investment unlocks Sodium-ion based batteries (can be selected when developing new e-car models).	$ 250	Material Costs E-Cars (-)
AI Implementation	AI implementation in cars offers a range of benefits, including enhanced safety through features like collision avoidance, improved driving experience with assistance systems, increased efficiency in fuel consumption and traffic management, predictive maintenance to reduce downtime, personalized settings, enhanced connectivity, and the potential for autonomous driving, ultimately making driving safer, more efficient, and more enjoyable. This investment enables Autonomous Driving Level 3 + 4 (can be selected when developing new e-car models).	$ 500	Demand (+)
Next Generation E-Drive Modules	The next generation of electric vehicles will be based on battery-electric models that are scalable and universally applicable in every respect. In particular, the variable installation of batteries will be possible, ideally for all vehicle types, including SUVs, sedans, coupes, convertibles, etc. This investment enables Feature Package Level 4 (can be selected when developing new EV models).	$ 300	Demand EVs (+) | Material Cost EVs (-)
V2V Communication	V2V communication enables vehicles to exchange information with nearby vehicles, such as speed, position, and intention, to anticipate and avoid potential collisions. This improves road safety, reduces the risk of accidents, and enhances overall traffic efficiency by enabling cooperative driving behaviors between vehicles.	$ 200	Demand (+)
Cybersecurity	Cybersecurity implementation in cars provides essential protection against potential cyber threats, safeguarding sensitive vehicle systems and data from unauthorized access or manipulation. This ensures the safety and privacy of drivers and passengers while also preventing malicious attacks that could compromise vehicle functionality or compromise safety-critical systems. Additionally, robust cybersecurity measures inspire consumer confidence in connected and autonomous vehicles, fostering trust in the reliability and security of automotive technology. This investment enables Safety Extras Level 3 + 4 (can be selected when developing new conventional car models).	$ 400	Demand (+)
Cloud Connection	Cloud connection implementation in cars offers several benefits, including access to real-time updates for navigation maps, software, and firmware, ensuring vehicles stay current with the latest features and security patches. It enables remote diagnostics and predictive maintenance, allowing car manufacturers to monitor vehicle health, identify issues proactively, and schedule service appointments efficiently. Additionally, it enables data sharing for traffic optimization, enhanced navigation, and over-the-air updates, enhancing the overall driving experience and convenience for drivers and passengers. This investment enables Feature Package Level 3 (can be selected when developing new e-car models).	$ 300	Demand (+)

Table 6: Technology and Innovation Investments by Enovia
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.

Scope	Type of Emissions	Description	Investment (USD, million)	Impact
1	Water Consumption Reduction	Using water-saving techniques can save you money and diverts less water from our rivers, bays, and estuaries, which helps keep the environment healthy. It can also reduce water and wastewater treatment costs and the amount of energy used to treat, pump, and heat water.	$ 200	Demand (+) | Material Costs (-) | CSR (+)
	Waste Reduction	Minimizing waste in the workplace allows you to keep your business operating costs low while helping preserve the environment. Waste reduction strategies usually don't need to be costly or time-consuming to implement.	$ 400	Demand (+) | Material Costs (-) | CSR (+)
	ISO14001 / EMAS Certificates	ISO 14001 or EMAS certificates can have a variety of effects on your company, such as: - Improve your image and credibility - Help you comply with legal requirements - Improvement in cost control - Higher rate of success when implementing changes - Enable quicker improvement of processes - Reduce employee turnover	$ 500	Demand (++) | CSR (++) | Motivation (+)
2	Energy Efficiency Investment	The many benefits of energy efficiency include: - Environmental: Increased efficiency can lower greenhouse gas (GHG) emissions and other pollutants, as well as decrease water use. - Economic: Improving energy efficiency can lower individual utility bills, create jobs, and help stabilize electricity prices and volatility.	$ 150	Demand (+) | Material Costs (-) | CSR (+)
	Install Solar Panels	Solar energy systems or power plants do not produce air pollution or greenhouse gases. They help to reduce energy costs. In case your energy production is higher than your consumption you are able to sell your excess electricity to the utility company for even lower energy bills!	$ 250	Demand (+) | Material Costs (-) | CSR (+)
	Energy Management System	An energy management system (EMS) is a system of computer-aided tools used by operators of electric utility grids to monitor, control, and optimize the performance of the generation or transmission system. Also, it can be used in small scale systems like microgrids.	$ 100	Demand (+) | Material Costs (-) | CSR (+)
3	Offset Suppliers CO2	Carbon offset schemes allow companies to invest in environmental projects around the world in order to balance out their own carbon footprints. The projects are usually based in developing countries and most commonly are designed to reduce future emissions. Of course, a reduction of own CO2 emissions cannot be achieved this way.	$ 96	Demand (+) | Material Costs (+) | CSR (+)
	Sustainable Suppliers	Green supply management is becoming a major component of corporate environmental management strategies. Organisations that seriously want to promote environmental sustainability will need to recognise that green purchasing is only a limited tool. For it to have a significant multiplier effect the organisation will need to commit the resources necessary to engage suppliers in sustained dialogue and education.	$ 20	Demand (+) | Material Costs (+) | CSR (+)
	External Battery Recycling	Battery recycling plays a crucial role in promoting sustainability in the automotive industry. Batteries used in electric vehicles contain valuable materials such as lithium, cobalt, and nickel, which can be recovered and reused. Battery recycling allows automotive companies to manage end-of-life batteries responsibly, minimize environmental impact, and reduce reliance on raw materials. By investing in battery recycling, companies can support a circular economy, reduce waste, and contribute to the long-term viability of electric vehicles as a sustainable transportation solution.	$ 200	Demand EVs (+) | CO2 (-) | CSR (+)

Table 7: Investments in Reduction of Scopes 1, 2 and 3 Emissions by Enovia
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.

Technology	Description	Investment (USD, million)	Impact
Charging Network Expansion	Limited charging infrastructure is a significant barrier to the widespread adoption of electric vehicles (EVs). Without convenient access to charging stations, consumers may be hesitant to switch from traditional gasoline-powered vehicles to EVs. Investing in the expansion of charging infrastructure is crucial for supporting the growing market for electric vehicles. By increasing the availability of charging stations, automotive companies can alleviate range anxiety among consumers, promote EV adoption, and contribute to the transition towards a more sustainable transportation system. To activate this investment, you must get the investment "Build-Out a Power Charging Network" from a management issue.	$ 400	Demand EVs (+)
Personalized Services (IoT)	Connectivity technologies enable a completely new exchange of information with automobiles. Autonomous control of the vehicle becomes possible and connected cars have the ability to look around the corner and through walls, warning drivers of obstacles or dangers which, in turn, prevents accidents.	$ 250	Demand (+)

Table 8: Technology and Innovation Investments by Enovia
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.

Quarter	Allowance	Penalty, per gram (if above)	Bonus, per car (if below)
4	95 g/mile	$ 60	$ 20
6	47.5 g/mile	$ 60	$ 20
12	47.5 g/mile	$ 60	$ -

Table 9: CO_2 Penalty/Bonus Regulations by the Government
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.

(USD, million)	
Liquidation Value of Assets	$ 3 701
Book Value of Assets	$ 5 662
P/L from Disposal of Assets	$ -1 961

Table 10: Profit and Losses from Disposal of Assets (in total)
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.

Quarter	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Credit Rating	A	A+	A+	A+	A-	A-	A-	A-	BBB	A-	A-	A-	A-	A-	A-	A-	A-	A	A-	A-	A-	A-	A	A-

Table 11: Enovia's Credit Rating Evolution, per quarter
Source: Author's Illustration. Data retrieved from IndustryMasters® Simulation. 2025.