



# AUTOMOTIVE MANAGER 2015 BY THE NUMBERS

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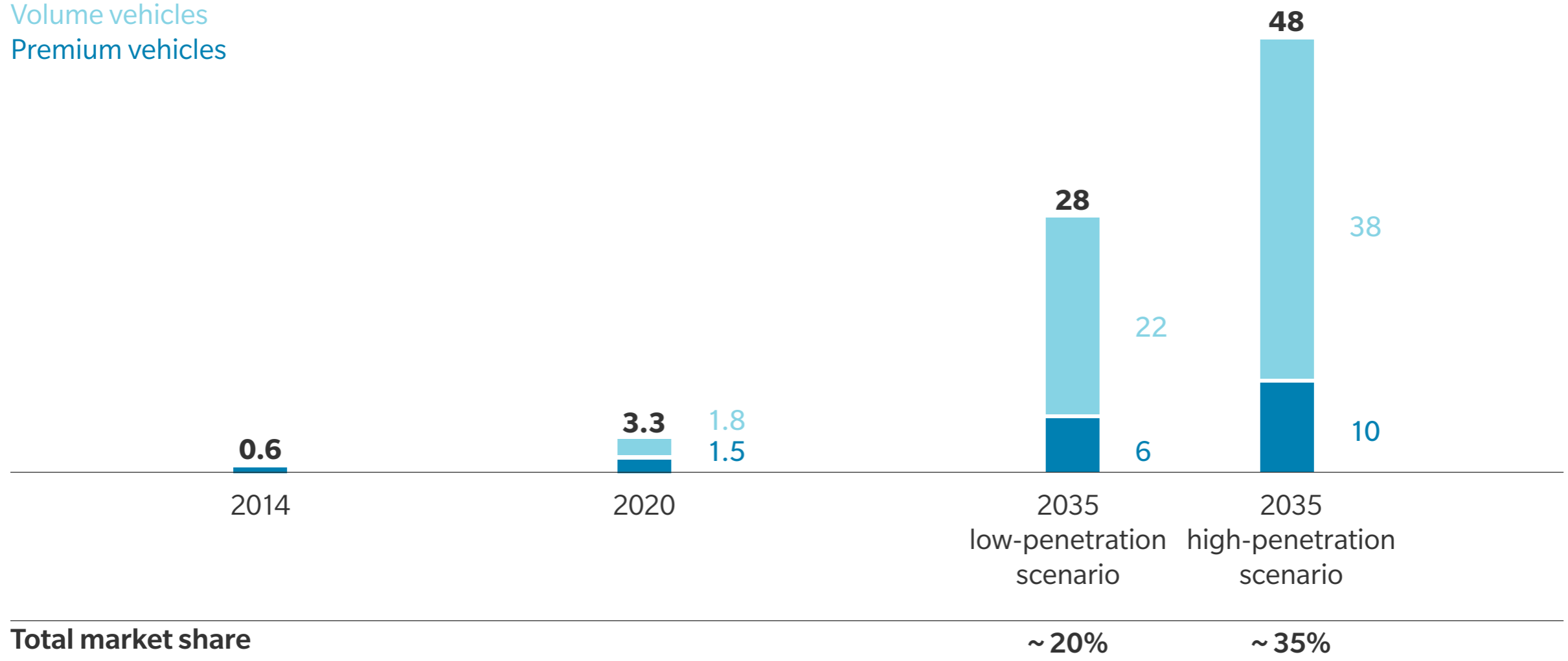
Digitization will vastly change the automotive world. Technological innovation of products and related services will increase safety and comfort as well as the quality of touch points between client and brand. Necessary investments in software, data analytics, and other IT are already paying off – in terms of cost efficiency, higher margins, and innovative perspectives on customer loyalty.

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# GLOBAL PRODUCTION FORECAST FOR SEMI- AND FULLY AUTOMATED VEHICLES

IN MILLIONS OF UNITS: PASSENGER CARS AND LIGHT COMMERCIAL VEHICLES, 2014–2035







Volume vehicles  
Premium vehicles



Source: LMC AUTOMOTIVE GCAT Q2/2014; Oliver Wyman analysis

# MATRIX OF PLAYERS THAT COULD POTENTIALLY PROFIT FROM AUTONOMOUS VEHICLES

## VALUE BUCKETS

					
PLAYERS	SAFETY	MOBILITY	BIG DATA	URBAN INFRASTRUCTURE	LOGISTICS
Consumer	X	X	X	X	X
Automaker	(X)	(X)	X <sup>2</sup>		
Supplier	(X)	(X)	X <sup>2</sup>		
IT company	(X)	X <sup>1</sup>	X		(X)
Insurance	(X)	(X)	X		

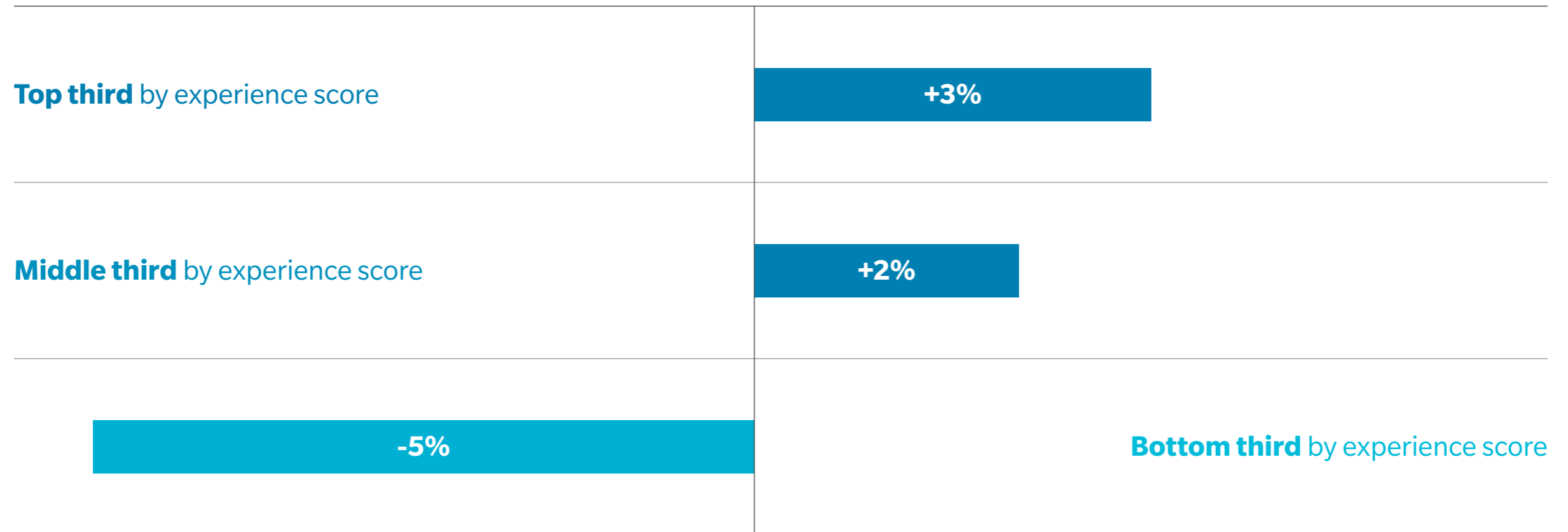
X : directly dependent  
 (X) : indirectly dependent  
 (e.g., due to increased willingness to pay or shifting demand)

1 Especially the online advertising market  
 2 Leverage, e.g., for R&D purposes

Source: Oliver Wyman Analysis

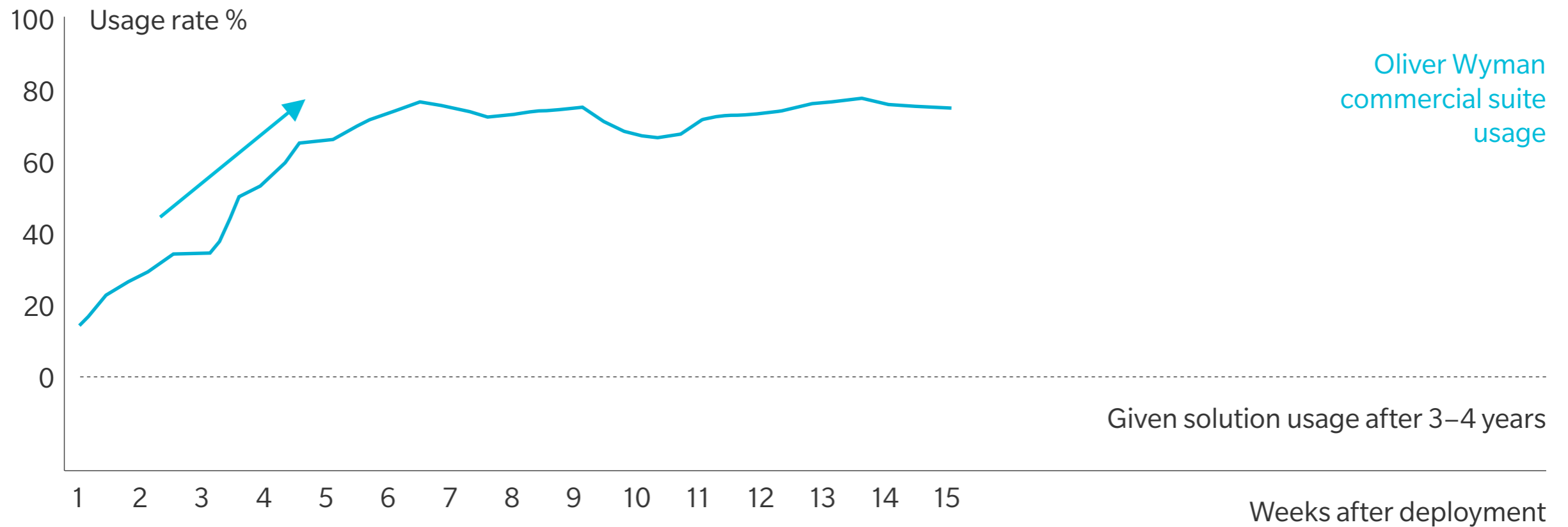
# THE AUTOMOTIVE RETAIL EXPERIENCE OF THE FUTURE: INCREMENTAL RETURN AS A FUNCTION OF THE EXPERIENCE SCORE

INCREMENTAL 5-YEAR SHAREHOLDER VALUE COMPOUND ANNUAL GROWTH RATE VERSUS AVERAGE LIPPINCOTT BRAND STUDY SCORES, 2009-2014



Source: Lippincott Brand Study 2014

# HIGH USAGE RATES ARE KEY FOR BIG DATA SUCCESS

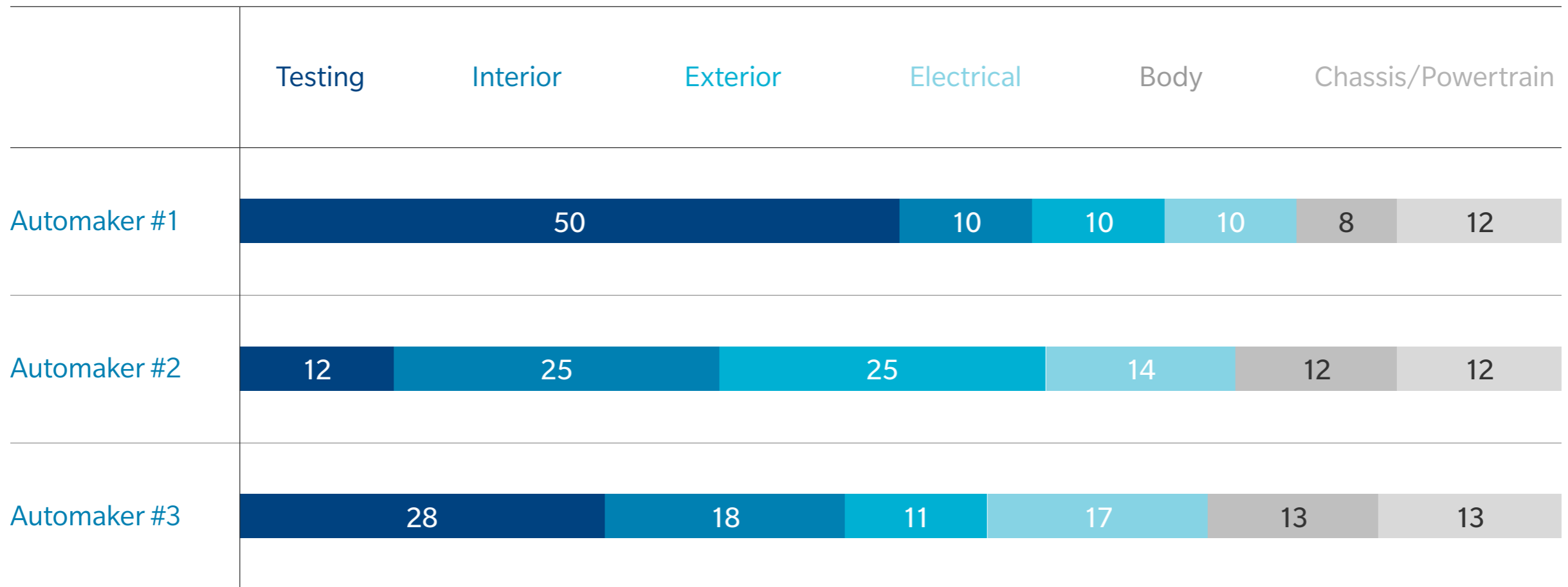


Source: Oliver Wyman Analysis



# BREAKDOWN OF R&D FUNCTIONS OF AUTOMAKERS US REGIONAL R&D CENTERS

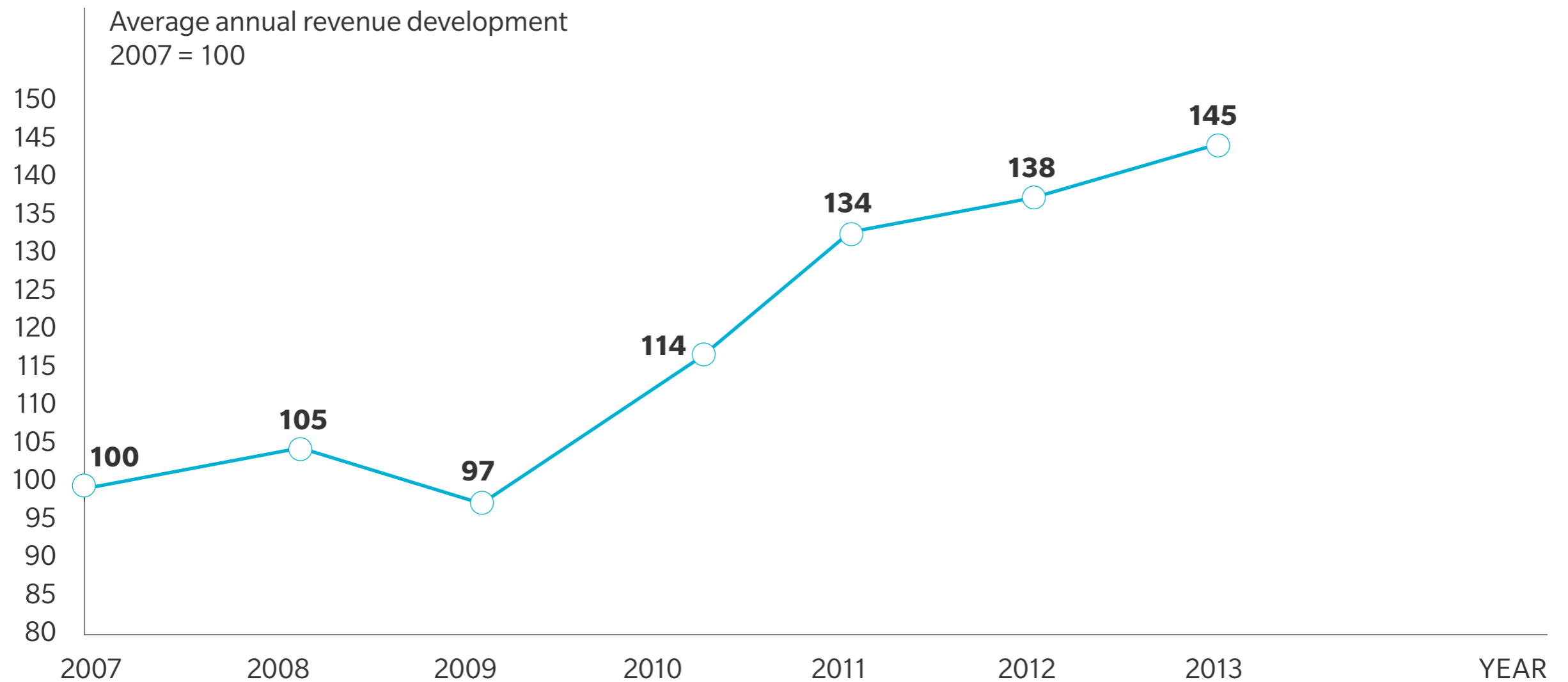
IN PERCENT OF TECHNICAL STAFF



Source: Oliver Wyman Analysis

# AUTOMOTIVE SUPPLIER GROWTH FROM 2007 TO 2013

INDEXED TO 2007, N = 362

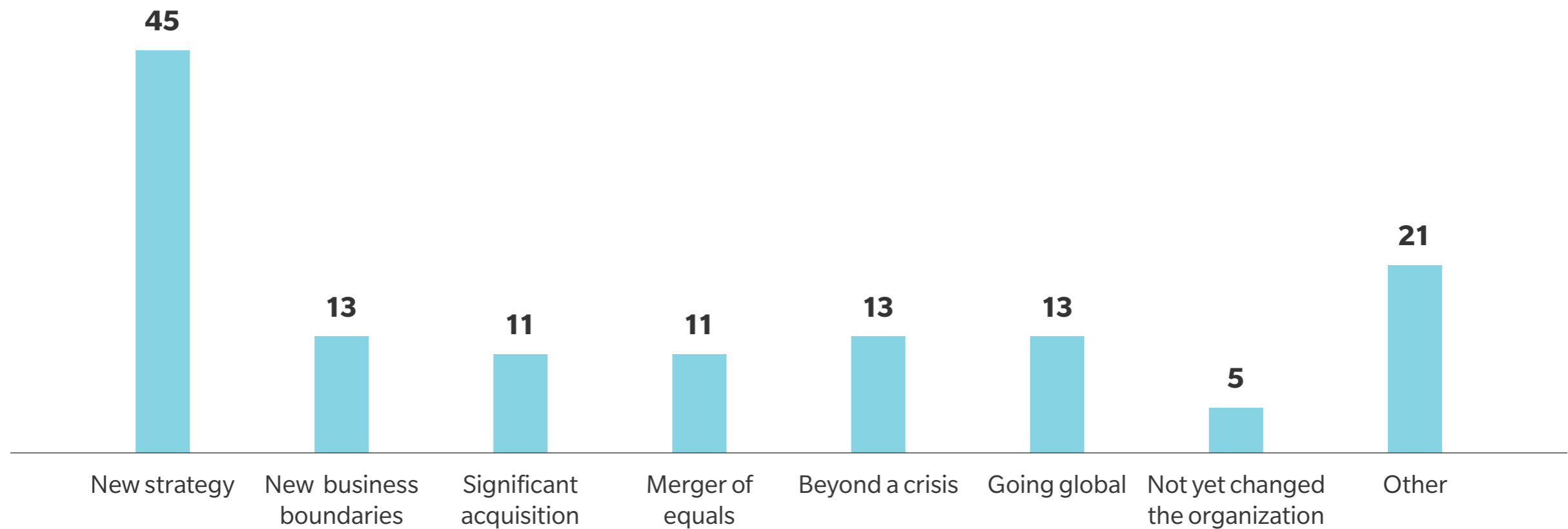


Source: Oliver Wyman Supplier Database, Amadeus, Thomson Reuters



# REASONS FOR STARTING AN ORGANIZATIONAL TRANSFORMATION FOR AUTOMOTIVE SUPPLIERS

IN PERCENT OF RESPONSES, MULTIPLE ANSWERS ALLOWED

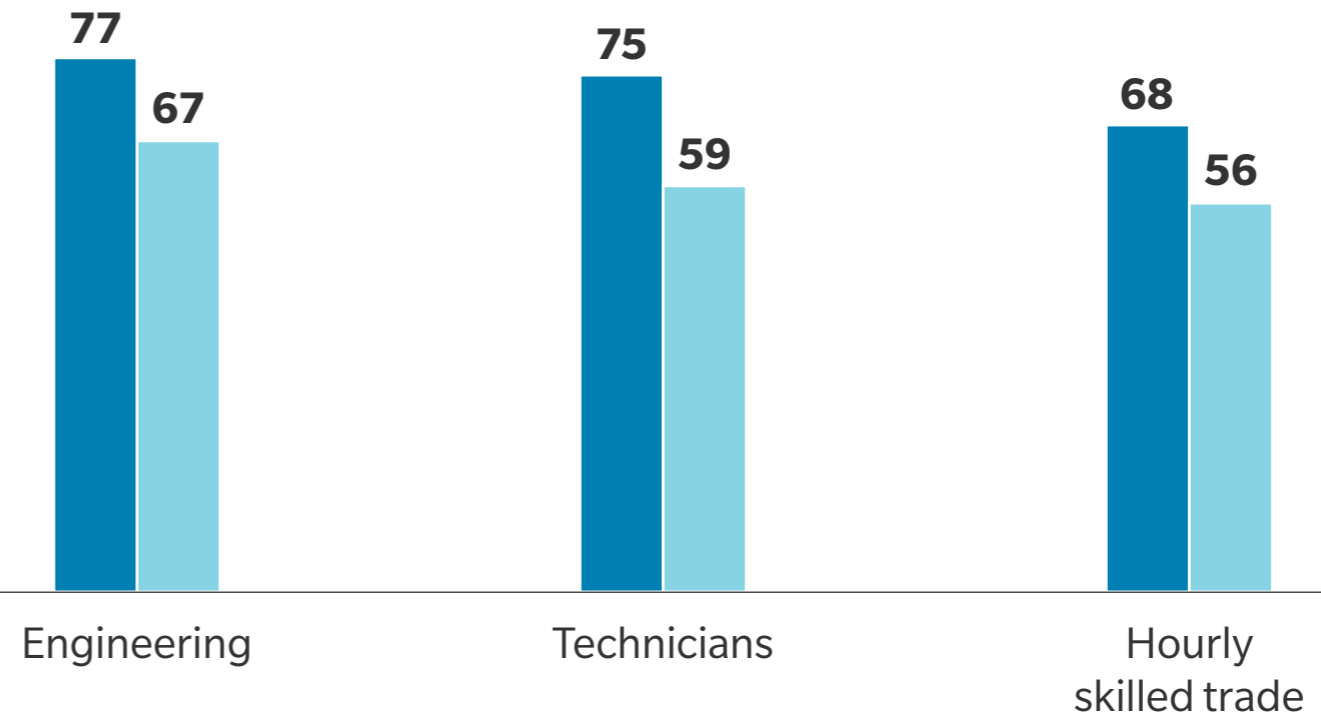


Source: Oliver Wyman Analysis

# SUPPLIERS ARE HAVING TROUBLE FILLING POSITIONS FOR 2015

IN PERCENT OF SUPPLIERS RESPONDING YES

Planning to hire more staff  
Having trouble filling jobs

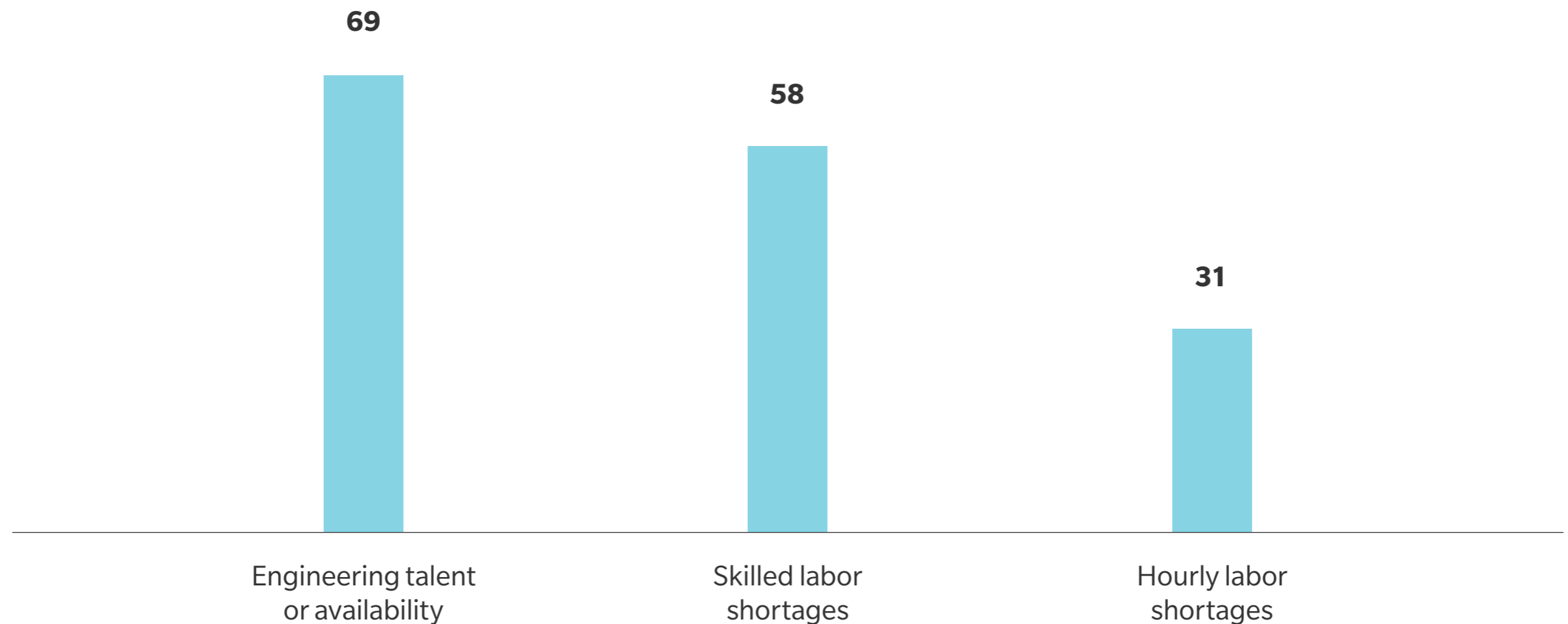


Source: Original Equipment Suppliers Association, November 2014 survey

# TALENT IS AN ISSUE IN MEETING INCREASED LEVELS OF PRODUCTION

IN PERCENT OF SUPPLIERS INDICATING YES, WILL BE AN ISSUE DURING 2015

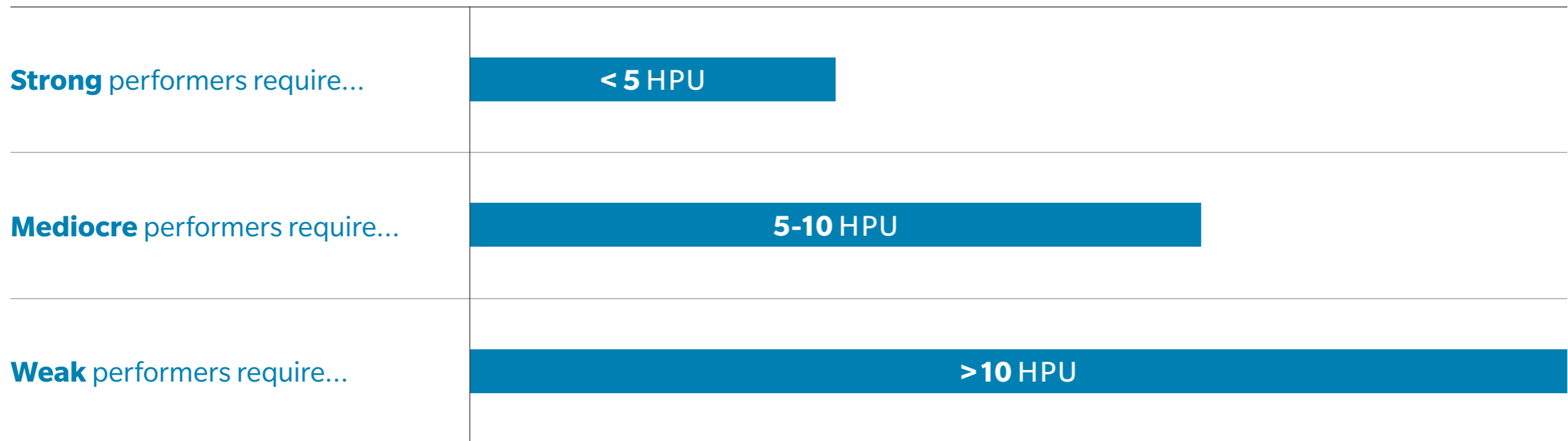
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Source: Original Equipment Suppliers Association, January 2015 survey

# NEW CAR LAUNCH PERFORMANCE MEASURED BY HOURS PER UNIT (HPU) IN THE LAUNCH YEAR

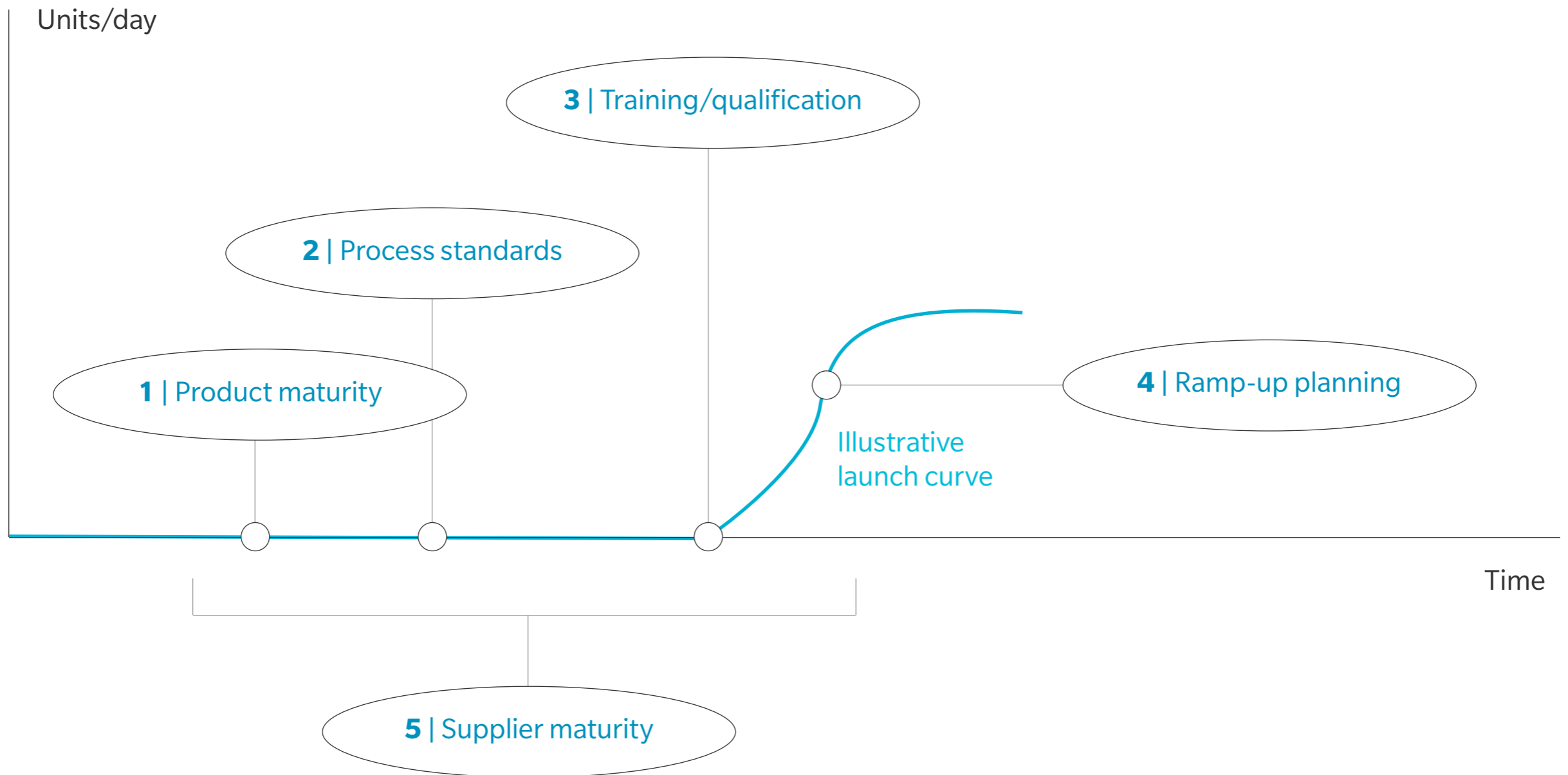
DURING LAUNCH YEARS, THE NUMBER OF ADDITIONAL MANUFACTURING HOURS PER VEHICLE VARIES WIDELY AT AUTOMAKERS



HPU (hours per unit) cover all labor hours in a factory to produce a car. This includes hours for direct and indirect building/assembly work, as well as related management and support work. Work includes independent manual operations as well as tasks done in concert with automated or semi-automated processes.

Source: Oliver Wyman analysis

# FIVE KEY COMPONENTS OF A SUCCESSFUL NEW CAR LAUNCH



Source: Oliver Wyman analysis

# COST TO PRODUCE STAMPING DIE SETS FOR SEVEN MAJOR VEHICLE BODY PANELS

IN MILLIONS OF US\$

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Company A



Company B



Company C



Company D



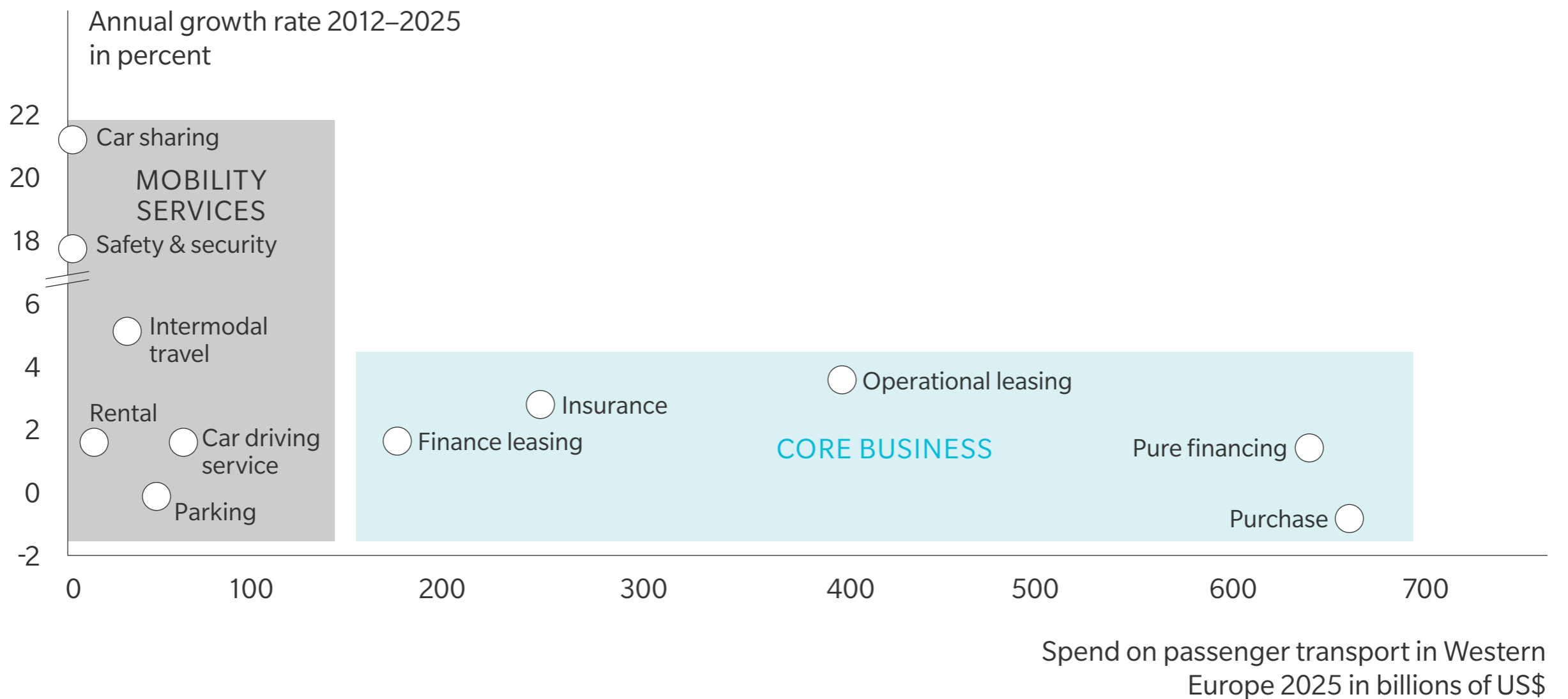
Major panels included above:

- Bodyside outer – left side
  - Bodyside outer – right side
  - Fender outer – left side
  - Fender outer – right side
  - Hood outer (aluminum)
  - Hood inner (aluminum)
  - Roof panel
- 

Source: Oliver Wyman analysis

# THE FUTURE OF PASSENGER TRANSPORT SPENDING IN WESTERN EUROPE

RAPID GROWTH EXPECTED FOR MOBILITY SERVICES IN THE NEXT 20 YEARS



Note: Includes spending for intermodal travel; excludes potential effect of autonomous driving

Source: Oliver Wyman analysis, market model, annual reports and other publications



# BIG NUMBERS

\$50 billion-  
\$75 billion

Potential insurance premium erosion globally as consequence of self-driving vehicles

>\$100  
billion

Potential value of mobility services enabled by self-driving cars in 2035

€1.3  
billion

Estimated amount that automakers spend annually on new vehicle launches

>70%

Reduction in time-to-realization possible with an agile and constant user interaction development approach

22%

Forecast annual growth rate for car sharing in Western Europe from 2012 to 2025

50%

Amount of total profit generated by some automakers' after-sales business units

69%

Of surveyed suppliers expect a talent shortage impact in 2015

2 out  
of 3

Number of reorganizations that fail due to a lack of planning and governance

4-7

Typical number of North American R&D units of foreign automakers

3:1

Competitive difference in capital expenditure for stamping dies at comparably capable plants

