

Presentation to VW AG Board of Directors

Team Griffins

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Prioritisation of Issues

○ Paris Accord and Environmental Legislation

○ Strategic Sourcing of Cobalt in Africa

○ E-Mobility Strategy

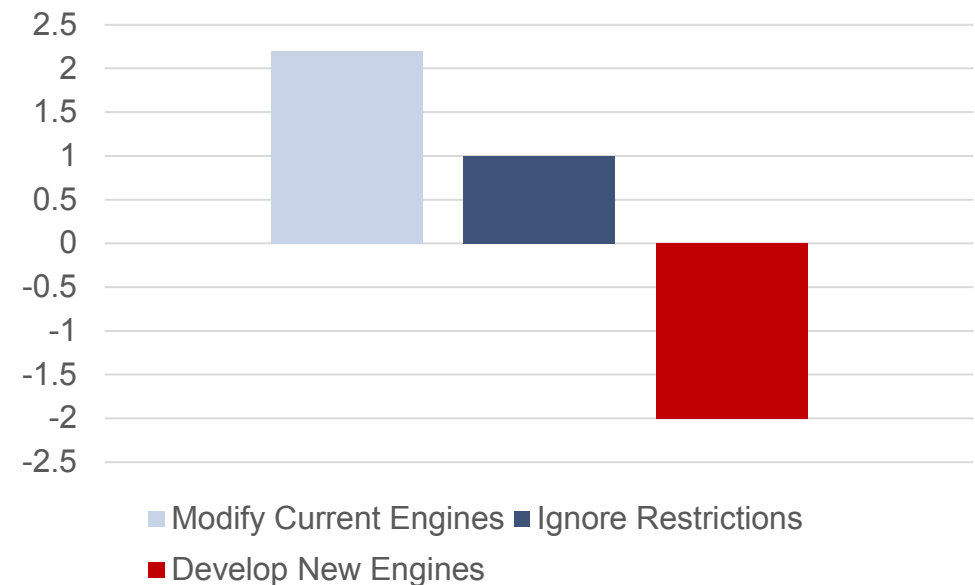
○ Strategy and Cost Optimisation

○ Product Portfolio Rationalisation

Paris Accord and Environmental Legislation

Modify current engines	Ignore restrictions	Develop new engines
<ul style="list-style-type: none"> Higher end vehicles will still be over the limit – fines will still be incurred Longevity of engines Net Present Value: €2,2 billion 	<ul style="list-style-type: none"> Fine will be incurred Possibly profitable Unethical Net Present Value: €1 billion 	<ul style="list-style-type: none"> Fine will not be incurred Will aid 'Strategy 2025' Net Present Value: -€2 billion Choosing ethical decision over the more profitable one will build needed goodwill.

Net Present Value of Strategies (in millions)



Recommendation: Develop new engines

Strategic Sourcing of Cobalt in Africa

Points to consider

- VW AG will not meet their requirements if they stay obtain cobalt from only artisanal miners
- Supply and demand of cobalt must be taken into account
- They need to conform to local regulations in Africa
- Allows pre-planning of costs
- Jumpstarts electric production

Recommendation: Acquire majority of cobalt from artisanal miners, and obtain remainder from mining corporates

E-Mobility Strategy

Advantages of Panasonic

- 3 year contracts favourable over 6 month contract
- Just-In-Time inventory management
- Has excellent production quality
- Proven track record with Tesla
- Lowest average cost per unit (€390)

Recommendation: VW AG should renegotiate the cancelled contract and look to develop and manufacture their own batteries in the future

	2018	2019	2020	2021	2022
Estimated units produced (millions)	0.1	0.3	3.5	40.	4.5
Estimated average cost to purchase (€)	390.0	390.0	390.0	390.0	390.0
Estimated average shipping cost (€)	5.0	5.0	5.0	5.0	5.0
Estimated total purchase price in millions (€)	39.0	117.0	1365.0	1560.0	1755.0
Estimated total shipping and transport in millions (€)	0.5	1.5	17.5	20.0	22.5
Estimated total cost in millions (€)	39.5	118.5	1382.5	1580.0	1777.5
Present value of cost in millions (€)	34.65	91.18	933.15	935.49	923.18

TOTAL COST: € 2917.64 million

Strategy and Cost Optimisation

Advantages of Centralisation

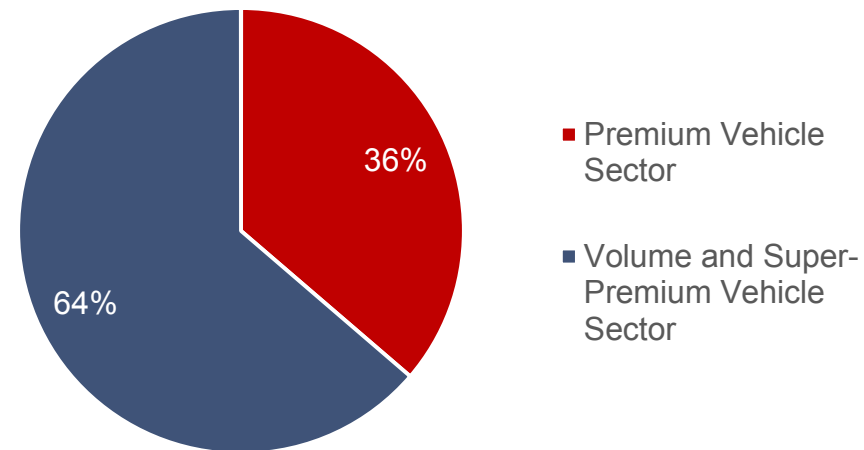
- Better decision making
- Reduced Administration and Office costs
- Clear line of communication
- Focused vision and quicker implementation of strategies

Disadvantages of Centralisation

- Delays in work completion
- Bureaucratic leadership
- Executives becoming overburdened
- Unsuitable for larger organisations

Recommendation: Implement a centralised structure

Total Sales Revenue^[1]



Recommendation: VW AG should continue their current strategy of manufacturing a large variety of vehicles

Product Portfolio Rationalisation

Proposal 1: Reduce price of volume range

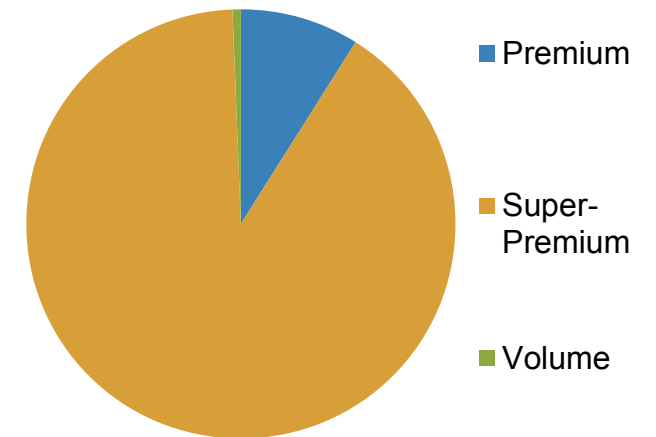
- More units will need to be produced break even
- Lower price will increase sales volume and is likely to earn a greater gross profit

Proposal 2: Cease production of underperforming vehicle models

- Constantly changing market makes this impractical
- Demand may shift over time so if VW AG has ceased production of a model coming into demand, customers will be lost

Recommendation: Reduce price of volume range and rationalize the volume segment

GP MARGINS [2]



Thank You

Questions?

Appendix

[1] Premium Car Brand Total Sales Revenue = Audi+Bentley+Porsche= € 60128 + €1843 + €21674 = €83645 million
%Premium Car Sales on Total Sales Revenue= €83645/€2306892 = 36.3%

[2] % GP on sales (gross profit margin) for Volume
= (- €59.50 million ÷ €23,237 million) x 100
= - 0.26 %

% GP on sales (gross profit margin) for Premium
= (€631.37 million ÷ €16,871 million) x 100
= 3.74 %

% GP on sales (gross profit margin) for Super-premium
= (€7,733.29 million ÷ €20,533 million) x 100
= 37.74 %