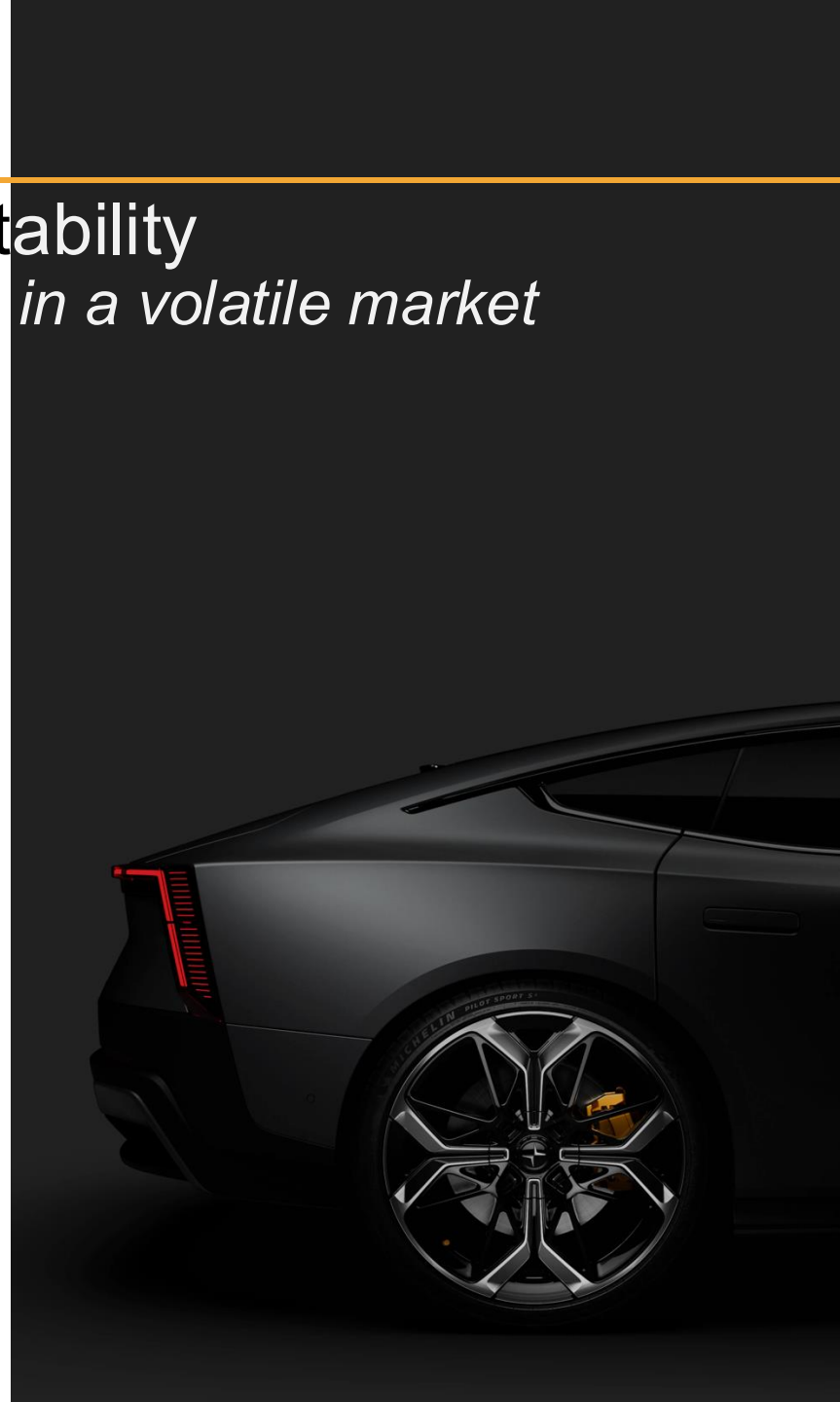
Polestar 2025: Strategic Roadmap to Profitability

Optimizing the supply chain and balancing growth in a volatile market

Strategic Analysis & Recommendations



Prepared for: Polestar Board of Directors / Management Team | Date: December 2024
By: Ludvig Westerberg

Immediate focus must shift from volume growth to achieving positive unit economics to secure long-term viability.

Critical Financial Position

- Polestar faces a structural crisis: **Gross Margin at -43.1%** which means every unit sold destroys shareholder value.
- Revenue declined by -**14%** YoY in 2024, signalling acute market challenges and pricing weakness.
- SG&A cost reductions are insufficient to overcome the structural loss at gross profit level

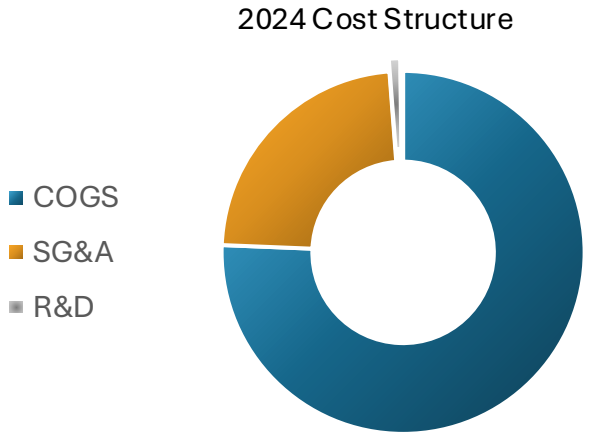
The Scalability Trap

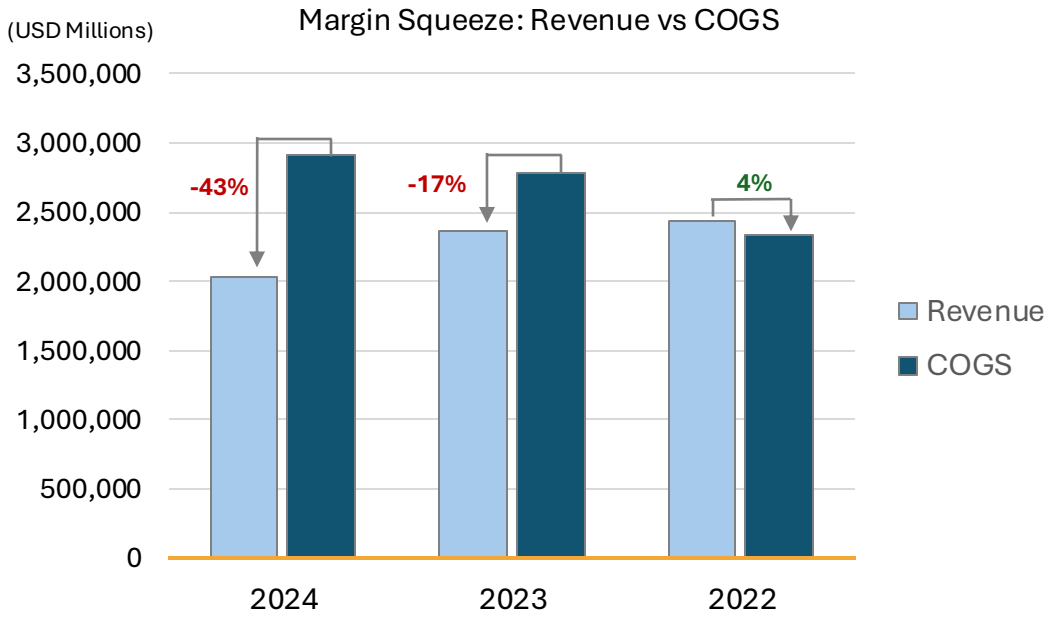
- Aggressive expansion is a trap; the current cost structure will only accelerate cash burn.
- Supply chain presents critical risks: **Battery Packs** have **48 days** lead time and are classified as High Risk.
- Sustainability targets (**36.2 tCO_2e / vehicle**) necessitate costly logistics adjustments, driving cost pressure.

Strategic Pivot: Value over Volume

- Execute a fundamental "Pivot" from volume chasing to value-based selling:
- **Pricing:** Implement a **15% price increase** (Scenario 3) to immediately restore unit economics.
- **Cost:** Renegotiate supplier contracts to **lower COGS** and initiate design-to-cost programs.

Current cost structure is unsustainable: COGS exceed revenue per unit, Creating structural loss.





Structural Cost implications

COGS Dominance
~76% of total costs are COGS, confirming that the turnaround relies on manufacturing efficiency, not overhead reduction.

SG&A Limitations
With SG&A at only **~23%**, the company cannot "cut its way to profitability" through administrative reductions alone.

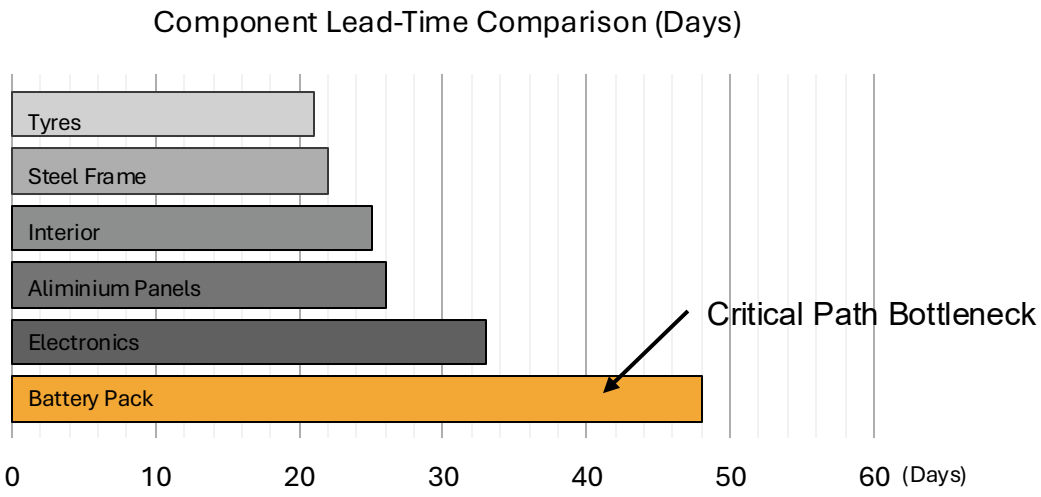
Strategic Lever
Primary margin recovery lies in supply chain optimization, specifically targeting **BOM** and **Battery costs** to lower unit costs.

Negative Unit Economics
Variable manufacturing costs (**COGS**) now exceed unit revenue, resulting in a structural gross loss on every vehicle produced.

The squeeze Effect
While Revenue declined by **14%** in 2024, the COGS remains elevated due to supply chain inefficiencies, leading to the severe **-43%** gross margin.

The Scalability Trap
Under current economic conditions, volume scaling destroys shareholder value; positive gross margins must be established before returning to a growth mandate.

Supply chain inefficiencies in Battery Packs drive excess cost and working capital, blocking margin recovery



Component	Supplier Risk	Defect Rate
Battery Pack	High	High (>5%)
Electronics	High	Medium (>2-5%)
Aliminium Panels	Medium	Low (>1%)
Interior	Medium	Medium (>2-5%)
Steel Frame	Medium	Low (>1%)
Tyres	Lower	Low (>1%)

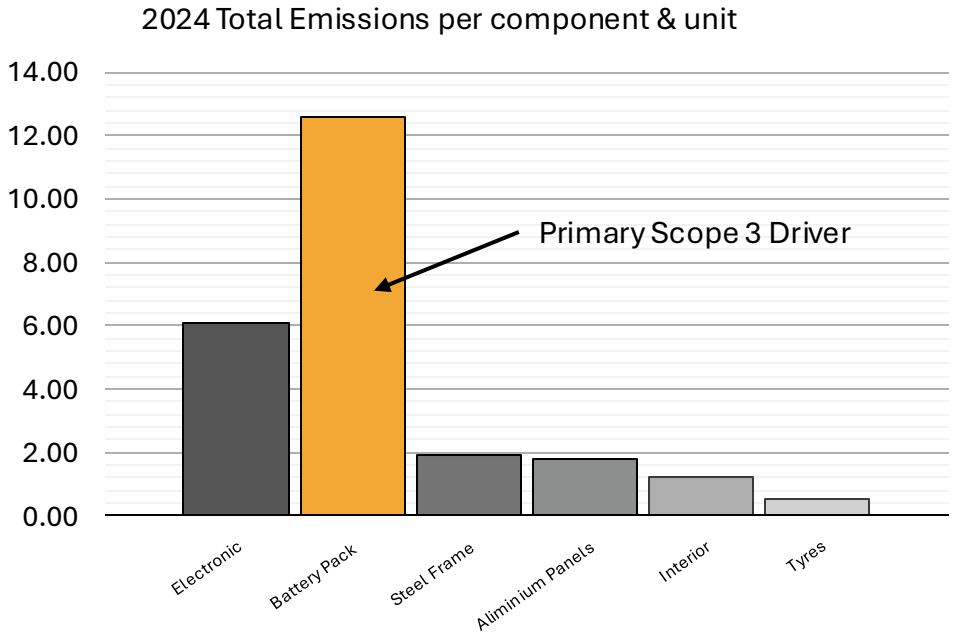
Strategic Supply Chain Implications

The Working Capital Trap
The **48-day lead time** for Battery Packs is the critical bottleneck. It forces Polestar to fund the most expensive component weeks before revenue realization, severely draining liquidity.

Scalability Risk
With both Battery Packs and Electronics classified as **"High Supplier Risk,"** any attempt to aggressively scale volume increases the probability of costly production stoppages.

Hidden Cost Drivers
A **>5% defect rate** in Battery Packs drives substantial rework and warranty provisions, directly diluting the Gross Margin identified in the previous financial analysis.

Achieving sustainability targets drives a ~5% structural cost increase, necessitating a shift to Premium Pricing to protect margins.



The Green Premium Reality

Target: Reduce footprint to <18 tCO_2e. (Industry 2030 Trajectory)

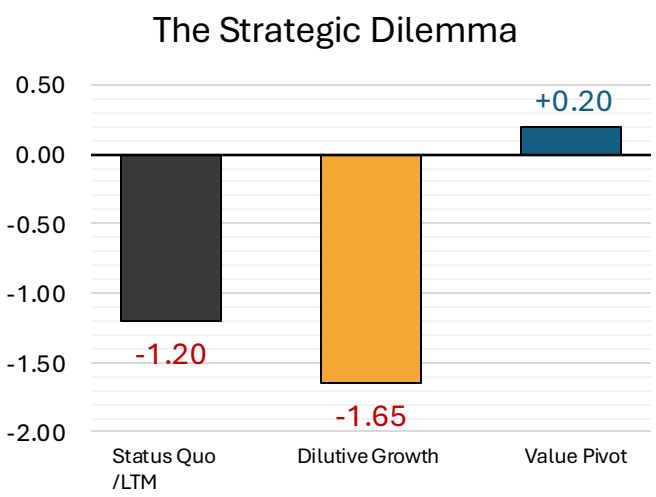
Cost Impact: **+5%** in COGS.

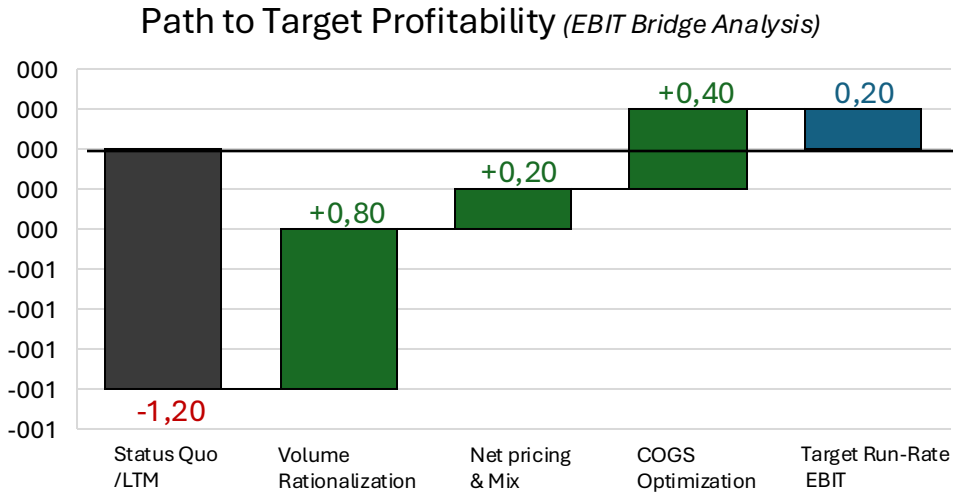
The Compliance Gap
Current emissions per vehicle exceed the 2030 trajectory. Since Scope 3 (supply chain) drives the majority of the footprint, internal operational cuts alone are insufficient to meet regulatory targets.

The Battery Burden
The **Battery Pack** is the single largest emitter (**12.6 tCO_2e/unit**). Great decarbonization requires a structural shift to suppliers utilizing renewable energy grids, which carries a higher procurement cost.

The Profitability Trade-off
Sustainability is not cost-neutral. Internal modelling confirms that the "Green Premium" on materials will increase COGS by **~5%**, necessitating a **Premium Pricing Strategy** to protect the Gross Margin.

A strategic pivot to 'Value-over-Volume' restores positive unit economics and bridges the path to solvency





Growth creates negative leverage
With current negative unit economics, a 20% volume increase does not dilute fixed costs, it accelerates variable losses. Scaling a broken business model linearly deepens the deficit from **-1.2** to **-1.44** bn.

Diseconomies of forced scale
Chasing volume in a saturated market triggers operational friction. The gap from -1.44 to **-1.65** bn represents the 'Cost of Force' including higher CAC, inventory clearing discounts, and expedited logistics required to push excess supply.

The paradox of 'Shrink to Grow'
Profitability cannot be achieved through volume alone. By rationalizing the channel mix (exiting negative-margin fleet deals) and restoring pricing power, we capture **+0.2 bn** in EBIT despite lower total volumes.

Note: Scenario modelling assumes a constant fixed cost base. 'Dilutive Growth' assumes +20% unit sales at current negative margins. 'Value Pivot' assumes +10% ASP increase and 15% COGS reduction driven by supply chain stabilization and lower defect rates.

Phased restructuring targets cash stabilization in H1 2025, enabling margin expansion and $0.2 Bn EBIT by 2026

	Phase 1 **Stabilization** (Q1-Q2 ’25)	Phase 2 **Optimization** (Q3-Q4 ’25)	Phase 3 **Profitability Growth** (2026+)
Commercial -	**Pricing**: Implement **10% ASP** adjustment. **Channel Exit**: Stop negative-margin sales. **Incentives**: Freese volume-based bonuses.	**Inventory**: Aggressively clear stock to unlock cash. **Mix**: Prioritizing high-margin trim levels.	**Expansion:** Limit growth to segments **>15%** Gross Margin. **Targets:** Re-introduce profitable volume targets.
Operational -	**Opex:** Freese non-essential spending. **Produciton**: Align output strictly to demand.	**Logistics:** Shift **>80%** flow from Air to Sea freight. **Supply Chain:** Renegotiate battery lead times **(<40 days**).	**Design-to-Cost:** Launch models with optimized BOM costs. **Efficiency:** Leverage platform sharing to lower R&D.
Financial Impact -	Arrest cash burn & stabilize liquidity	Lower COGS & drive margin improvement	Target: Run-Rate EBIT of **+$0.2 Bn**

Key risks & mitigation actions for the turnaround

	Key Implementation Risk	Mitigation Action
Commercial	**1. Price Elasticity and Erosion** The **+10% ASP** increase results in larger volume loss than modeled, jeopardizing cash flow targets.	**1. Flexible MIX Strategy** Apply the ASP increase selectively in Phase 1. Aggressively market and push **high-margin trims** to offset the calculated volume decline.
Operational	**2. Delayed Logistics Shift** The shift from Air to Sea freight for critical components encounters process delays, leading to production halts.	**2. Strong Financial Governance** Tie bonuses for Logistics and Supply Chain leads directly to achieved **COGS savings** realized from the freight shift.
Overall	**3. Lack of Organizational Adoption** Functions (Commercial vs. Operations) resist the new restrictive policies, leading to internal sub-optimization.	**3. Establish Turnaround Office (TO)** Create a small, cross-functional unit with the mandate to rapidly resolve conflicts between Commercial and Operations.
Overall	**4. Geopolitical Supply Shock** An unforeseen external event delays critical component deliveries, forcing the company back to expensive Air Freight usage.	**4. Diversified Sourcing** Identify alternative regional suppliers for critical components in Phase 2 and build **safety stock** for high-risk, high-cost articles.

Engineering the Turnaround

Restoring unit economics & securing the foundation for future growth

We Have Identified the Path to Solvency, Restoring Unit Economics to Deliver +$0.2 Bn EBIT.

Organisational Mandate
Which Executive Team member should lead the new **Turnaround Office (TO)** to ensure compliance and rapid conflict resolution?

Acceleration
Given the competitive landscape, should we commit to accelerating the **Design-to-Cost** initiatives in Phase 3 by immediately increasing R&D funding?

We welcome your questions

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