

## **The EU's 2035 Internal Combustion Engine (ICE) Ban Reversal: Implications for Electric Vehicle (EV) Adoption**

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### **Introduction:**

On January 12, 2026, Mark the CEO of AXT Motor Group stood at his office headquarters at Munich, looking through the window at the assembly plant that felt like dream come true moment. As he was going through the preliminary fiscal report for the year 2025: where he found that the company has marked its record breaking sales of high margin luxury segment SUV cars and performance vehicles. Yet, the moment of celebration could not be experienced entirely which was obscured by a dreadful situation.

Few days back, the European commission had made an announcement about 90% target revision. In 2021, the European Commission made a revolutionary announcement about imposing an unprecedented ban on the sale of fresh petrol and diesel-powered passenger cars on EU markets from 2035 onwards<sup>1</sup>. The decision was quite central in the EU's Green Deal and the "Fit for 55" climate package, reflecting an obvious inclination towards electric-powered mobility<sup>2</sup>. Environmental organizations as well as the EV manufacturers hailed the decision, as they view this as a clear indication of the regulatory environment, justifying the substantial investment in battery technology, charging infrastructure, as well as electric vehicle production capability<sup>3</sup>. Several automakers have pledged to offer fully electric models in the European region in the future, while others have restructured their networks to minimize their dependence on ICE technologies. Back, in 2023, the European Parliament approved Regulation (EU) 2023/851 that made it mandatory for all passenger vehicles and vans to have zero tailpipe emissions when sold after 2035. This policy decision was unanimously hailed as a major win for climate activists and sent a strong message to those in the auto sector that it's now or never when it comes to EVs. Provisions that were made part of this ban policy included: A 100% drop in CO2 emissions from new cars starting in 2035; An intermediate goal to reduce carbon pollution by at least 55% from today's levels by 2030; No allowance granted to hybrid vehicles sold after 2035; and Review of provisions to be implemented by 2026. This policy was based on the rapid evolution of battery life and pricing of EVs and their widespread popularity by that far-sighted year. Based on this policy Mark and his company members worked tirelessly to achieve the EV adoption.

With months of intense lobbying from the German and Italian governments, as well as the slowing down of the global electric vehicle market, the EU now only aspires to reduce emissions by 90%. The goal of achieving the complete elimination of emissions in the EU was abandoned due to the emergence of "carbon-neutral" technologies like e-fuels and hybrid cars, where the remaining 10% of

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<sup>1</sup> (The International Council for Clean Transportation, 2021)

<sup>2</sup> (European Green Deal Policy Guide, 2022)

<sup>3</sup> (Green, 2025)

the goal can come from<sup>4</sup>. The previously solid 2035 “total ban” package on Internal Combustion Engines (ICE) is now well underway to dissolution in the face of the new “multi-pathway approach”. This is not a change in the overarching package but a wrecking ball to Mark's ten-year strategy. Under Mark's leadership, the company has already invested €45 billion to switch over to 100% Electric Vehicles by the year 2030.

Mark faced an immediate concern that was complex in its demands because, whilst the “dirty” engines left over from AXT's legacy presently powered his company's future, his electrical vehicle sales were suffering a loss to a newcomer in the shape of a low-cost model from a company called Titan “E-Motors”, who had entered the fray with a sub-25,000 euros sedan priced 30% lower than his AXT model. Moreover, his Head of Human Resources had pointed out to him that an “EV-only” strategy would necessitate a closure of three major transmission plants, generating 50,000 future lay-offs that would trigger national strikes.

Knowing the board meeting was only set for 2:00 that same afternoon, Mark had to weigh the decision to keep AXT Motor Group on the same total electrification path to ensure the continuation of the credible pursuit of the 2050 Net Zero philosophy or to switch back to a multiple pathway approach to secure the local employment landscape and compete with these nimble newcomers to the market space that seemed to be gearing up to disrupt the status quo. Any decision Mark made was to be the hallmark of AXT's rise to fame or its descent to the status of an obsolete relic of the past. Whether Mark should opt for 10% flexibility to revitalize his ICE engineering team, or he should treat the policy shift as a temporary distraction and accelerate his “EV-only” architecture?

### **Industry background- The triple transition of Automotive sector**

European automotive 2026 – defined by a “Triple Transition” of Electrification, Digitalization, and Geopolitical pressure aligned with supply chain dynamics – represents a sector that, although steeped in tradition with its former industrial superpowers in Germany, France, and Italy, has now reached a strategic bottleneck: with 7% of European GDP and 13 million jobs in play.

#### ***The 2025 Regulatory Pivot***

Specifically, not only was there a requirement to reach 100% zero-emission vehicle sales by 2035 in the original “Fit for 55”, but there was a perfect storm in late 2025 that manifested as a market stagnation, whereby EV adoption had stalled at 20%<sup>5</sup>. Accordingly, there was a “2025 Revision Package”, a landmark in refuel policy evolution, containing three safety valves:

**The 90% Rule:** Now, firms need only a 90% reduction in fleet emissions by 2035, leaving a 10% buffer possible for high-margin ICE or hybrid models. First, there was a watershed shift in what has come to be referred to as a “90% Rule” cornerstone, effectively transforming a zero-emissions standard into a more realistic aspiration and strategy of securing a 90% reduction in CO2 emissions across a wide-range of a particular motorist fleet by 2035. This established an essential compliance buffer, recognizing as well the technological and economical challenges that still were in place in order to accomplish full electrification for every segment of vehicles.

**E-Fuel Exemption:** There was now legal scope for new ICE vehicular registrations after 2035, if they use carbon-neutral fuels like e-fuel. Secondly, the compromise that was agreed upon introduced E-Fuel Exemption, which now proposes legal scope that allows new internal combustion engine vehicular registrations after 2035, provided they use carbon-neutral e-fuel. This provision answered directly to Germany's and a few luxury automakers' demands for “technology openness”.

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<sup>4</sup> (McLoughlin, 2025)

<sup>5</sup> (European Parliament, 2023)

**Banking and Borrowing:** Establishment of an averaging mechanism over three years (2025-2027) that can be used by the firms to bank their credits or borrow on their future targets to avoid debilitating fines. Finally, the package established the “Banking and Borrowing” mechanism which allowed the manufacturing companies to average their emissions performance over three years (2025-2027). This was done to avoid the imposition of huge fines that automakers might not be able to pay during what would arguably be the hardest phase of the transition. Going beyond electrification, there is a race to software-defined vehicles, connectivity, and autonomous cars, areas where Europeans lag behind the likes of U.S. and Chinese tech giants.

The EU is responding with policies such as the Critical Raw Materials Act, which aims to secure supply chains, and the Net-Zero Industry Act, which strives to increase local battery production. The future of the European auto industry depends on whether it can manage this triple transition-technological, environmental, and industrial-while retaining its basic characteristics of quality, performance, and premium branding within a market that globalizes and digitalizes fast. As much as there are such flexibilities, there are still challenges for the AXT Motor Group in the form of a digital deficit. This refers to the fact that the company’s competitors in the tech-oriented economies of the United States of America and China dominate in Software-Defined Vehicles as well as autonomous drive technology. Similarly, the EU’s Critical Raw Materials Act cannot break away from global dependencies in the production of batteries used in electric motors.

### **Area of Interest**

The prominent focus area of the case is Strategic decision making which helps the organization in making plans for the future on a long-term basis. To survive the volatile regulations posed by EU the firm has to decide whether a firm can be benefited more from a “pure EV play” or it should continue ICE/Hybrid vehicles Research and Development.

### **Strategy of AXT motor group: Possibilities and impossibilities**

It was in the early part of 2024 that Mark had stood in front of the board to declare the “AXT 2030” vision – an ambitious €45b commitment to totally redirect the company to battery electric vehicle (BEV) technology. His vision was clearly prophetic over an eighteen-month period. Not merely was the company’s ICE SUV range still in massive demand, but this created a “green funding” cash cow to fund BEV development. However, in the reality of execution, it turned out to be more complex than it had been represented in the respective spreadsheets. Whereas AXT’s teams had been at the top in terms of precision in machines, the move to Software Defined Vehicles (SDVs), in which the value would be created by the OS as opposed to the actual engine, led to the company competing in a world dominated by technology-driven companies.

### **Internal Tensions and External Shocks**

At the latter part of 2025, internal resistance had begun to build up within the company. The huge gap in terms of production cost was frequently identified by the Head of Operations, Ellen, since making an AXT “E-Vision” necessitated 32 hours of manpower, while “Titan e-Motors” took 18 hours just to manufacture the product, and while Titan's vertical integration enabled their products to retail for €24,900, but AXT failed to bring basic EV below the €50,000 mark. Pressure from social forces is another factor that heavily burdened Mark. In fact, within German Heartland plants, 50,000 jobs were directly linked to producing powertrains and transmissions for ICE-era cars. The labour unions, too, were very strong and historically known for cooperation. They passed word that a shift to “EV-only” production, ignoring the new 10 percent allowance within the EU, effectively leading to strikes across the nation. “We cannot sacrifice our industrial heritage for a mandate that even the politicians are now softening” announced their leader.

### **Alternatives**

Mark recognized that the board expected a clear strategic pivot or a staunch defence of the current roadmap. Three primary pathways had emerged from the morning's internal strategy sessions:

Option 1: The "Full-Charge" Commitment. Ignore the 10% allowance and still keep the 2030 deadline for an all-electric industry. This would secure long-term R&D efficiency, sacrificing immediate labour strike and potential marketplace share in infrastructurally disadvantaged regions.

Option 2: The "Pragmatic Hybrid" Bridge. Use the 90% Rule to again introduce advanced Plug-In Hybrids and E-Fuel compatible engines. This would maintain those 50,000 jobs currently at risk but would likely be viewed by investors as a step backwards in terms of innovation.

Option C: The "Strategic Offset" Model. Be faithful to the 2035 90% goal, but focus instead on the "Banking and Borrowing" option to delay costliest plant closures until European battery costs become competitive with those of Titan e-Motors while awaiting parity.

### **The Decision: 2:00 PM**

In the boardroom in Munich, the room was silent as Mark took his seat. In front of the members of the board was the "Strategic Data Package" (refer Exhibits 1 to 5). The air was thick with the "90% Rule". Mark recognized the potential opportunity afforded by the 10% "compliance buffer"—and the e-fuel exemption—a potential lifeline to maintain the legacy business and preserve 50,000 jobs. On the other hand, Mark also recognized the potential threat to the market perception should AXT reverse course and go back to ICE technology: that AXT was losing the race to the future.

Record profits from 2025 had cushioned the blow, but the perfect storm of regulatory shifts and low-cost competition meant AXT Motor Group could no longer hedge its bets. The board members were looking at the man who, two years earlier, had promised them an all-electric future. Mark was required to present a proposal that struck a balance between the survival of his staff, the demands of the EC, and the strong threat from the East. He began by asking a question: Are we an engine company, a battery company, or a mobility software company?

**Exhibits:**

**Exhibit 1: AXT Motor Group Consolidated Financials (2025)**

<i>Financial Metric (Values in Millions)</i>	<i>2025 (Actual)</i>	<i>2024 (Actual)</i>
<b>Total Revenue</b>	<b>€112,400</b>	<b>€101,200</b>
<b>Cost of Goods Sold (COGS)</b>	<b>(€89,920)</b>	<b>(€82,984)</b>
<b>Gross Profit</b>	<b>€22,480</b>	<b>€18,216</b>
<b>R&amp;D Expenses</b>	<b>(€8,200)</b>	<b>(€7,500)</b>
<b>Net Operating Profit</b>	<b>€10,340</b>	<b>€8,905</b>
<b>Division Margin: ICE &amp; Hybrid</b>	<b>14.1%</b>	<b>13.5%</b>
<b>Division Margin: BEV (Electric)</b>	<b>-2.4%</b>	<b>-3.8%</b>

Source: Created by the authors

**Exhibit 2: Regulatory Impact Model (The "90% Rule" vs. "100% Ban")**

<i>Regulation Scenario</i>	<i>Target Date</i>	<i>Mandatory CO2 Reduction</i>	<i>Est. Annual Fines (AXT)</i>
<b>Original Ban (EU 2023/851)</b>	<b>2035</b>	<b>100%</b>	<b>€4,200 Million</b>
<b>Revised Target (2025 Package)</b>	<b>2035</b>	<b>90%</b>	<b>€800 Million</b>
<b>E-Fuel Exemption</b>	<b>2035+</b>	<b>0% (on Net)</b>	<b>€0 (with certified fuel)</b>

Source: Created by the authors

**Exhibit 3: Competitive Benchmarking – The "Affordability Gap"**

<i>Product Feature</i>	<i>AXT "E-Vision" (BEV)</i>	<i>Titan "Model Z" (BEV)</i>
<b>Base MSRP</b>	<b>€54,000</b>	<b>€24,900</b>
<b>Battery Capacity (kWh)</b>	<b>82 kWh</b>	<b>60 kWh (LFP)</b>
<b>Manufacturing Labor (Hours/Unit)</b>	<b>32 Hours</b>	<b>18 Hours</b>
<b>Software Update Frequency</b>	<b>Quarterly</b>	<b>Weekly (OTA)</b>
<b>Local Content (EU Sourced)</b>	<b>72%</b>	<b>15%</b>

Source: Created by the authors

**Exhibit 4: Industrial Footprint & Workforce Vulnerability**

<i>Major Facility</i>	<i>Primary Product</i>	<i>Headcount</i>	<i>Est. Re-tooling Cost</i>
<i>Munich Plant 1</i>	<i>ICE Engines / Transmissions</i>	<i>18,000</i>	<i>€850 Million</i>
<i>Stuttgart Plant 4</i>	<i>Luxury ICE Sedans</i>	<i>12,500</i>	<i>€600 Million</i>
<i>Barcelona Assembly</i>	<i>Small ICE / Hybrid</i>	<i>9,000</i>	<i>€400 Million</i>
<i>Lyons R&amp;D Center</i>	<i>Powertrain Engineering</i>	<i>6,000</i>	<i>€150 Million</i>
<i>Total At-Risk Jobs</i>		<i>45,500</i>	<i>€2,000 Million</i>

Source: Created by the authors

**Exhibit 5: Infrastructure Density (EU-27 Region)**

Region A (Germany, France, Benelux): 820 Public Fast-Chargers per 100km.

Region B (Poland, Italy, Spain): 45 Public Fast-Chargers per 100km.

AXT Sales Volume in Region B: 38% of total annual units.