



VOLKSWAGEN
AKTIENGESELLSCHAFT

Driving Volkswagen AG into the future

Strategy 2025: Rev. Steer. Accelerate. Cruise.

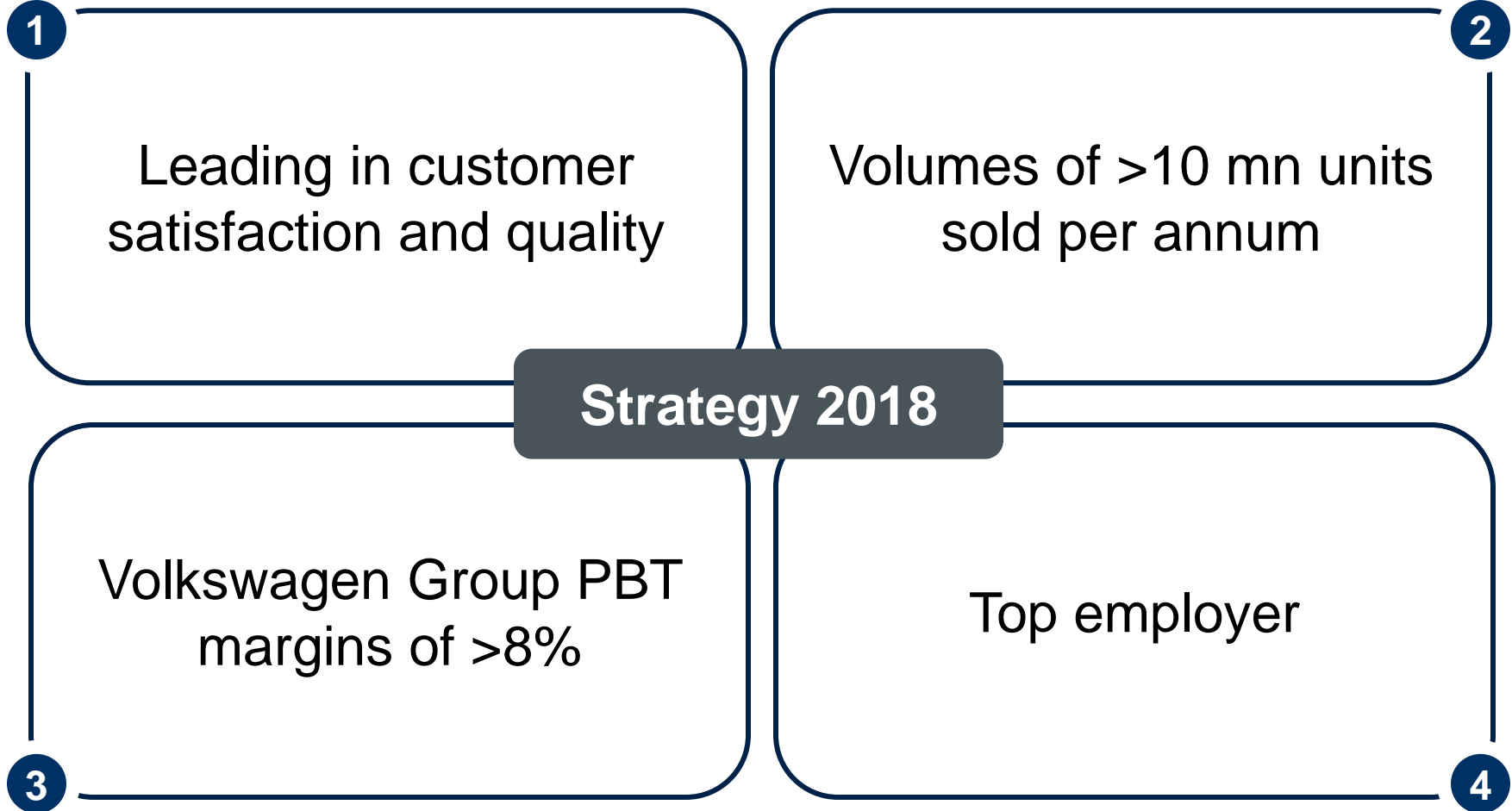
9 April 2016



Sean Ling | Fabian Kho | Jasmine Lim | Clayton Chu

Strategy 2018

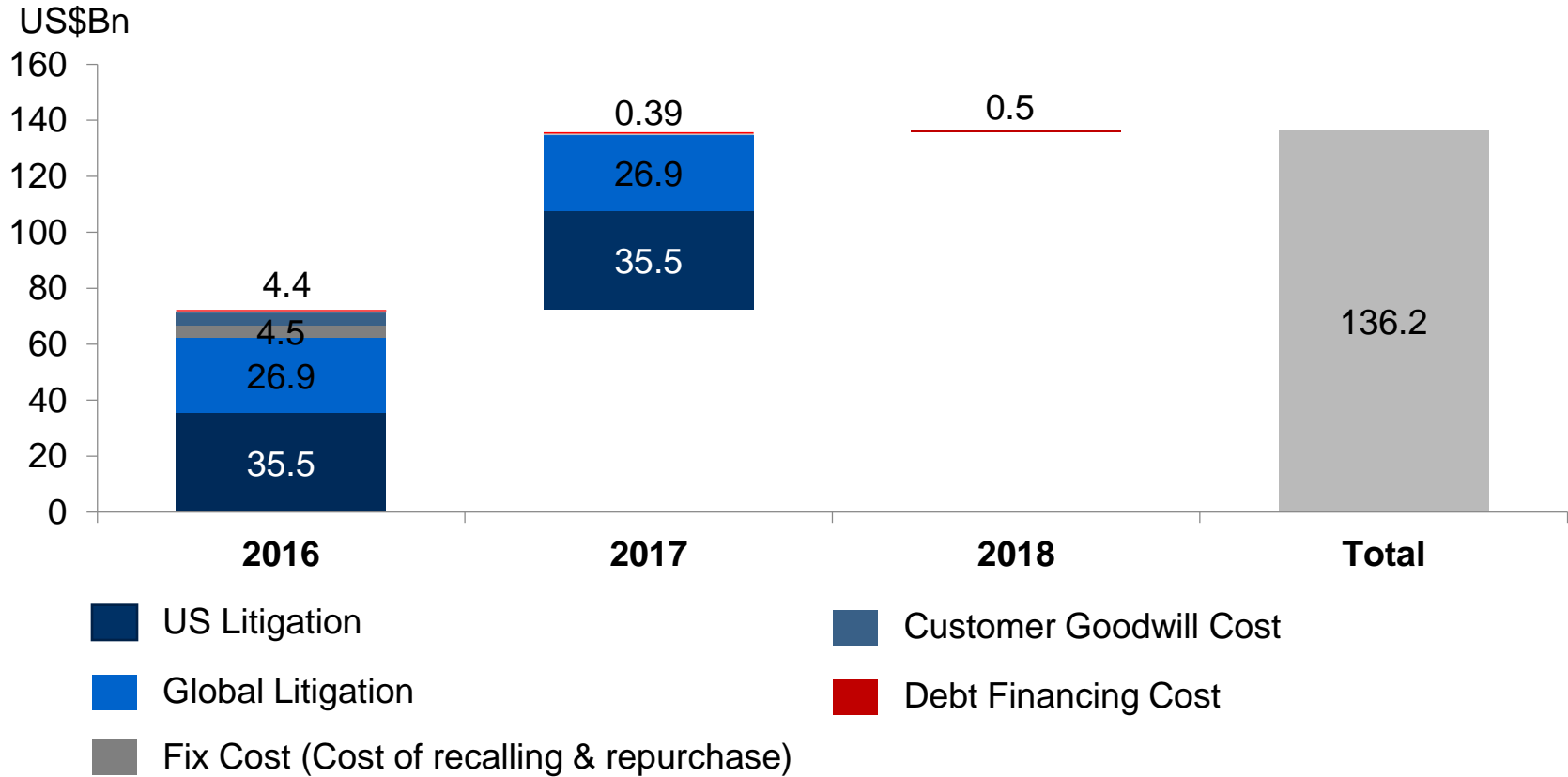
4 key goals established in 2007



Source: Case material, company website

Disruption of Strategy 2018

Calculating the financial and non-financial impacts of the emissions issue



Potential loss in sales

Drop in Market Capitalization of c.US\$24bn

Other early stage legal risks

Source: Argon estimates, broker reports, press search



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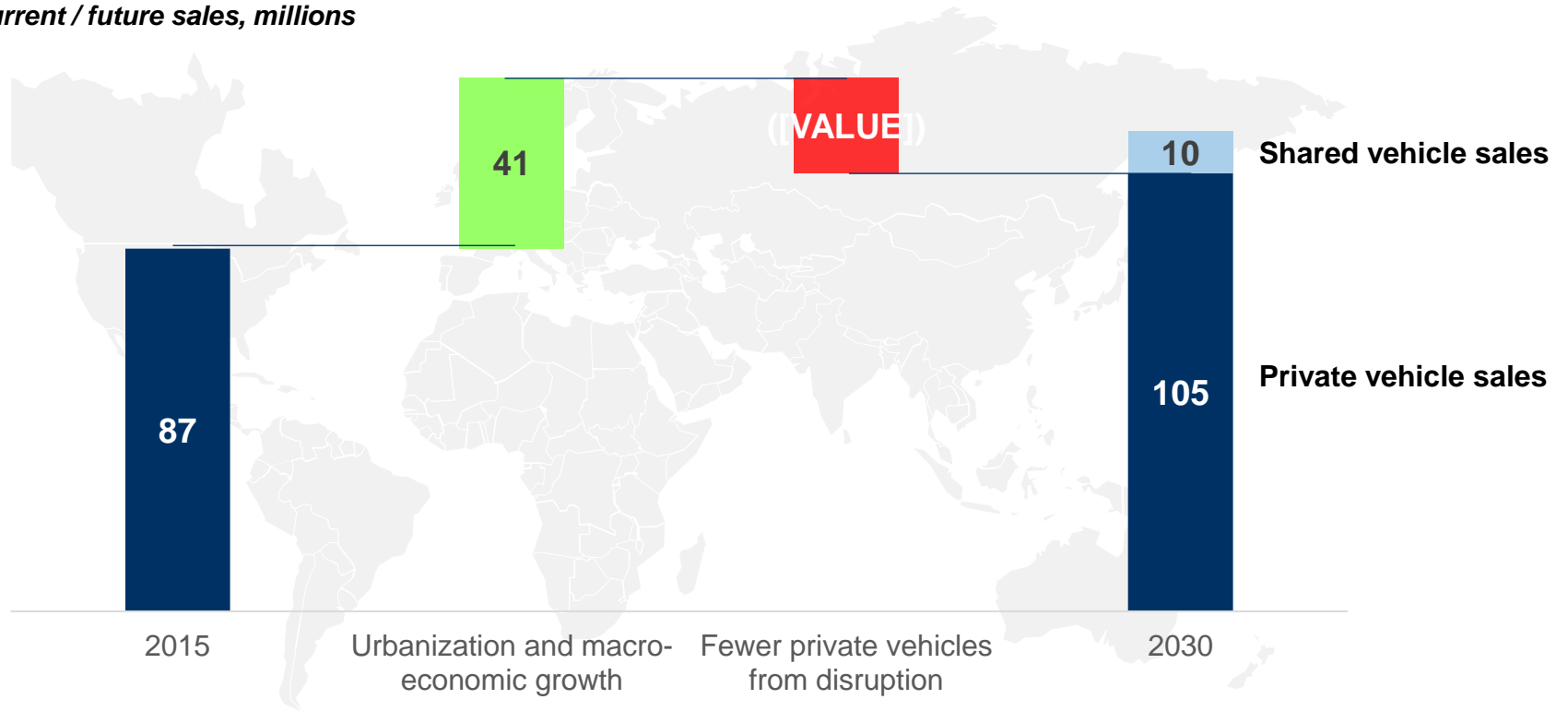


Source: Argon estimates, broker reports, press search

Global automotive industry outlook

Growth driven by urbanization; slowed by rise of sharing economy

Current / future sales, millions



Private vehicle sales in high-growth markets such as China driven by macroeconomic trends

Shared vehicle sales in mature markets like North America / EU driven by higher replacement from increased wear and tear

Source: McKinsey, Euromonitor, press search, Argon analysis



5 key levers to industry success

Understanding the end-to-end value chain of the automobile manufacturer



To attain its goal of being the largest car manufacturer, VW has to manage these 5 levers effectively



Source: BCG, Argon analysis, case material

5 key levers to industry success

Understanding the end-to-end value chain of the automobile manufacturer



"I don't think the issue is that major. Many people are dependent on VW products and will stick with those products as they are still the best, even after the diesel scandal."



"I will never buy another VW product... no more VWs for me. Why? Because this was criminal fraud in my opinion."

Before it can capitalise on the huge market potential in the mobility market, VW needs to address immediate issues with global branding and marketing



Source: BCG, Argon analysis, press search, case material

5 key levers to industry success

Understanding the end-to-end value chain of the automobile manufacturer



Mature markets

Emerging markets

VW needs to make a strategic decision on where to play to win



Source: BCG, Argon analysis, case material

5 key levers to industry success

Understanding the end-to-end value chain of the automobile manufacturer



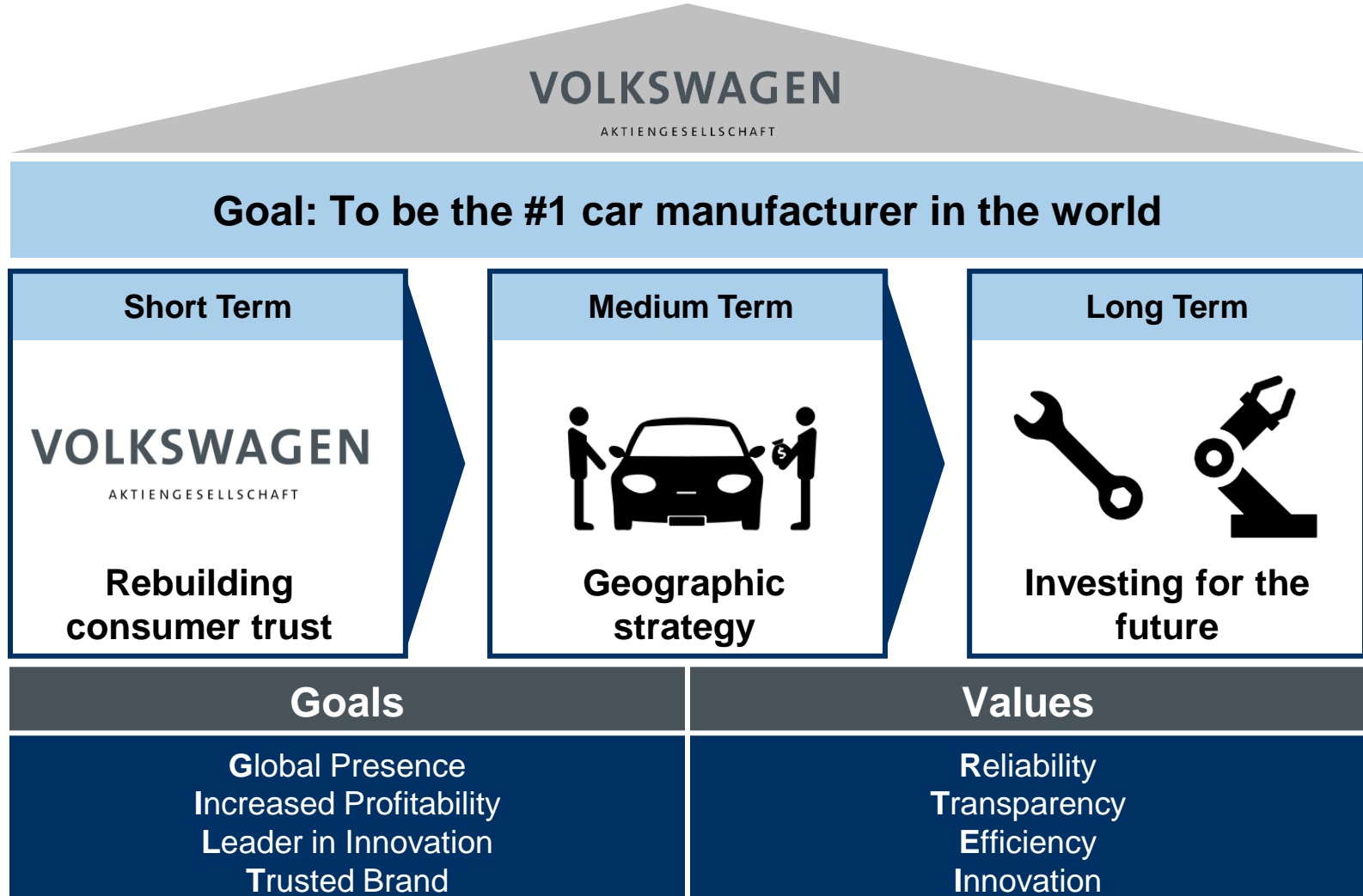
VW needs to ride on new technologies and improve operating margins to be a world class manufacturer in 2025



Source: McKinsey, BCG, Argon analysis, case material

Presenting Strategy 2025

Positioning VW group for success

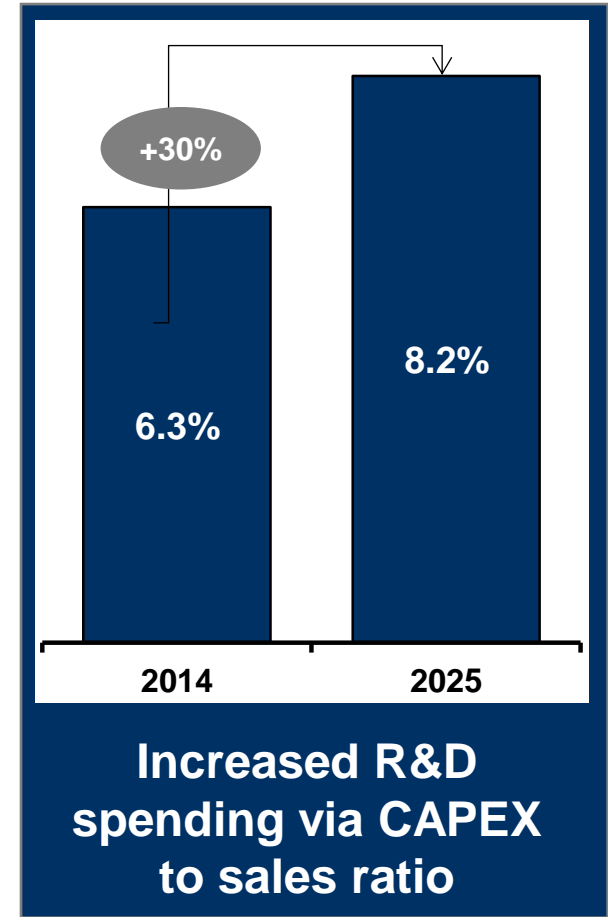
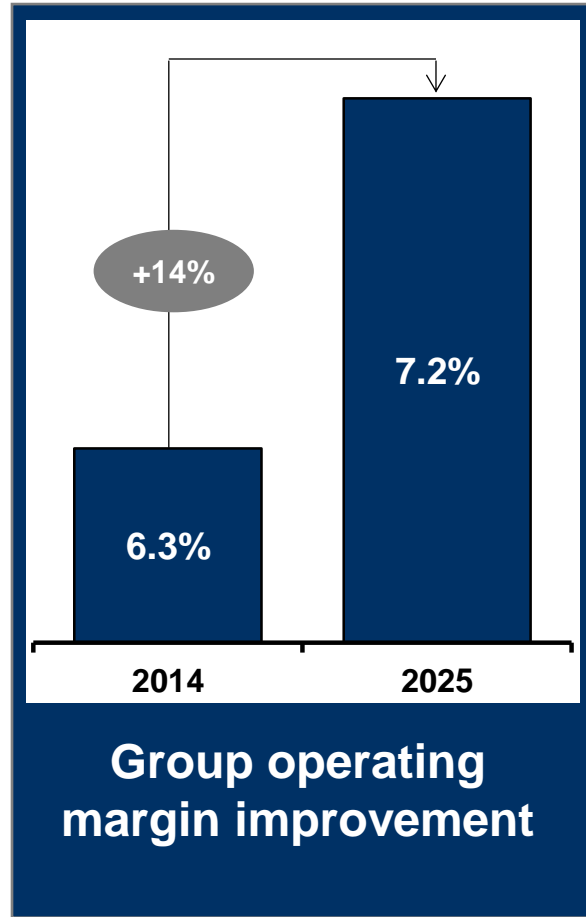
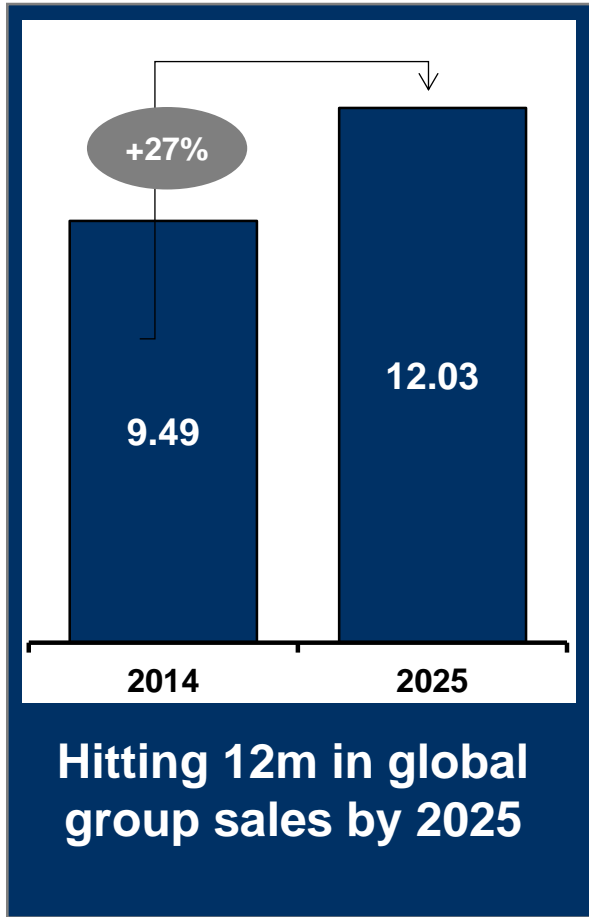


Source: Argon analysis



Measuring the success of Strategy 2025

VW AG will chart its success with 3 key metrics



Source: Argon estimates

Strategy 2025

Our roadmap to success



Rev

up stakeholder trust in our business



Steer

our growth in core and frontier markets



Accelerate

into the future with new technologies

How can we rebuild consumer confidence in the wake of the emissions scandal?

What geographies should VW Group focus on?

What products / technologies should VW focus on to capitalise on disruptive trends?



Source: Argon analysis

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Source: Argon analysis

Identifying the Relevant Stakeholders

Different groups of people are affected by the emission scandal

INTERNAL



Employees



Shareholders

EXTERNAL



Activists



Dealers



Prospective buyers



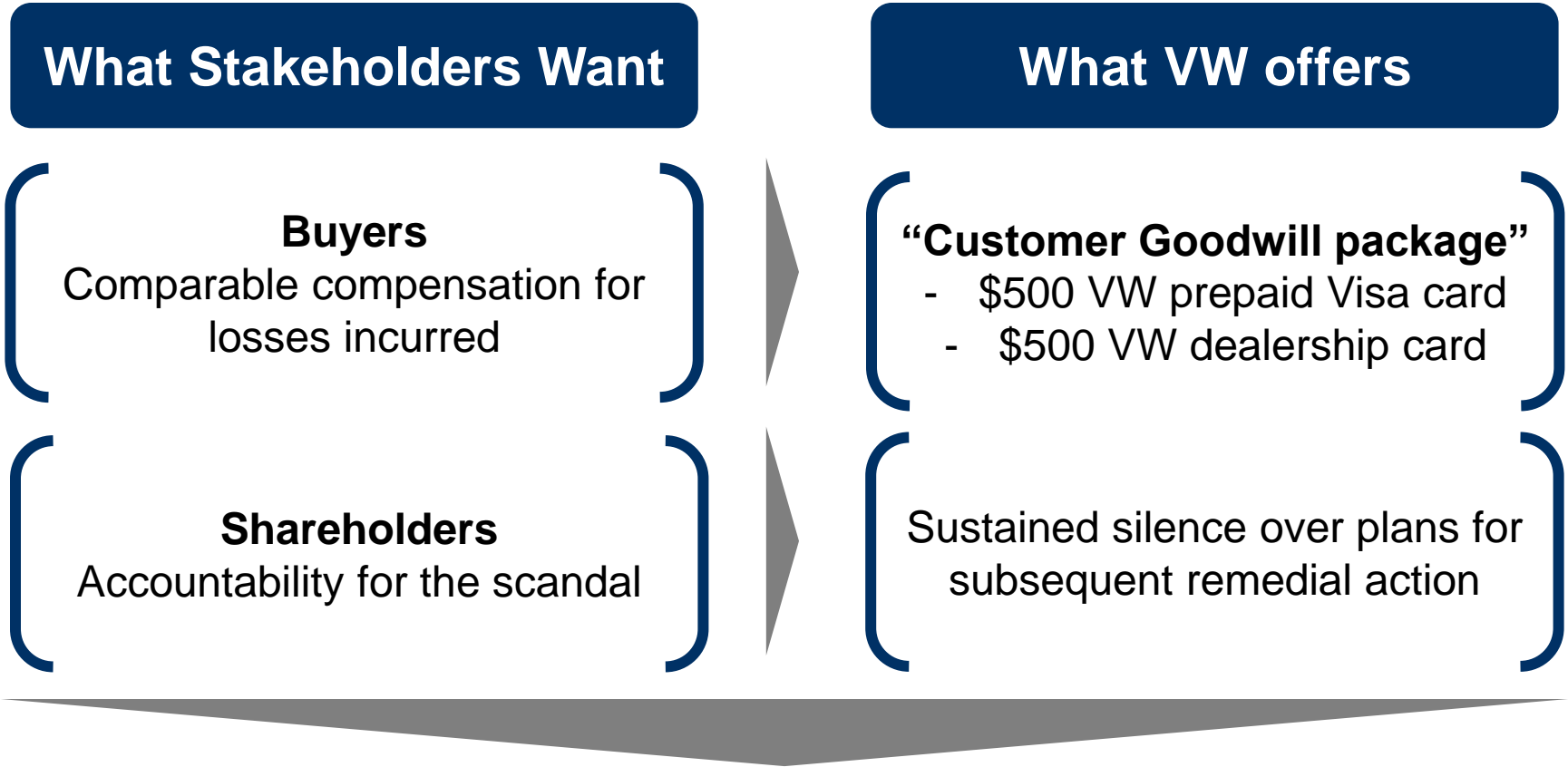
Buyers



Government Agencies

Need to bridge the gap

VW's post-scandal reparations do not meet stakeholders' requirements



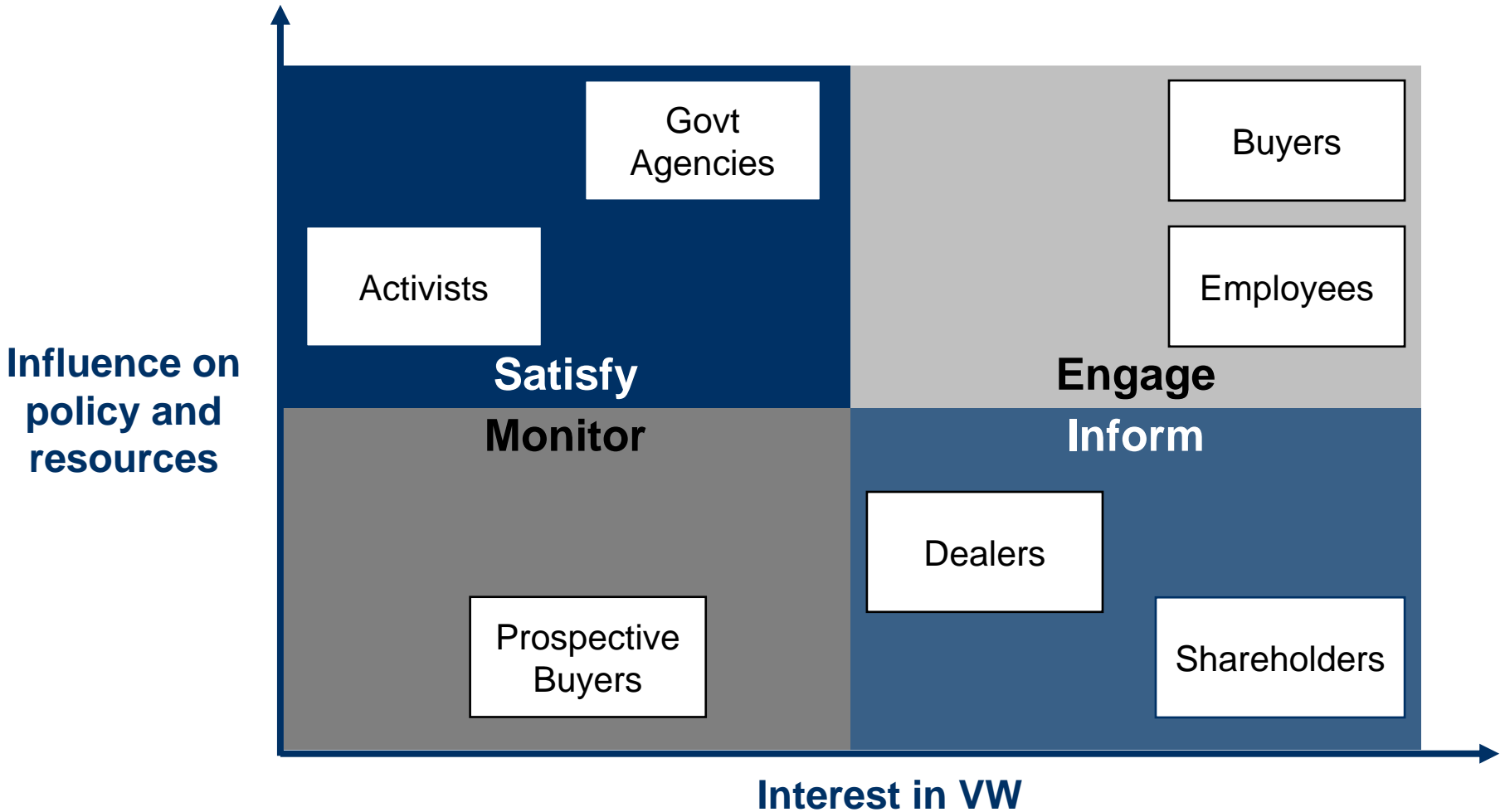
VW needs to address the primary concerns of key stakeholders to reverse erosion in confidence



Source: Case material, Argon analysis

Prioritising key stakeholders for VW

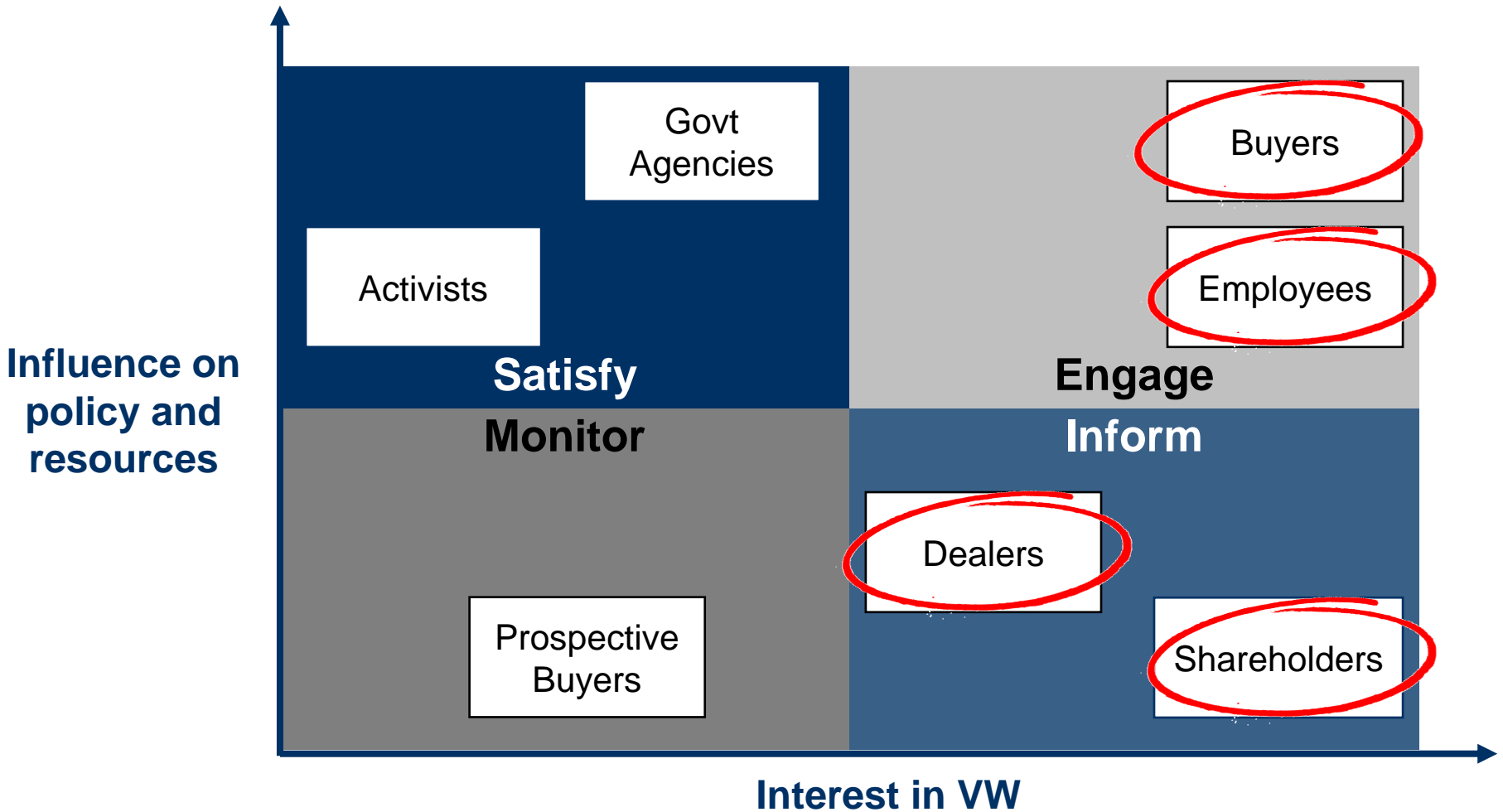
Identifying key groups and their relationships to VW



Source: Argon analysis

Prioritising key stakeholders for VW

Identifying key groups and their relationships to VW



Source: Argon analysis

Addressing our stakeholders

A framework to guide communication to key groups

ENGAGE



Buyers



Employees

Stakeholder

Key Message

Communication Channel

“We are sorry and we promise to be better”

“We are fully committed to the principles of transparency and honesty”

Press releases
Online videos
Correspondence hotlines

Ombudsman program
Internal memos



Source: Argon analysis

Addressing our stakeholders

A framework to guide communication to key groups

INFORM



Dealers



Shareholders

Stakeholder

Key Message

Communication Channel

“We are committed to maintaining the quality and market leadership of VW”

“We are committed to the financial success of VW and are cooperating with authorities.”

Monthly dealer visits
Calls and videoconferences

Announcements
Direct mailers providing regular updates



Source: Argon analysis

Addressing our stakeholders

A framework to guide communication to key groups

INFORM



Dealers

Key Takeaway



Shareholders

Tailored messages and channels will allow us to achieve organizational and communication objectives and reinforce our new value of transparency, **setting the stage for future growth**

"We are committed to maintaining the quality and market leadership of VW"

Key message

"We are committed to the social success of VW and are cooperating with authorities."

Monthly dealer visits
Calls and videoconferences

Communication Channel

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Source: Argon analysis

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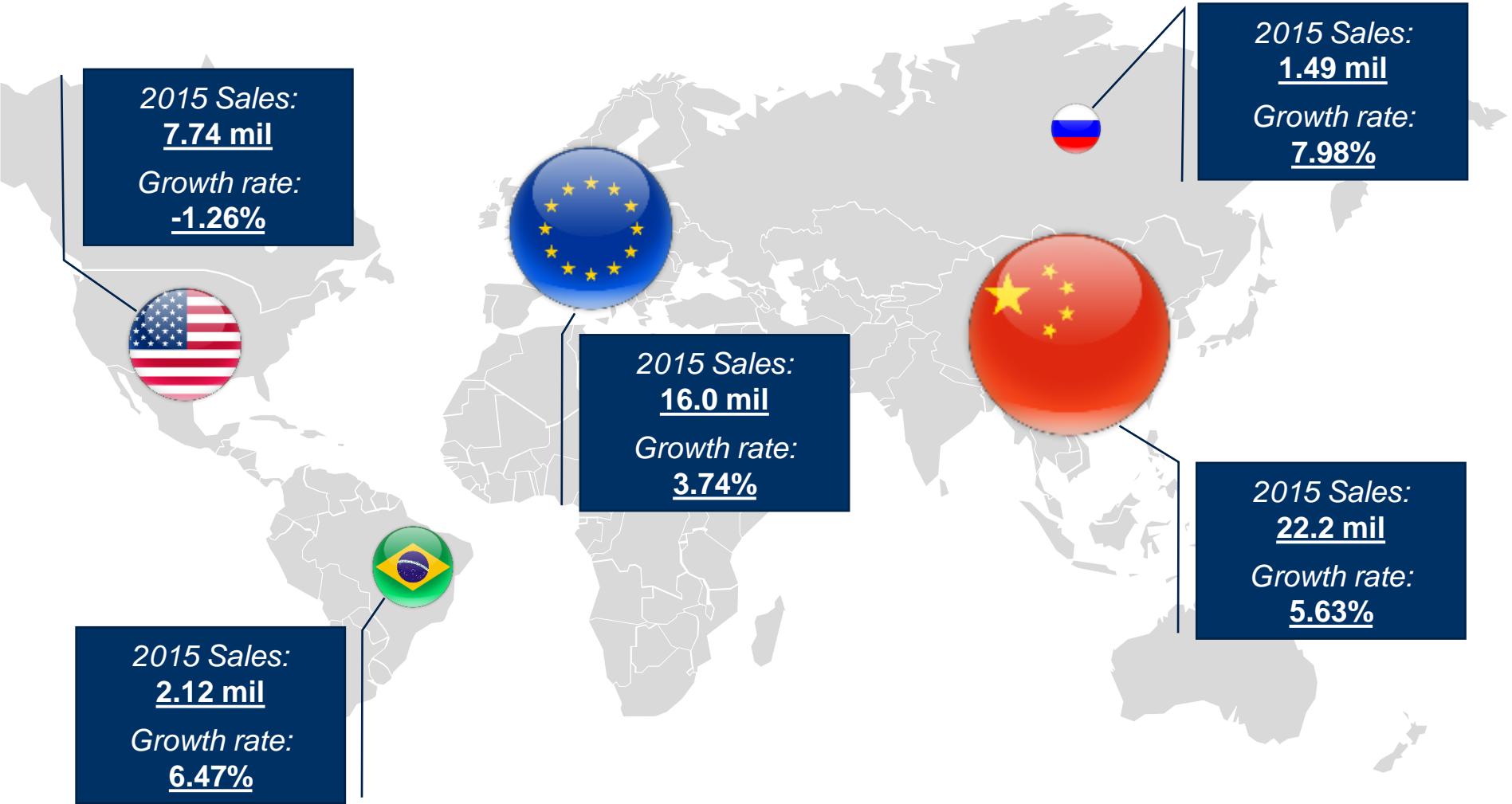
What products / technologies should VW focus on to capitalise on disruptive trends?



Source: Argon analysis

Industry growth outlook by 2020

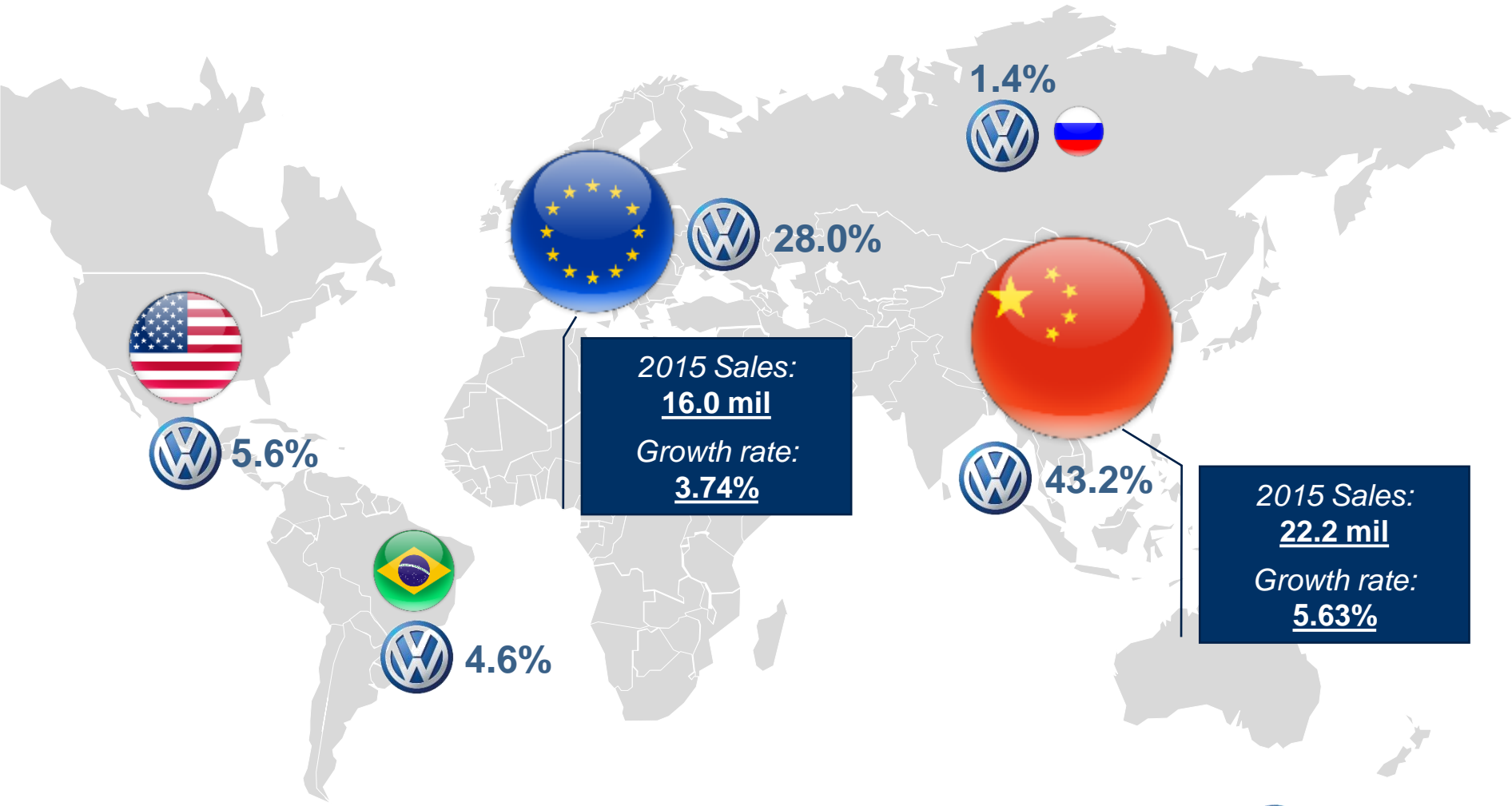
Growth in industry is expected to shift from TRIAD to BRICS




Source: Business Monitor International

VW's key markets are in EUR and China

VW's revenue split by region is focused on China and its home market



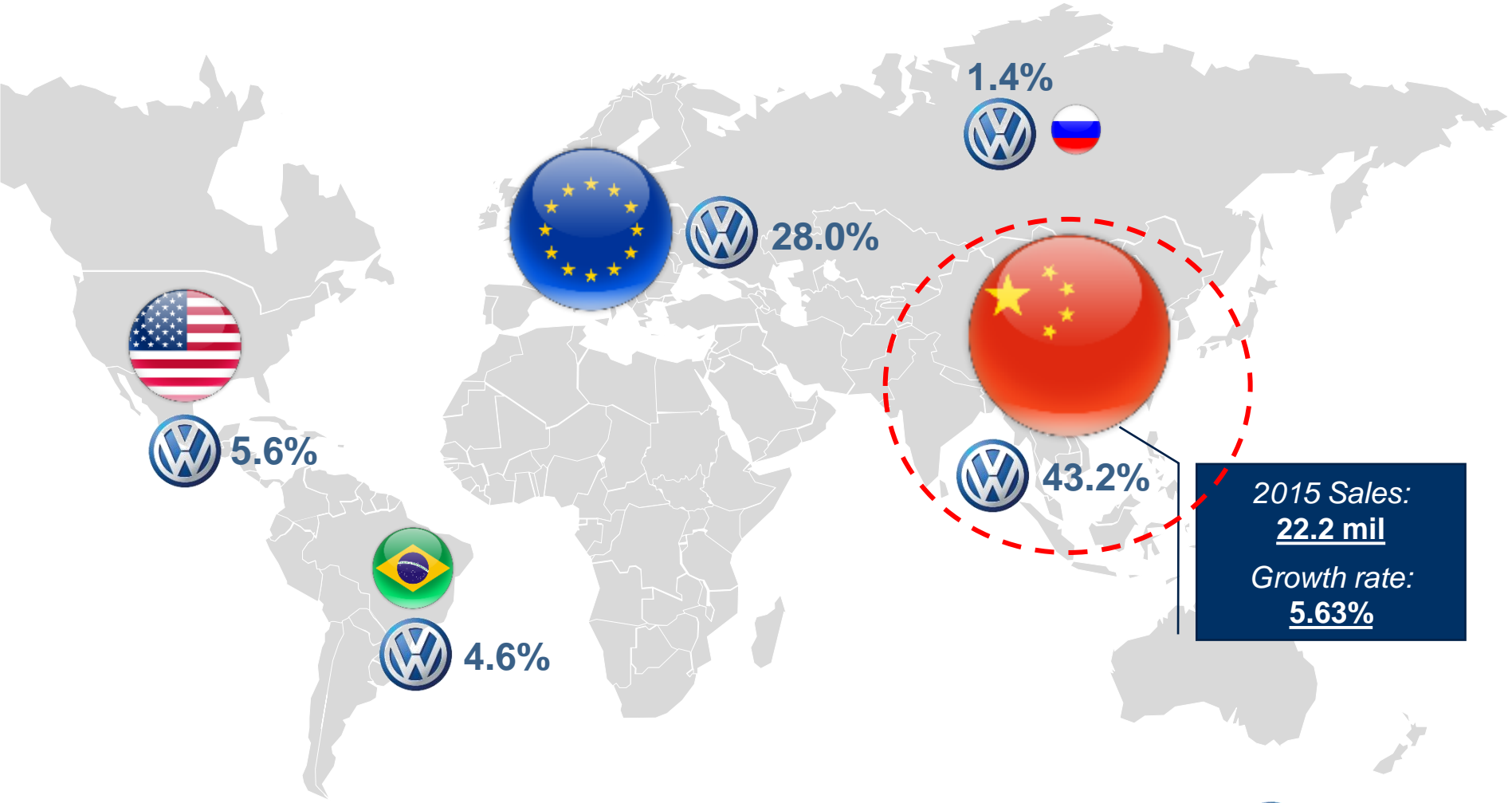
 VW sales by region (Feb '16)


Source: Business Monitor International, Volkswagen Group



China: Key growth opportunity

China remains VW's key growth market through to 2020



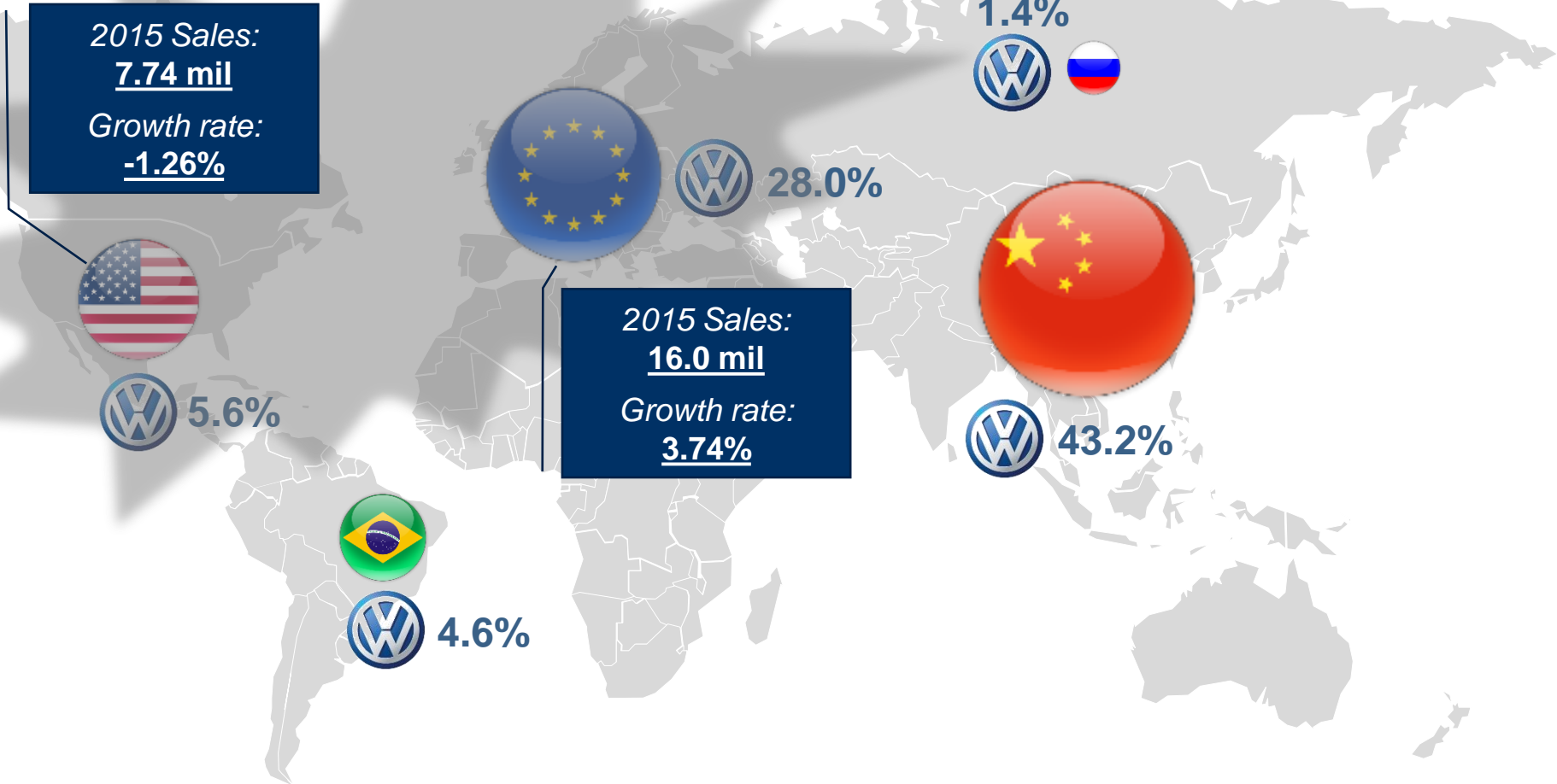
 VW sales by region (Feb '16)

Source: Business Monitor International, Volkswagen Group




US & EUR: Short-term priority focus

Urgent attention is demanded by US & EUR due to emission scandal

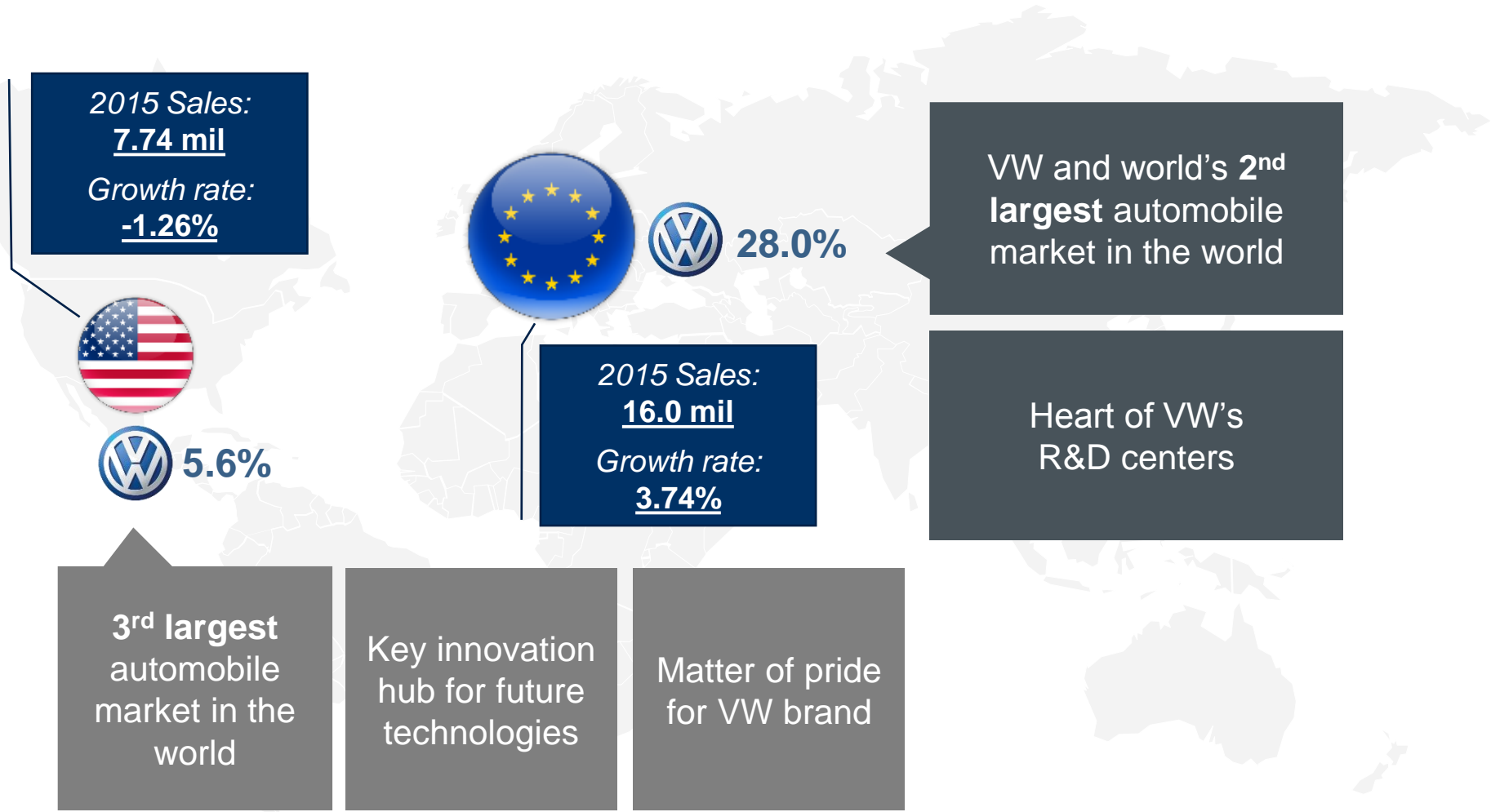


Source: Business Monitor International, Volkswagen Group

 VW sales by region (Feb '16)

US & EUR: Core markets

Urgent attention must be paid as these two markets are crucial to VW



Source: Business Monitor International, Volkswagen Group

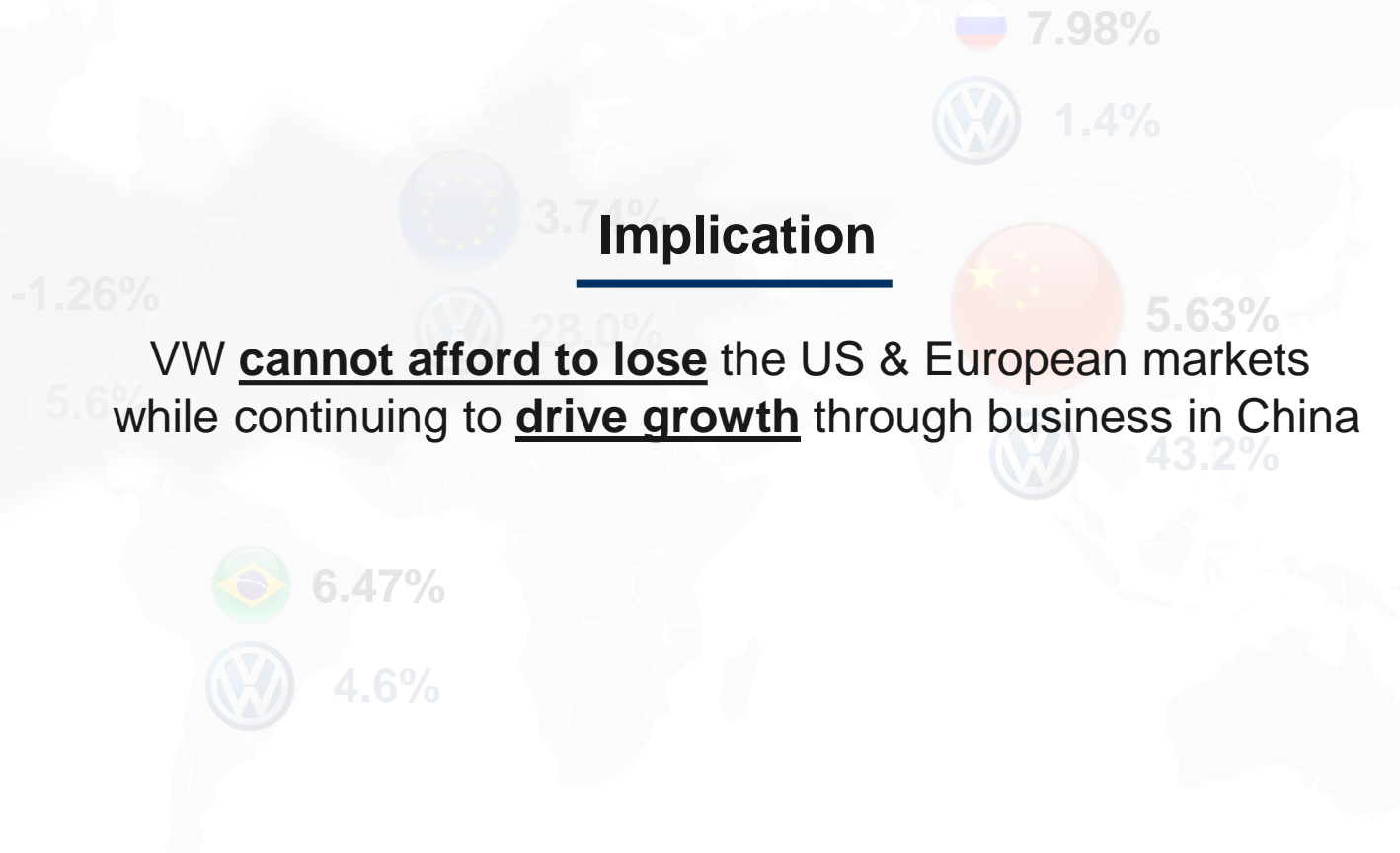


US & EUR: Short-term priority focus

Urgent attention is demanded by US & EUR due to emission scandal

Implication

VW cannot afford to lose the US & European markets while continuing to drive growth through business in China



Source: Business Monitor International, Volkswagen Group



VW sales by region (Feb '16)



Market size, 5-year forecast (Passenger car sales, units)

Localized strategies for key countries

Broad-brush products / R&D will not suffice for VW in priority markets



United States



Europe



China

Trends	<p>“Death of diesel” ↑ environmental consciousness</p>	<p>GHG-conscious Tech-integrated society</p>	<p>Slowing growth Increasing affluence</p>
Strategy	<p>Focus on EV</p>	<p>R&D: Diesel efficiency Ridesharing partnership</p>	<p>Emphasize premium brands</p>
Target	<p>Environmentally-focused consumers</p>	<p>Mass market</p>	<p>Increasing middle class demographic</p>
Outcomes	<p>Become competitive in EV segment</p>	<p>Extend market leadership in home markets</p>	<p>Achieve leadership in premium segment</p>

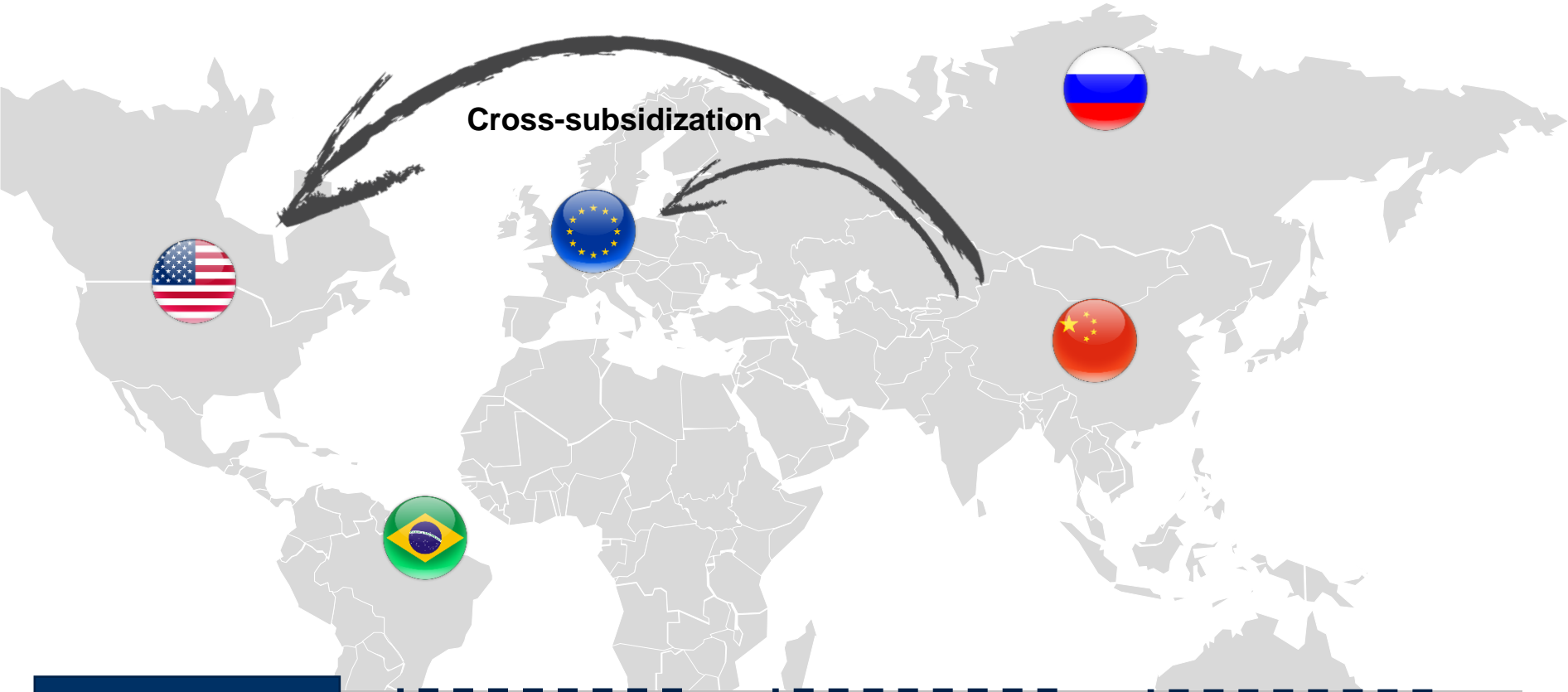


Source: Argon analysis



Supporting key markets through China

Using cross-subsidization to sustain VW's other key markets



Why cross-subsidize?

Settle financial reparations

Sustain key markets


Maintain R&D economies of scale




Source: Argon analysis

Strategy 2025

Our roadmap to success



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up stakeholder trust in our business



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What geographies should VW Group focus on?

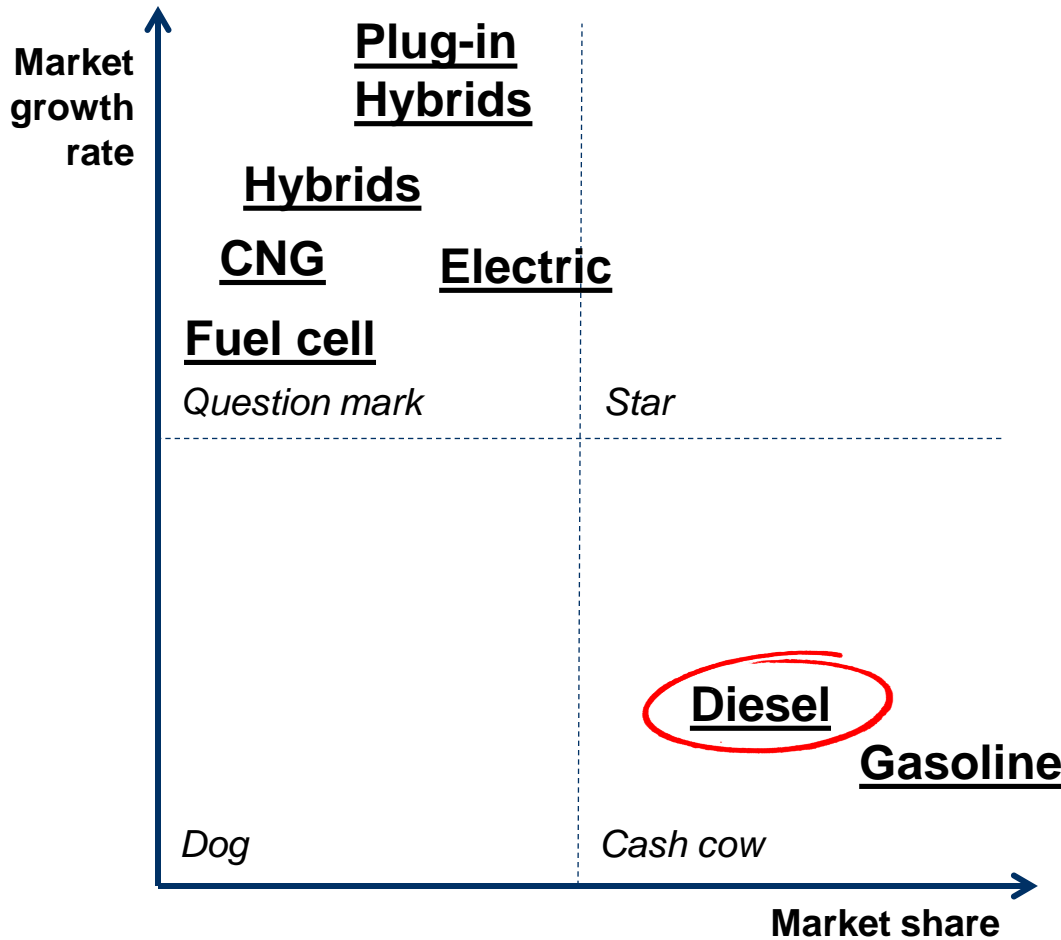
What products / technologies should VW focus on to capitalise on disruptive trends?



Source: Argon analysis

Decision on Diesel?

Diesel should still be in VW's portfolio but with diminished focus



Large proportion of EUR sales (53%)

Room for R&D (achieve emission standards)



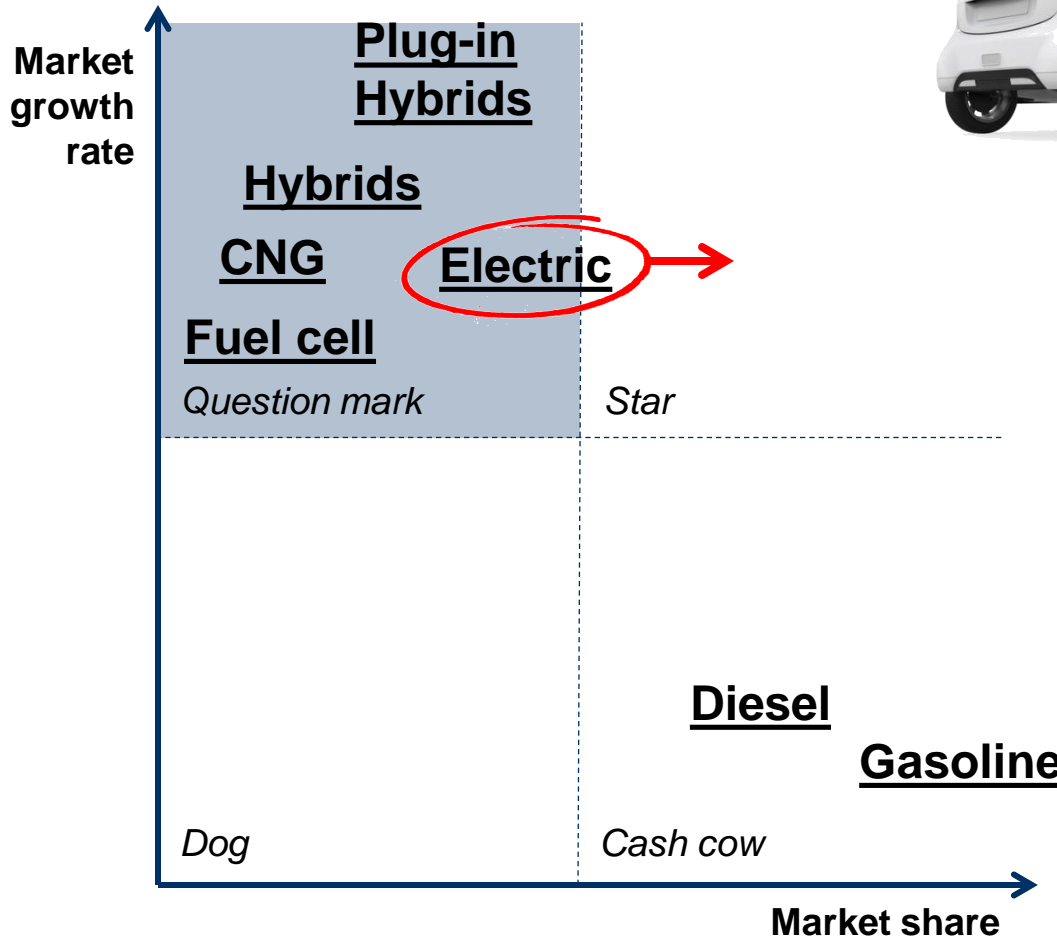
Maintain interest but reduce focus



Source: Boston Consulting Group, Argon analysis

Double down on new growth segment

Electric Vehicles (EV) possess significant opportunity for VW



- No dominant player in the market (unlike PHEV)
- Most anticipated eco-solution
- Falling costs of production

Increase R&D investment with long-term view

Source: Boston Consulting Group, Argon analysis



Streamlining costs within VW

In light of emissions scandal, VW must prioritize cost management



**Innovation
R&D**



**Operational
Efficiency**



**Labour
workforce**



**Marketing &
Branding**



**Sales &
Administration**

Expanding productivity across VW

For greater cost management, VW needs to reassess cost structure



**Innovation
R&D**



**Operational
Efficiency**



**Labour
workforce**



**Marketing &
Branding**



**Sales &
Administration**

Develop cost management competency through focus on productivity



Restricted by labour union



Necessary costs due to recent emissions scandal and need to win back stakeholders



Industry trends and outlook

2 themes define the future: disruptive trends and operational efficiency

R&D: Disruptive trends

A revolution of technology-driven trends

1

Shared Mobility

2

Electric / Efficient Mobility

3

Connected Mobility

4

Autonomous Mobility

Operational Efficiency

An evolution of transportation



1

Improvement in engine efficiency

2

Reduction in production cycles

3

Modularisation and mechanisation

Source: KPMG, BCG, McKinsey, Argon analysis

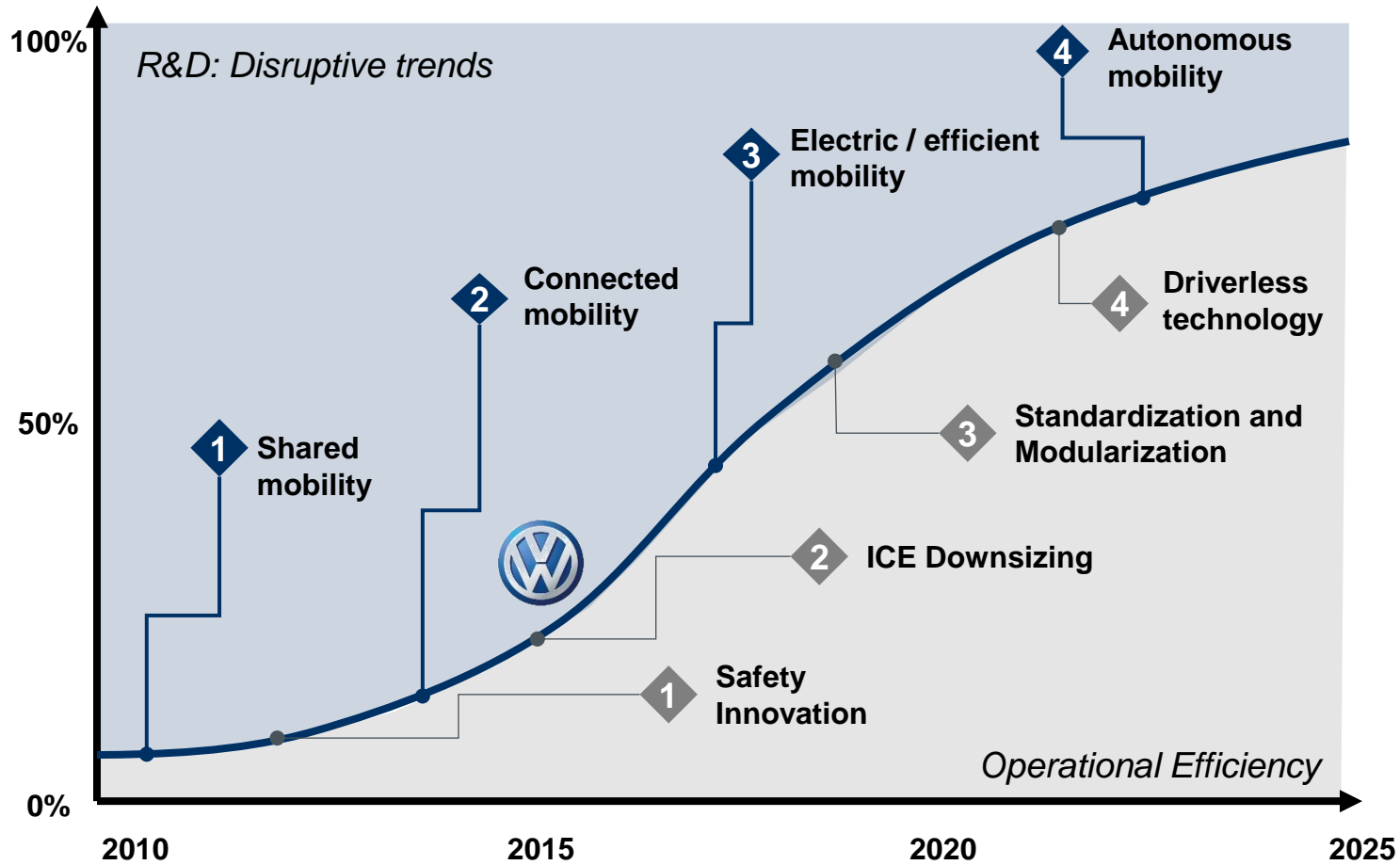


Mobility in 2025

4 technology-driven trends will shape the future of personal mobility

Illustrative

Degree of disruption



Source: Case material, McKinsey, Prime Research, KPMG, Argon analysis



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Cruise

Charting the financial impact of Strategy 2025

What products / technologies should VW focus on to capitalise on disruptive trends?



Source: Argon analysis

Greater global presence around the world

Capitalize of market growth and deliver to focus markets

North America

2014: 0.88m
2016: 0.83m
2020: 0.85m
2025: 0.91m

CAGR:
0.70%

Europe

2014: 3.52m
2016: 3.74m
2020: 4.11m
2025: 4.48m

CAGR:
2.1%

Asia Pacific

2014: 4.02m
2016: 4.34m
2020: 4.83m
2025: 5.38m

CAGR:
2.4%

South America

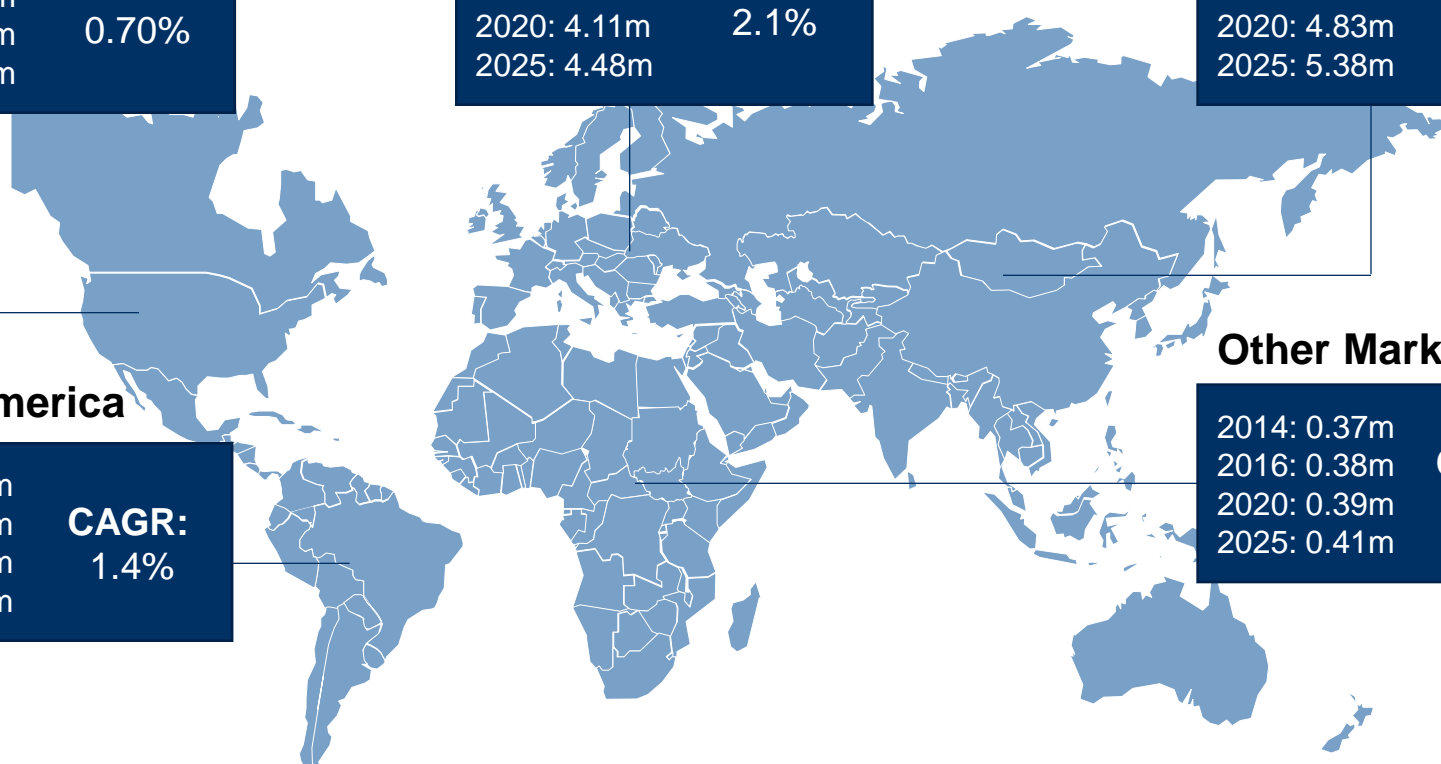
2014: 0.69m
2016: 0.74m
2020: 0.78m
2025: 0.85m

CAGR:
1.4%

Other Markets

2014: 0.37m
2016: 0.38m
2020: 0.39m
2025: 0.41m

CAGR:
0.68%

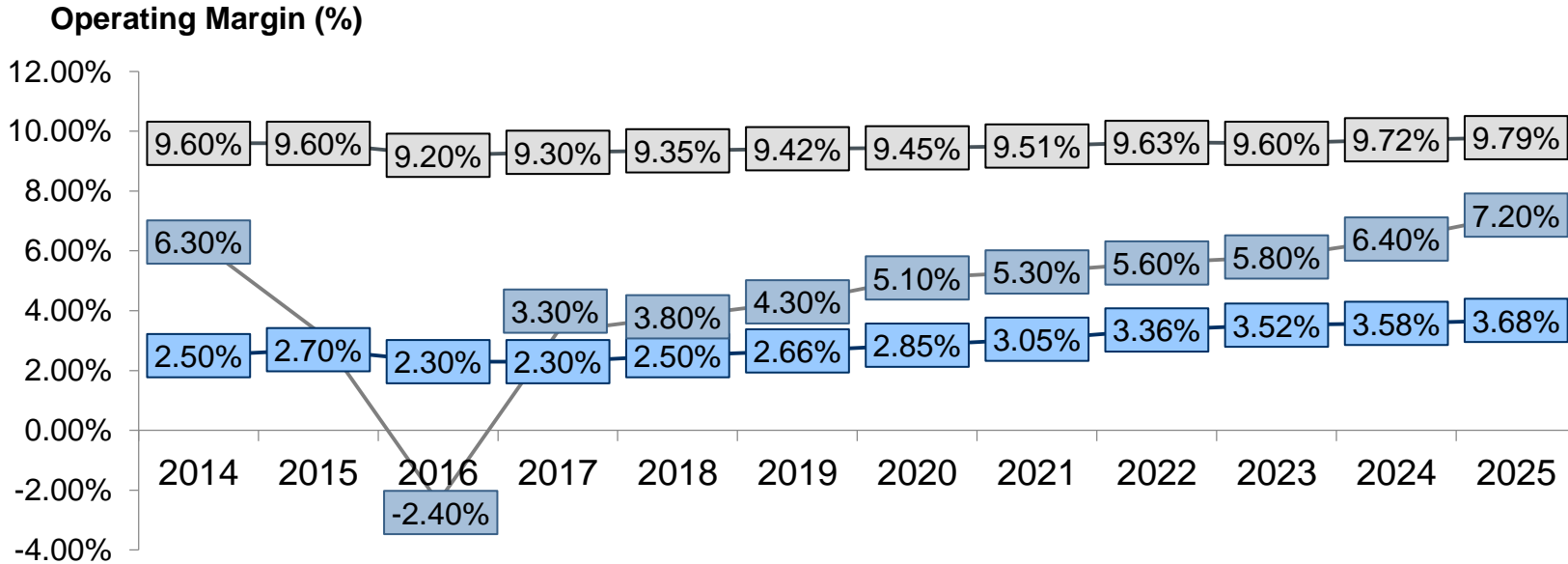


Targeted amount of global sales by 2025: 12.03m



Increased profitability

Impact of margin improvements from manufacturing



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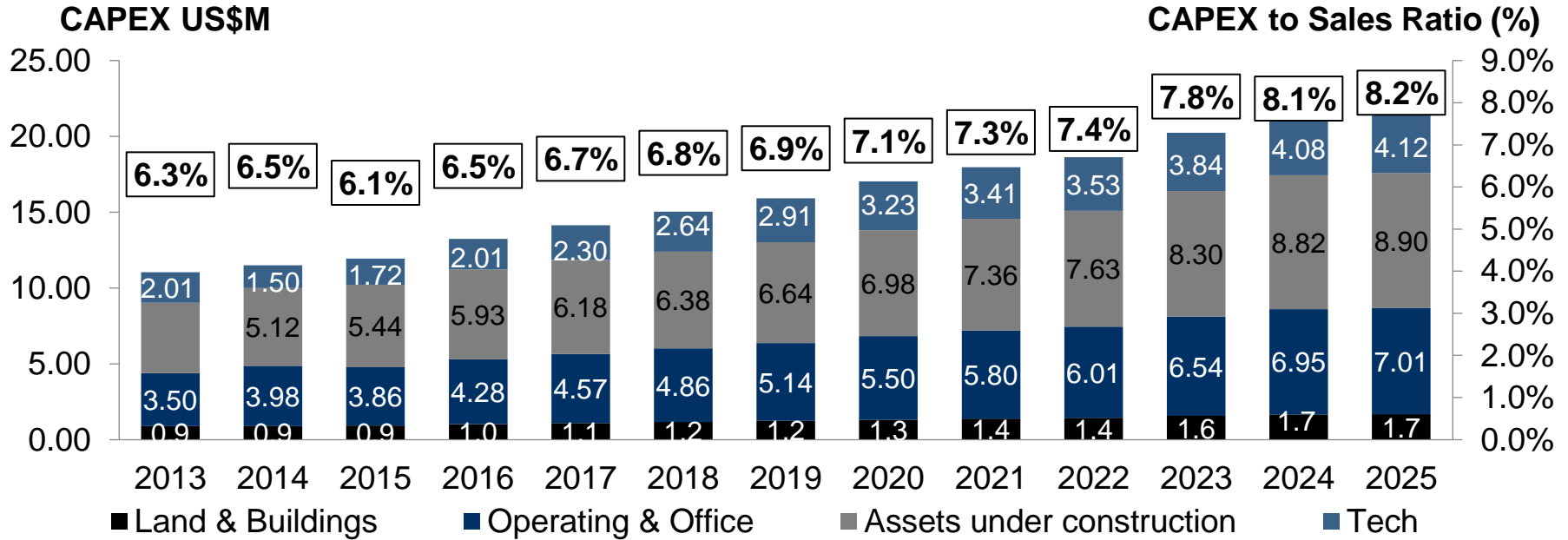
Modularity will reduce costs as product solutions become simpler across the group

Downsizing of ICEs and reduction of product life cycles reduce waste



Leadership in Innovation

Additional R&D CAPEX to accelerate into future technologies



Increased R&D CAPEX to improve operational efficiency and technological advancements



Connectivity



Digitalization

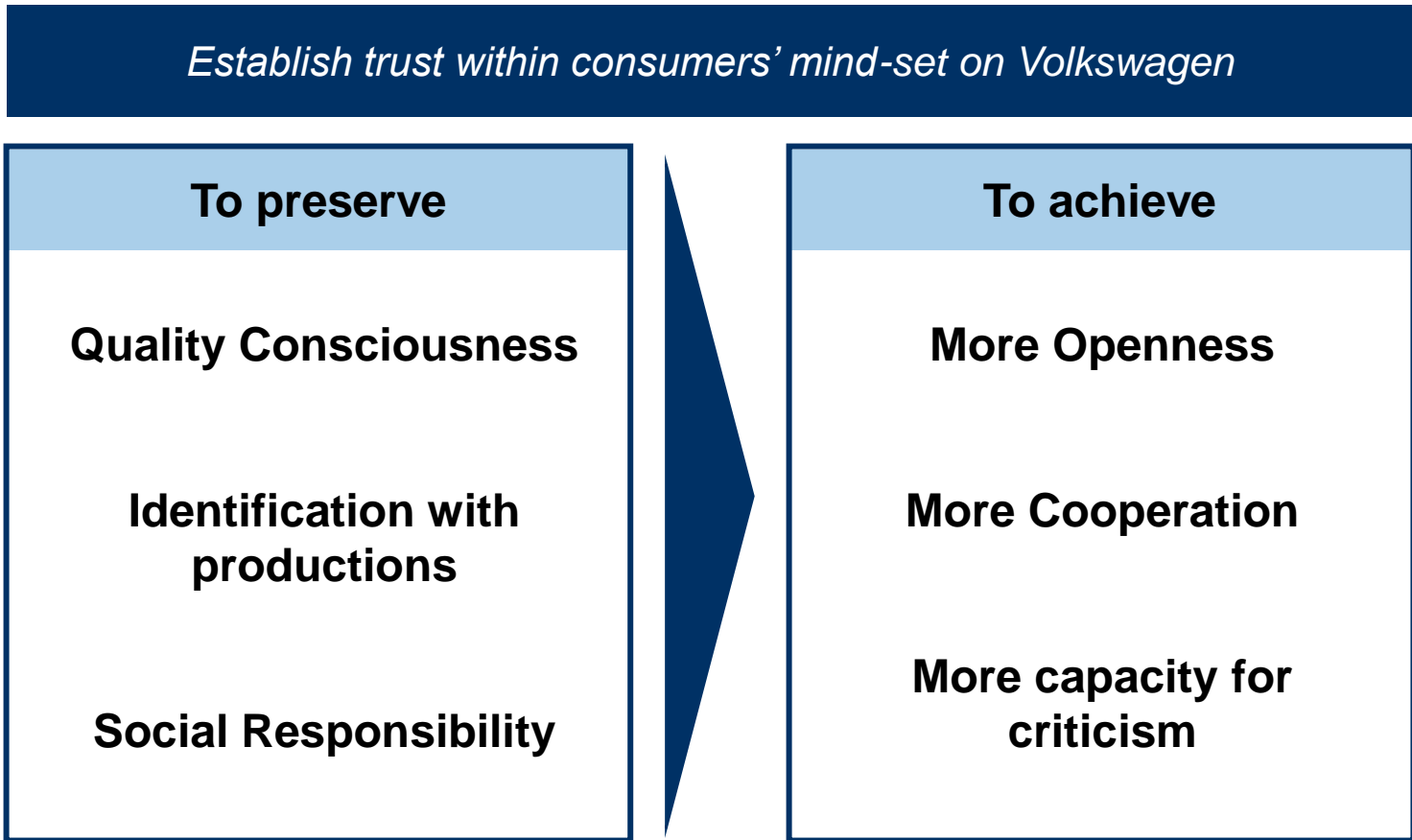


Automation



Trusted Brand

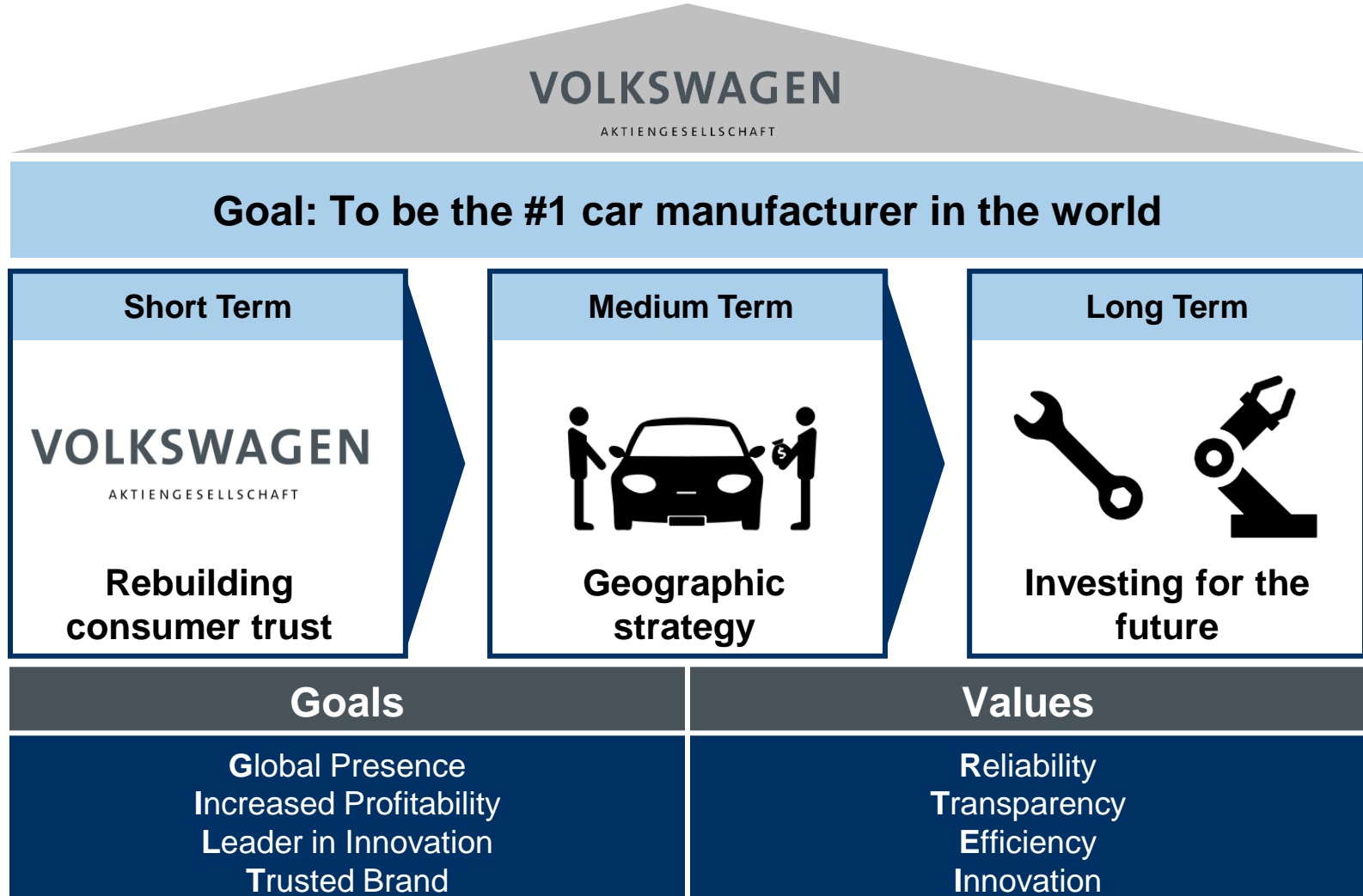
Regain the trust of consumers in the long run



Source: Argon analysis

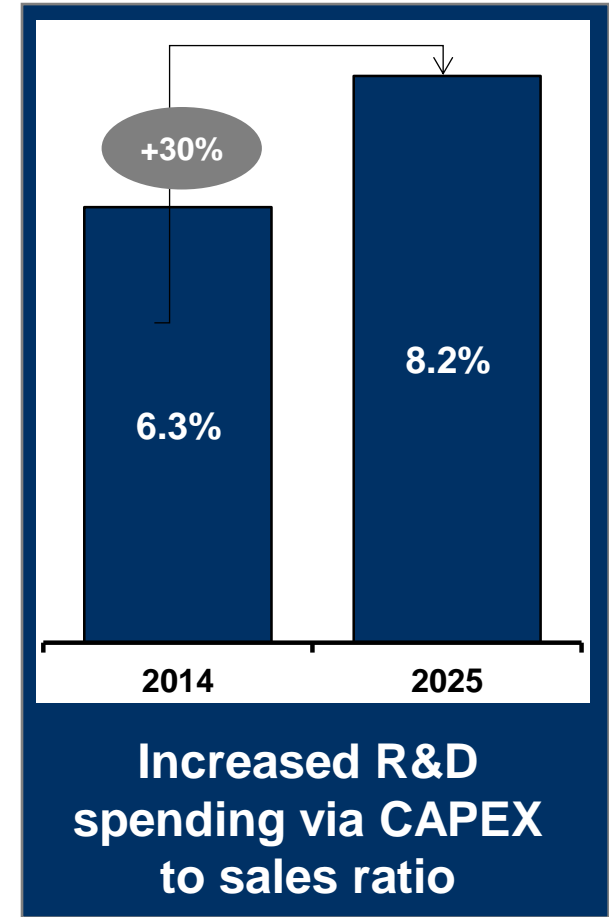
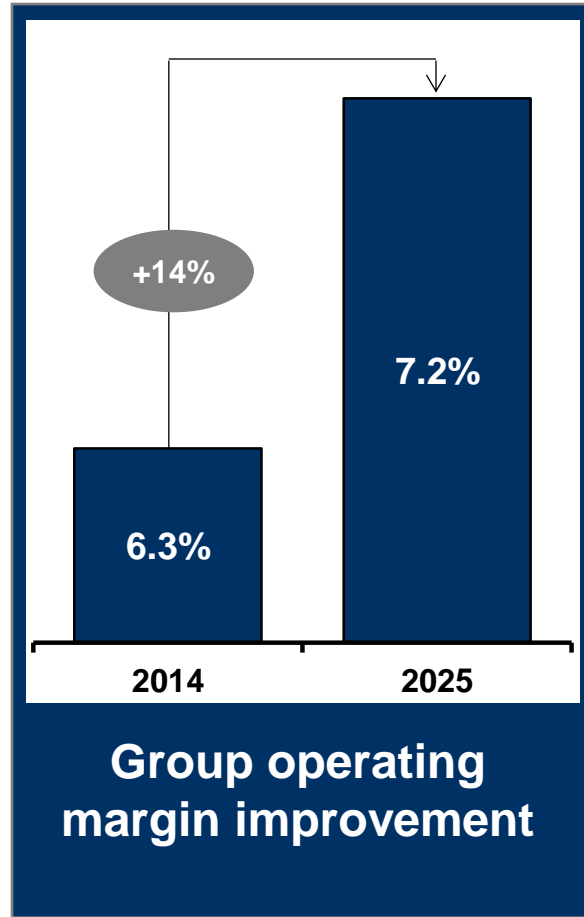
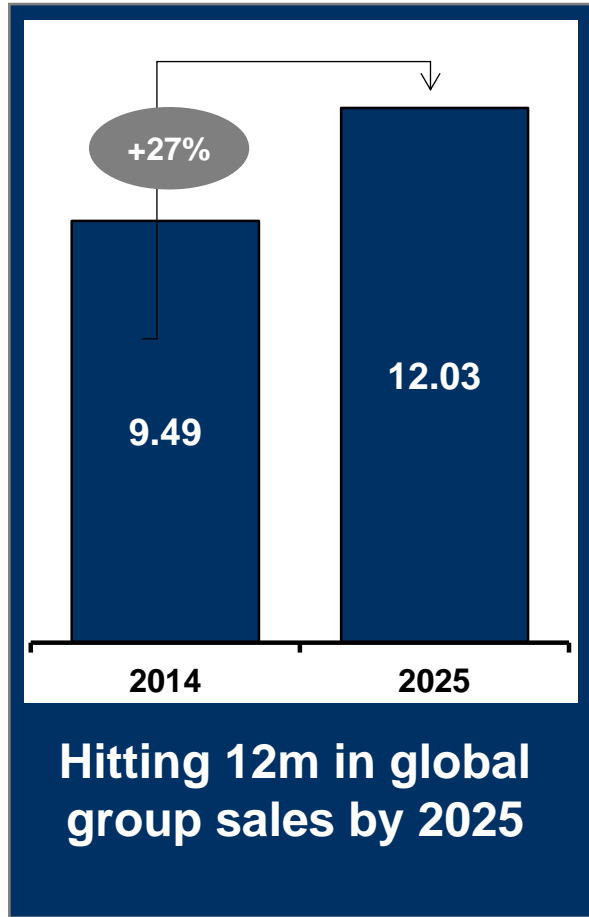
Strategy 2025

Positioning VW group for success



Measuring the success of Strategy 2025

VW AG will chart its success with 3 key metrics



Source: Argon estimates

Volkswagen 2025: Reliability | Transparency | Efficiency | Innovation

Side mirrors link up
for full view in
rearview mirror

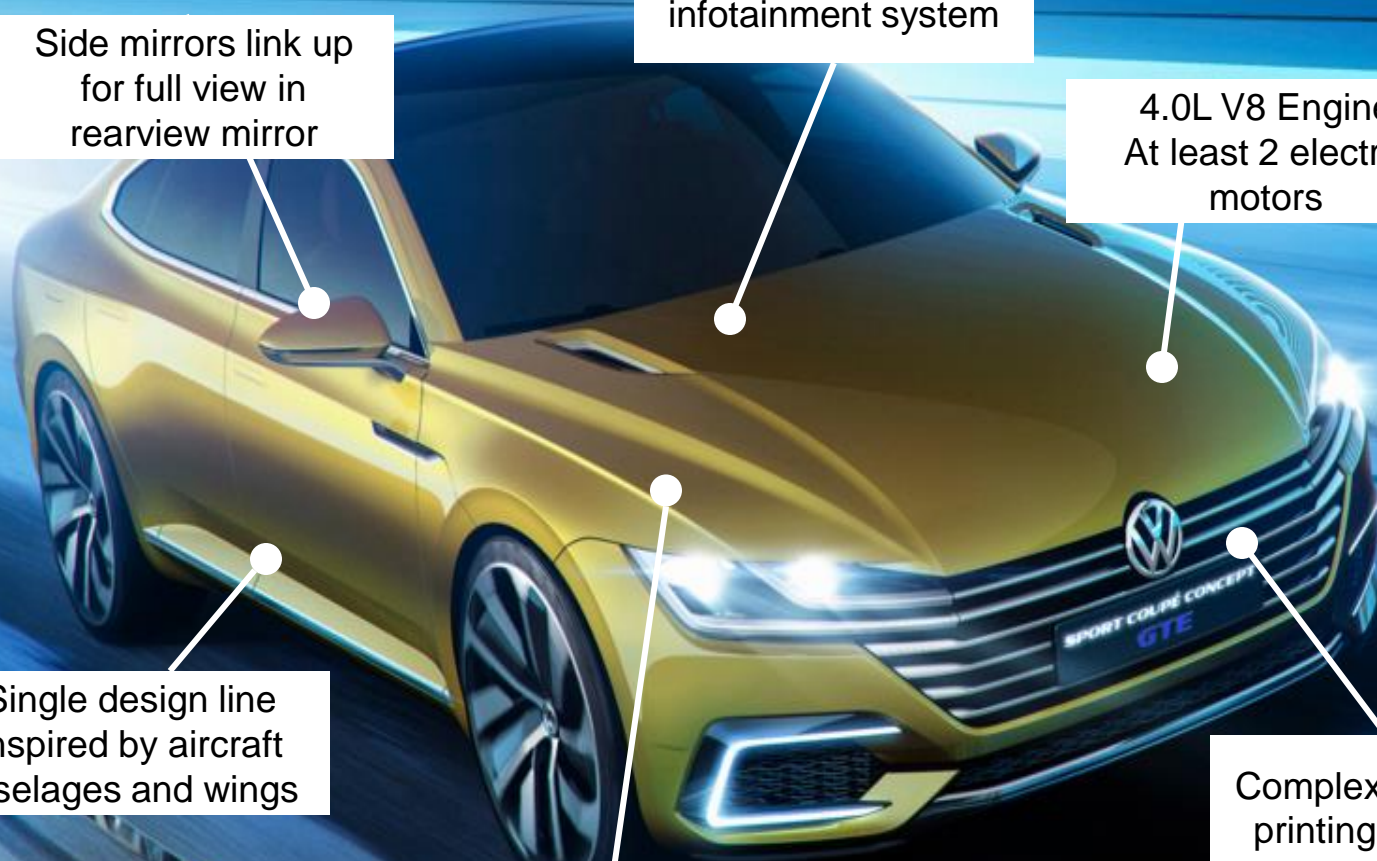
12 inch touch screen
infotainment system

4.0L V8 Engine
At least 2 electric
motors

Single design line
inspired by aircraft
fuselages and wings

Modular chassis
saves on costs

Complex grill with 3D
printing technology



End of Main Presentation Document

Back-Up Slides After This Page



in conjunction with

VOLKSWAGEN

AKTIENGESELLSCHAFT

Strategy 2018 in detail

Back-up slide

1

Volkswagen intends to deploy intelligent innovations and technologies to become a **world leader in customer satisfaction and quality.**

2

The goal is to **increase unit sales to more than 10 million vehicles a year;** in particular, Volkswagen intends to capture an **above-average share of growth in the major growth** markets.

Strategy 2025

3

Volkswagen's aim is a **sustainable return on sales before tax of at least 8%** so as to ensure that the Group's solid financial position and ability to act are guaranteed even in difficult market periods.

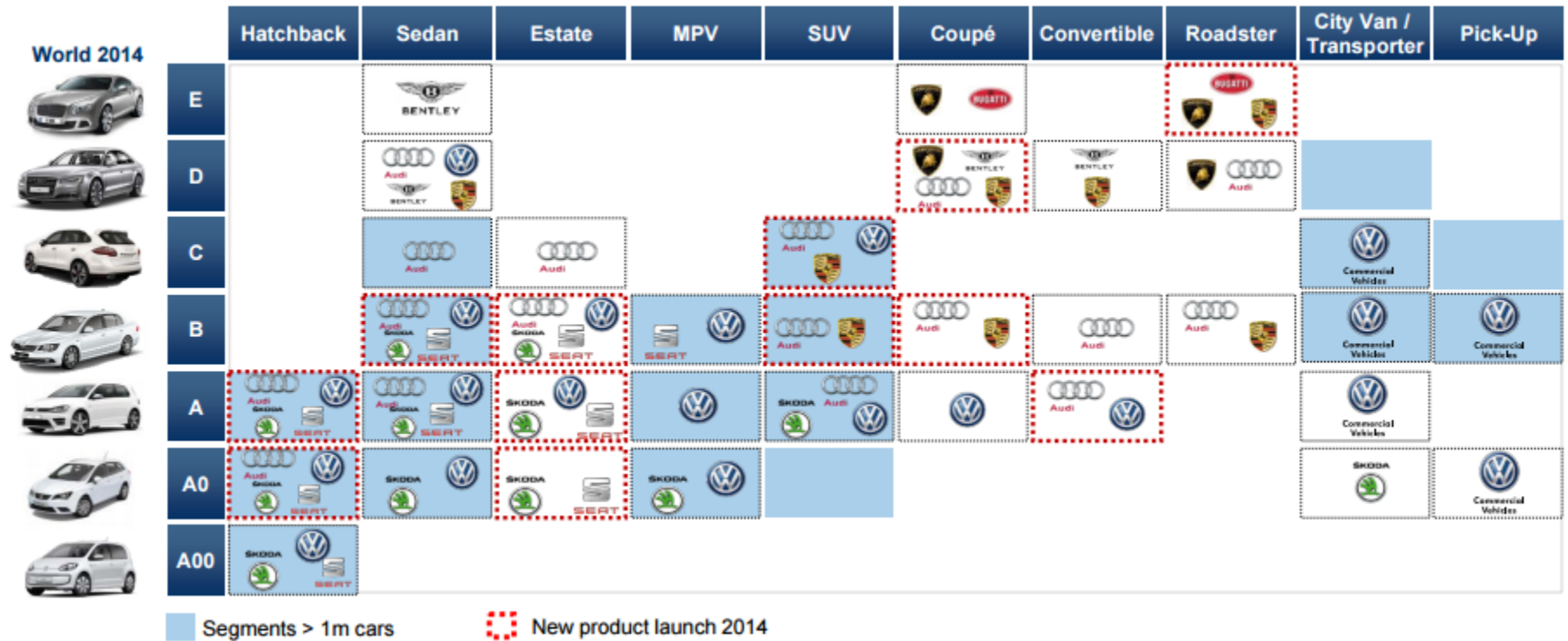
4

Volkswagen aims to become the **top employer** across all brands, in all companies and regions; this is necessary in order to build a first-class team.

VW Group portfolio – 2014

Back-up slide

DSGK-08-2106



Source: Company website

Business segments of VW AG

Back-up slide

2024-09-21

12 automotive brands

	 Audi	 SEAT
ŠKODA 	 BENTLEY	
	 PORSCHE	
 Commercial Vehicles	 SCANIA	

Financial services

VOLKSWAGEN FINANCIAL SERVICES

THE KEY TO MOBILITY

Top models (1)

Back-up slide

2017-05-2018



Jetta/Bora



Golf



Lavida/Sagitar



SEAT

Ibiza



Leon



Altea/Toledo



A4



A6



Q5



BENTLEY

Continental GT Coupé



Flying Spur



ŠKODA



Octavia



Fabia



Rapid



PORSCHE

Cayenne



911 Coupé/Cabriolet



Boxster/Cayman



Top models (2)

Back-up slide

1997-05-21/06



Commercial Vehicles

Caravelle/Multivan, Kombi

Saveiro

Amarok



AVENTADOR



SCANIA

Trucks

Buses



VEYRON



Trucks

Buses



R&D footprint of VW Group

Back-up slide

2017-05-21/06



c. 47,000 R&D employees worldwide

In 2014/15, focus on infotainment, driver assistance, lightweight materials, electric drivetrain




Future rollout plans

Back-up slide

2017-09-21/06

TIMELINE

2014		2015		2016	2017	2018
2ND HALF		1ST HALF	2ND HALF			
Volkswagen	e-Golf debut	Golf SportWagen debut Golf R debut Touareg freshen	Passat freshen	CC redesign (or early 2017) Tiguan redesign (or early 2017) Midsize SUV debut (or early 2017)	Jetta redesign Tourareg redesign	Passat redesign Phaeton debut (or 2019)
Audi	A3 convertible debut S3 debut Q3 debut	A3 e-tron debut	A4 redesign (or early 2016) A6 freshen A7 freshen TT redesign Q7 redesign	A4 e-tron debut A4 Avant debut A5 redesign R8 redesign Q1 debut (or early 2017) Q5 redesign	A5 sportback debut possible A8 redesign A8 e-tron debut Q3 redesign Q8 debut	A3 freshen
Porsche	911 GT3 RS debut possible Cayenne freshen	 2015 Porsche Cayenne	Boxster freshen 911 freshen Macan 4-cylinder debut Macan diesel debut	Entry-level roadster debut possible Boxster RS Spyder debut Cayman freshen Cayman GT4 debut Panamera redesign	911 plug-in hybrid debut possible Macan plug-in hybrid debut possible Cayenne redesign 960/988 debut possible	



2015 Porsche Cayenne



Source: Press search

Metrics of Strategy 2018

Back-up slide

Measure	Target	2007	2008	2009	2010	2011	2012	2013	2014	
VW Group Sales (thousands of units)	Over 10,000	6,200	6,300	6,300	7,200	8,270	9,300	9,700	10,200	✓
VW Group profit (return on sales) before tax	Over 8.0%	6.0%	5.8%	1.2%	7.1%	11.9%	13.2%	6.3%	7.3%	✗
Automotive Division CAPEX to sales ratio	6.00%	4.6%	6.6%	6.2%	5.0%	5.6%	5.9%	6.3%	6.5%	✓
Automotive Division return on investment	Over 16%	9.5%	10.9%	3.8%	13.5%	17.7%	16.6%	14.5%	14.9%	✗
VW Group fleet CO ₂ emissions (EU 27)	Less than 120g/km	164	159	151	144	137	135	129	126	✗

US emissions standards

Back-up slide

2024-09-20

	Standard	Emission Limits at 50,000 miles					Emission Limits at Full Useful Life (120,000 miles) ²				
		NOx (g/mi)	NMOG (g/mi)	CO (g/mi)	PM (g/mi)	HCHO (g/mi)	NOx (g/mi)	NMOG (g/mi)	CO (g/mi)	PM (g/mi)	HCHO (g/mi)
Federal	Bin 1	-	-	-	-	-	0	0	0	0	0
	Bin 2	-	-	-	-	-	0.02	0.01	2.1	0.01	0.004
	Bin 3	-	-	-	-	-	0.03	0.055	2.1	0.01	0.011
	Bin 4	-	-	-	-	-	0.04	0.07	2.1	0.01	0.011
	Bin 5	0.05	0.075	3.4	-	0.015	0.07	0.09	4.2	0.01	0.018
	Bin 6	0.08	0.075	3.4	-	0.015	0.1	0.09	4.2	0.01	0.018
	Bin 7	0.11	0.075	3.4	-	0.015	0.15	0.09	4.2	0.02	0.018
	Bin 8	0.14	0.100 / 0.125 ^c	3.4	-	0.015	0.2	0.125 / 0.156	4.2	0.02	0.018
	Bin 9 ^b	0.2	0.075 / 0.140	3.4	-	0.015	0.3	0.090 / 0.180	4.2	0.06	0.018
	Bin 10 ^b	0.4	0.125 / 0.160	3.4 / 4.4	-	0.015 / 0.018	0.6	0.156 / 0.230	4.2 / 6.4	0.08	0.018 / 0.027
	Bin 11 ^b	0.6	0.195	5	-	0.022	0.9	0.28	7.3	0.12	0.032

EU emissions standards

Back-up slide

DSGX-03-2106

Stage	Date	CO	HC	HC+NOx	NOx	PM	PN
		g/km					#/km
Compression Ignition (Diesel)							
Euro 1†	1992.07	2.72 (3.16)	-	0.97 (1.13)	-	0.14 (0.18)	-
Euro 2, IDI	1996.01	1.0	-	0.7	-	0.08	-
Euro 2, DI	1996.01 ^a	1.0	-	0.9	-	0.10	-
Euro 3	2000.01	0.64	-	0.56	0.50	0.05	-
Euro 4	2005.01	0.50	-	0.30	0.25	0.025	-
Euro 5a	2009.09 ^b	0.50	-	0.23	0.18	0.005 ^f	-
Euro 5b	2011.09 ^c	0.50	-	0.23	0.18	0.005 ^f	6.0×10 ¹¹
Euro 6	2014.09	0.50	-	0.17	0.08	0.005 ^f	6.0×10 ¹¹
Positive Ignition (Gasoline)							
Euro 1†	1992.07	2.72 (3.16)	-	0.97 (1.13)	-	-	-
Euro 2	1996.01	2.2	-	0.5	-	-	-
Euro 3	2000.01	2.30	0.20	-	0.15	-	-
Euro 4	2005.01	1.0	0.10	-	0.08	-	-
Euro 5	2009.09 ^b	1.0	0.10 ^d	-	0.06	0.005 ^{e,f}	-
Euro 6	2014.09	1.0	0.10 ^d	-	0.06	0.005 ^{e,f}	6.0×10 ¹¹ e,g

China emissions standards – Gasoline

Back-up slide

DSGX-03-2106

Table 1
Emission Standards for Vehicles with Positive Ignition Engines

Stage	Category	Class	CO	HC	NMHC	NOx	PM	PN
			g/km					
China 3	Type 1		2.30	0.20	-	0.15	-	
	Type 2	I	2.30	0.20	-	0.15	-	
		II	4.17	0.25	-	0.18	-	
		III	5.22	0.29	-	0.21	-	
China 4	Type 1		1.00	0.10	-	0.08	-	
	Type 2	I	1.00	0.10	-	0.08	-	
		II	1.81	0.13	-	0.10	-	
		III	2.27	0.16	-	0.11	-	
China 5	Type 1		1.00	0.100	0.068	0.060	0.0045 ^a	
	Type 2	I	1.00	0.100	0.068	0.060	0.0045 ^a	
		II	1.81	0.13	0.068	0.075	0.0045 ^a	
		III	2.27	0.16	0.068	0.082	0.0045 ^a	

a - applies only to direct injection positive ignition engines



China emissions standards – Diesel

Back-up slide

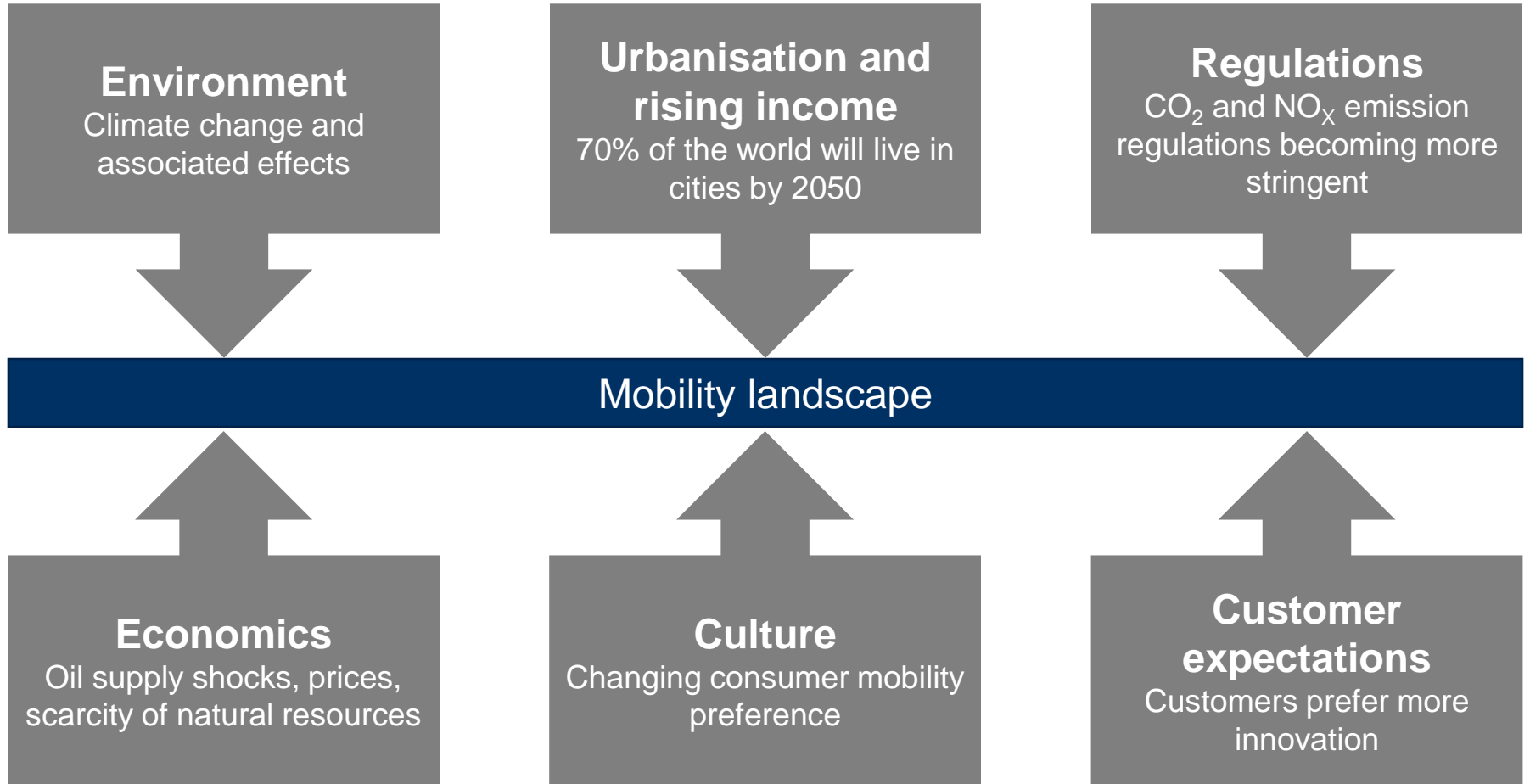
2007-09-21/06

Table 3
Emission Standards for Vehicles with Compression Ignition Engines

Stage	Category	Class	CO	HC+NOx	NOx	PM	PN
			g/km				
China 3	Type 1		0.64	0.56	0.50	0.050	
	Type 2	I	0.64	0.56	0.50	0.050	
		II	0.80	0.72	0.65	0.070	
		III	0.95	0.86	0.78	0.100	
China 4	Type 1		0.50	0.30	0.25	0.025	
	Type 2	I	0.50	0.30	0.25	0.025	
		II	0.63	0.39	0.33	0.040	
		III	0.74	0.46	0.39	0.060	
China 5	Type 1		0.50	0.230	0.180	0.0045	6×10^{11}
	Type 2	I	0.50	0.230	0.180	0.0045	6×10^{11}
		II	0.63	0.295	0.235	0.0045	6×10^{11}
		III	0.74	0.350	0.280	0.0045	6×10^{11}

Environmental factors shifting

6 global trends are shaping the future of mobility



Source: Volkswagen, BMW, BCG, Argon analysis

Alternative fuel vehicles: pros and cons (1)

Hybrids

(+)	(-)
-----	-----

- | | |
|---|--|
| <ul style="list-style-type: none"> • Potential for excellent fuel economy • Run on existing gasoline supplies • Drive like regular cars, requiring no change in lifestyle habits | <ul style="list-style-type: none"> • Cost • Less savings than expected |
|---|--|

Plug-in Hybrids

(+)	(-)
-----	-----

- | | |
|--|--|
| <ul style="list-style-type: none"> • Home recharging infrastructure is available • Gas engine can extend range for long trips • Cheaper cost per mile • No vehicle emissions when running in electric mode | <ul style="list-style-type: none"> • Daytime recharging could strain electric grid • Gas-mileage benefits are highly dependent on driving habits and frequently overstated |
|--|--|

Battery Electric Vehicles (BEV)

(+)	(-)
-----	-----

- | | |
|---|---|
| <ul style="list-style-type: none"> • Quiet running • Instant torque from electric motor • No emissions from the car • Low cost per mile is a fraction of that for a gasoline-powered car • Widespread electric infrastructure • Renewable electricity sources may be used | <ul style="list-style-type: none"> • Long recharging times • Limited range • Expensive batteries • Electricity production in much of the country uses coal • High-voltage home chargers can be expensive • Public chargers scarce |
|---|---|

Diesel

(+)	(-)
-----	-----

- | | |
|--|--|
| <ul style="list-style-type: none"> • Thirty-percent better fuel economy than an equivalent gasoline vehicle • Widely available • Lower cost premium than for hybrid vehicles • High torque for given displacement • Diesel car can run on a blend of renewable biodiesel fuel | <ul style="list-style-type: none"> • More engine noise and vibration. • Additional emissions equipment drives up vehicle prices • Higher cost of diesel fuel • Most clean diesels require refills of urea solution • Manufacturers won't warranty biodiesel blends of more than 5 percent biodiesel |
|--|--|



Alternative fuel vehicles: pros and cons (2)

Biodiesel

(+)

- Renewable
- Fairly widely available
- Older diesel cars can seamlessly burn biodiesel or diesel
- Used vegetable oil can sometimes be free.

(-)

- Using vegetable oil requires a costly conversion
- Quality of biodiesel varies widely
- Biodiesel costs more than petroleum diesel.
- So far, supply issues have prevented biodiesel supply from becoming widespread.

Ethanol

(+)

- Reduces demand for foreign oil
- Low emissions, high octane, and can be produced from waste materials
- Existing cars can use 10-percent blends (called E10), and more than 8 million cars already on the road can use E85

(-)

- 25% lower fuel economy on E85 than gasoline
- Less than 1 percent of U.S. gas stations carry E85
- Ethanol made from any food crop can adversely affect food prices.

Compressed Natural Gas

(+)

- Costs much less than gasoline, burns much cleaner, and provides comparable power
- It is an abundant natural resource in the United States.

(-)

- Huge gas tanks reduce trunk space and carry the equivalent of only a few gallons of gasoline
- CNG provides limited range
- Few places for consumers to refuel in most of the country
- Refuelling is relatively slow

Hydrogen Fuel Cells

(+)

- No vehicle emissions other than water vapor
- Fuel economy equivalent to about twice that of gasoline vehicles
- Hydrogen is abundant, and can be made from renewable energy

(-)

- Expensive
- Requires extremely-high-pressure, on-board hydrogen storage
- Few places to refuel
- Hydrogen is very expensive to transport and there is no infrastructure in place yet
- Currently made from non-renewable natural gas in a process that creates enormous CO2 emissions.

Why is after-sales service not a priority lever?

1

Not a lever to profit in the short term given the established global dealership / parts supply network

2

High competition in fragmented market with independent retail shops with limited profit upside

3

Will become a **priority in mid to long term** when refitting cars with improved connective mobility software or other telemetrics

After-sales service market trends

Back-up slide

19.07.2016

Trends in after sales market		
<h3>Increasing competition</h3> <ul style="list-style-type: none"> Aggressive growth of independent fast fitters New players offering "low price parts" Internet as a sales channel will gain higher importance Growth of OES workshops Second brand workshops by OEM 	<h3>European law & regulations</h3> <ul style="list-style-type: none"> CO₂ emission standards Repair clause Block exemption 	<h3>Customer requirements</h3> <ul style="list-style-type: none"> Differentiation of customer segments with specific requirements Increasing demand of fleet and company cars Increasing product complexity
    	 <h3>New cooperation models</h3> <ul style="list-style-type: none"> Automobile associations Insurance preference for repairers  <h3>Structural changes</h3> <ul style="list-style-type: none"> Stagnating new car sales volumes in triad markets More and more cars in later lifecycles 	  

Volkswagen Group after-sales services provided

Back-up slide

Maintenance / servicing

- Service
- Air conditioning refresh
- Battery replacement
- Brake fluid change
- Brake pads and discs
- Bulb replacement
- Cambelt change
- Constant velocity boot replacement
- Four-wheel alignment
- Petrol engine spark plug replacement
- Shock absorber replacement
- Tyre replacement
- Wiper blade replacement
- LTA pre-check
- Pre-travel inspection

Parts replacement

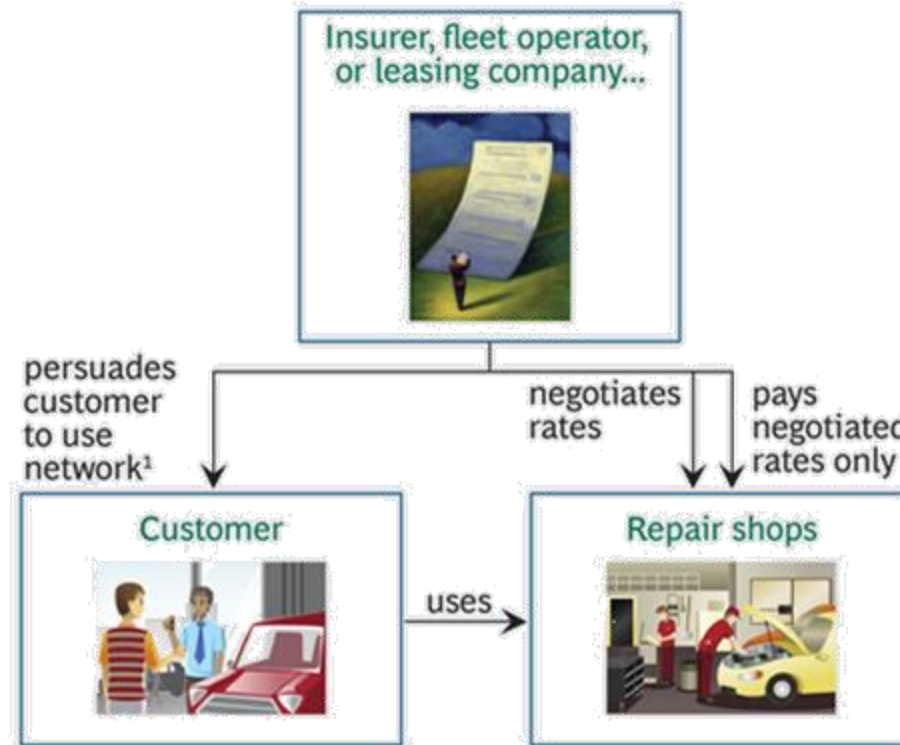
- Genuine parts and accessories
- Genuine exchange parts
- Genuine accessories and merchandise

Assistance

- Warranty
- 24-hour roadside assistance
- Dialogue Reception



How non-traditional players win in the after-sales service network



Difficult for VW to break into market immediately – need to establish sustained competitive advantage vs. non-traditional players



How can VW win in the after-sales service market?

1

Craft new service offerings for older cars

2

Package financing options and after-sales service support to increase cross-selling

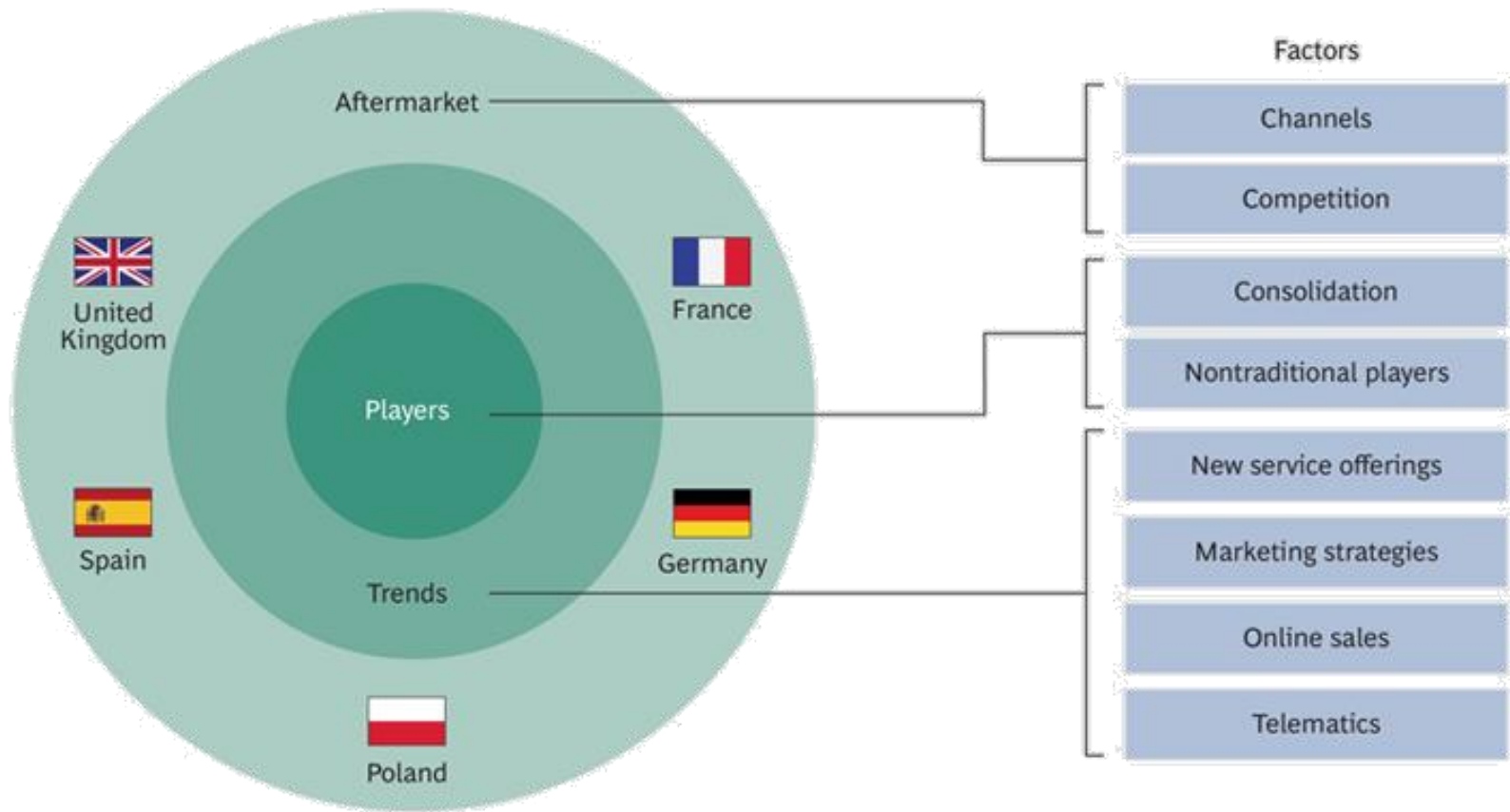
3

Leverage on ability to provide proprietary technology upgrades available in future that is not available to non-traditional players

Factors influencing after-sales service markets in Europe

Back-up slide

2017-05-21/06



Case study: Car manufacturers cutting costs aggressively

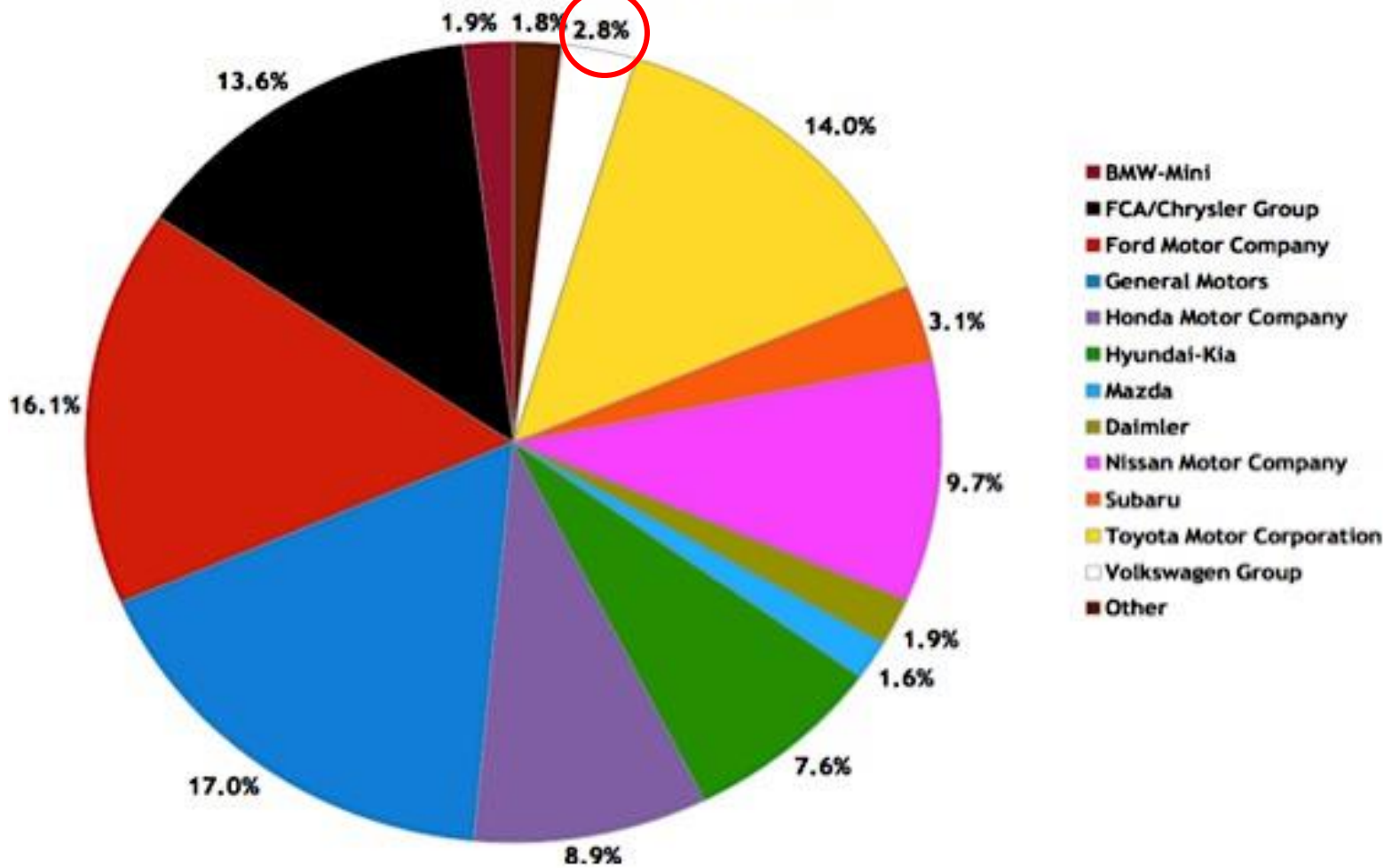
OEM	Scope and impact
VW	<ul style="list-style-type: none"> > Reduce cost by ~EUR 7 bn, of which 5 bn in Volkswagen brand until 2018 > 1/3 by fixed cost reduction, 1/4 by sales and ~1/4 by R&D, and others > Fewer models and additional product offers
BMW	<ul style="list-style-type: none"> > Reduce costs by several hundred million euros annually until 2020 > Reduce R&D budgets, flexibilize production > Particular focus on Mini and 1 series
Daimler	<ul style="list-style-type: none"> > Realign global production to reduce operating costs by 5-6% annually (in addition to already existing cost saving programs) > Increased standardization, job shifts, reduced vertical integration and investment
PSA	<ul style="list-style-type: none"> > "Back in the race" turnaround plan, targeting lower production cost by EUR 1,100 per vehicle by 2018 – additional measures already announced > Comprehensive set of measures, including reduced number of models, upgraded auto plants, boosted market share in growing markets, reduced jobs and lowered labor costs
Renault-Nissan	<ul style="list-style-type: none"> > Raised the goal for combined alliance savings by 7.5 percent, accelerating cooperation efforts (save "at least" USD 5.8 bn by 2016) > Stepped up joint projects in development, manufacturing, purchasing and human resources

Diesel vs Gasoline powered combustion engines

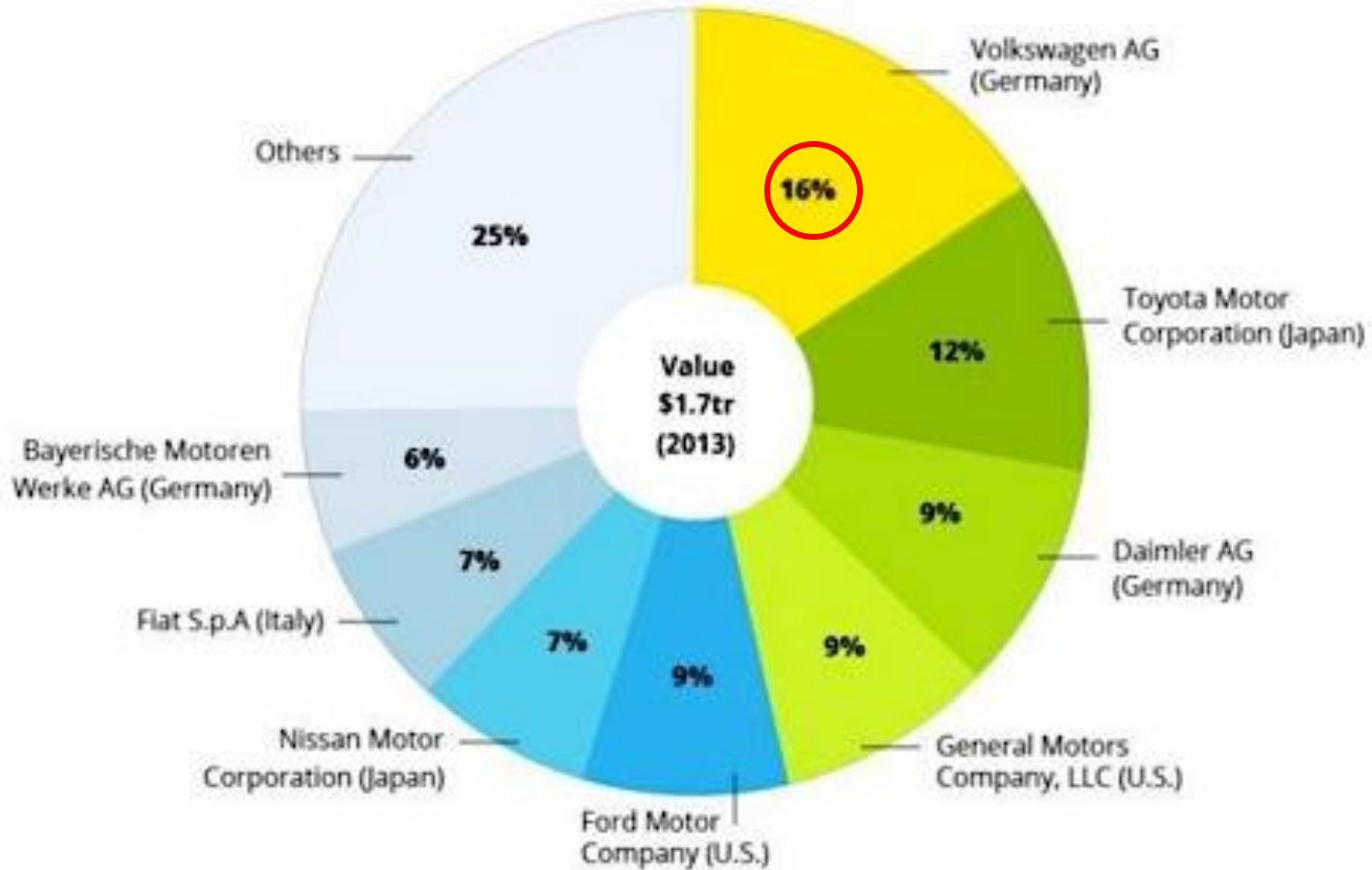
	Diesel	Gasoline
Cost	More expensive, costs about \$700 more than the same model that runs on Gasoline	More affordable
Mileage	Better mileage due to fuel economy, a gallon of diesel has 30% more energy than a gallon of gas	Lower mileage
Performance	More torque which allows for terrific acceleration	More powerful due to greater horsepower
Environmental Friendliness	Lower carbon dioxide emissions	Less environmentally friendly

Market Share of Automakers (US)

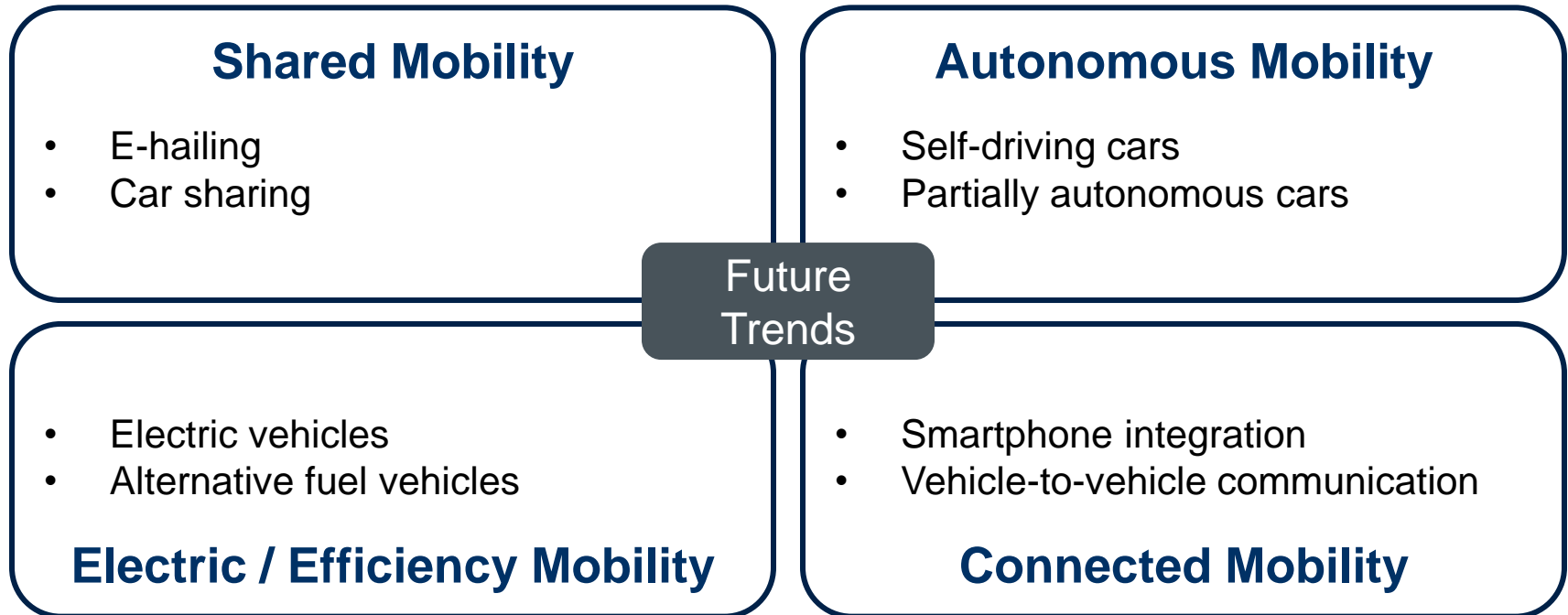
Auto Manufacturer Market Share In America
February 2016



Market Share of Automakers (China)



Overview of 4 technological trends driving disruption in the car industry



Tech highlights – Shared mobility

Back-up slide

prime-research.com

Uber | The new game changer paving the way for shared mobility

PRIME RESEARCH

Uber even announced to develop self-driving cars.

UBER-Facts:

- ▶ Worth 62.5b USD
- ▶ 1/10 of Apple's value
- ▶ Active in > 50 countries; 400 cities
- ▶ China: \emptyset > 1m rides daily
- ▶ 2015: > 10b USD in global bookings

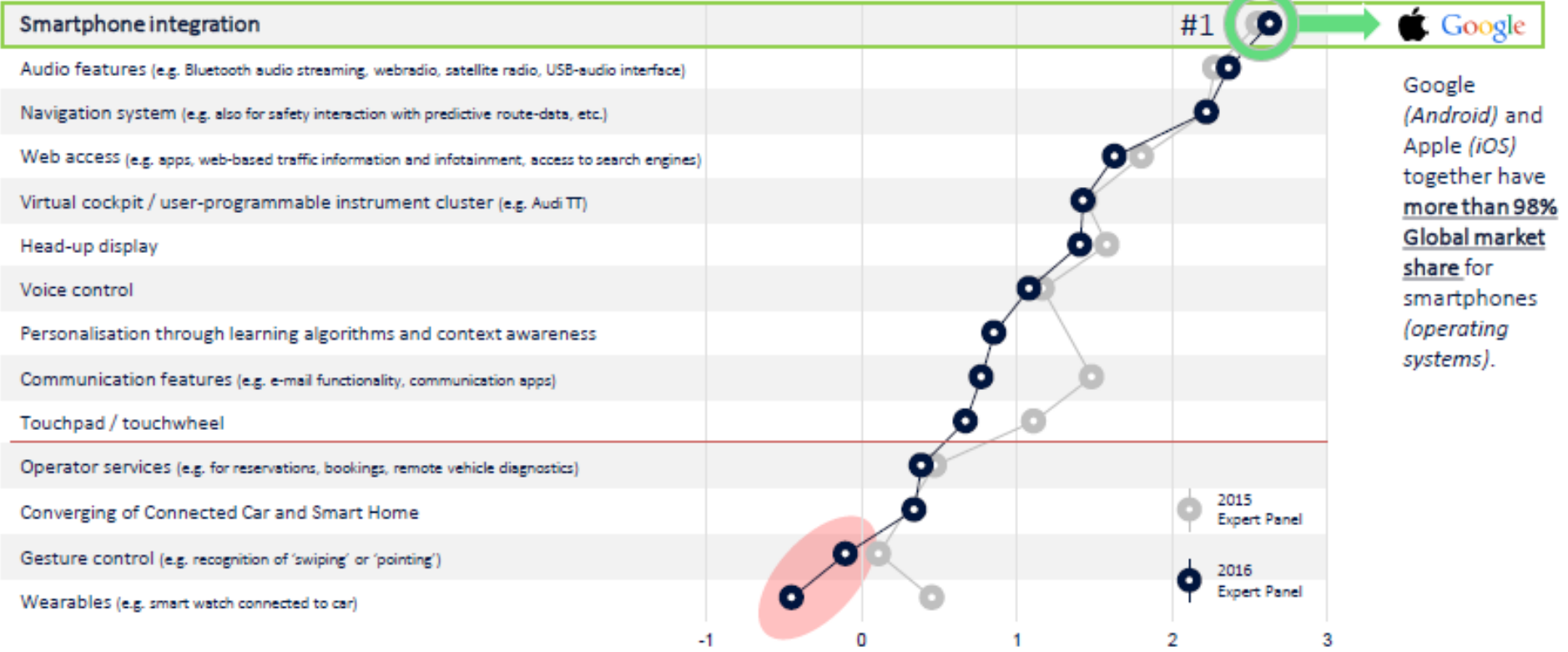


New competition:

Uber competitors Lyft (United States), Didi Kuaidi (China), Ola Cabs (India), and GrabTaxi (South-East Asia) (all of which have Softbank as an investor) announce a global technology and service alliance. With the exception of Lyft (which is the runner-up to Uber in the United States), all the other companies in the partnership are market leaders in their respective regions of focus.

Tech highlights – Connected mobility

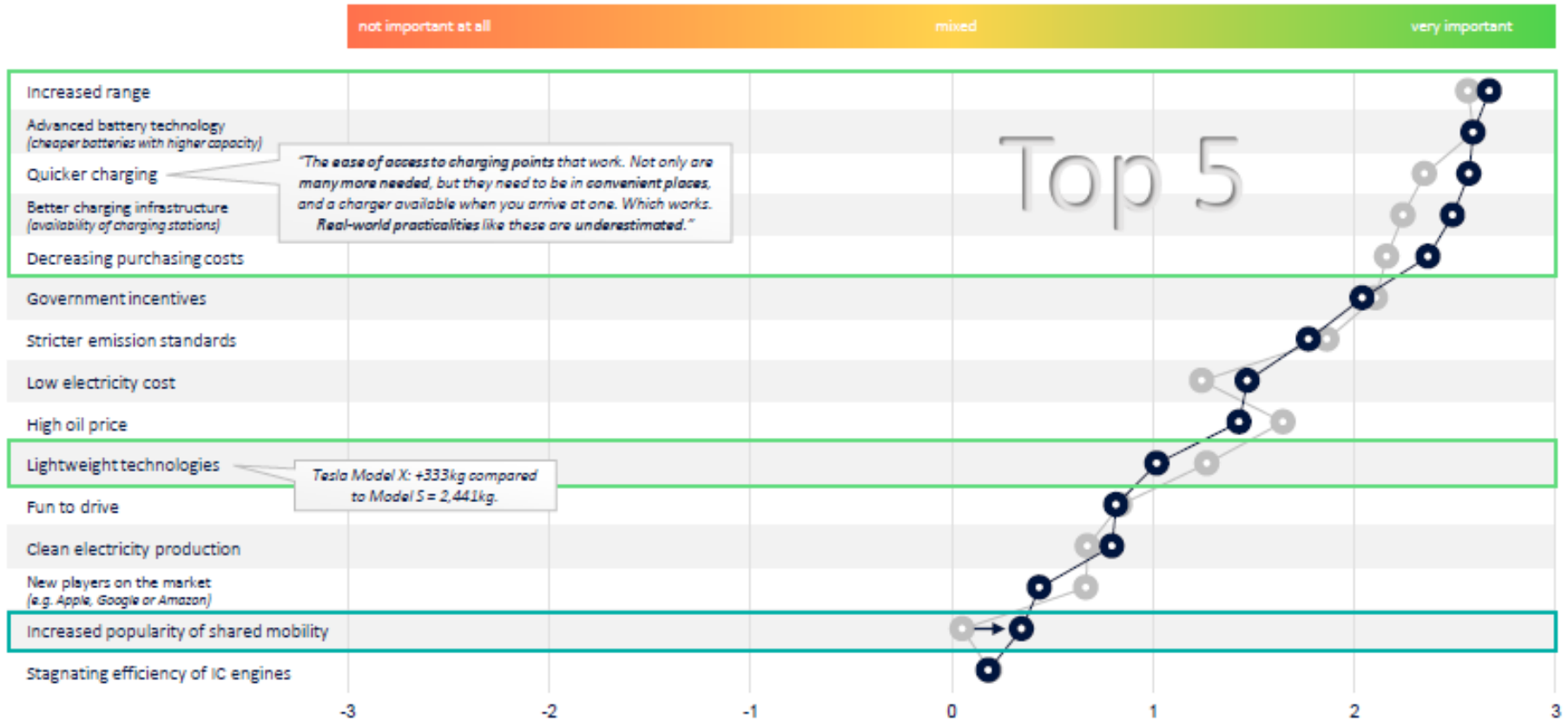
mixed important very important



Google (Android) and Apple (iOS) together have more than 98% Global market share for smartphones (operating systems).



Tech highlights – Electric / Efficient mobility

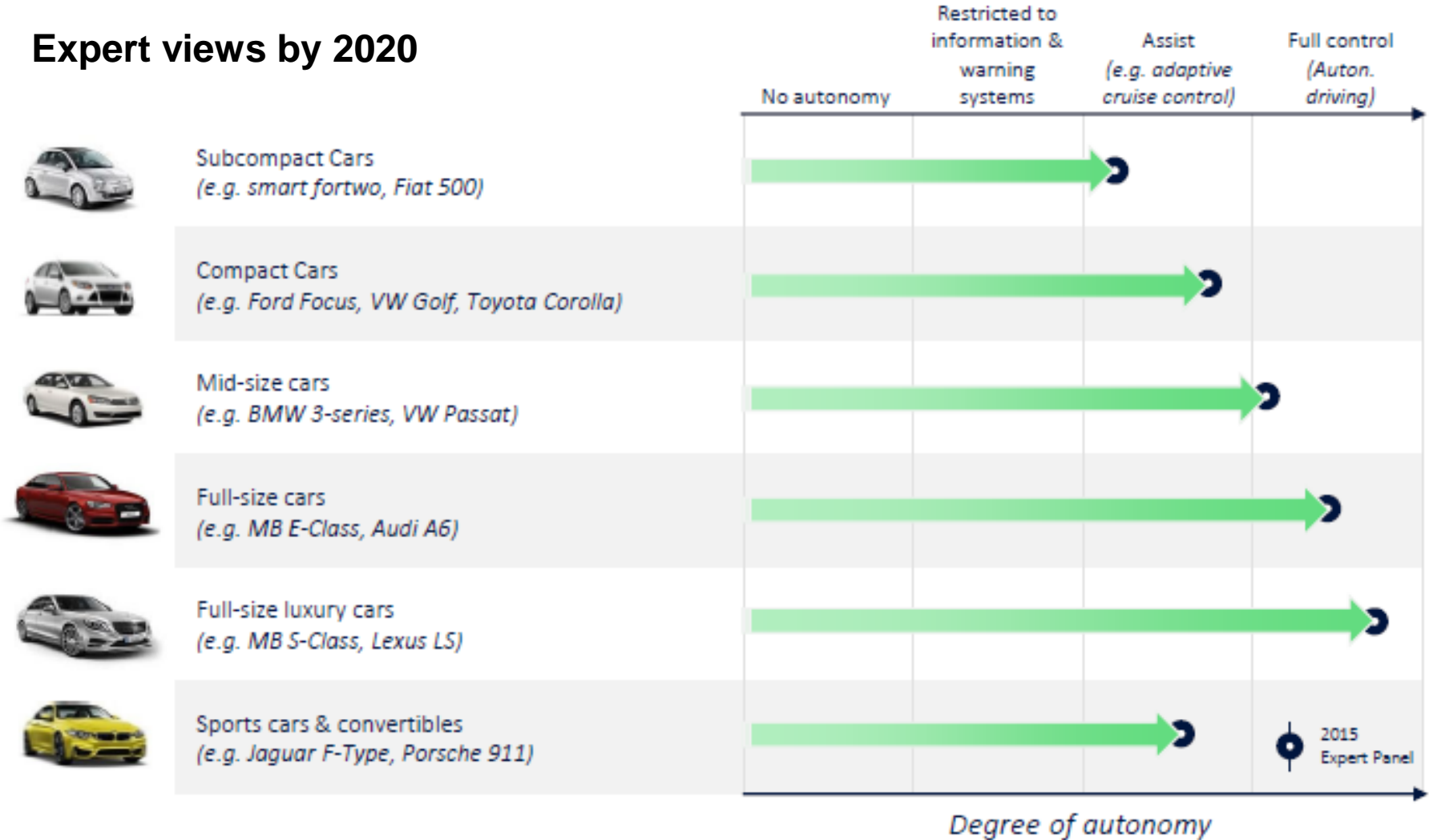


Tech highlights – Autonomous mobility

Back-up slide

2017-05-21/06

Expert views by 2020



5 levers to industry success: best practices



VOLKSWAGEN
AKTIENGESELLSCHAFT



R&D

Sourcing /
Manufacturing

Branding /
marketing

Sales /
distribution

After-sales
services

- Innovative new functions

- Localised manufacturing
- Automated manufacturing

- Strong, differentiated brand

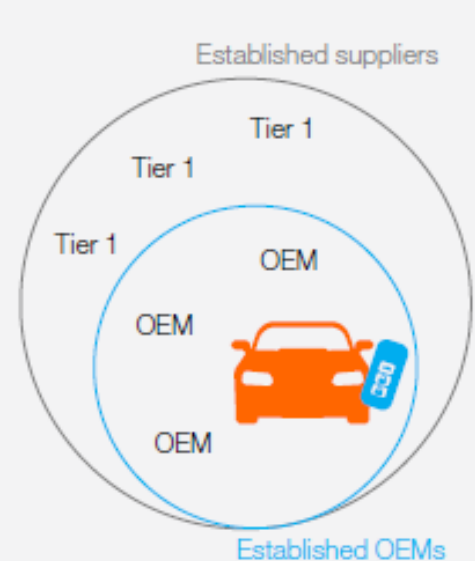
- Reach and quality of distribution network

- Engaged customers
- Loyalty program

Changing competitive landscape of the mobility industry

Increasing complexity of the competitive landscape for individual mobility will force OEMs to compete on multiple fronts

Past:
OEMs compete with one another

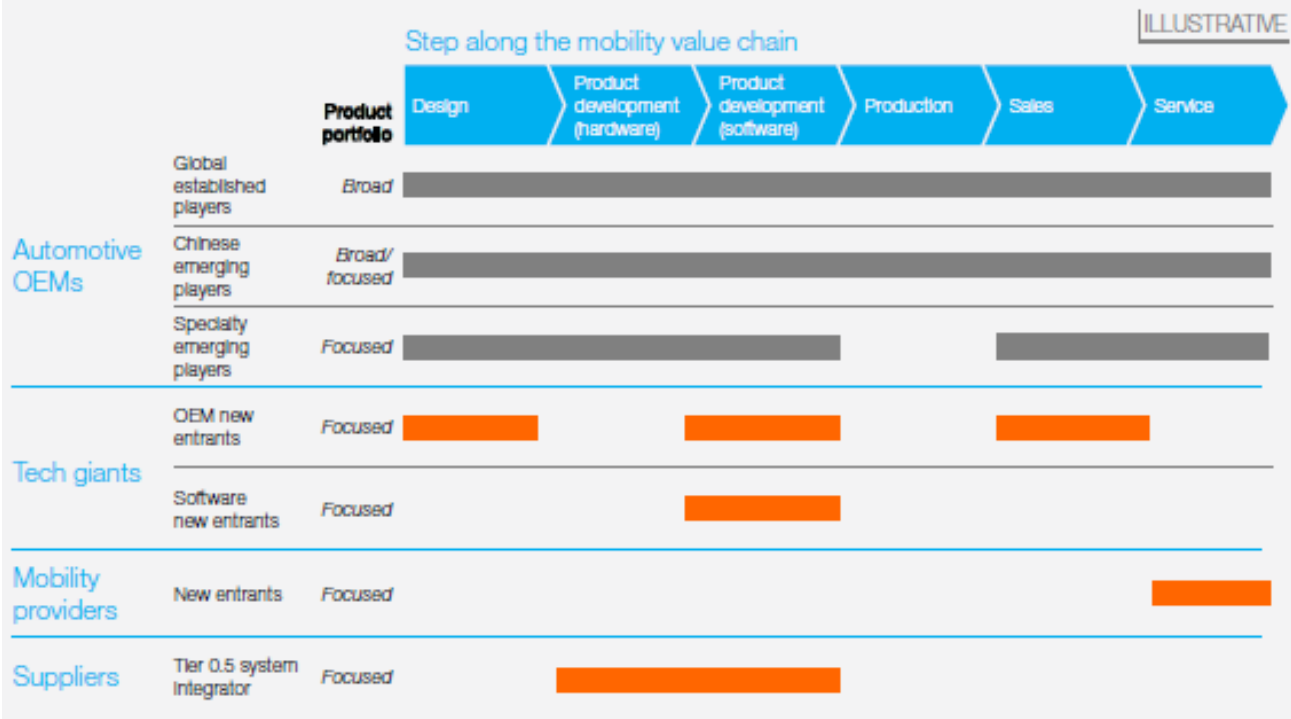


2030:
OEMs compete in a complex market landscape



How the value chains of traditional and new mobility players differ

New entrants are more focused in their product portfolio and activities along the value chain, increasing the competitive pressure on established OEMs



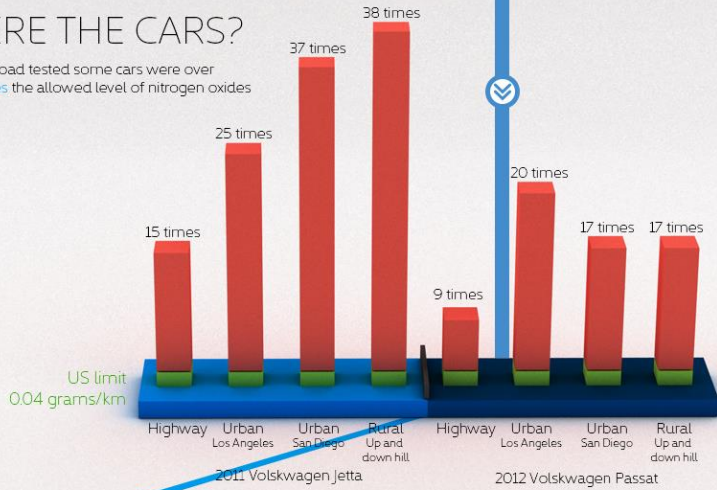
Can partner with players to share competencies



Cars affected

HOW FAR OVER THE LIMIT WERE THE CARS?

When road tested some cars were over **40 times** the allowed level of nitrogen oxides



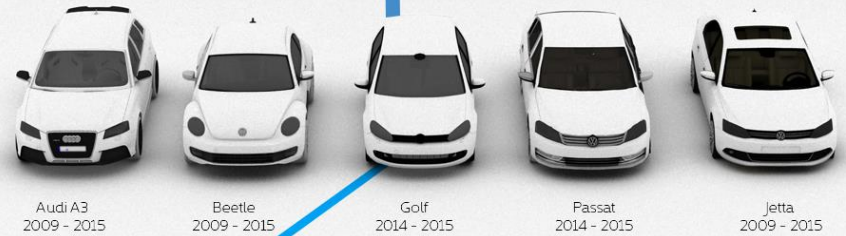
HOW MANY CARS WERE AFFECTED?

Approximately **11 Million** cars have been fitted with the software
(approximately 11% of all cars in the world).

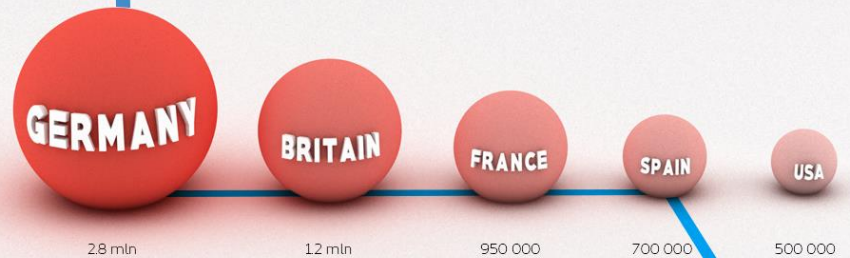


CARS KNOWN TO HAVE DEFEAT SOFTWARE INSTALLED

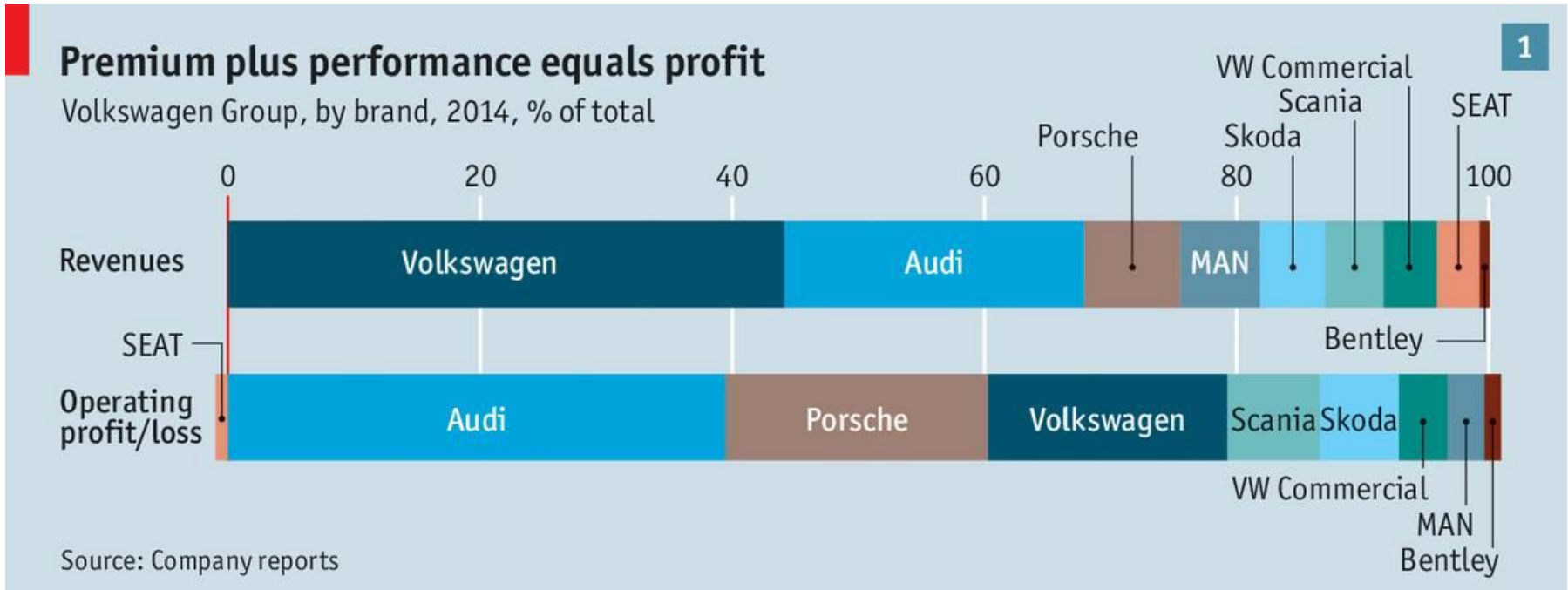
The list of affected cars keeps growing but here are some models most likely to have been affected.



AFFECTED VEHICLES SOLD BY COUNTRY



Revenue and operating profits by brand



Economist.com



How automotive players should align their strategic priorities

Prepare for uncertainty

- Pay close attention to the changing demographics in key markets
- Sophisticated level of scenario planning and agility is required to identify and scale new, attractive business models

Leverage partnerships

- Collaborative efforts beyond the industry
- Need to maintain control over their individual value creation

Shaping the industry's revolution

- Adapt their organizations to facilitate greater internal collaboration

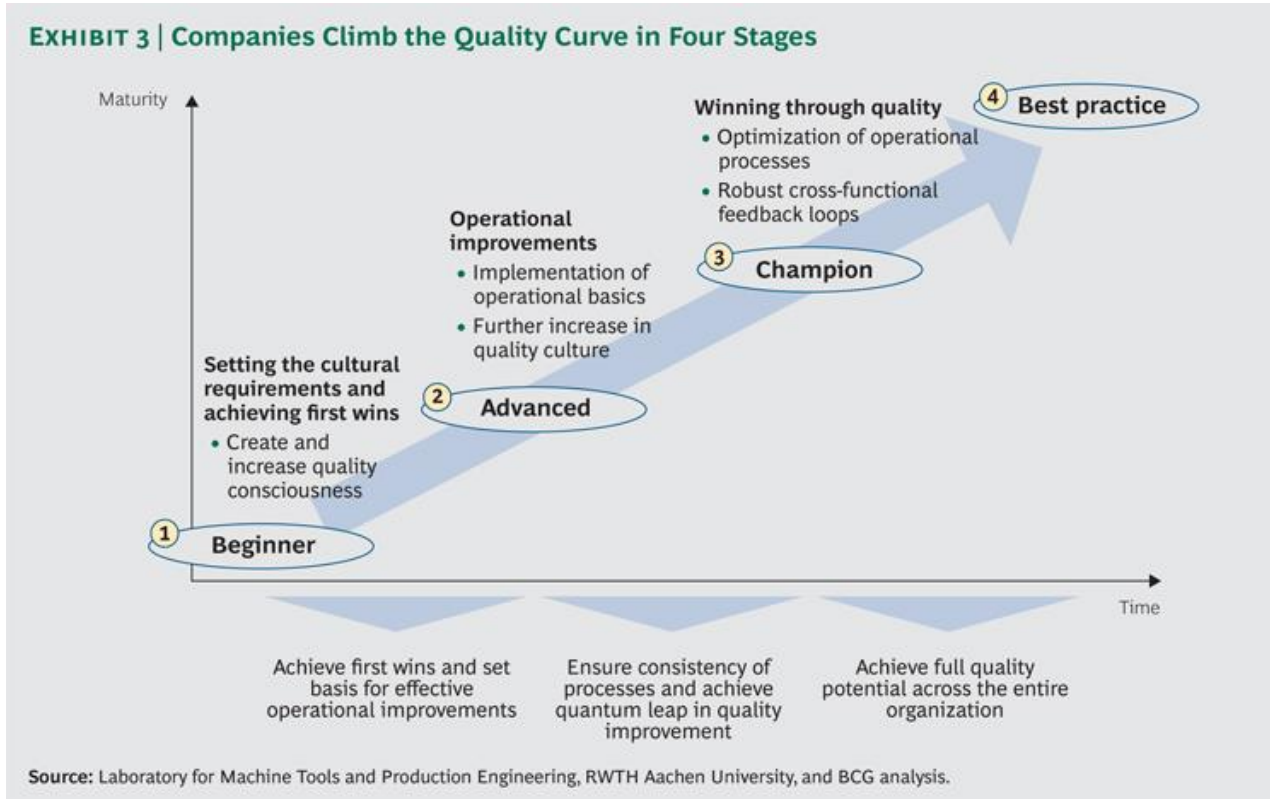
Adapt the organization

- Strengthen B2B sales and large-scale aftermarket services for shared driving
- Evolving their value proposition from “hardware provider” to “integrated mobility service provider.”

Reshape the value proposition



How to adapt HR processes to prepare for Strategy 2025?



Driving home corporate culture

Standardize processes

Quality processes and centers of learning



What does VW AG stand for?

Mission

VW AG doesn't have an official mission statement. The closest statement that could be called VW Group's mission is expressed as company's goal: "The Group's goal is to offer attractive, safe and environmentally sound vehicles which can compete in an increasingly tough market and set world standards in their respective class."

Value Proposition

Each brand has its own character and operates as an independent entity on the market. The product spectrum ranges from motorcycles to low-consumption small cars and luxury vehicles.

What does VW stand for?

Back-up slide

Mission

“At Volkswagen it is our mission to build long term strategic partnerships with our customers. To assist them in making the right choices for their business needs, by minimising fleet costs and providing world class customer service.”

Volkswagen cars are made for the road. This is why our engineers developed all of our engines with a prolonged service interval of 15,000km which guarantees our customers more time for driving our cars and less time in the workshop – hence less money for service costs. Due to our low fuel consumption we make sure that the total cost of ownership is kept at a minimum level.

HIGHLIGHTS OF OUR OFFERING:

- 15,000km or 1 year service intervals
- Up to 3 years or 45,000km free servicing
- 3 years manufacturer's warranty
- 3 years road side assistance*
- Guaranteed buy back available*

*Terms and conditions apply

Positioning Statement:

For the cost conscience buyer, Volkswagen offers reliability and value.

Value Proposition:

- Target Market: Cost conscience buyer (parents, females, young adults)
- Benefits offered: German technology
- Relative price: Affordable, reliable

What does Audi stand for?

Vision

“Develop Audi into the world’s leading brand in the premium automobile segment” was anchored as the vision in Strategy 2020, which was first presented in 2010.

To reflect steadily changing economic, ecological and social requirements and parameters, we develop and refine the content of our strategy on a continuous basis. However, our strategic areas of activity, which are focused on long-term, sustainable corporate success, also remained unchanged in 2015.

Mission

Develop four strategic areas of activity for the Audi brand:

- We define innovation
- We create experiences
- We shape Audi
- We live responsibility

What does Lamborghini stand for?

Back-up slide

2007-09-21/06

THE VISION

The Group's vision is to bring the passion and spirit of Italy to the global market with unique and distinctive products inspired by the world of Italian Arts & Industrial Design.

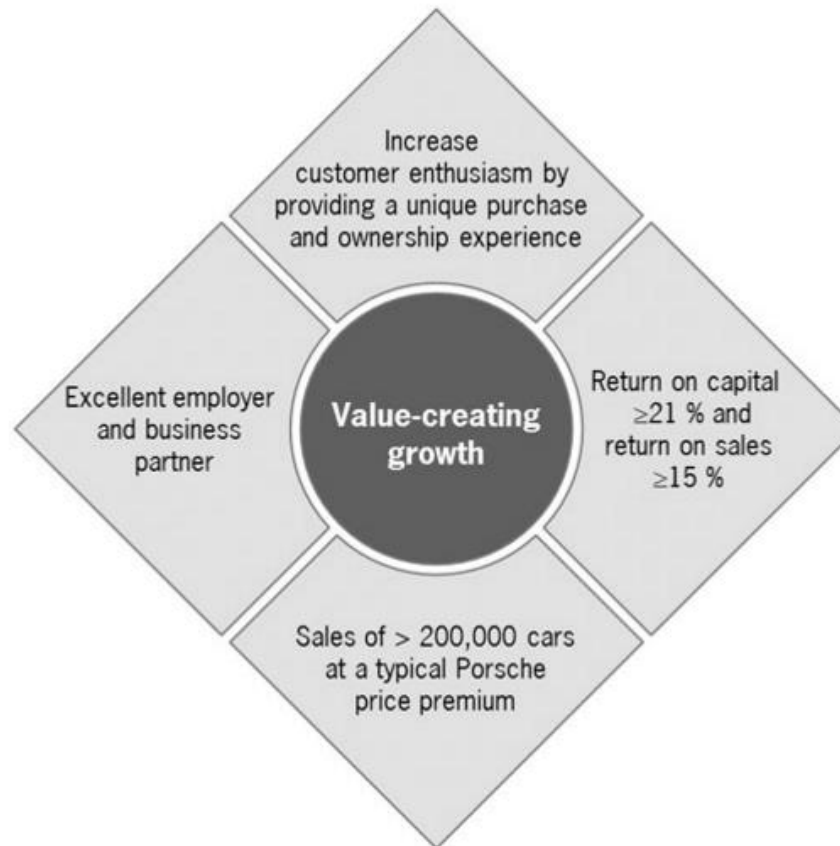
Lamborghini is “the ultimate sports car”. The brand stands for extreme and uncompromising super sports cars with a distinctive Italian design.



What does Porsche stand for?

In the beginning, I looked around and could not find the car I'd been dreaming of: a small, lightweight sports car that uses energy efficiently. So I decided to build it myself.

Ferry Porsche

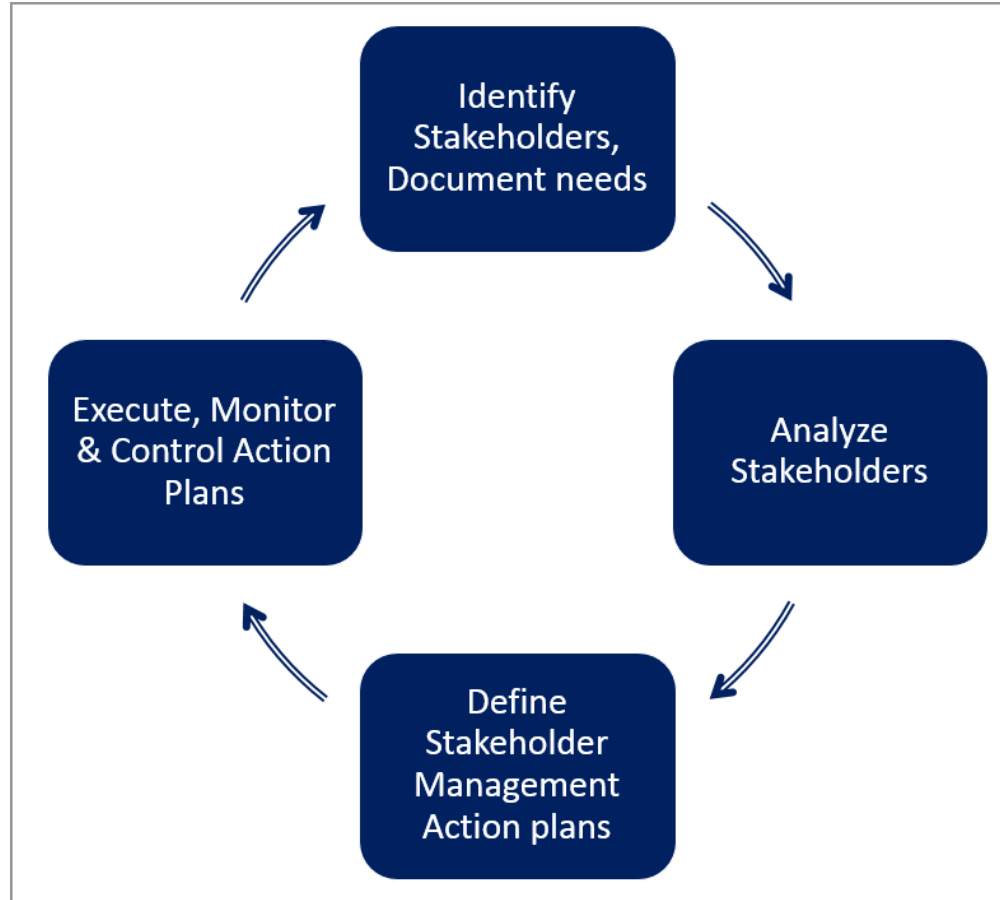


Risk and Mitigation – Rev

	Risk	Mitigation	Contingency
1	Continued backlash from consumers	Reaffirm commitment to transparency and communicate apologies to consumers, working to provide further reimbursements	Engage PR firms to craft new brand image, look into providing further reimbursements to mitigate cost to consumer
2	Culture still not changed sufficiently	Communicate VW's value proposition of being "about the people" through further channels and work with line managers	Increase duration and frequency of townhall meetings with employees to manage concerns, shake up management
3	Issues with dealer networks	Management and salesforce to meet dealers to manage relationships	Exit from dealer if necessary, as a last resort



Stakeholder management process



What is VW doing to manage stakeholders?

Engage

BUYERS

- “Goodwill Package”
- 6.7bil to cover repairs
- Cover additional taxes

Satisfy

GOVT AGENCIES

- Meetings with officials
- Openly reported falsifying emissions from 11mil vehicles

Inform

DEALERS

- Financial reimbursement
- Guaranteed payouts for vehicles sold

Monitor

PROSPECTIVE BUYERS

- Statement expressing regret for abuse of trust

EMPLOYEES

- Neglected
- Threat of being persecuted for involvement in scandal

ACTIVISTS

- No official response

SHAREHOLDERS

- CEO stepped down as decided by core shareholders



What more can VW do to manage stakeholders?

Engage

BUYERS

- “Goodwill Package”
- 6.7bil to cover repairs
- Cover additional taxes
- Revise marketing collateral
- Make up for loss in performance

EMPLOYEES

- Neglected
- Threat of being persecuted for involvement in scandal
- Drive transparency through organization

Satisfy

GOVT AGENCIES

- Meetings with officials
- Openly reported falsifying emissions from 11mil vehicles

ACTIVISTS

- No official response
- Be accountable
- Work together to drive ethical business practices for the industry

Inform

DEALERS

- Financial reimbursement
- Guaranteed payouts for vehicles sold
- Provide assurance on future collaborations

SHAREHOLDERS

- CEO stepped down as decided by core shareholders

Monitor

PROSPECTIVE BUYERS

- Statement expressing regret for abuse of trust
- Mueller has to come clean and humbly step up to take responsibility



Rationale for stakeholder positioning on stakeholder positioning map

Engage

BUYERS

- High interest in company as that has a direct impact on the price of the car a buyer will purchase
- Resources allocated to best meet buyer demand

Satisfy

GOVT AGENCIES

- Low interest in VW per se, more concerned about its impact on the country and its people
- Government policies influence how organization is shaped

Inform

DEALERS

- Moderate interest in VW because company impacts how well sales (both trade in and resale will be)
- Not a key consideration in internal decision making

Monitor

PROSPECTIVE BUYERS

- Low interest and influence in VW, only at awareness stage of brand health pyramid

EMPLOYEES

- High interest in VW as company incidents directly impact their livelihood
- Relatively less control or influence over policies and resources

ACTIVISTS

- Low interest in VW due to greater interest in seeing unethical business practices be resolved
- Part of “prospective customers” that within VW’s consideration set of consumers

SHAREHOLDERS

- Vested interest in VW due to money invested
- Not involved in managing company hence minimal influence over policies and resources



Why not Satisfy or Monitor?

Engage

Inform

PHASE 1

- Suitable for short term prioritization
- Stakeholders care more about company which is crucial to make the turnaround it needs

Satisfy

Monitor

PHASE 2

- Moving forward after Phase 1
- Stakeholders are less attached to the brand per se and are more concerned about the industry as a whole
- VW can look to such sustainability/environmentally conversations again

Addressing our stakeholders – Satisfy

Back-up slide

SATISFY



Activists

Stakeholder



Government agencies

“This is not what VW stands for and we will work to regain your trust.”

Key Message

“We are doing all we can to remedy the problem and will cooperate fully.”

Email correspondence
Press releases
Online videos

Communication Channel

Meetings
Email correspondence



Addressing our stakeholders – Monitor

Back-up slide

2024-09-21

Monitor

Stakeholder



Prospective buyers

Key Message

“We remain committed to providing you a reliable, safe and sustainable driving experience.”

Communication Channel

Press releases
Online videos



Understanding how the values will be surfaced to key stakeholders

Buyers



Employees



Dealers



Shareholders



WHY

Revenue driver and means for sustainability

Core of the company, directly impacted by its actions

A good working relationship is important for remaining brands

Deserve to understand massive losses suffered

Assurance

Shift advertising focus to innovation & reliability

Emphasis on Ombudsman program (video, pictures)

Provide quality assurance

Assure shareholders of investigations

Transparency

Pledge to cover differences in residual value

Establish secure, anonymous comm channels to senior management

Only roll out vehicles that pass new 2017 emissions tests

Updates on investigations at regular intervals



What new advertising will there be?



- Collateral showcasing the 4 new values that Strategy 2025 will be built upon
- Shifts focus away from being “clean diesel” which would definitely garner backlash
- Shift TOM brand associations away from the emissions scandal

Why provide coverage for drop in residual value?

Post Emissions Scandal

Diesel run car



13%



Cars like the VW Golf (4-door) dropped \$3000 in resale value. Customers care more about this significant loss rather than have a \$500 gift card for shopping at dealerships/in general



Gas run car



2%

Improve relationships with dealers because if resale prices were the same as before, people would still want to trade in their cars and dealers earn from this

How to raise awareness of Ombudsman?

“SHARING IS CARING”

The Volkswagen Group's Ombudsman system

Indications of corruption, white-collar crime, and violations of human rights



1) The ombudsmen will forward confidential information only if explicitly authorized by the whistleblower. If requested, the whistleblower's identity will be kept anonymous.
 2) If members of executive bodies or the Head of Group Internal Audit are alleged, the ombudsmen will forward the indication to the Chairman of the Audit Committee of the Volkswagen AG Supervisory Board.

- Allow employees to drop the head of internal audit a digitized internal memo to raise queries on integrity/ethics on business practices

- Highlight procedure during employees' vocational training and let them know they all have a part to play in making VW a good company

- Increases transparency of organization as a whole with secure channels for people to speak freely

Risk and Mitigation – Steer

	Risk	Mitigation	Contingency
1	Backlash from US becomes untenable	Reaffirm responsibility, accountability & commitment to transparency through interaction with government and media	Work with partners to reinforce commitment to transparency and create new brand image
2	US strategy does not take off	Conduct thorough analysis of EV landscape and identify key consumer trends to create new products	Leverage cutting edge tech in home market and available partners (Franhhofer)
3	Diesel segment collapses in EUR	Buffer against exodus of customers by leveraging key advantages of non diesel offerings (EV)	Emphasis on winning benefits of diesel (fuel efficiency/lower emissions)
4	Premium brands (Porsche) fail to earn Chinese consumers' mindshare	Leverage on association with VW group to promote values of premium engineering and exemplary performance	Consider buying Bentley as a hard assault on leading premium competitors like MB/BMW



Why do we need to focus on Europe?

1

Home market with high customer loyalty despite scandal

2

Need to reassure consumers and regain trust

3

Provides base for focused growth

Why not exit US / why continue in US?

Back-up slide

1

Prominent market with high visibility, need to remain there to be a truly global brand

2

Remains a large market that VW Group can make further inroads into

3

Reap returns in future from proximity to technological disruption – tech companies such as Lyft and Uber are most present in US

Why not focus on expansion in Asia alone?

1

Asia is a fast growing frontier market, but need to also defend core

2

Would be detrimental to VW Group's global ambition to focus on Asia at the expense of other mature regions

Detailed geographical split by brand

Back-up slide

2017-09-21/06

	VW (P)	VW (C)	Audi	Bentley	Bugatti	Lambo	Porsche	Man	Scania	Ducati	Seat	Skoda
North America	9.6	1.3	12.6	28.8			27.9	1.2	1.1		5.5	0
South America	10.8	9.2	1.3	0.1			1.5	38.3	22.3		0.1	0.1
APAC	48.6	5.1	39.1	33.5			33.3	4.4	8.9		0	29.3
Europe and others	31	84.4	47	37.6			37.3	56.1	67.7		94.4	70.6



What is cross-subsidisation?

1

Financial reparations incurred in a region to be offset by growth from another region

2

Key to manage potential cash flow problems from lawsuits

Sub-brands positioning – Volkswagen Passenger

Back-up slide

2013-09-21



Prof. Dr.
Martin
Winterkorn
CEO

5.9 million

Vehicles produced

The "Volkswagen – Das Auto" slogan unites the three core messages that distinguish the Volkswagen Passenger Cars brand: innovative, offering enduring value and responsible.

The Volkswagen Passenger Cars brand premiered a large number of new vehicles in 2013. At the beginning of 2013, the brand unveiled the XL1, the most economical series automobile in the world.

The brand also presented the Golf estate and the sporty Golf GTI and Golf GTD models. The e-up!, the Volkswagen Group's first pure-play electric drive vehicle, made its debut at the IAA in Frankfurt am Main. The pure-play electric version of the Golf was presented at the same time; production is scheduled to start at the beginning 2014.

Sub-brands positioning - Audi

Back-up slide



Rupert
Stadler
CEO

1,578 thousand

Deliveries to customers in 2013

In the premium segment, Audi has become one of the strongest car brands worldwide under the slogan of “Vorsprung durch Technik”. Its objective is to become the market leader in this segment. To do this, Audi relies heavily on its sporty, high-quality and progressive image.

New production facilities further extend the brand's competitive position in the premium segment worldwide.

In terms of products, the A3 saloon has launched Audi into the world's fastest growing market segment: the compact saloon class.

The Audi brand also added to its range of especially sporty S and RS models with a large number of product innovations – such as the SQ5, RS 6 Avant and RS 7 Sportback models.

Sub-brands positioning - Skoda

Back-up slide

2017-05-21/06



Prof. Dr.
Winfried
Vahland
CEO

€10.3 billion

Sales revenue in 2013

With its "Simply clever" slogan, ŠKODA has become one of the fastest emerging brands, particularly in Europe and China.

The brand image is dominated by a compelling value proposition and an attractive design, coupled with intelligent ideas for the use of space that are technically simple but offer refined and practical details. The numerous awards for its ambitious, innovative and sophisticated vehicle design are proof of the high recognition for this brand concept.

The ŠKODA brand continued the largest model rollout in its history in 2013, launching eight new models or model variants. The Rapid Spaceback is its first model in the compact hatchback segment.

Sub-brands positioning - SEAT

Back-up slide

2017-05-21



Jürgen
Stackmann
CEO

10.6%

Increase in deliveries

Models that regularly win awards for their outstanding design are representative of Spanish SEAT brand's image.

SEAT is aiming for stronger growth, particularly in Europe, by sharpening its brand profile and focusing on its distinctive brand values of being dynamic, young and design-oriented. The new brand claim "Enjoyneering" suitably expresses the character of the brand as a passionate perfectionist and emotional technology leader.

The brand drove forward its model rollout in 2013 and further expanded the Leon family. The Leon ST is the brand's first representative in the compact estate segment. The young model range helped the brand lift its sales figures.

Sub-brands positioning - Bentley

Back-up slide

2013-09-21



Wolfgang
Dürheimer
CEO

10.0%

Operating return on sales in 2013

„To build a good car, a fast car, the best in class“ – this was the mission of W.O. Bentley when he founded Bentley Motors in 1919. Still today, the definitive British luxury car company dedicates itself to developing and crafting the world's most desirable high performance cars with the stamina to cross continents at pace, and drive in refined comfort and style. Bentley is located in Crewe, England and belongs to the Volkswagen Group since 1998.

The Bentley brand continued on its successful course in 2013 and posted a new sales record. It launched the new Flying Spur. The Continental GTC Speed Convertible celebrated its world premiere in 2013. Its top speed of 325 km/h makes it the fastest convertible in the world.

Sub-brands positioning - Porsche

Back-up slide

PSCX-05-2106



*Matthias
Müller*
CEO

911

50 years of a style icon

Porsche is an iconic sports and luxury car brand with leading profitability. High performance meets outstanding everyday practicality, breathtaking dynamics, exceptional occupant comfort and safety.

The Porsche brand can look back on a very successful 2013. Among other things, it made extensive investments to restructure and expand its plants. Porsche aims to appeal to new customers with the Macan. The brand also celebrated a special anniversary last year: 50 years of the Porsche 911.

In addition, Porsche's next generation Panamera increased the attractiveness of the product range. Finally, the brand unveiled the limited-edition 918 Spyder super sports car, which boasts an innovative plug-in hybrid drive.

Sub-brands positioning – Volkswagen Commercial

5.0%

Increase in production in 2013

Volkswagen Commercial Vehicles stands for superior mobility with its three core values of reliability, economy and partnership. The brand offers a range of different transport solutions at the highest levels of engineering for different customer groups. The light commercial vehicles are tailored to meet the individual transportation needs of customers in retail and craft businesses, as well as civil authorities and service providers. Private customers value family-friendly MPVs and leisure-oriented motor homes.

In 2013, the brand celebrated the 9 million milestone for vehicles manufactured at the main production facility in Hanover since the plant opened in 1956. It also celebrated the 25th anniversary of the California camper. Volkswagen Commercial Vehicles marked this occasion with an attractive special edition.

Sub-brands positioning - Scania

Back-up slide



Martin
Lundstedt
CEO

23.8%

Increase in production

The Swedish Scania brand follows the core values of "customer first", "respect for the individual" and "quality". For over 100 years, this successful company has been manufacturing high-performance trucks and buses featuring extremely innovative technology. The brand offers its customers efficient transport solutions backed by service offerings and financial services.

The Scania brand presented further product innovations in 2013 and rounded off its range of Euro 6 engines. It also unveiled other innovations such as new safety and driver assistance systems – while continuing to focus on individual customer solutions and cost efficiency. The brand presented the new Scania Streamline, a long-distance model that drives forward its ongoing efforts to reduce fuel consumption.

Sub-brands positioning - MAN

Back-up slide



Dr. Georg
Pachta-
Reyhofen
CEO

140 thousand

Commercial vehicles sold in 2013

MAN's roots can be traced back to 1758. The core values of the MAN brand are reliability, innovation, dynamic strength and openness. These values are key success factors for MAN, one of Europe's leading manufacturers of commercial vehicles, engines and mechanical engineering equipment. The company manufactures diesel engines, turbomachinery and special gear units, alongside trucks and buses.

MAN can look back on over 250 consecutive years of company history. For the supplier of trucks, buses, diesel engines, turbomachinery and special gear units, 2013 was dominated by the product changeover to the new Euro 6 emission standard in force in Europe since January 2014.

In addition, MAN and its NEOPLAN bus brand unveiled the entire bus portfolio with economical, high-performance Euro 6 engines.

Sub-brands positioning – Lamborghini

Back-up slide

Lamborghini



Stephan Winkelmann
CEO

LAMBORGHINI

Lamborghini stands for extreme and uncompromising super sports cars of the best Italian tradition.

Lamborghini redefined the future of its super sports cars and decided to focus more on weight reduction than on top-speed. Extensive use of carbon fibre, even at a structural level, allows Lamborghini to be at the forefront of development techniques.

The successor of the Gallardo, the new Lamborghini Huracán LP 610-4, made its global debut at the Geneva Motor Show 2014 and is currently receiving overwhelming reactions from markets and customers all over the world.

AVENTADOR



Sub-brands positioning - Bugatti

Back-up slide



Bugatti



*Wolfgang
Dürheimer*
CEO

BUGATTI

Bugatti has always been the epitome of exclusivity, luxury, elegance, style and extraordinary design, driven by a great passion for automobiles.

Unique visions, the strong legacy of legendary sports cars that date back to the year 1901, and high-precision engineering in development, construction, and manufacture distinguish this outstanding automotive brand.

Bugatti confirmed its unique position by launching the Veyron Grand Sport Vitesse, the fastest roadster of all time with a top speed of 431 km/h.

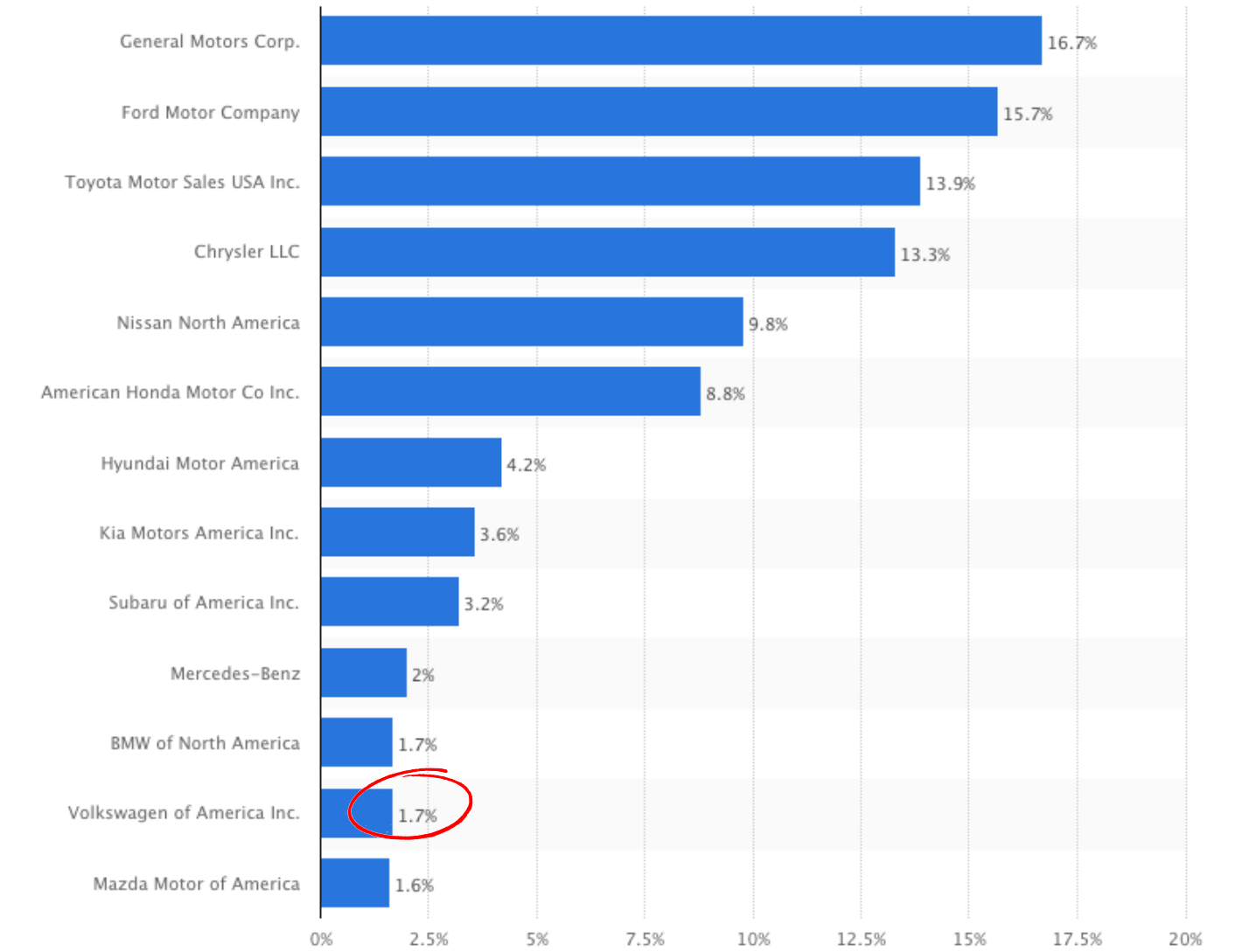
VEYRON



Competitive landscape - US

Back-up slide

DSGX-05-2106

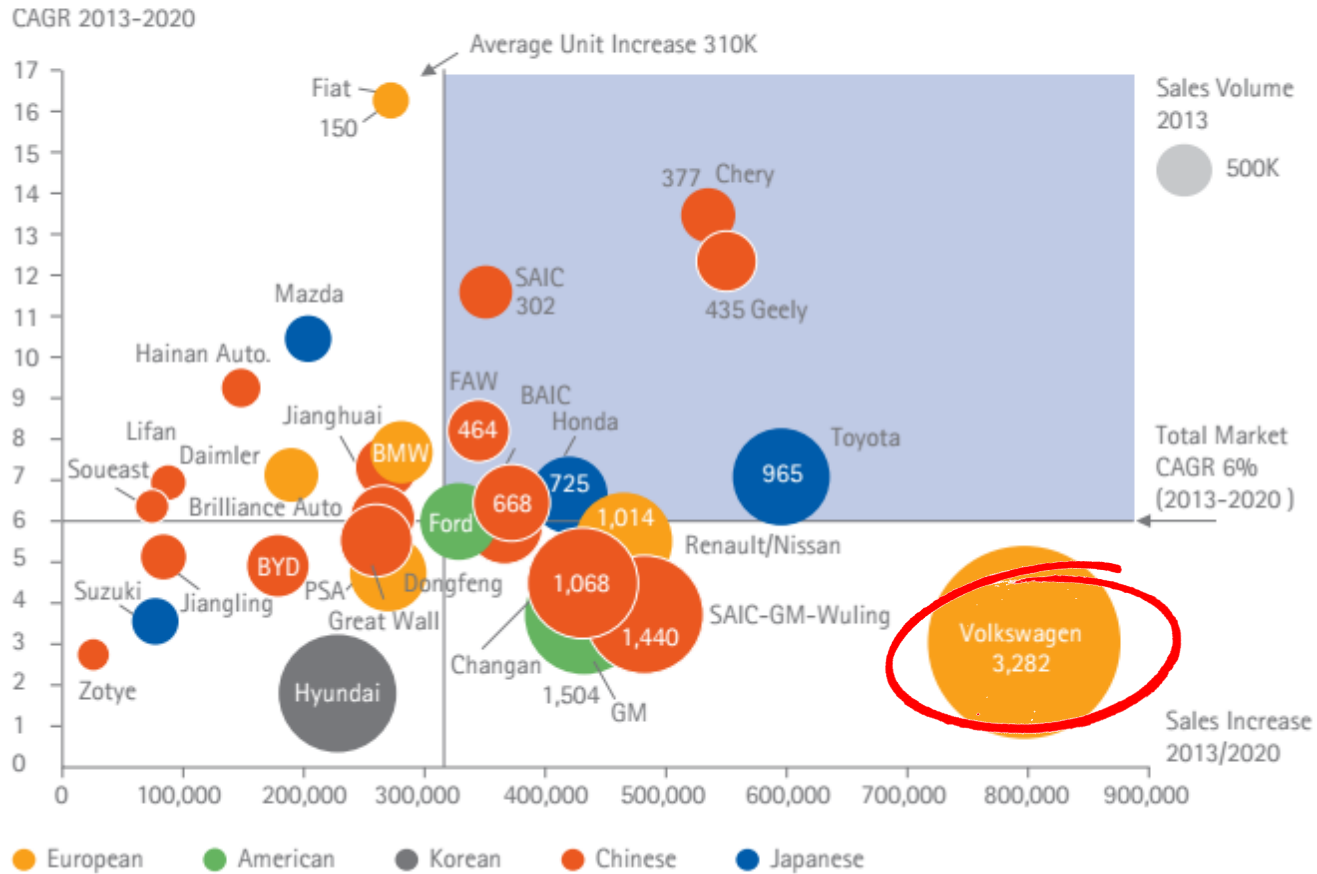


Source: Press search

Competitive landscape - China

Figure 2. Although Volkswagen remains the dominant market leader, Chery, Geely, SAIC, FAW, BAIC, Toyota and Honda are all strongly catching up

Competitive Landscape Development (2013/2020; % CAGR, Unit Increase)



Source: IHS AutoInsight April 2013; Accenture Research Analysis



US / Europe / China consumer trends

Back-up slide

DSGV-03-2106

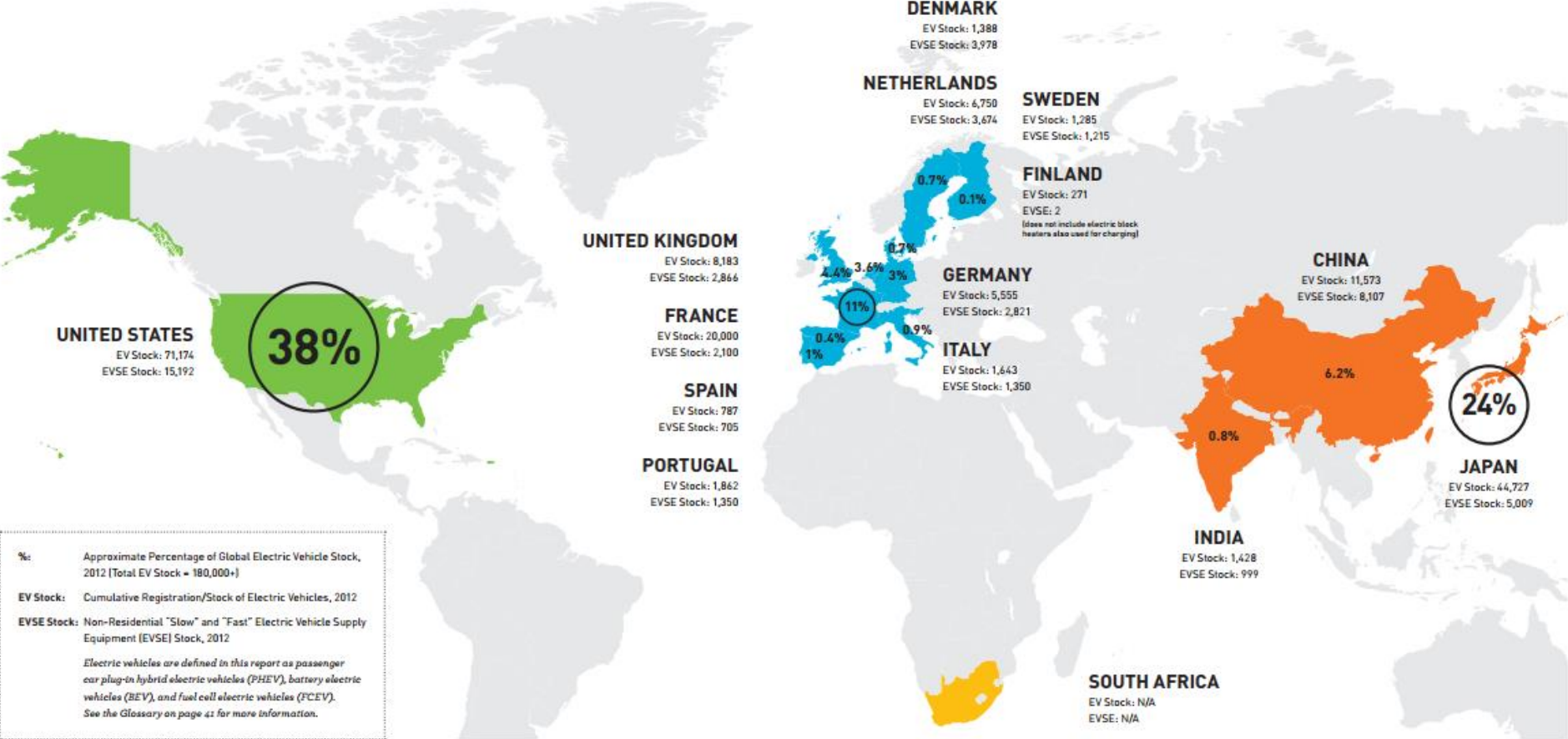
US	EUROPE	CHINA
Hyper urbanization leading to a “sharing economy”	Cost sensitive → 40% likely to abandon vehicles with rise in cost	Shifting from being an individual driver to having “che you” (car buddies) through car sharing
Increased sustainability and environmental concerns	Care about fuel efficiency	From owning a car as a means of mobility to owning one for self actualization (especially Tier 1 and 2 cities)
Expect customer experience leverage technology to integrate with their connected lives	Desire for safety technology more than cockpit technology	Caring more about experience and service rather than just the product



EV Global Outlook

Back-up slide

1901-01-2016



%: Approximate Percentage of Global Electric Vehicle Stock, 2012 (Total EV Stock = 180,000+)

EV Stock: Cumulative Registration/Stock of Electric Vehicles, 2012

EVSE Stock: Non-Residential "Slow" and "Fast" Electric Vehicle Supply Equipment (EVSE) Stock, 2012

Electric vehicles are defined in this report as passenger car plug-in hybrid electric vehicles (PHEV), battery electric vehicles (BEV), and fuel cell electric vehicles (FCEV). See the Glossary on page 41 for more information.



How to win in US?

- **Currently the diesel market is doomed for VW**
- **Need to identify new segment to remain relevant in US**
 - **Pulling out of US is impossible because:**
 - **Prominent market with high visibility**
 - **Need to remain to be global brand**
 - **Reap R&D returns in future**
 - **Mass-market segment is dominated by GM and Ford**

Opportunity

- **EV market which is growing (20.9% CAGR) and expected to boom by 2040 (35% of global car sales)**
- **No clear dominant player in the BEV market – opens an opportunity for VW to gain market share – while waiting for scandal to subside – when EV become popular**

How to win in Europe?

- Diesel market is still relevant in Europe
- VW remains by far the largest European OEM
- High-level of brand equity amongst consumers
- Focus on climate change is an advantage for diesel market

Opportunity

- Ridesharing partnerships e.g. Carpooling.com (Germany; Biggest in Europe)
- Similar to GM's partnership with Lyft in US
 - Teaming up to build a network of self-driving cars
 - Invest \$500m to develop a fleet of autonomous vehicles that can be summoned on demand
 - In the meantime, GM will develop national hubs where Lyft drivers can rent and operate cars without owning them



Why not India?

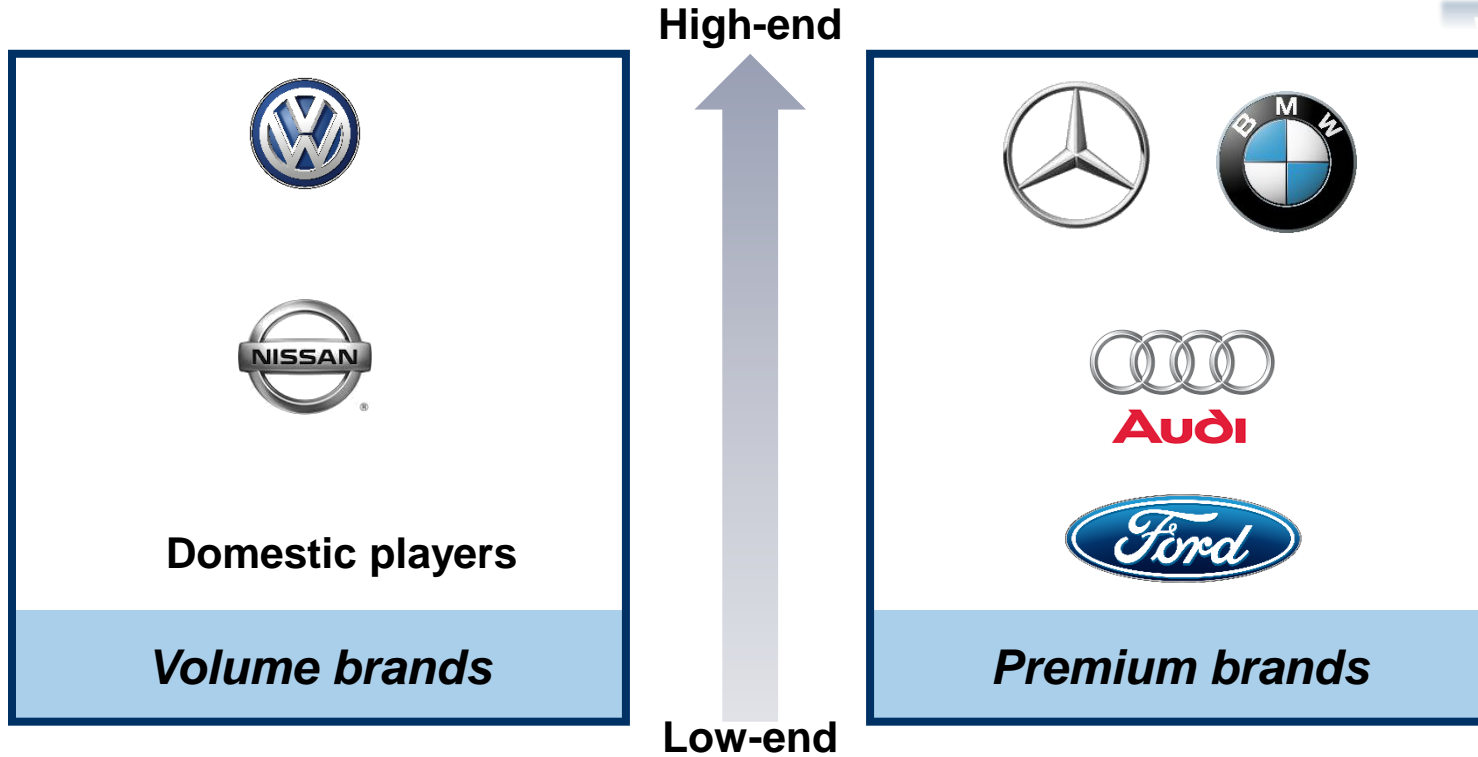
- **Since entry in 2010, VW has only captured 4% market share**
- **Face immense competition from local brands (Maruti Suzuki) and foreign competitors Hyundai and Honda → Control 70% of market overall**
- **Predominance of entry-level compacts due to lower relative income of the Indian consumer → Contrary to VW's relatively premium branding in the country**

Opportunity

- **Follow the premium model used in China to capture the relatively smaller but affluent upper-middle class market in India**
- **Establish production and manufacturing presence in the country to benefit from cheaper cost considerations**



How is Volkswagen winning in China?



Volkswagen has carved out a niche in the volume segment with its reputation for safety and reliability

Brands need to continually upgrade sales and ownership experiences

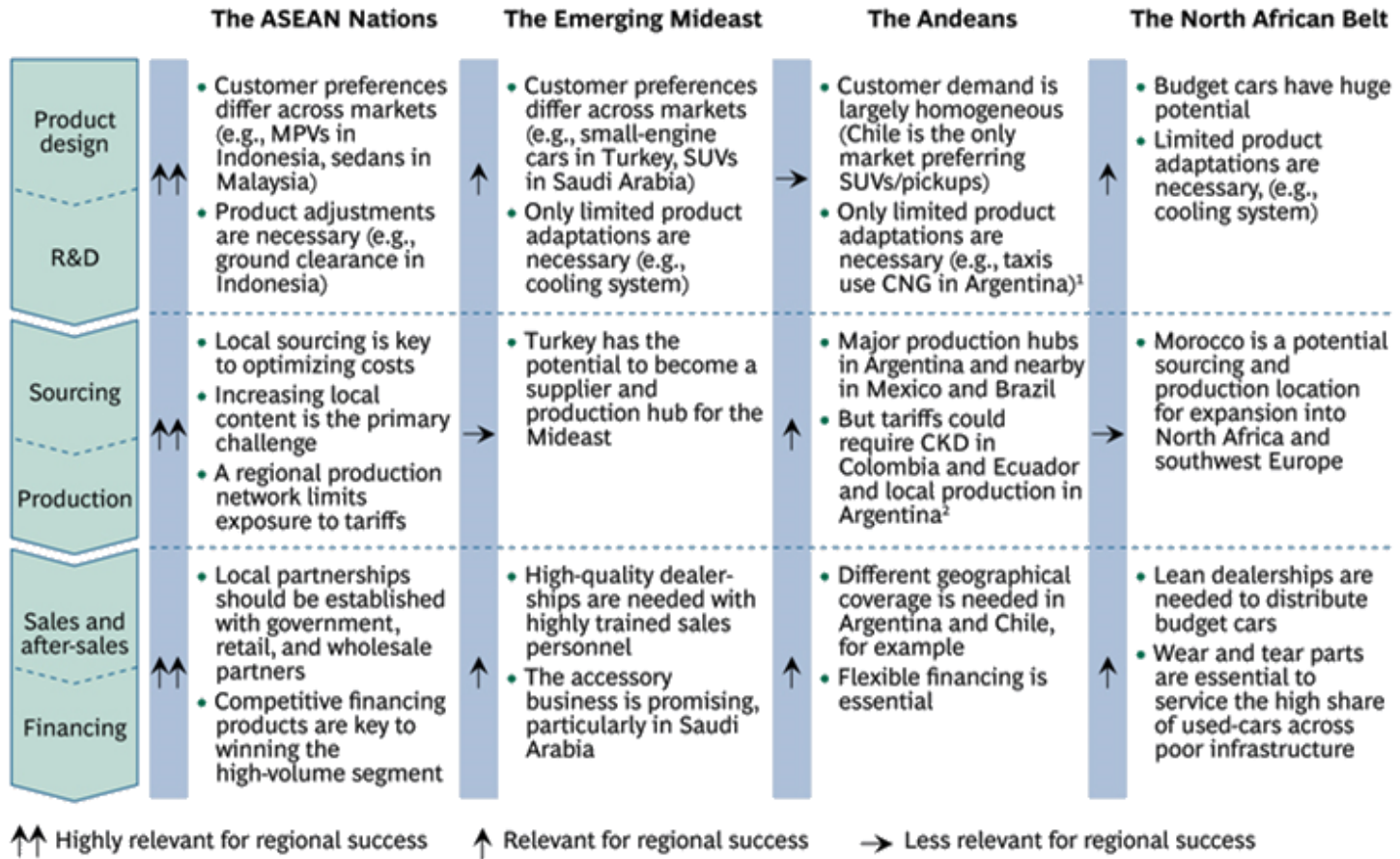
Manage brand migration: Audi is the default upgrade of choice and is the government's sedan of choice, leading to strong awareness

Tailor brand portfolio well to meet needs of different Chinese consumer segments; adapt models to local conditions

How to win in other markets?

Back-up slide

2017-09-21/06



In all markets, providing a tailored package to meet consumer tastes and localising manufacturing to achieve optimal costs is key



What other markets are present?

Brazil

Market Size:

2.1m sales in 2014

Market Growth Rate:

6.47% CAGR till 2020

Russia

Market Size:

1.5m sales in 2014

Market Growth Rate:

7.98%

India

Market Size:

1.97m sales in 2014

Market Potential:

4m units by 2020¹

Implications

Crucial markets that VW should sustain in due to their growth potentials, with key focus still in US, Europe and China

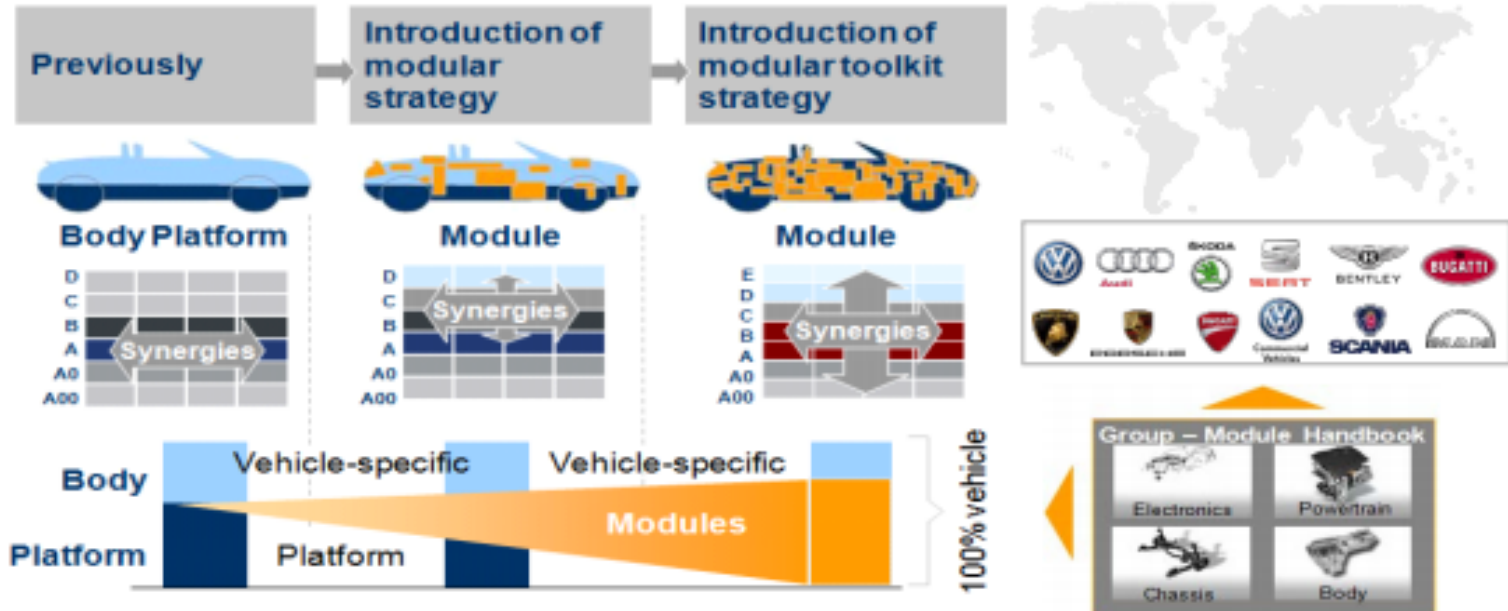
Risk and Mitigation – Accelerate

	Risk	Mitigation	Contingency
1	“Death of Diesel”	Explore innovations to reduce emissions (eg. catalytic converter)	Surrender diesel segment and shift focus to new growth segments (EV)
2	EV is not the frontier of alternate fuel innovation	Conduct deep research into feasibility of new tech before diving into one option	Withdraw and identify new segment (eg. fuel cell)
3	VW is not competitive enough to capitalize on emerging trends vis-à-vis competitors	Analyze core competencies (eg. modularization) and develop new technologies as core advantages	Partner with public research institutes (eg. Fraunhofer) to systemize innovative thinking



Modular toolkit concept

TECHNICAL CONCEPT



Modularisation enables standardization with visible customization whilst maintaining the individual brand identity.

Benefits of modular toolkit

Back-up slide

DSGV-05-2106

Distribution of MQB savings

MQB platform
ca. 60% of total
material costs



- Lower cost per unit
 - Less EHpV¹
 - Less one-off expenditures
- = Potential savings**

- Additional serial and option content
- Savings to be partly absorbed to fulfill regulatory and legal requirements

Margin improvement

- Savings
- Expenditures
- Invest

¹ Engineered Hours per Vehicle

Different powertrains

The MQB's flexible design is able to accommodate alternative drives:

Conventional drive	Electric drive	Alternative/Regenerative
<p>TSI Gasoline EA211</p> <p>MOB</p>	<p>Hybrid</p>	<p>EcoFuel CNG</p>
<p>TDI Diesel EA288</p> <p>MDB</p>	<p>BEV</p>	<p>FlexFuel Ethanol</p>
		<p>BiFuel LPG</p>

Lower cost per unit

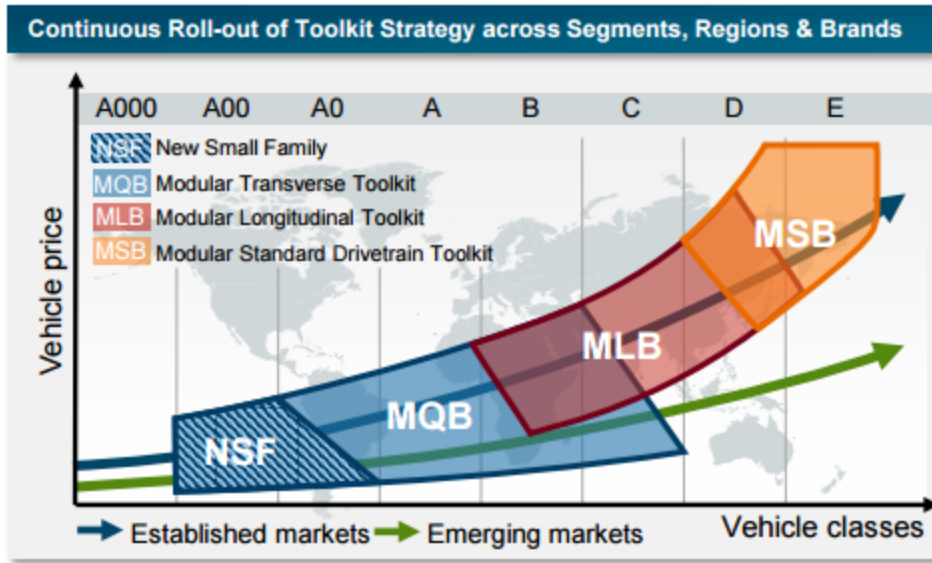
Reduced product complexity

Flexibility



Robust roll-out of modular toolkit

Back-up slide



Responsibilities

Audi started with the launch of the **Modular Longitudinal Toolkit** and keeps the responsibility. The know-how which they have gained over the years, helped and helps to develop the following toolkits.

The Volkswagen brand is responsible for the **Modular Transverse Toolkit** which will be used for the Volkswagen, Audi, SEAT and ŠKODA brands.

Development of the **Modular Standard Drivetrain Toolkit** is being handled by Porsche, which was made responsible for development of sports car and luxury sedan platforms. The MSB is for a conventional front-engine, rear-wheel drive layout, hence the word "standard" in its title, and it will be used for a range of models including the next-generation Porsche Panamera and Bentley Continental lineup.

In addition, the **New Small Family** complements the toolkit strategy. The up! and its derivatives are not produced based on the MQB. However, individual components such as engine, gearbox and steering components can be used for vehicles based on MQB.

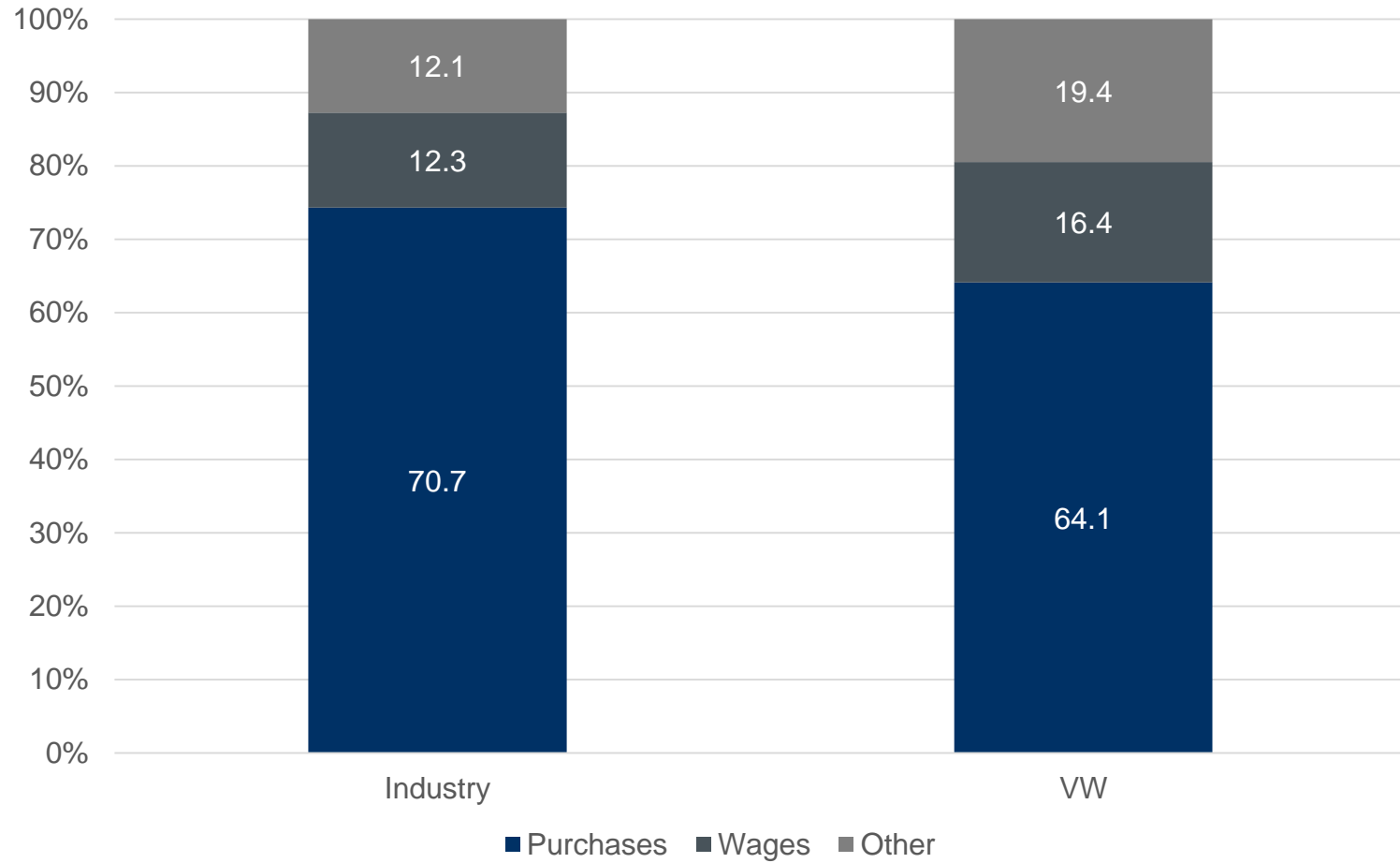
Staggered rollout

Different brands have different responsibility, helmed by Audi

Porsche takes ownership of larger kit



Cost structure of VW vs Industry



Why not look to cut labour costs?

1

A lever to profit in the short term but politically unwise given current situation

2

Hugely powerful union pressure in Germany against cutting jobs or reducing wages

3

May a **priority in mid to long term** when seeking additional localization into markets

Why not optimize manufacturing network and outsource?

1

Not a lever to profit in the short term given the established global dealership / parts supply network

2

Hugely powerful union pressure in Germany against outsourcing

3

May a **priority in mid to long term** when seeking additional localization into markets (see next slide for consideration)

Key considerations when considering optimising manufacturing networks

Current footprint

- What, where and how much is produced today
- What is the rationale of the current footprint
- What drives manufacturing volume allocation?

Current cost base

- What does the current cost structure look like?
- What drives manufacturing costs?
- How are cost drivers and costs related?
- How is country sourcing and logistics related?

Future playground

- What, where and how much should we produce in future?
- What will the market look like in future?
- What will demand look like in the future?
- Which disruptive trends might affect our networks?
- What do customers require?

Opportunity for change

- What does the ideal manufacturing network look like?
- How can we balance risk aversion and appetite for risk?
- What are core competencies and what should be outsourced?
- What is non-negotiable?

Opportunity valuation

- What will influence network scenarios?
- How will wage convergence between countries affect our manufacturing networks?
- How robust are costs in the face of transport costs?
- Is the supply chain flexible enough?

Making change happen

- How should network changes be managed and implemented?
- What is the best approach in closing or ramping up production sites?
- How to manage change effectively?
- How to manage talent?
- How to maintain service levels?

Volkswagen production network

Back-up slide



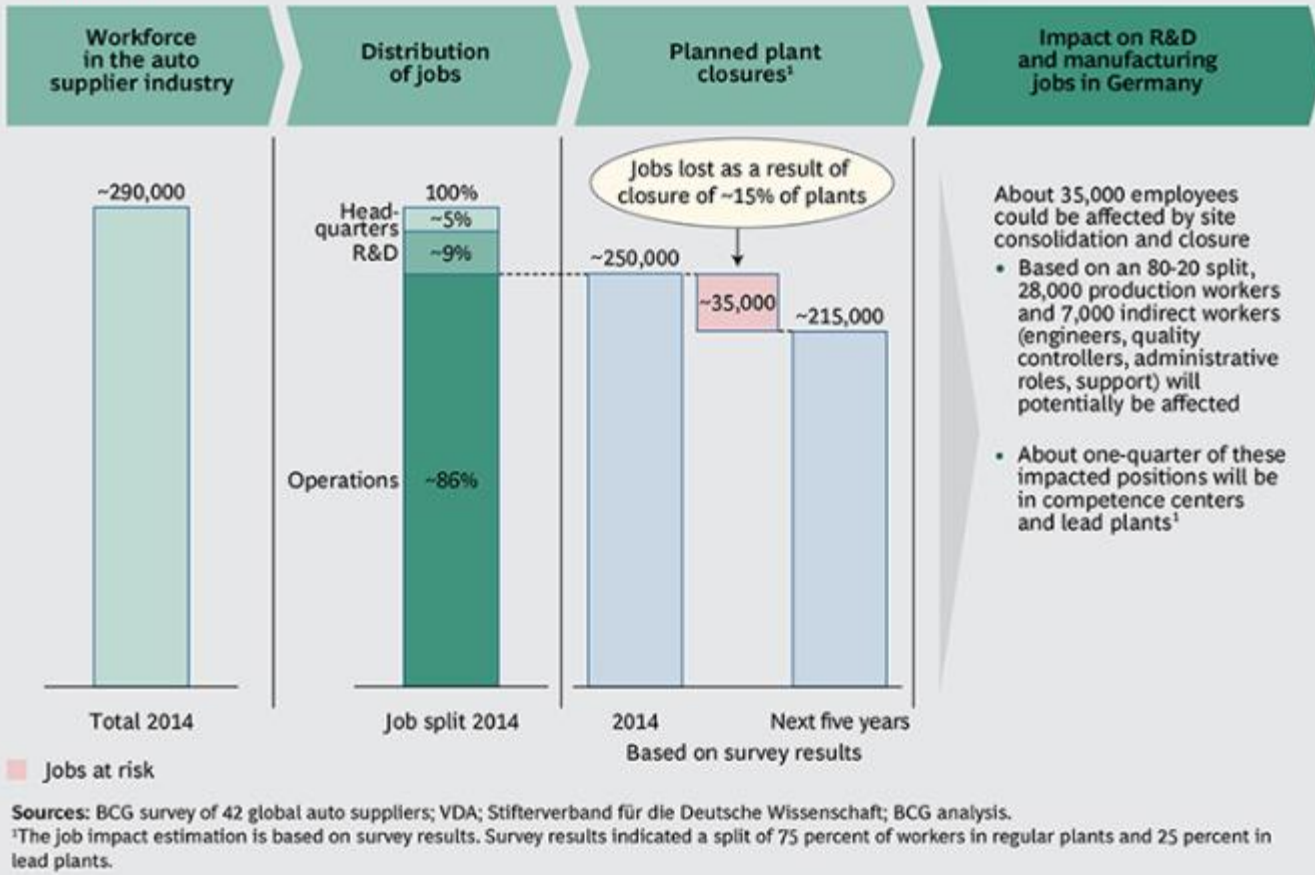
of production sites: 119
of dealer locations: 1018



Source: <http://www.volkswagenag.com/>

Offshoring of auto-manufacturing causing job losses in Germany

EXHIBIT 3 | Offshoring Will Cost Germany 35,000 Auto-Supply Jobs, Including Highly Skilled Engineers



Case study: operational efficiency of a top tier car manufacturer

1

In addition to **bench marking**, performing structural analyses of organizational logic and spans of control, tools like activity based optimization were used to **identify pockets of inefficiency**

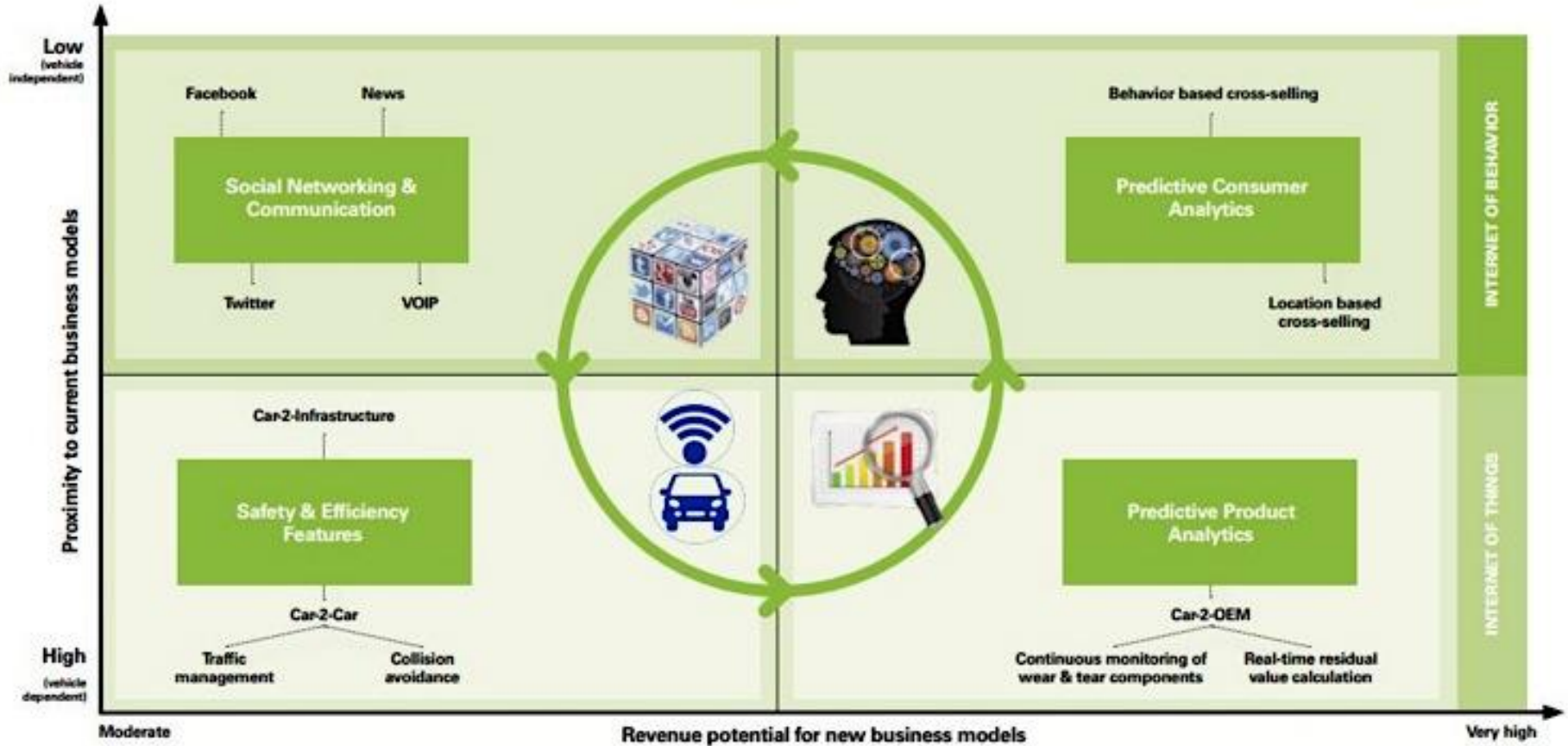
2

Findings on inefficiencies in allocation were validated through benchmarking and belief

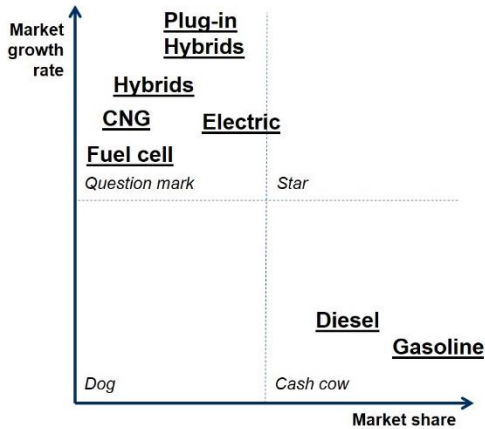
3

Redesign of the operating model included redefining the roles of the support functions by applying a clear understanding of what would **create the most value from an operations perspective**

Other future tech innovations



Analysis of Alternative Fuels



Tech	TOM Cars
Plug-in Hybrids	Chevrolet Volt (GM) – Bestseller
Hybrids	Toyota Prius – Bestseller
Fuel cell	N.A. – Unfeasible
Electric	Nissan Leaf, Tesla Roadster

	Plug-in Hybrids	Hybrids	Fuel cell	Electric	Diesel
Pros	Great for short commutes for many drivers Cheaper cost per mile	Excellent fuel economy Run on existing gasoline supplies	No vehicle emissions other than water vapor Fuel economy equivalent to 2x gasoline vehicles	Quiet running No emissions from the car Widespread electric infrastructure	30% better fuel economy than gasoline vehicle Lower cost premium than hybrid
Cons	Big, expensive batteries Gas engine + daytime recharging can up prices & strain electric grid	Some cost more than normal cars Some don't live up to expected gas mileage	Very expensive Few places to refuel No infrastructure in place yet	Long recharging times Limited range Expensive batteries	Manufacturers won't warranty blends of more than 5% biodiesel



Analysis of cost levers



**Innovation
R&D**

Costs looking at future technologies (incremental / disruptive) that may revolutionize the industry



**Operational
Efficiency**

Costs looking into productivity gains on the production floor



**Labour
workforce**

Investments into productivity gains or overall manpower cost



**Marketing &
Branding**

Costs going into creating public awareness, exposure and reputational gains for VW



**Sales &
Administration**

Costs into the day-to-day running of VW, as well as B2B / B2C salesforce

Why not lower labour cost or outsource?



Innovation R&D

Outsourcing of R&D is not an option for a global market leader like VW – differentiation is required to compete



Operational Efficiency

Outsourcing or cutting back on operational costs is not an option because VW needs to ramp up its product offerings



Labour workforce

Lowering labour cost is not an option due to strength of labour unions



Marketing & Branding

Imperative that VW controls and invests in its branding following the emissions scandal

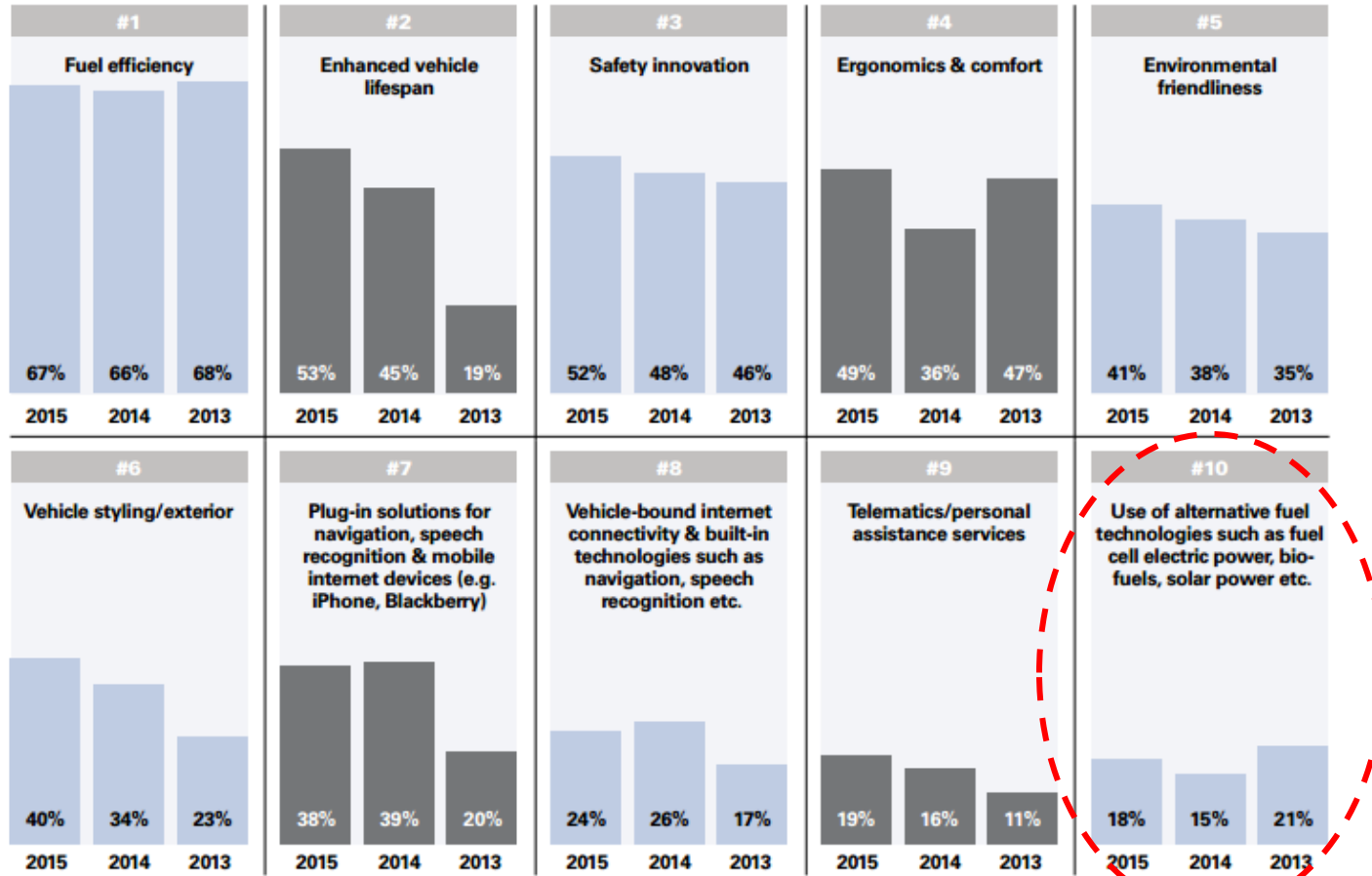


Sales & Administration

Extensive efforts need to be invested into regaining trusts of dealers and customers

Why prioritize operational efficiency over new technologies?

Purchasing choices not yet driven by innovative concepts and online services



Note: % of respondents rating a product issue as extremely important Source: KPMG's Global Automotive Executive Survey 2015



Other operational efficiency innovations

Safety Innovation

Innovations to enhance safety of vehicles (e.g. car-to-car proximity sensors)

Internal Combustion Engine (ICE) Downsizing

Smaller and more powerful engines for greater horsepower and less weight

Standardization and Modularization

Creation of standardized toolkits to decrease production costs

Enhanced vehicle lifespan

Innovations to encourage more sturdy and hardy vehicles (e.g. materials)

Ergonomics and Comfort

Innovations for enhanced passenger comfort (e.g. leg room etc.)

Urban vehicle design concepts

Innovations taking in consideration urban development (e.g. smaller parking spaces, better manoeuvrability etc.)

Driverless technology

Innovations where cars are intelligent enough to make decisions on driving speeds, lane changes etc.



Sub-brand R&D focus

Back-up slide

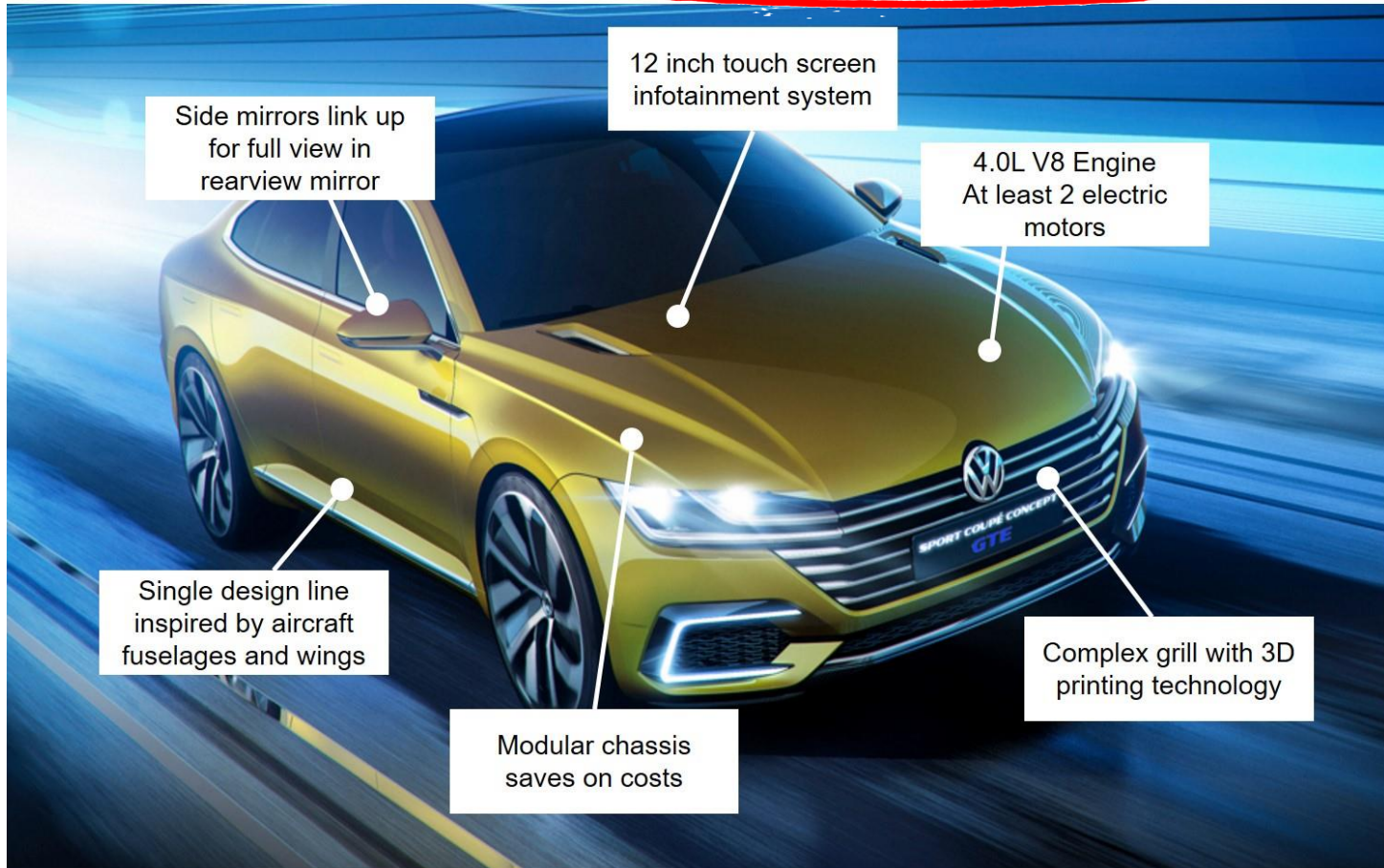
	VW	Audi	Porsche	Seat	Skoda
<i>Innovation R&D</i>					
Shared mobility	✓	✓	✓	✓	✓
Connected mobility	✓	✓	✓		
Electric mobility	✓	✓	✓		
Autonomous mobility		✓	✓		
<i>Operational Efficiency</i>					
Safety Innovation	✓	✓	✓	✓	✓
ICE Downsizing	✓	✓	✓		
Modularization	✓			✓	✓
Mobility-as-a-Service		✓	✓		



Explaining the forecast of 2025

Back-up slide

Volkswagen 2025. Reliability | Transparency | Efficiency | Innovation



US Justice Department Lawsuit

1
Selling cars without EPA emissions certifications:
\$32,500 - \$37,500

2
Selling cars with defeat devices:
\$32,500 - \$37,500

3
Tampering with engines:
\$32,500 - \$37,500

4
Failing to report existence of defeat devices:
\$2,750 – \$3,750



Penalty Range based on 580,000 cars

58.1 – 67.4bn



Cost of other litigation (Ongoing)

Additional ongoing lawsuits occurring globally

Back-up slide

Lawsuit from other countries

- **Brazil**
R\$50m or US\$13.56m lawsuit
- **European Union**
Possible loan recall of 1.8bn Euro
US\$2.05bn
- **South Korea**
 - 1) Environmental Minister fine: US\$12.2M
 - 2) Agency Fine: Up to US\$48bn
 - 3) Possible customer goodwill packages

US\$2.055bn or US\$50bn max

Private Action Lawsuits

- **Germany**
US\$3.7bn from institutional investors comprising of 278 from around the world incl. 17 German investment companies
- **Australia**
 1. US\$100m law suit
 2. Possible 20,000 customer goodwill packages

US\$3.8bn

Downplaying Impact of Litigations

Back-up slide

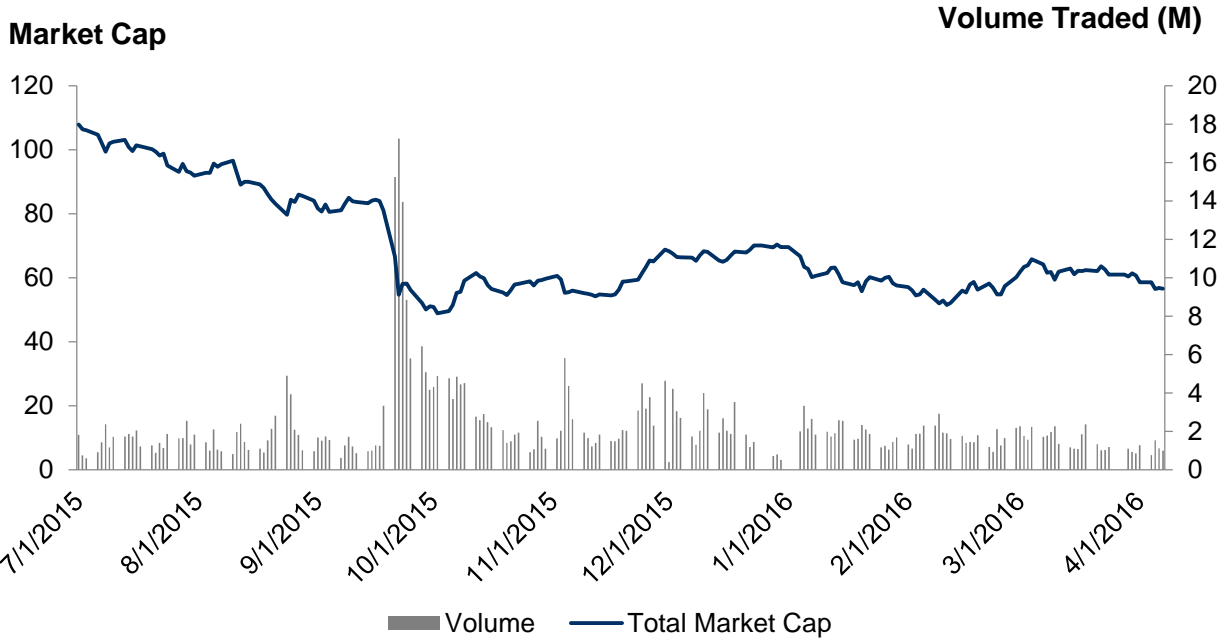


“The lawsuit had been expected, and analysts believe any fine will be far below the theoretical maximum. Although U.S. authorities sued Toyota for up to **\$58 billion** for environmental violations around the turn of the century, they agreed a settlement that cost the Japanese carmaker about **\$34 million.**”

Equity Impact of scandal

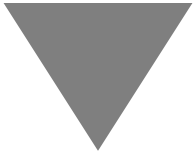
Back-up slide

Drop in Market Capitalization



Writedown

Emission Scandal
has impacted
values of cars on
the market



\$391m write-down from loss of value in cars

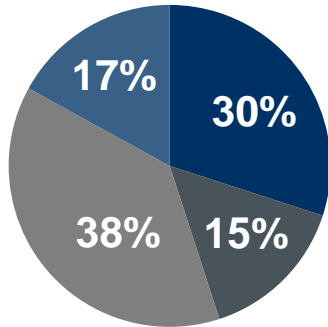
Dates	1 Day	2 Day	1 Week	2 Week	1 Mth	2 Mth	3 Mth	Now
Drop in Mkt Cap (bn)	-14	-26	-29	-31	-25	-22	-13	-24



Cost of Debt

Back-up slide

Diversified Financing Structure



- Equity, liabilities to affiliated companies & other
- Asset backed securitization
- Bonds, commercial paper, liabilities to FI
- Customer deposits

Ratings downgrade

Volkswagen

- Long-term IDR downgraded to 'BBB+' from 'A'; Outlook Negative
- Senior unsecured notes downgraded to 'BBB+' from 'A'
- Short-term IDR downgraded to 'F2' from 'F1'

Volkswagen International Finance NV

- senior unsecured notes downgraded to 'BBB+' from 'A'
- subordinated notes downgraded to 'BBB-' from 'BBB+'



Average increase in interest rate spread
of **0.45%**

Breakdown of Liabilities

Non current financial liabilities

	Sep-15	Dec-14
Bonds, Commercial Paper & Notes	59,170	56,639
Liabilities to banks	11,106	9,692
Deposit business	801	980
Other financial liabilities	1,426	1,105
Total	72,502	68,416

Current financial liabilities

Bonds, Commercial Paper & Notes	29,300	29,639
Liabilities to banks	12,411	11,109
Deposit business	23,499	24,353
Other financial liabilities	500	463
Total	65,710	65,564

Estimated Additional Cost Exposure

Assumptions

- 1) Debt exposure remains as Sept 2015: **EUR138,212 M**
- 2) Initial Interest rate: **1.98%**
(average yield: interest expense / total interest)

Additional Interest Payments

- Additional Interest Payments: **US\$706.8m**
- Potential Tax Shield Benefits at 29.8% rate: **US\$210.6M**
- Net Cost Exposure: **US\$496.2**



Cost of recall & repurchase

Back-up slide

Region	Engine	Volume (M)	Description of technical solutions	Cost per car (US\$)	Total cost (US\$bn)
Europe	EA189 1.2-litre	0.3	Software flash	55	0.02
	EA189 1.6-litre	3	Minor hardware measures (flow transformer to be fitted)	110	0.33
	EA189 2.0-litre	5.2	Software flash	55	0.29
Total Europe		8.5			0.63
US	EA189 2.0-litre (Gen. 1)	0.3	Buyback cars @ est. price per car of \$12,000	12,000	3.60
	EA189 2.0-litre (Gen. 2)	0.1	Minor hardware measures (flow transformer) + AdBlue dosage adjustment	220	0.02
	EA288 2.0-litre (Gen. 3)	0.1	Software flash + AdBlue dosage adjustment	55	0.01
	3.0-litre V6 TDI	0.1	Hardware measures (changes to catalyser?) + AdBlue dosage adjustment	220	0.02
Total US		0.6			3.65
Rest of World	EA189 (1.6-litre & 2.0-litre)	2	Minor hardware measures (flow transformer) or software flash	93	0.19
Total RoW		2			0.19
Total Fix Cost		11.1			4.47
Goodwill gesture					
	Europe	8.5	€350 voucher (equivalent to major service + certificate of roadworthiness)	385	3.27
	US	0.6	\$1,000 voucher already announced by VW	1,000	0.60
	RoW	2	€250 voucher	275	0.55
Total goodwill gesture		11.1			4.42
Total remediation costs		11.1			4.42
Total Costs		11.1			8.89

Cost of Gen 1 Buyback:
\$12,000 value is average residual value of vehicles before scandal

Feasibility of repurchase:
High mechanical requirements & possible additional costs

Customer Goodwill:
Vouchers of varying amount for customers affected by scandal



Internal Company Cost

Types	Cost of investigation	Cost of hiring & training	Cost of talent retention
Details	c.450 deployed internally and independently to investigate scandal	1) Employees leaving: CEO of VW US, Michael Horn resigned effectively on March 9, 2016 – incentivize staying on in VW 2) Costs of additional new staff training if new employees are brought in	
Assumptions	1) 450 Investigators as stated in Media Release 2) Fee of \$50 for 7 hours, 5 days a week	1) Cost of Hiring: c.\$18k 2) Turnover: 10K employees over 2 year horizon	1) Incentives: 0.5% of annual salary (Average of 94K per year) 2) No. of employees: 588,902
Cost	US\$37.8M per year for 1 year	US\$188.8M per year for 2 years	US\$278M per year for 1 year



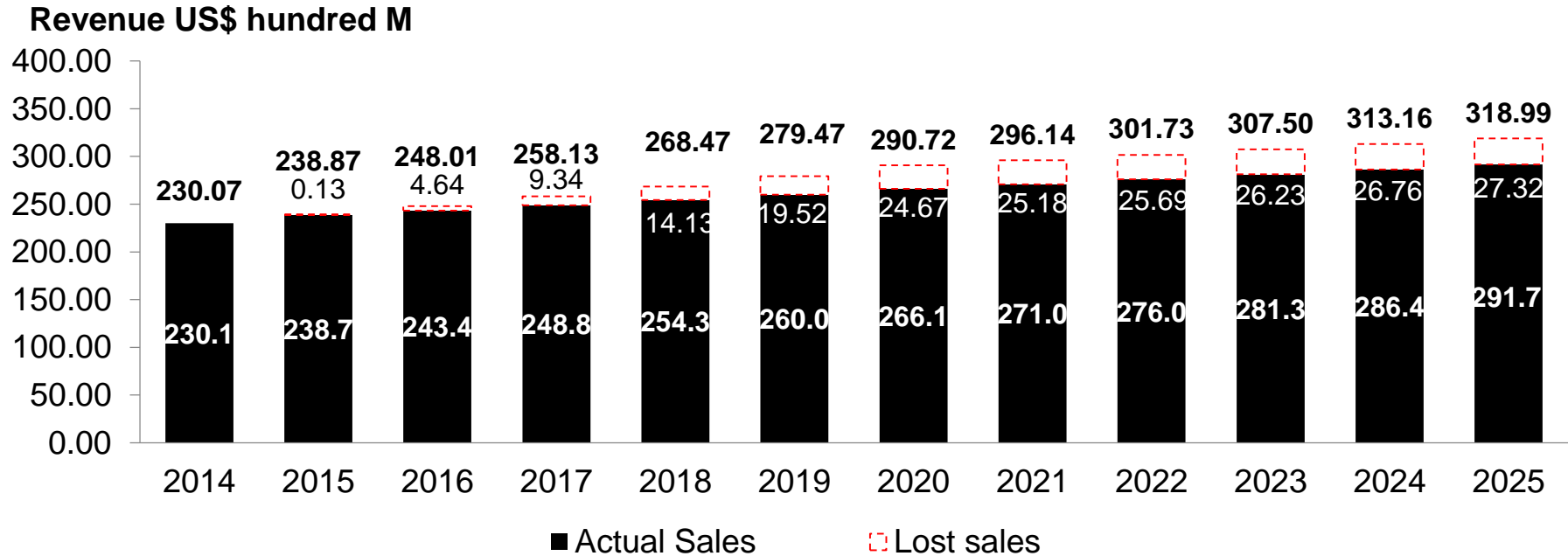
Dealership Cost

Types	Financing Reimbursement	Guaranteed Payout	
Details	Vehicles not sold will be reimbursed to dealers	1% MSRP For Each Vehicle	\$300 per car for 1 month (September)
Assumptions	<ul style="list-style-type: none"> 1) 30% of total cars will not be sold 2) Reimbursement amount at average MSRP of US\$40.2K 	<ul style="list-style-type: none"> 1) Number of car deals in USA: 650 2) Assumed number of cars per dealer: 50 	
Cost	<p>US\$392M in year 2</p>	<p>US\$13.1 in year 1</p>	<p>US\$9.75M in year 1</p>



Intangible cost: loss of potential sales

Back-up slide



**Loss in potential sales due to damaged trust:
c.200 billion over 10 years to 2025**

- Assumptions made:**
- 1) VW is able to grow at industry growth rate without emissions scandal

VW Group Car Deliveries

Back-up slide

	2014	2015	2016	2017	2018	2019
Europe	3,519,706	3,651,343	3,738,610	3,827,963	3,919,451	4,013,126
Western Europe	2,912,905	3,021,848	3,094,070	3,168,018	3,243,734	3,321,259
<i>Growth%</i>		3.74%	2.39%	2.39%	2.39%	2.39%
Central & Eastern Europe	606,801	629,495	644,540	659,945	675,717	691,867
<i>Growth%</i>		3.74%	2.39%	2.39%	2.39%	2.39%
Other Markets	374,020	378,508	381,423	384,360	387,319	390,302
<i>Growth%</i>		1.2%	0.8%	0.8%	0.8%	0.8%
North America	884,454	852,967	831,131	835,287	837,793	844,495
<i>Growth%</i>		-3.56%	-2.56%	0.50%	0.30%	0.80%
South America	690,101	734,751	743,347	753,531	765,211	769,572
<i>Growth%</i>		6.47%	1.17%	1.37%	1.55%	0.57%
Asia Pacific		4,231,345	4,345,146	4,462,189	4,582,568	4,706,379
Total	9,490,921	9,848,915	10,039,657	10,263,330	10,492,342	10,723,874
	2020	2021	2022	2023	2024	2025
	4,109,040	4,181,359	4,254,951	4,329,838	4,406,043	4,483,589
	3,400,637	3,460,488	3,521,393	3,583,369	3,646,437	3,710,614
	2.39%	1.76%	1.76%	1.76%	1.76%	1.76%
	708,403	720,871	733,558	746,469	759,606	772,976
	2.39%	1.76%	1.76%	1.76%	1.76%	1.76%
	393,307	395,667	398,041	400,429	402,832	405,249
	0.8%	0.6%	0.6%	0.6%	0.6%	0.6%
	854,714	865,825	879,678	896,392	904,460	914,590
	1.21%	1.30%	1.60%	1.90%	0.90%	1.12%
	784,733	796,504	808,452	820,578	832,887	845,380
	1.97%	1.50%	1.50%	1.50%	1.50%	1.50%
	4,833,719	4,938,788	5,046,250	5,156,160	5,268,575	5,383,551
	10,975,513	11,178,142	11,387,371	11,603,398	11,814,796	12,032,359

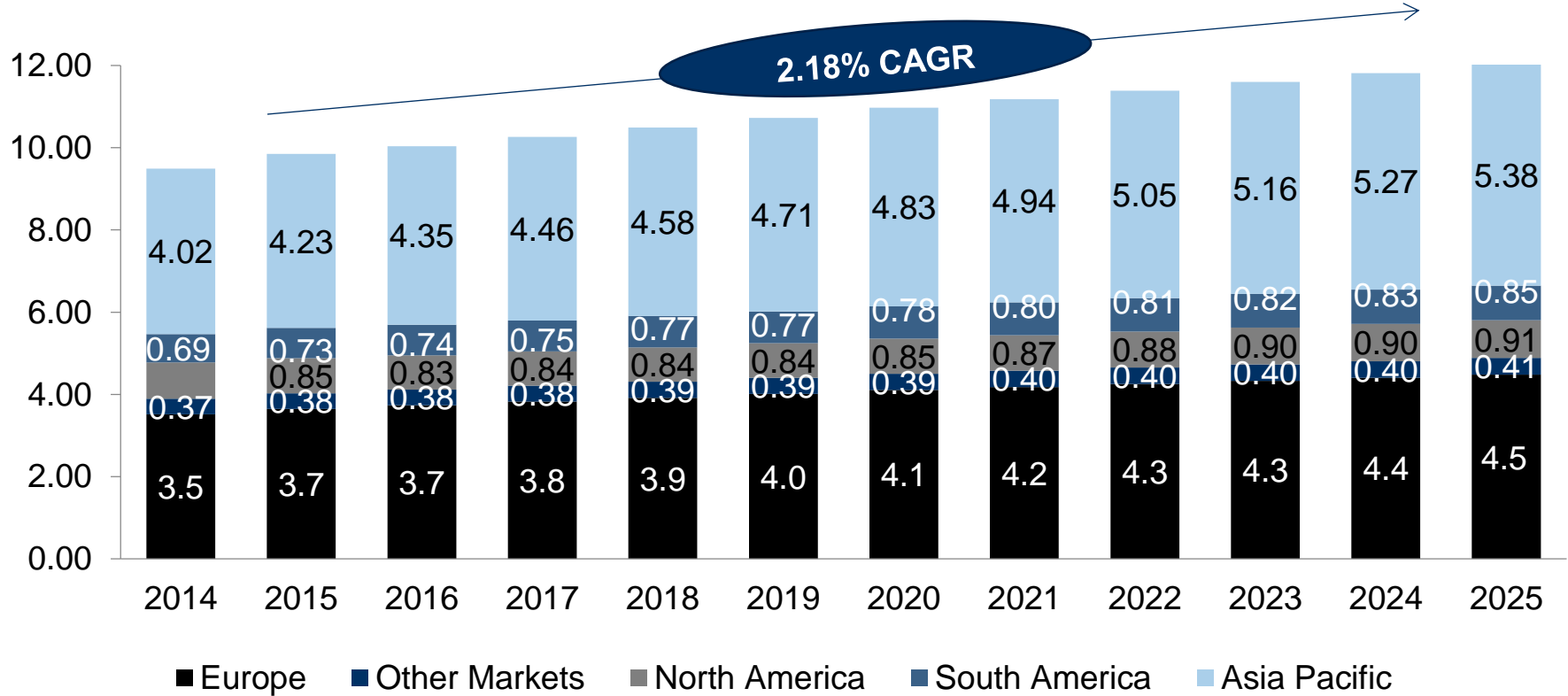
Growth projections:

- 1) Market Growth Forecast
- 2) Dilution in growth due to emission scandal in initial years

VW Group Car Deliveries (Visual)

Back-up slide

Number of Deliveries (M)



Forecasted 5 year growth rates – taper down after



Operating Margin Improvements

Cost Analysis (AR14)

1

Cost of sales incl.
Manufacturing Cost

- EUR165,934M
- 82% of revenue

2

Distribution Cost

- EUR20,292M
- 10% of revenue

3

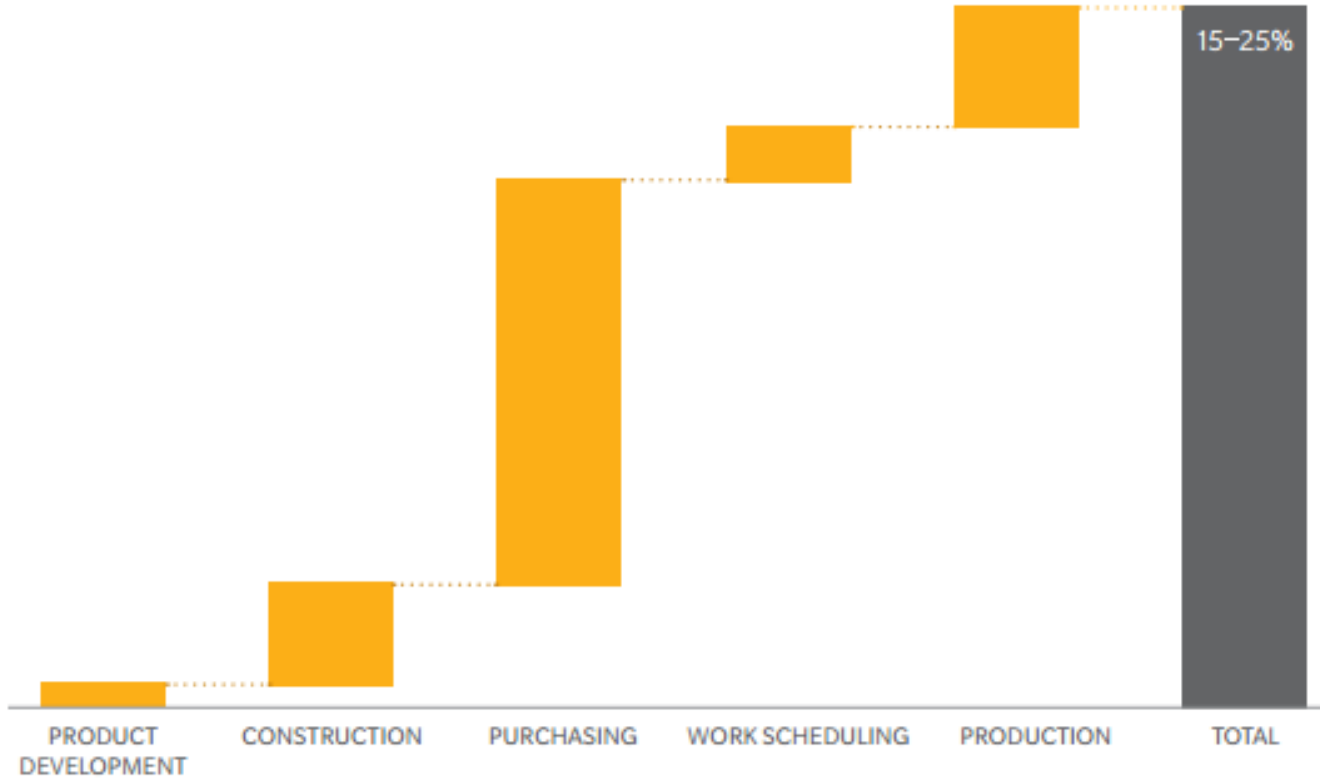
Administration Cost

- EUR6,841M
- 3% of revenue

Greatest
improvement
gains can be
achieved
through
improving
operational
capabilities
through
manufacturing

Cost reduction from modularization

Exhibit 1: Average cost reduction potential of modularization in special machinery engineering, as a percentage of a manufacturer's costs

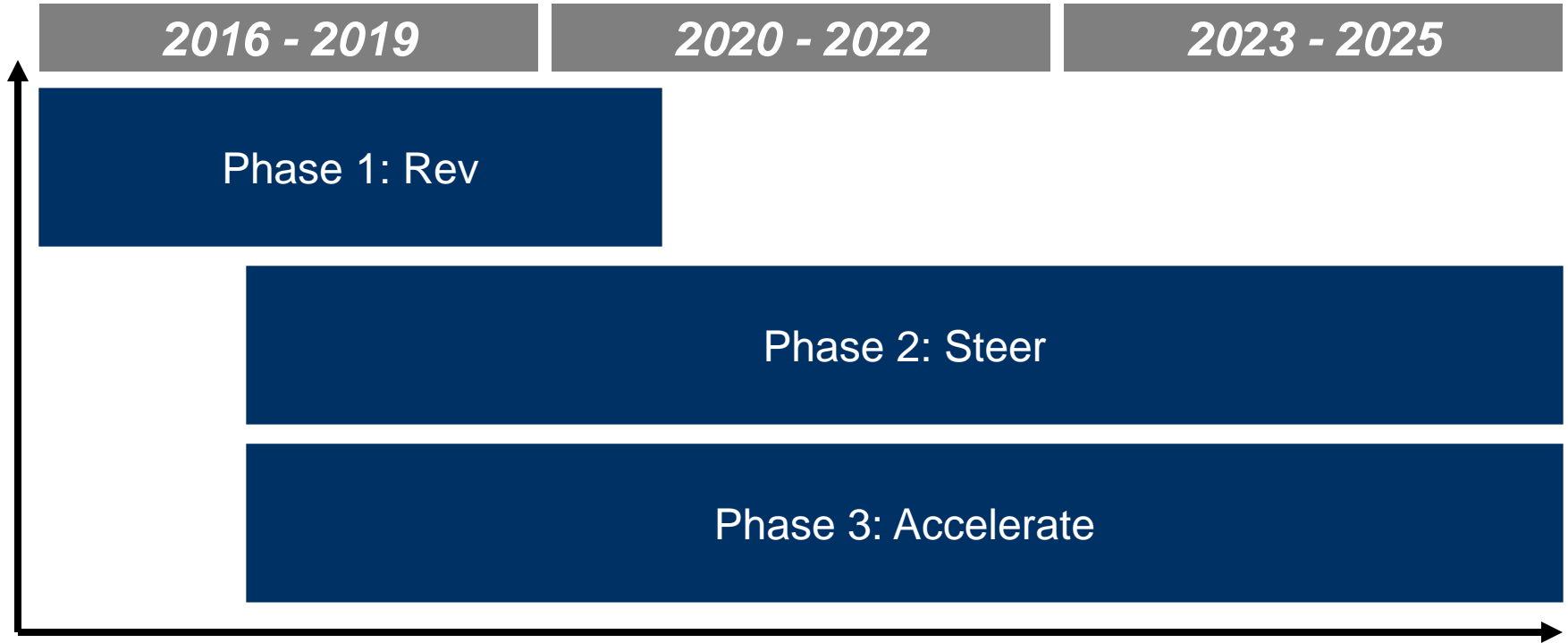


15-25% cost savings translates to c.16bn cost savings moving forward



Timeline for Strategy 2025

Back-up slide



Rev
Rebuild consumer trust

Steer
Geographical strategy to ensure sustainable growth

Accelerate
Continually reinvest in technology to position for future





End of presentation deck

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- 4. Disruption of Strategy 2018
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