



FIAT CHRYSLER AUTOMOBILES

# Confessions of a Capital Junkie

An insider perspective on the cure for the industry's value-destroying addiction to capital

April 29, 2015

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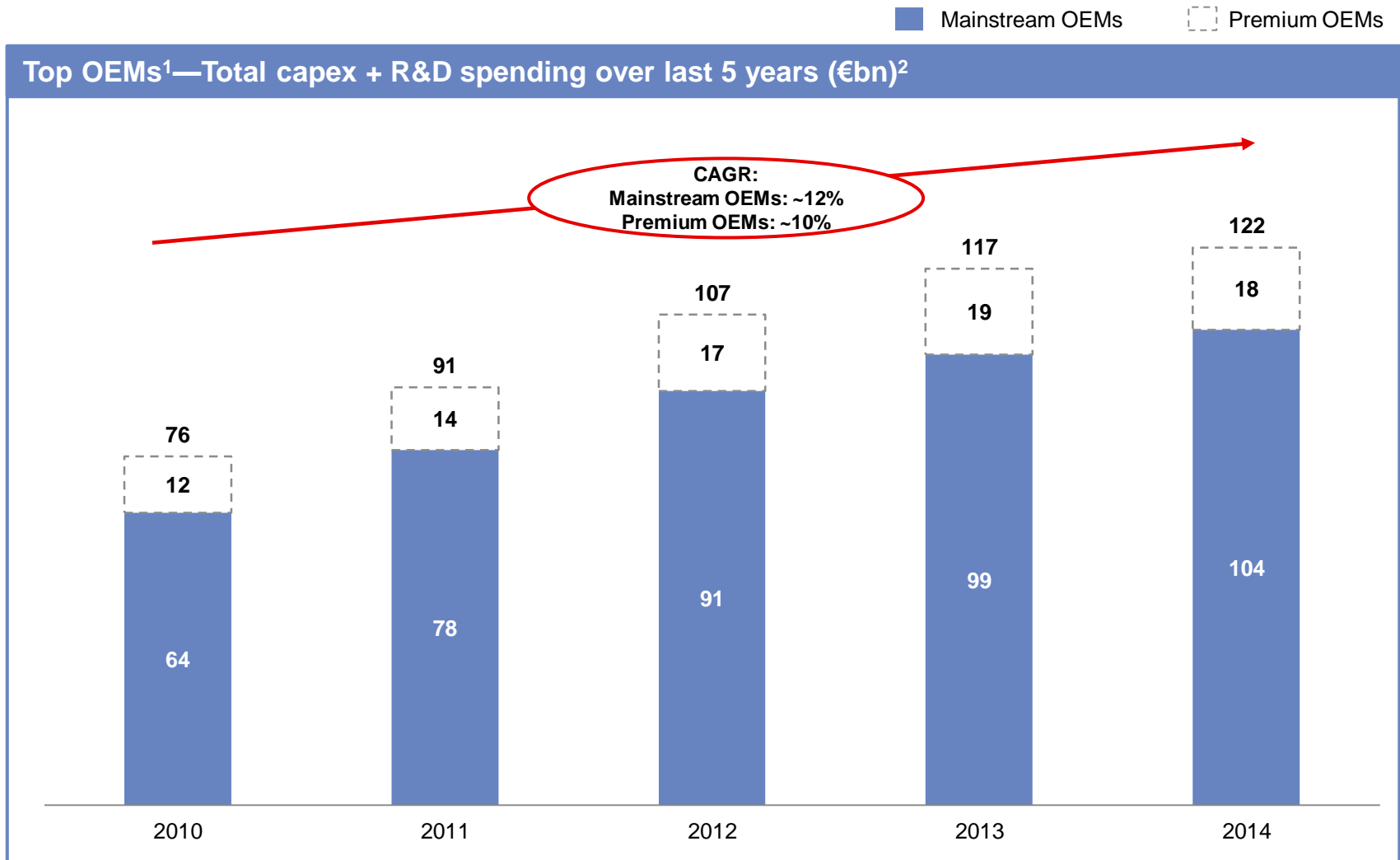
- Goal is to provide clarity on two issues that have been raised publicly by FCA
  - Industry has not earned its cost of capital over a cycle
  - Consolidation is the key to remedying the problem
- What this is **not** about
  - An excuse for FCA's current ranking in the automotive food chain
  - Putting FCA up for sale
  - A revision to our 5 year plan (which remains a firm commitment)
  - A matter of life or death for FCA
  - SM's final big deal
- What this is about
  - Dispassionate look at the industry from the outside using insider knowledge
  - It is about choosing between mediocrity or fundamentally changing the paradigm for the industry



*“Everyone is entitled to his own opinion, but not to his own facts.”*

***Daniel Patrick Moynihan***  
*(Former US Senator and Ambassador to the UN)*

# Auto industry's capex and R&D requirements have grown significantly over the past years ...

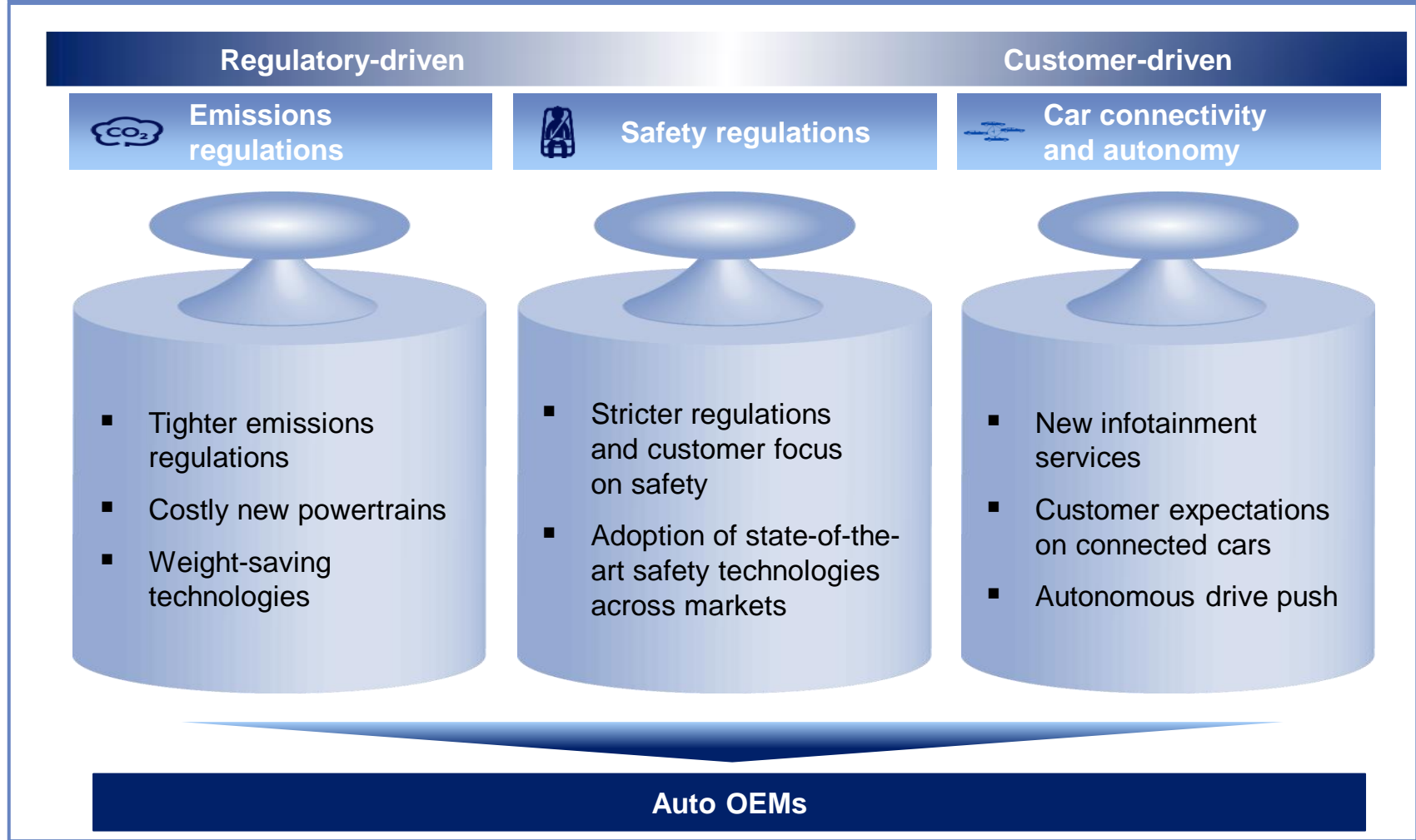


Source: Company annual reports

- 1 Includes mainstream OEMs: FCA, Ford, General Motors, Honda, Hyundai, Kia, Nissan, PSA, Renault, Toyota, Volkswagen. Premium OEMs: BMW, Daimler Cars
- 2 Translated at constant 2010 exchange rates (average January to December 2010)

# ... and going forward, new technological challenges will continue to raise the bar on capital requirements

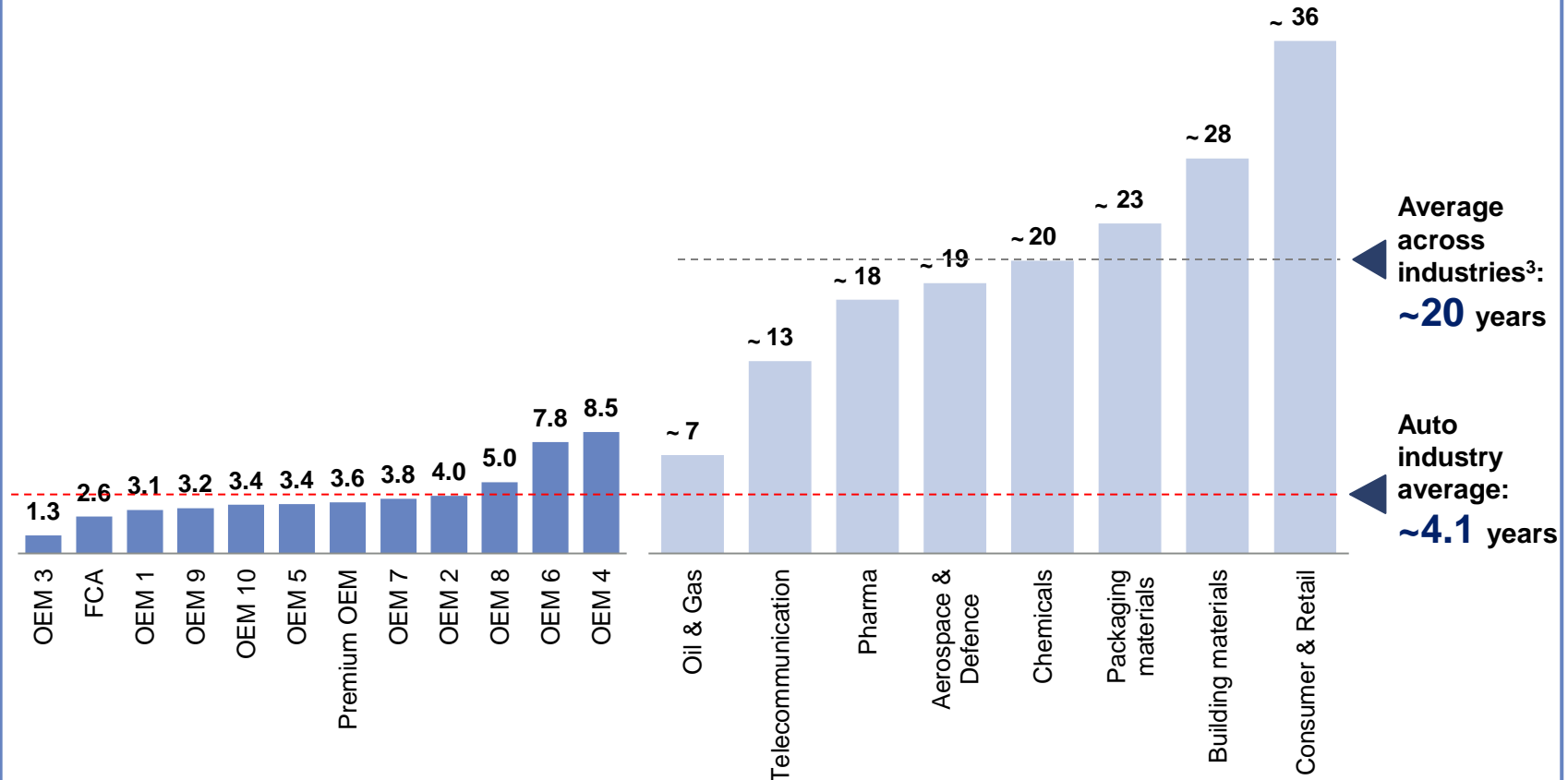
## Forces at work increasing capital requirements—Selected examples



# Product development costs are consuming value at a much faster rate than in other industries ...

## Time to reinvest enterprise value<sup>1</sup> in product development (capital and R&D)<sup>2</sup>

Average number of years



Source: Company annual reports

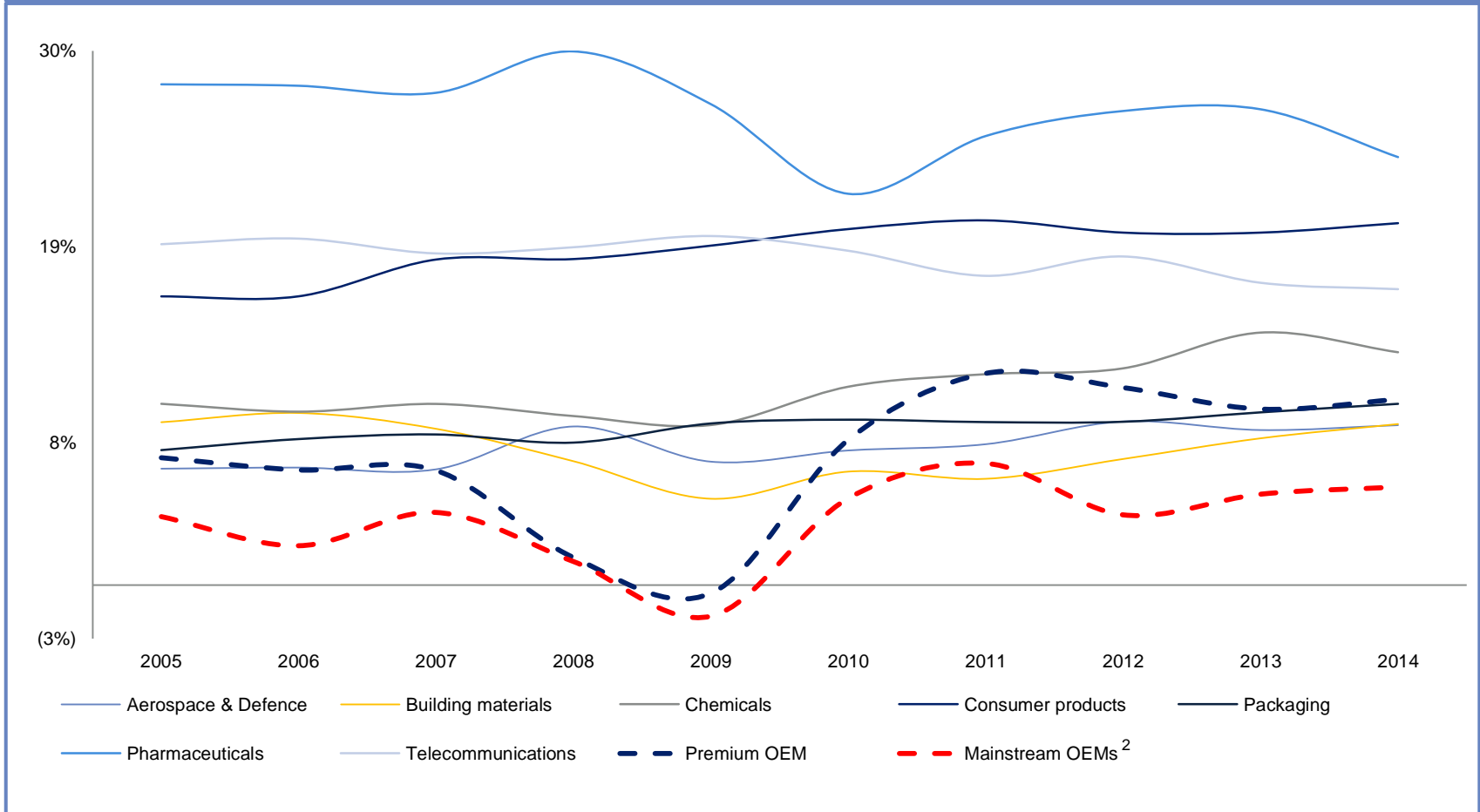
1 Industrial activities only. Including pension liabilities

2 Calculated as 3-year average of the annual ratio between enterprise value (for the period 2012–2014) and capital expenditures plus R&D expenses

3 Based on the reference sample

# ... and high operational leverage amplifies profitability swings across the cycle ...

EBIT Margin<sup>1</sup> of Auto OEMs vs other sectors (%)

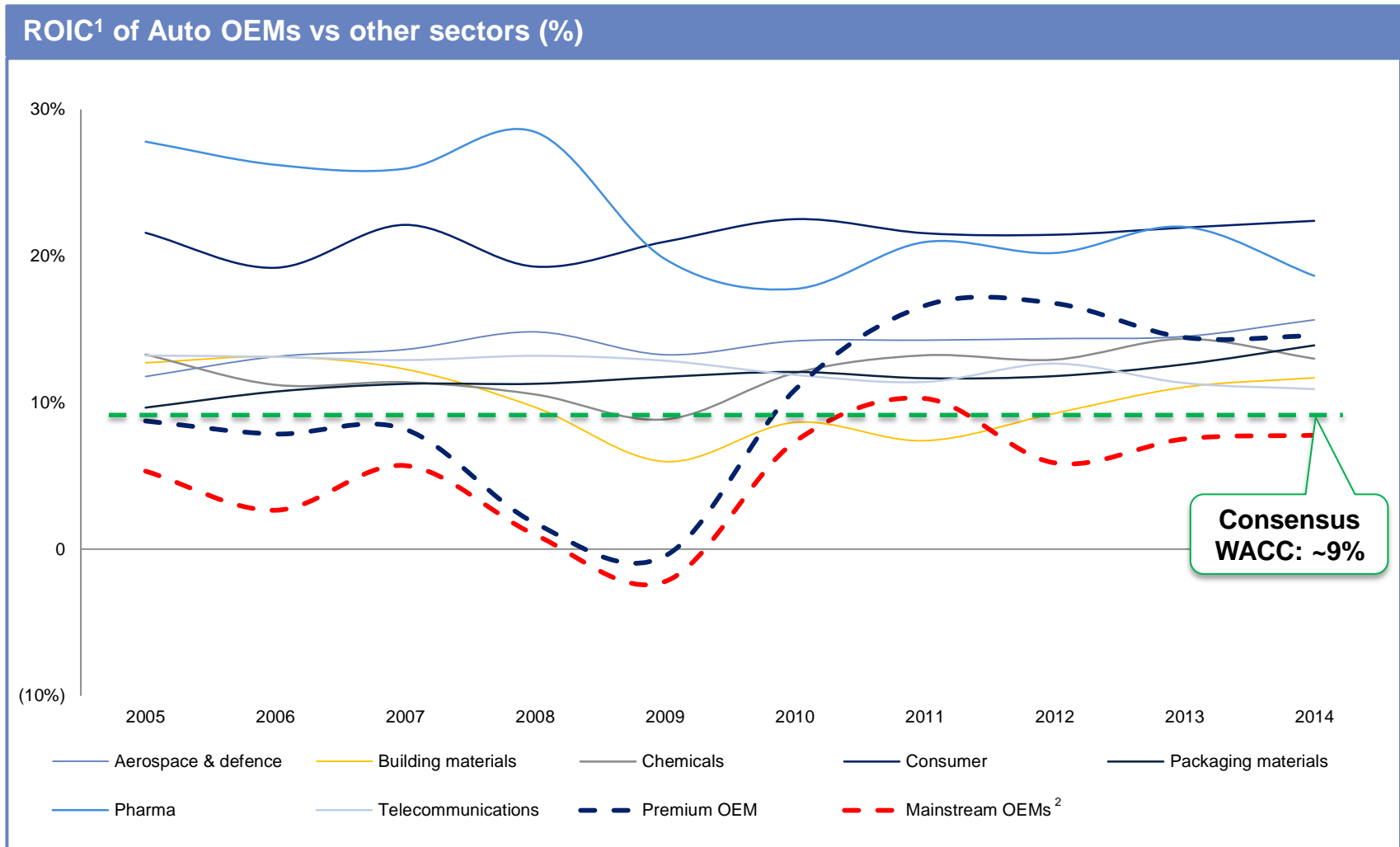


Source: Company annual reports

- 1 EBIT defined as Industrial reported EBIT plus income from equity accounted investments and excludes goodwill impairment. EBIT as per accounting principles adopted by each company
- 2 Mainstream OEMs include: FCA, Ford, General Motors, Honda, Hyundai, Kia, Nissan, PSA, Renault, Toyota, Volkswagen



# ... resulting in structurally low and volatile returns

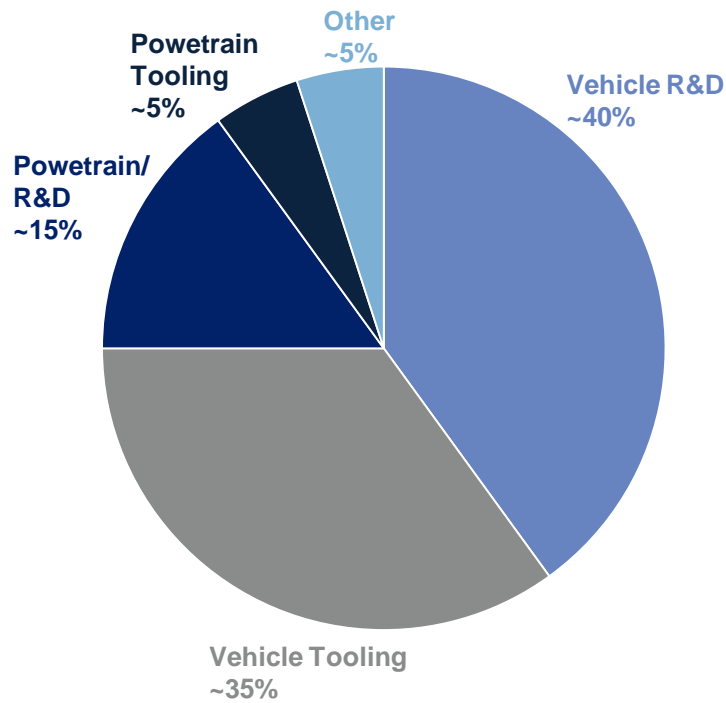


1 ROIC calculated as [Industrial reported EBIT x (1-taxes) + income from equity accounted investments] / Industrial Net Invested capital. Assumed a normalized tax rate equal to 30%. EBIT excludes goodwill impairment. Industrial Net Invested capital is defined as industrial Trade Working Capital + Industrial PP&E + Industrial Intangibles (excl. Goodwill) + Book Value of equity accounted investments + operating cash for OEMs (assumed at 12.5% of industrial sales). EBIT as per accounting principles adopted by each company

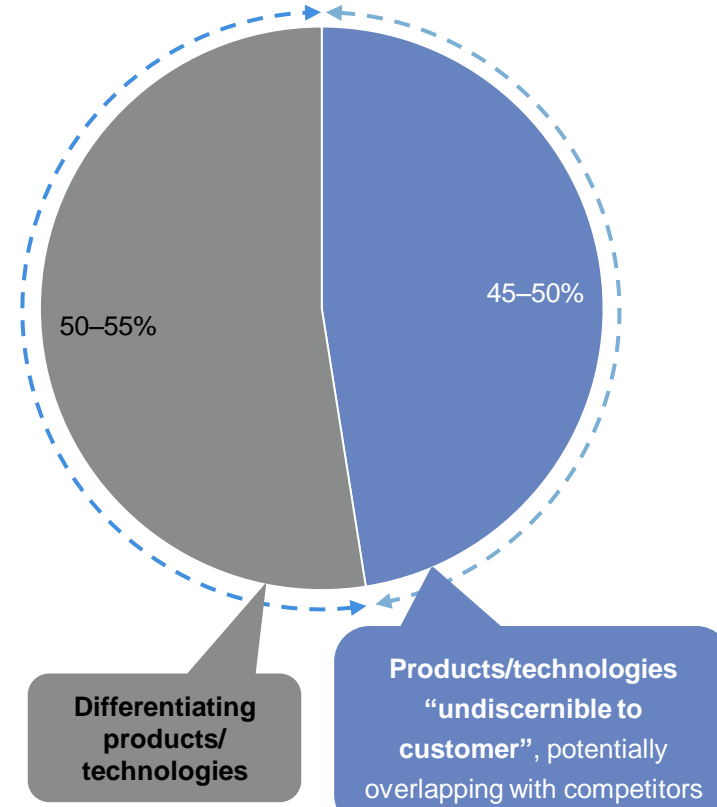
2 Mainstream OEMs include: FCA, Ford, General Motors, Honda, Hyundai, Kia, Nissan, PSA, Renault, Toyota, Volkswagen

# Why did this happen? OEMs spend vast amounts of capital to develop proprietary components, many not really discernible to customers

## Typical vehicle development costs



## New vehicle program—development costs split<sup>1</sup>

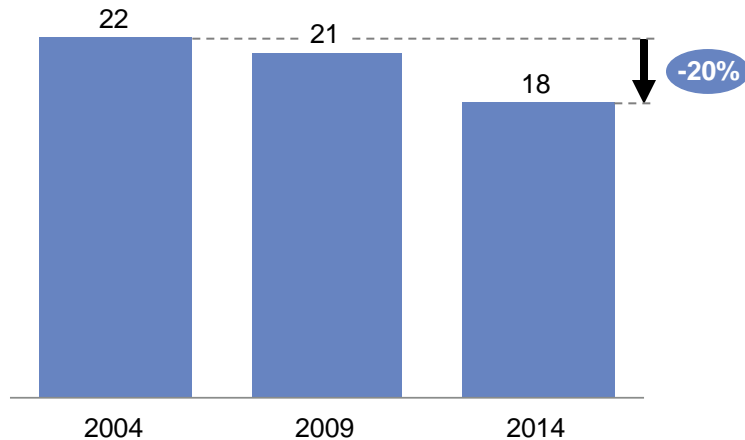


1 Chart scale based on mid-point of range shown

# One industry solution focuses on reducing the number of active platforms and increasing scale ...

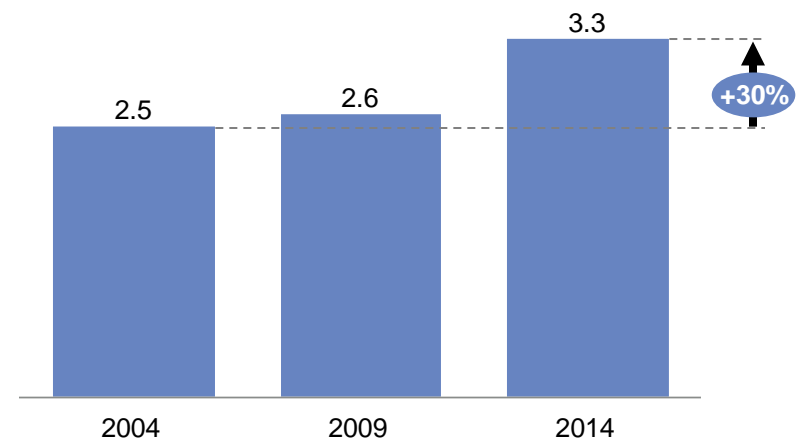
## Active platforms by OEM<sup>1</sup>

Average across top 10 global OEMs



## Number of top hats by platform<sup>2</sup>

Average across top 10 global OEMs



*"More of our components will be common, and more of our vehicles will be on global architectures"*

*Dan Akerson, GM (2011)*

*"I'm really proud to say that we've reduced that number down to 12 global platforms. In 2016 we'll reduce that down to a further nine global platforms, and our team is working towards a further consolidation of that to get down to a long-term target now of eight global platforms [...] that obviously yields tremendous benefits for us as an enterprise"*

*Raj Nair, Ford Group Vice President-Global Product Development (2015)*

SOURCE: IHS

1 Adjusted to include only platforms with at least 2,000 cars manufactured in a given year

2 Including FCA, Ford, GM, Honda, Hyundai, PSA, Renault/Nissan, Suzuki, Toyota, Volkswagen

# ... and some OEMs are trying larger scale commonization across diverse brands ...

## MQB ARCHITECTURE



## MC-M ARCHITECTURE





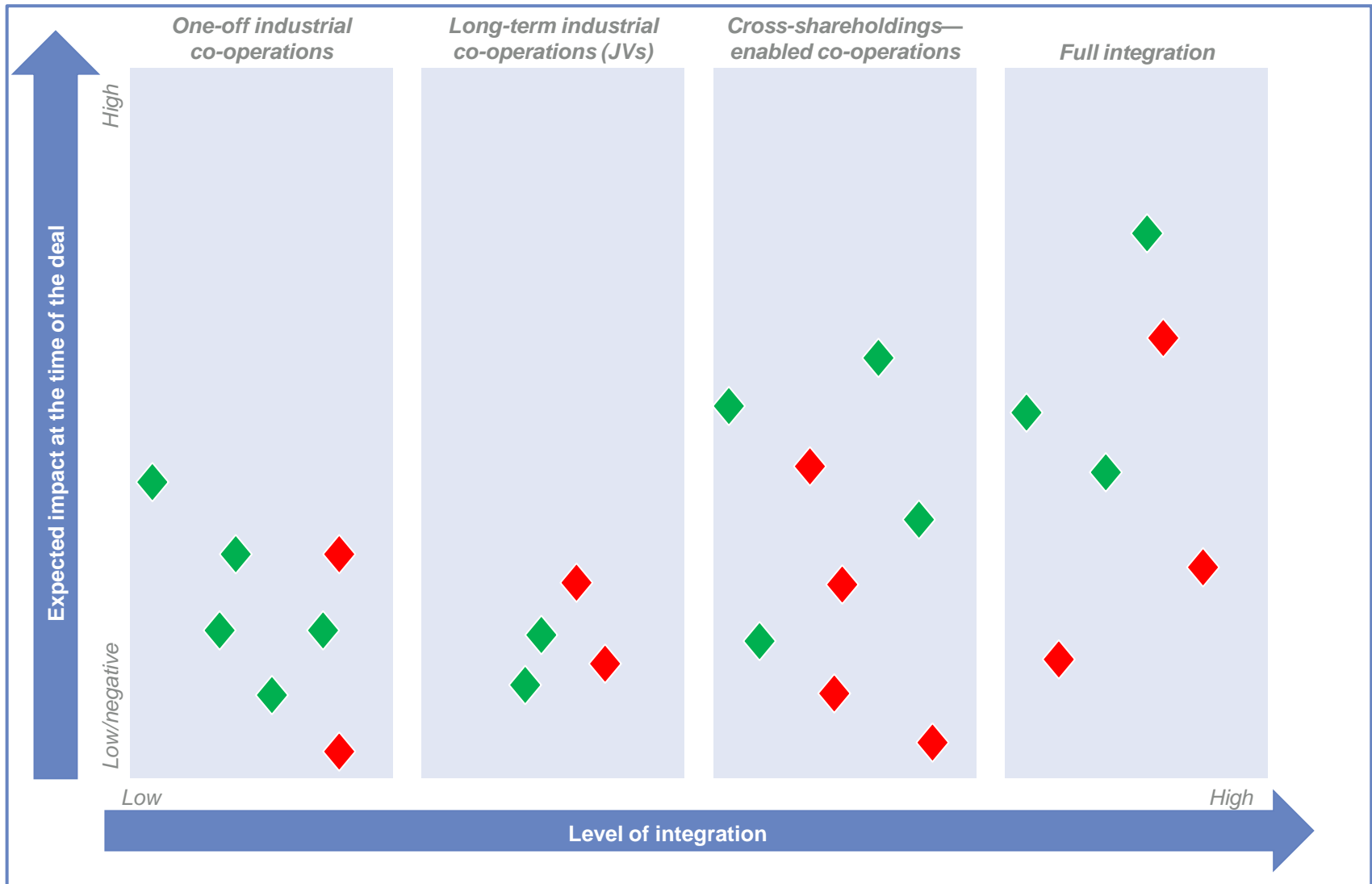


*"By the middle of 2020, we plan to expand TNGA (Toyota New Generation Architecture) to approximately half of the line-up [...] —Traditionally we have tended to focus on developing individual models and lacked the total alignment and consistency, which will change with a company-wide effort."*

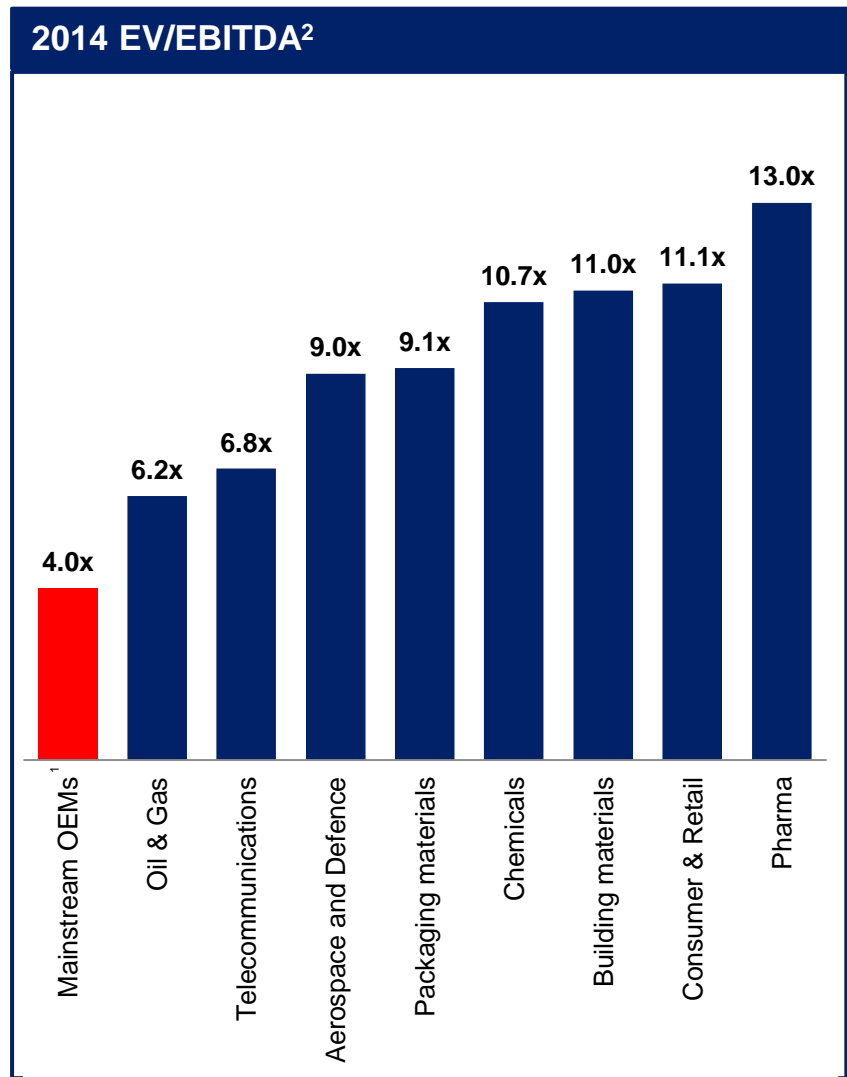
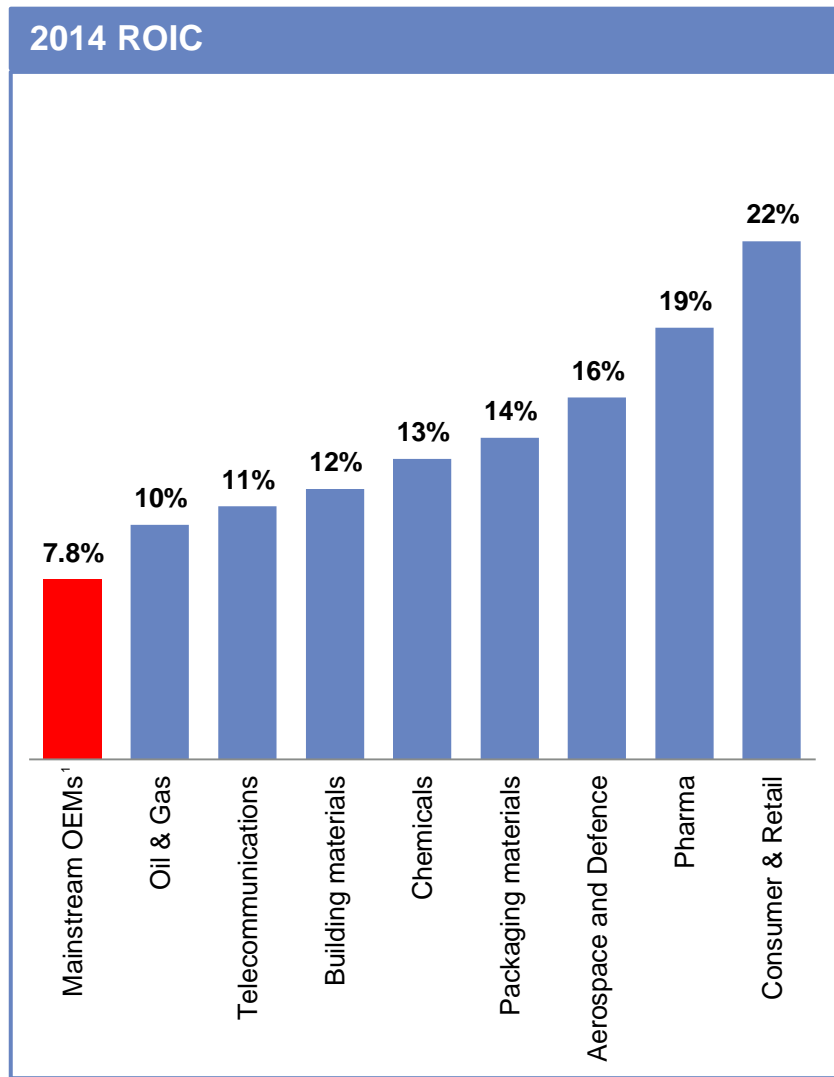
*Mitsuhisa Kato, Toyota Executive VP (2015)*

# ... while others through one-off co-operations, JVs and other equity tie-ups

◆ Successful     ◆ Failed



# But all this has produced poor results so far, as OEMs' returns and valuations are still depressed



<sup>1</sup> Mainstream OEMs include: FCA, Ford, General Motors, Hyundai, Honda, Kia, Nissan, PSA, Renault, Toyota, Volkswagen

<sup>2</sup> Based on 2014 average enterprise value for the companies in the reference sample. EV including pension liabilities. EBITDA as per accounting principles adopted by each company

# Why haven't these approaches provided a significant lift to returns?

- Large scale organic reduction in platforms
  - Reluctance to replace old, less costly architectures
  - Option available only to those OEMs with existing scale across platforms, top hats and regions
  - Requires strict discipline to avoid upward standardization/over engineering
  - **Lower risk in the short-term, BUT significantly slower execution, entailing lower returns over an extended period**
  
- OEM co-operations
  - Most effective on single ventures, but with limited scope
  - Usually involve non-core elements of portfolio
  - Not a pervasive, substantive solution for any OEM

- High mortality rate caused by partial if non-existent integration
  - Cultural divide (corporate and otherwise)
  - Inequality of integrating parties
  - Operating models radically different and never merged
  - Insufficient sensitivity for brand differences
  - Lack of respect/trust for one another
- Complexity proved to be too much of a stretch for leadership teams

## **BUT**

- It enables
  - Fast execution, enabling rapid scale gain
  - Fostering step-change/best-of-best approach to modularity/ commonality

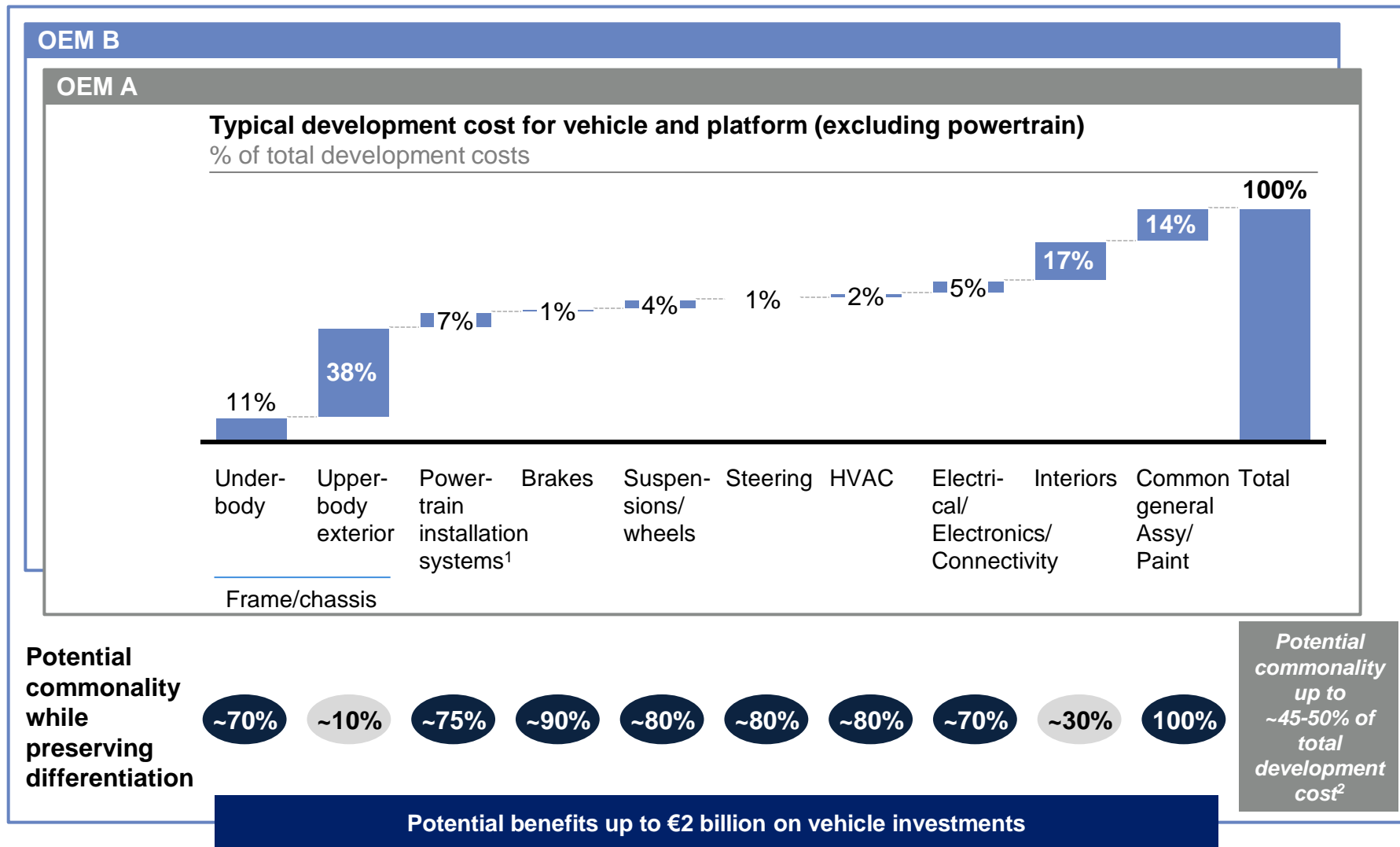
## **AND**

- The potential savings are too large to ignore



# The facts: Breaking down product development costs

## E-MPV segment mainstream “all new” vehicle example

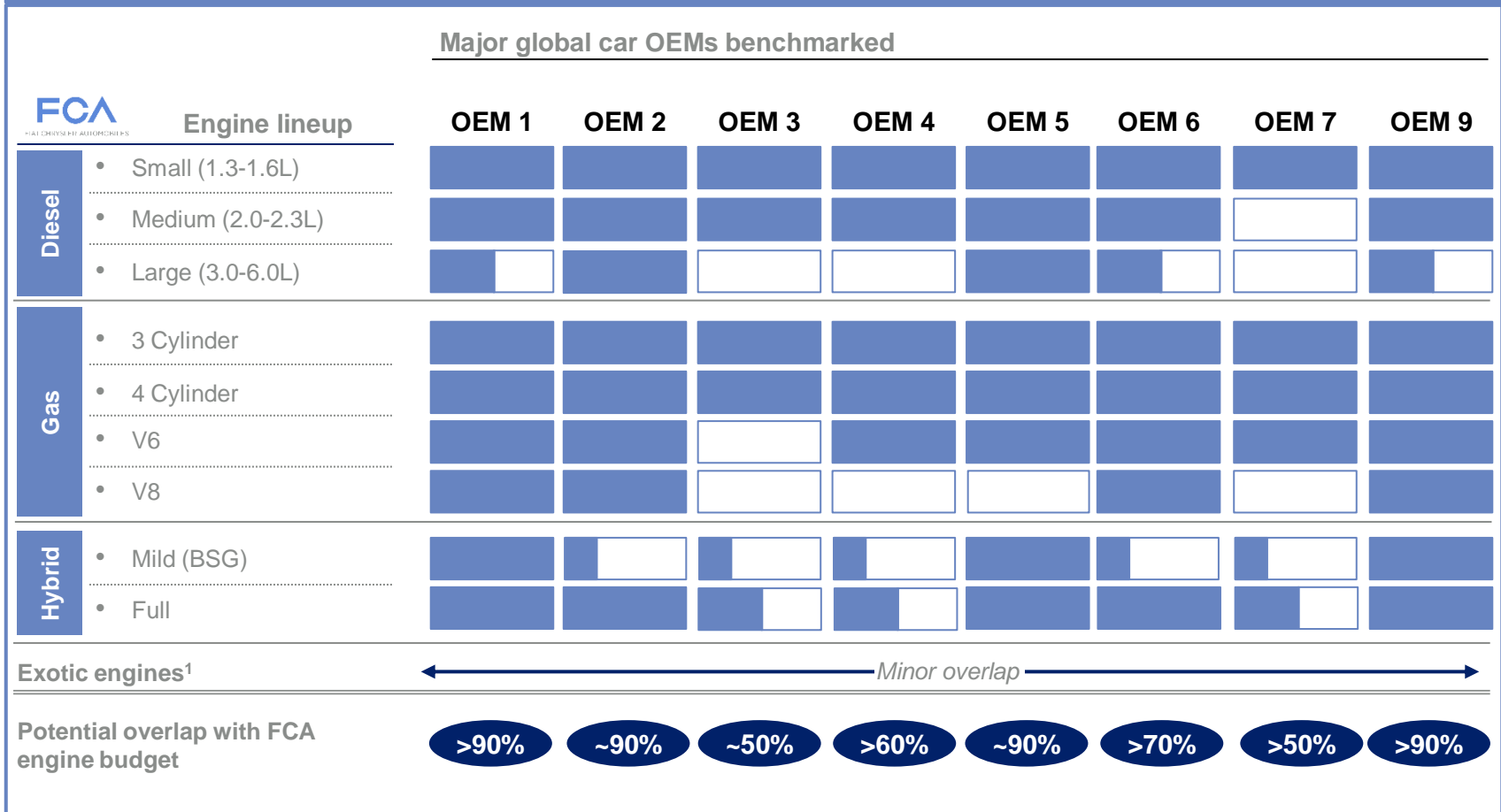


1 Includes mounts, fuel system, cooling and other minor components/systems

2 Average weighted on contribution to product development cost

# Powertrain portfolios show even higher duplications across OEMs, both for engines ...

## Overlap with future FCA engine offering



1 High performance engines, limited productions, low volumes

## Overlap with future FCA transmissions offering

### Major global car OEMs benchmarked

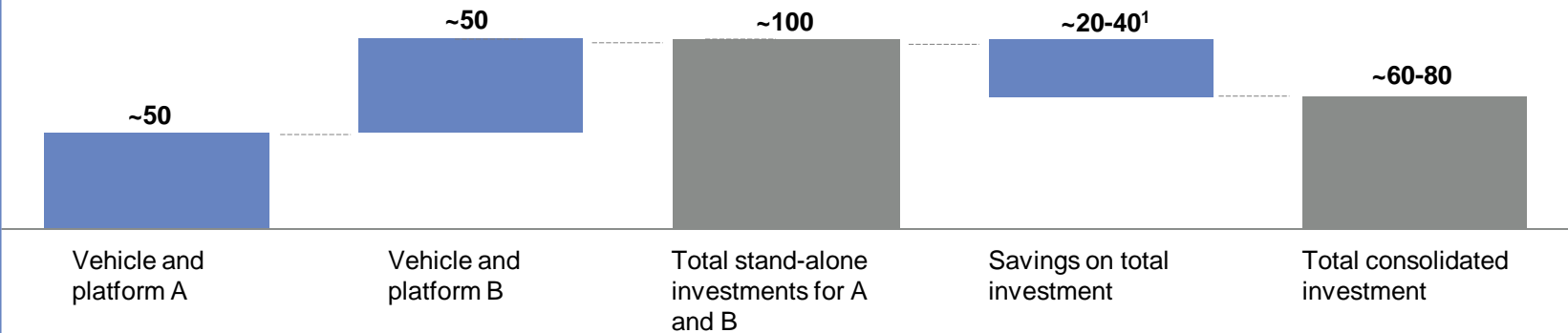
FCA Transmissions lineup		OEM 1	OEM 2	OEM 3	OEM 4	OEM 5	OEM 6	OEM 7	OEM 9
FWD	• Manual 5 Speed	█	█	█	█	█	█	█	█
	• Manual 6 Speed	█	█	█	█	█	█	█	█
	• MTA	█	█	█	□	█	█	□	█
	• DDCT	█	█	█ □	█	█	□	█	█
	• Automatic 6 Speed	█	█	█	█	█	█	█	█
	• Automatic 8/9 Speed	█	█	█	█	█	█	█	█
	• CVT	█	□	█	█	█ □	█	█	█
RWD	• Manual 6 Speed	█	█	□	█	□	█	□	█
	• Auto. LD, ≤7 Speeds	█	█	□	█	□	█	□	█
	• Auto. LD, ≥8 Speeds	█	█	□	█	█	█	□	█
	• Auto. HD, ≤7 Speeds (1000 Nm)	█	█	□	□	□	□	□	█
	• Auto. HD, ≥8 Speeds (1000 Nm)	█ □	█ □	□	□	□	□	□	█ □
Potential overlap with FCA transmissions budget	~90%	~90%	~50%	~80%	~60%	~70%	~50%	>90%	

Potential elimination up to €1 billion in duplicated engines and transmissions spending per year

# The facts: Sharing platform, vehicle and powertrain development can yield significant savings

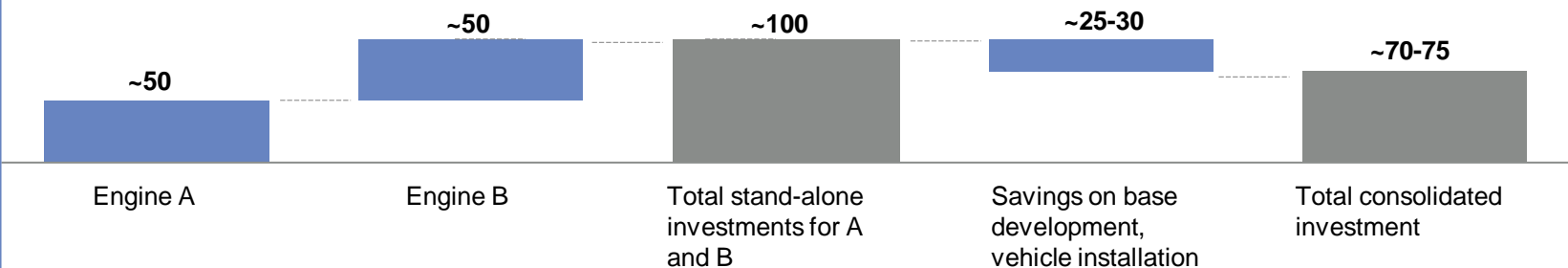
## Illustrative investment for developing 2 full new vehicles

Indexed to 100, example mainstream B/C segment built on same platform



## Illustrative investment for developing 2 new engines<sup>2</sup>

Indexed to 100, example for two 4-cylinder gasoline engines to be based on the same architecture

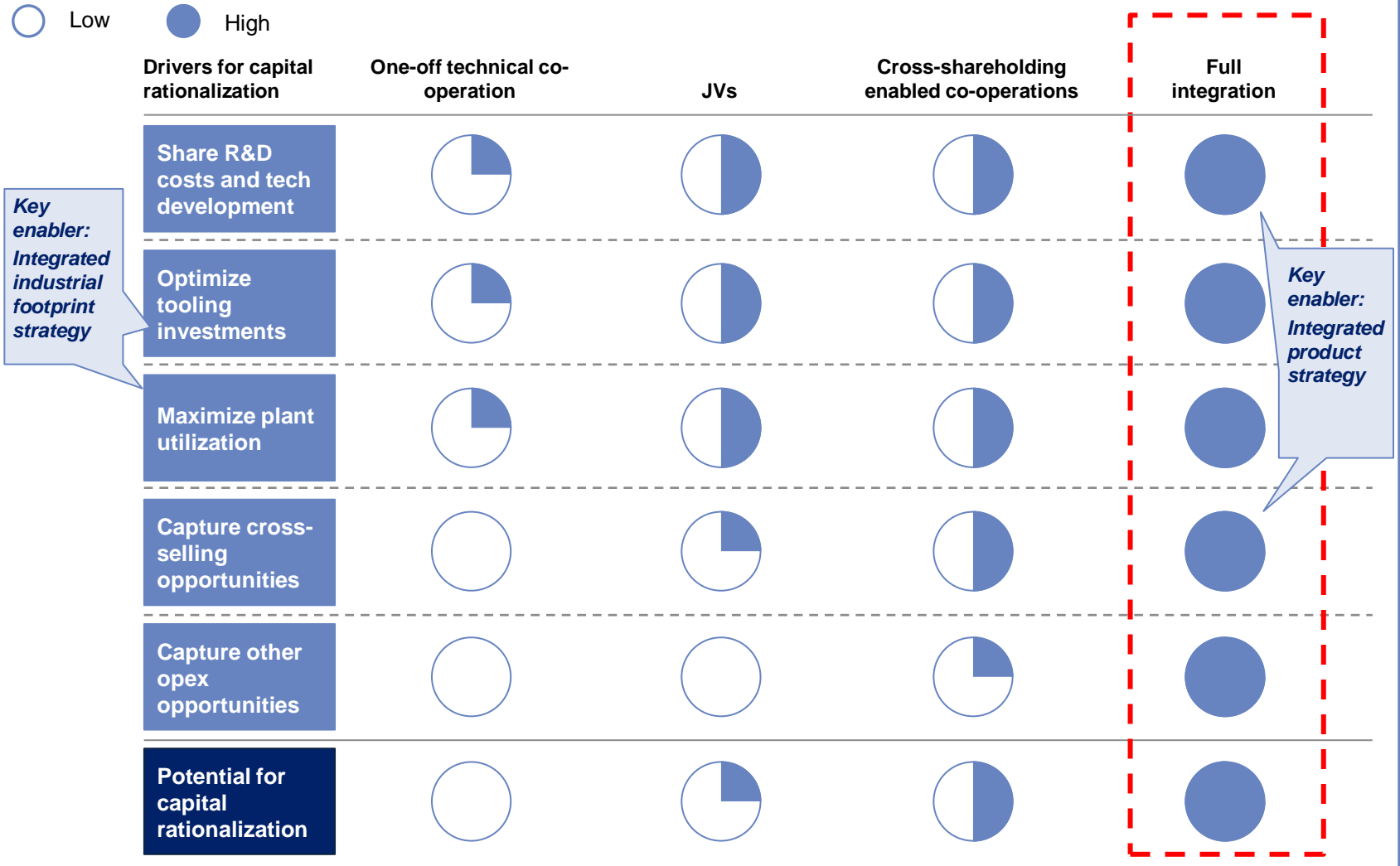


<sup>1</sup> Estimate based on 40-80% saving on the second vehicle leveraging commonalities in product development. Example for mainstream B/C segment estimated with same methodology as of case for E-MPV segment (45-50%)

<sup>2</sup> Assuming a powertrain average lifecycle of 10 years. Tooling synergies not considered

# We believe large scale integrations are required to unleash full potential

## Potential for capital rationalization across different types of co-operation



# Potential synergies from consolidation of auto OEMs would be ~70% driven by industrial rationale

## Estimated benefits from consolidation of auto OEMs<sup>1</sup>

**Technology and product development**  
(e.g. sharing component development costs)  
**~70%**

**Cross-selling**  
**~15%**

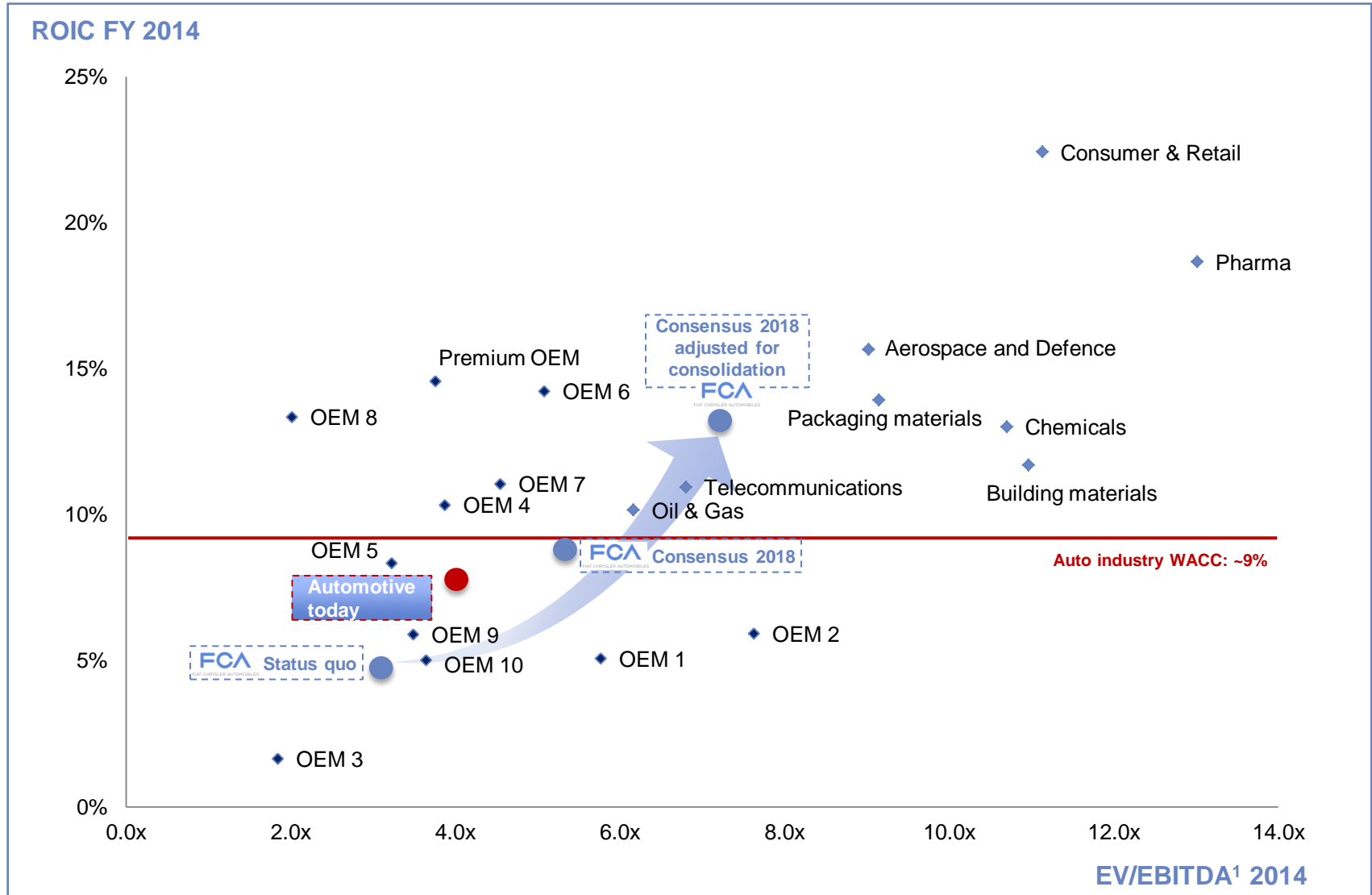
**Other opex opportunities**  
(e.g. purchasing, SG&A)  
**~15%**

- Sharing platforms development costs
- Leveraging commonalities in top-hat development
- Avoiding budget duplication for powertrains
- Optimization of manufacturing investments and production allocation

**Combinations of FCA with another large OEM would yield benefits of €2.5-4.5bn per year**

<sup>1</sup> FCA analysis of potential consolidation opportunities among top 10 global automotive OEMs

# Consolidation can support significant ROIC and valuation improvement



1 Including pension liabilities. EBITDA as per accounting principles adopted by each company

- ***Top OEMs spent over €100bn for product development in 2014 only, >€2bn/week in product development and tooling costs, and poised to invest at similar rates in the futures***
- ***Historical returns have been broadly below cost of capital, even after the restructuring of the US auto industry and NAFTA volumes at peak***
- ***Single purpose projects, JVs and the like are helpful, but they are not enough***
- ***Capital consumption rate by OEMs is unacceptable—it is duplicative, does not deliver real value to consumers and is pure economic waste***
- ***Consolidation carries executional risks BUT benefits are too large to ignore***
  - ***Up to €4.5bn per annum, ~70% of which is a reduction in investments and R&D***
  - ***Optimized industrial allocations, with no impact on number employed***
  - ***Distribution (dealer networks not merged) and brands untouched by consolidation***
  - ***An exceptional value creation opportunity for shareholders***
- ***It is ultimately a matter of leadership style and capability...***



“Well, in our country” said Alice, still panting a little, “you’d generally get to somewhere else - if you ran very fast for a long time as we’ve been doing.”  
“A slow sort of country!” said the Queen. “Now here you see it takes all the running you can do to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that!”

**L. Carroll**  
***Through the Looking Glass***



**FCA**

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