



KPMG's 18th consecutive

Global Automotive Executive Survey 2017

In every industry there is a 'next' –
See it sooner with KPMG

kpmg.com/GAES2017

Look out for our new features in this year's survey



Design your own survey

Our **interactive online survey** enables you to discover our results in a totally new way. Focus on what you are interested in: What do Chinese vehicle manufacturers think? Where are the differences between the replies from 2013 and 2017? When do executives and consumers have opposing opinions?

Visit www.kpmg.com/GAES2017 or directly follow the link at the bottom of each page. There is no registration required!



See the auto world from a different angle

You will find **Recommended views** on several pages throughout the survey. We have pre-analysed the survey findings to make it easier for you to dig into the results and spot interesting findings (e.g. analyses across regional clusters, stakeholder groups or job titles).

The **Viewpoints** provide you with the perspectives of a particular group of respondents. You can easily access these perspectives and many more analyses in our interactive online survey.



Feel the temperature

With our **Taking the temperature on ...** we go directly into hot topics and seek the executives' and consumers' moods regarding the most discussed topics. We thereby get instant feedback on whether our executives and consumers agree or disagree on certain statements.



See how NextGen Analytics works @ KPMG

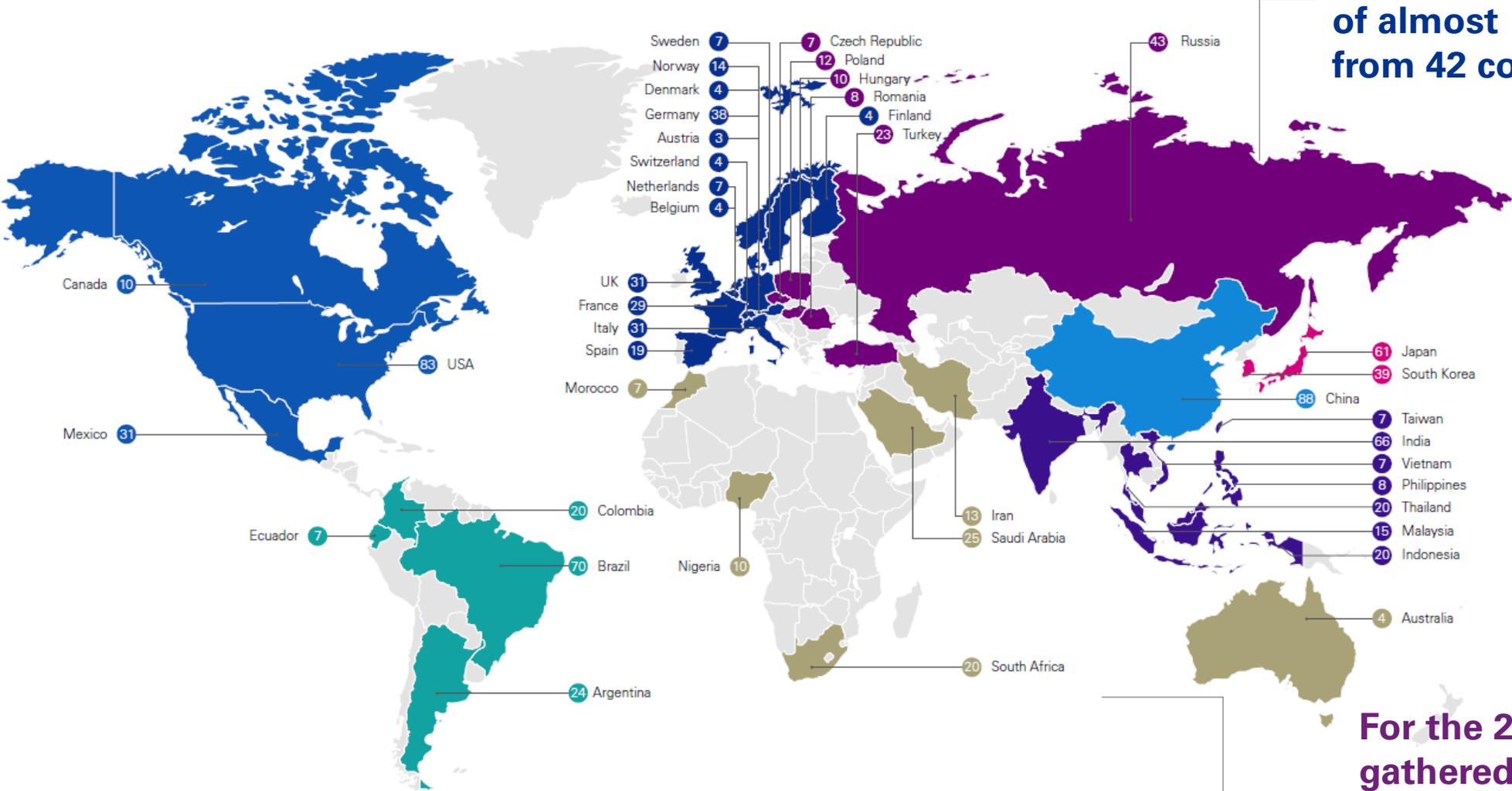
Compared to the standard approach, NextGen Analytics allows us to combine many different data sources in an interactive and more flexible way. With the use of **state of the art visualization tools**, analyses across various dimensions can be carried out on the spot. The graphs printed in the study you hold in your hands can only give you some few insights on how we draw our conclusions – **go online to find out more.**

About the executive survey

For the 2017 survey we gathered the opinions of almost 1,000 executives from 42 countries.



Executives



For the 2017 survey we also gathered the opinions of > 2,400 consumers from 42 countries.

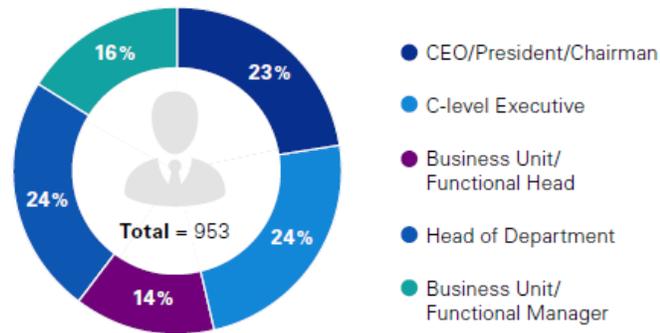


Consumers

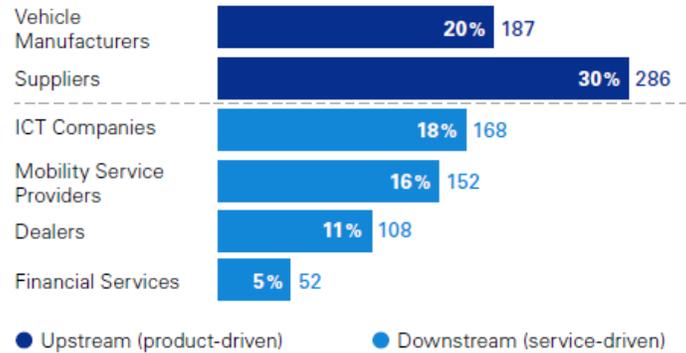
- Western Europe
- North America
- Mature Asia
- India & ASEAN
- Eastern Europe
- South America
- China
- Rest of World

About the executive survey

Respondents by job title



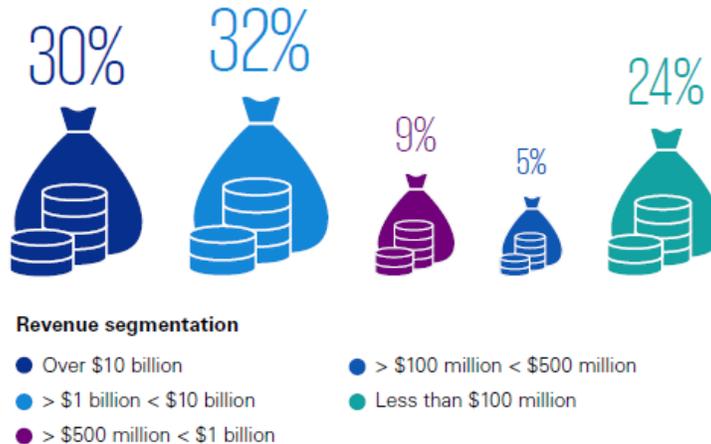
Respondents by company type



Respondents by regional cluster



Respondents by company revenue



Note: Percentages may not add up to 100 % due to rounding, ICT = Information, Communication and Technology
Source: KPMG's Global Automotive Executive Survey 2017

For this year's survey, we asked more executives and covered a wider range of countries than at any time in the past.

Half of our **953 respondents** are CEOs, Presidents, Chairmen or C-level Executives, providing us with even more reliable results about the opinions in the core of the automotive industry.

Our sample is split evenly between the **upstream (product-driven)** and the **downstream (service-driven)** market, with a stronger focus on ICT companies than in the previous years. We thereby account for the latest developments in the market and keep track of the new players who challenge the industry.

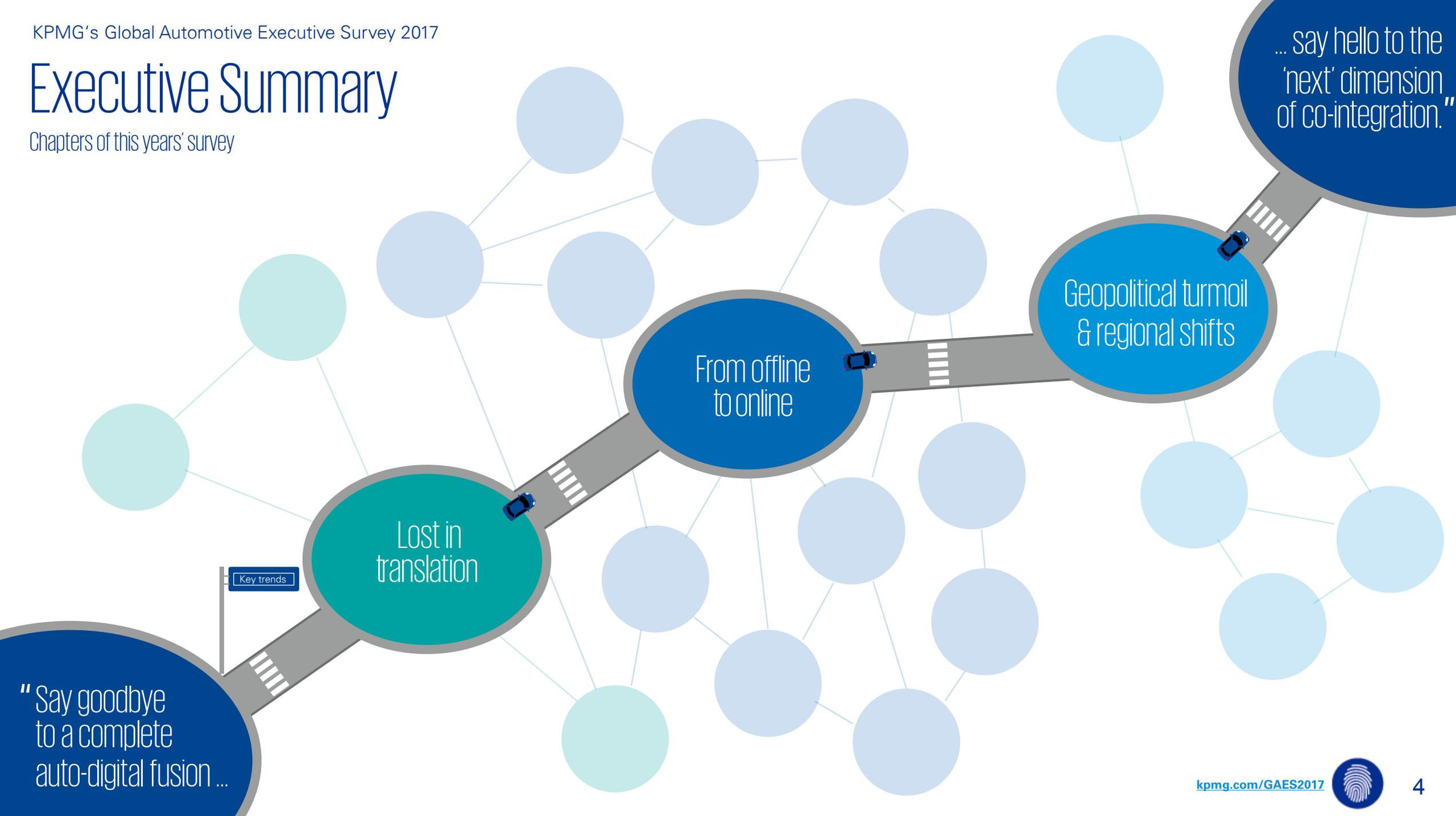
Around one third of the executives are based in **Western** and **Eastern Europe**, 13% each come from **North and South America** and 15% originate from **India and ASEAN**. 9% of the executives come from **China**, 10% from the Mature Asia region of **Japan** and **South Korea**.

Almost **two thirds of our respondents** are active in companies with **revenues greater than US\$1 billion**, half of whom even have revenues of more than US\$10 billion.

The **survey was conducted** online and took place between **September and October 2016**.

Executive Summary

Chapters of this years' survey



" Say goodbye to a complete auto-digital fusion ...



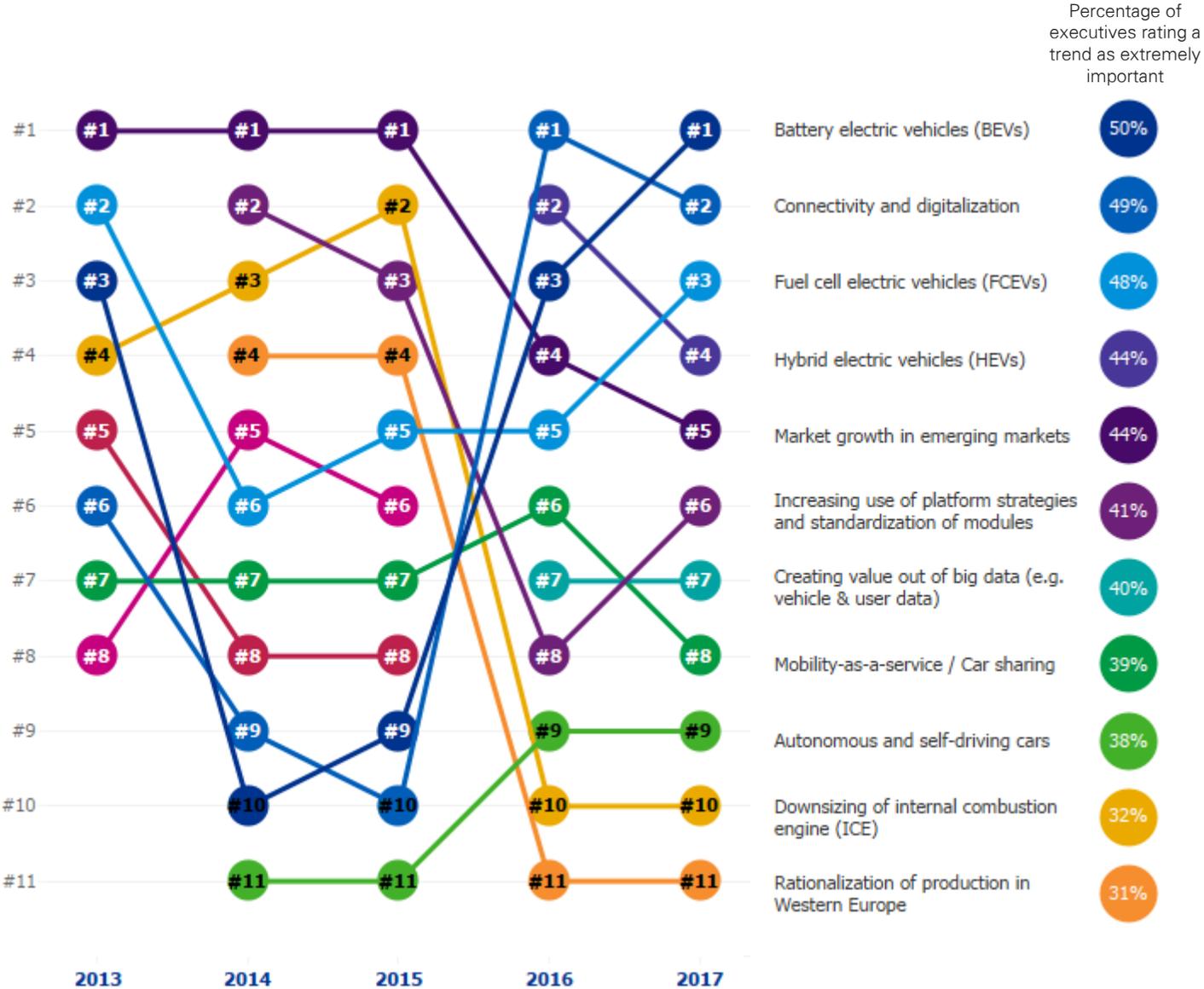
Key trends

Battery electric vehicles (BEVs) are this year's #1 key trend

The traditional product- and technology-centric business model has caught up again – powertrain technologies higher on the agenda than connectivity & digitalization.

Lost in translation

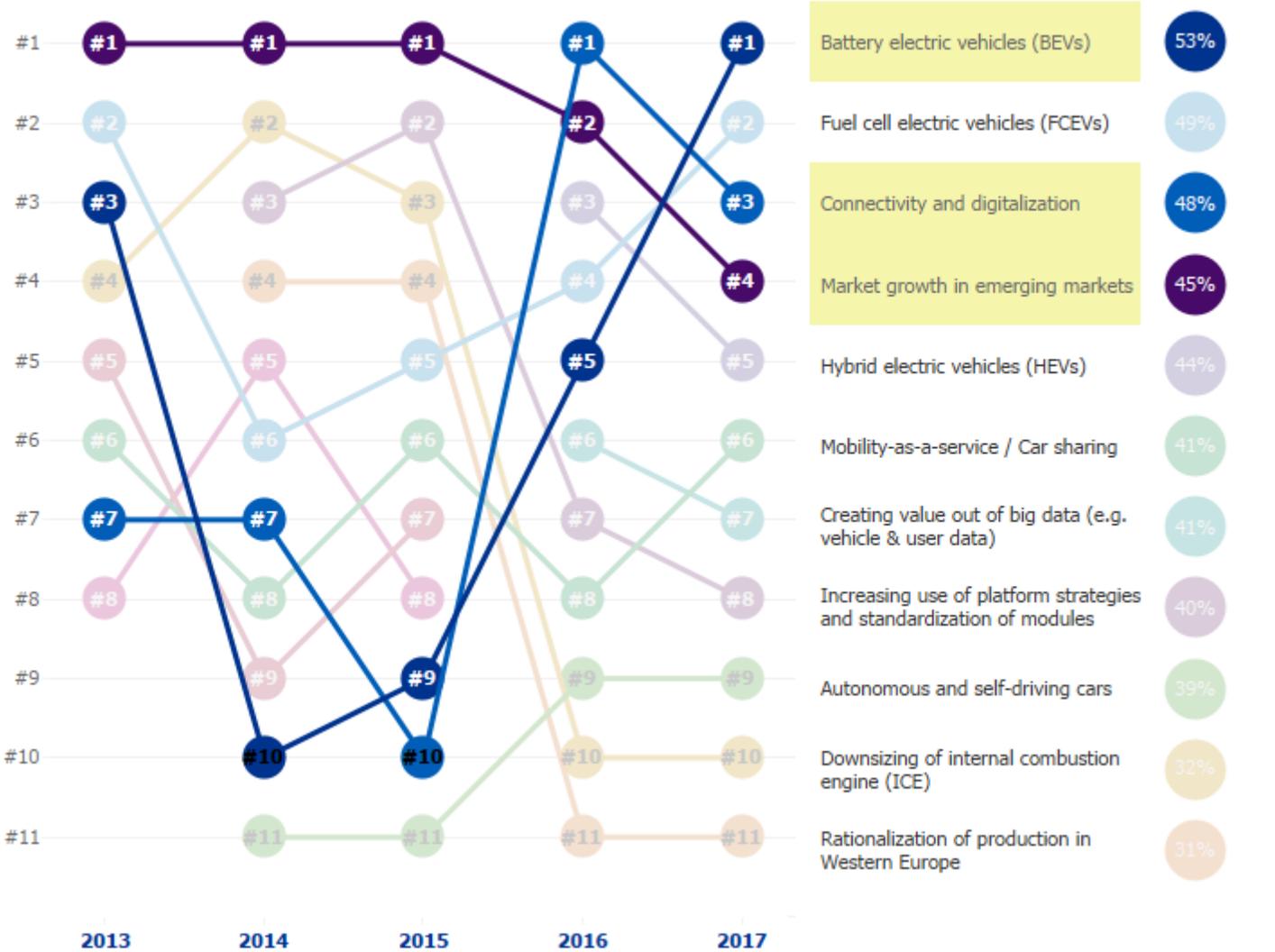
The auto industry is lost in translation between evolutionary, revolutionary and disruptive key trends that all need to be managed at the same time.



Key trends

For the respondents of product-driven upstream players like vehicle manufacturers and traditional tier 1 suppliers battery electric vehicles (BEVs) is the most important key trend while connectivity dropped from #1 to #3 compared to last years' survey.

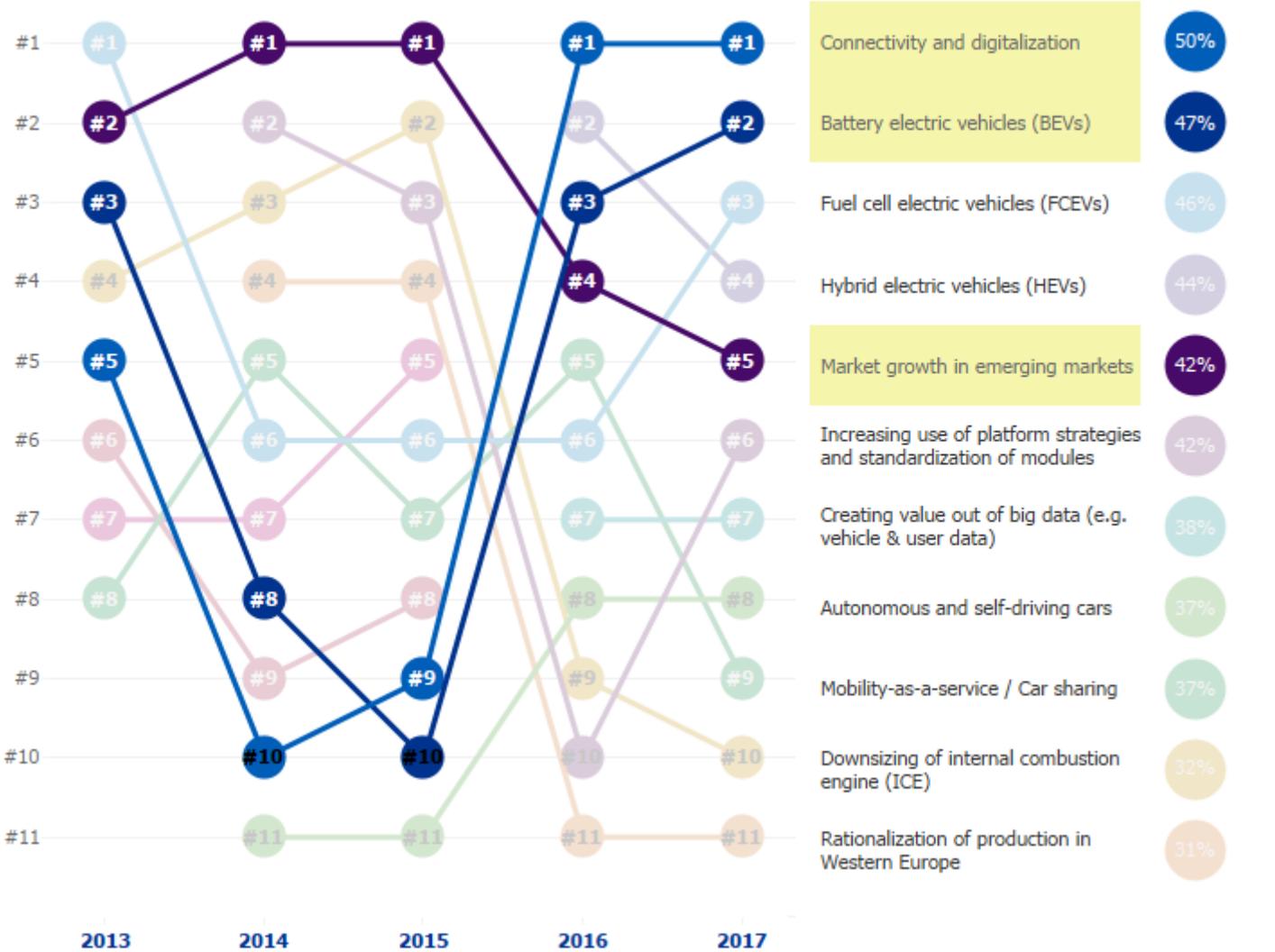
Viewpoint | Product-driven Upstream Players

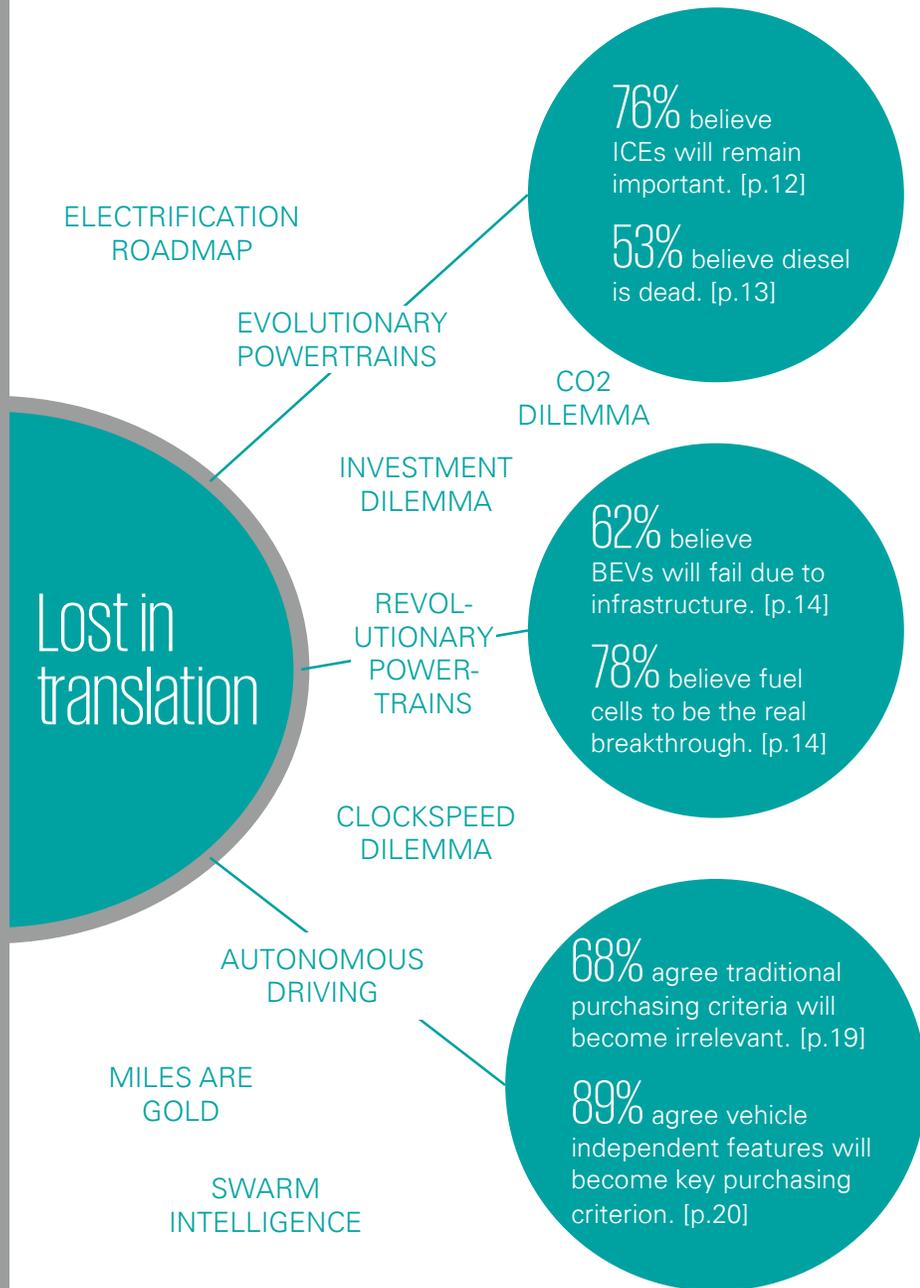


Key trends

For the respondents of service-driven downstream players like ICT companies, mobility service providers, dealers and financial services providers, connectivity and digitalization is still the number one key trend in the industry.

Viewpoint | Service-driven Downstream Players





Execs are torn in between

Traditional combustion engines will be technologically relevant, but socially unacceptable leading to a severe investment dilemma over the coming years.

Success of BEVs depends on infrastructure and application

Coordinated actions for infrastructure setup, a clear distinction of reasonable application areas (e.g. urban, long-distance), and a business model that covers more than just the vehicle hardware needs to be established.

Execs are hesitant regarding cooperation and unsolved infrastructure challenges

The reason for execs to believe in fuel cells may be their strong attachment to the existing infrastructure, the traditional vehicle applications and their reluctance to cooperate on infrastructure matters.

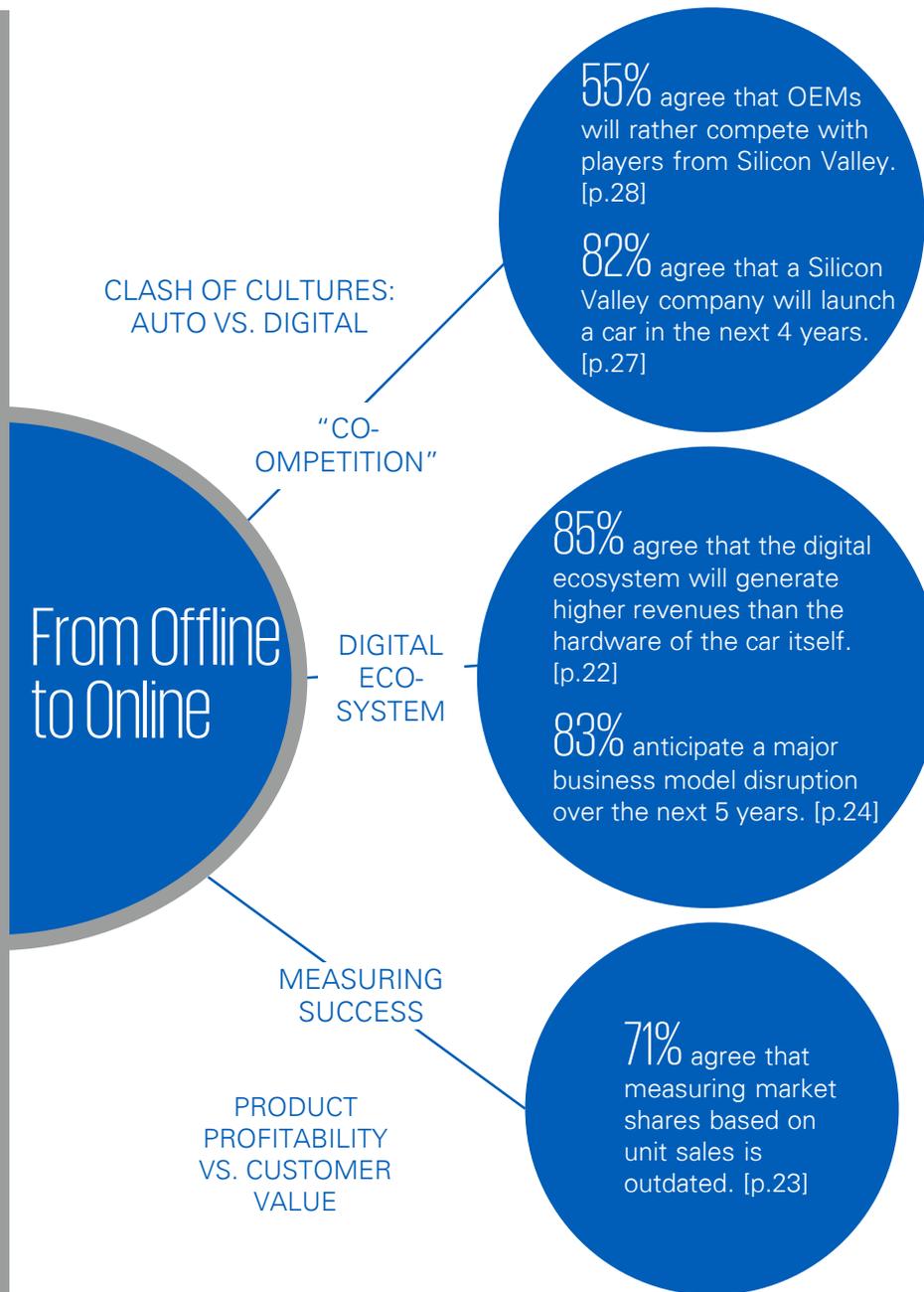
Driving out of focus – vehicle independent features will become a key criterion

Autonomous driving will redefine the utility of vehicles making traditional purchasing criteria irrelevant and is the enabler for service- and data-driven business models.

Miles are gold and swarm intelligence is essential

The full potential of technologies enabling autonomous driving can only be realized with the support of standards and full power of swarm intelligence. Neither the auto, nor the digital system will succeed on its own.





There is a status of "Co-ompetition"

Strategic alliances and cooperation with players from converging industries will be the fundamental driving force but there is no clear opinion yet on whether OEMs and ICT companies will compete or cooperate. This will be a matter of specific application, e.g. for urban city transport, there will certainly be fierce competition while this might look a bit different for long distance travel.

Roles throughout the value chain are not yet decided

The unfinished concepts and ambiguous visions of ICT companies cause them to loose ground against OEMs. It is still unclear how the future value chain setup and business models will look like.

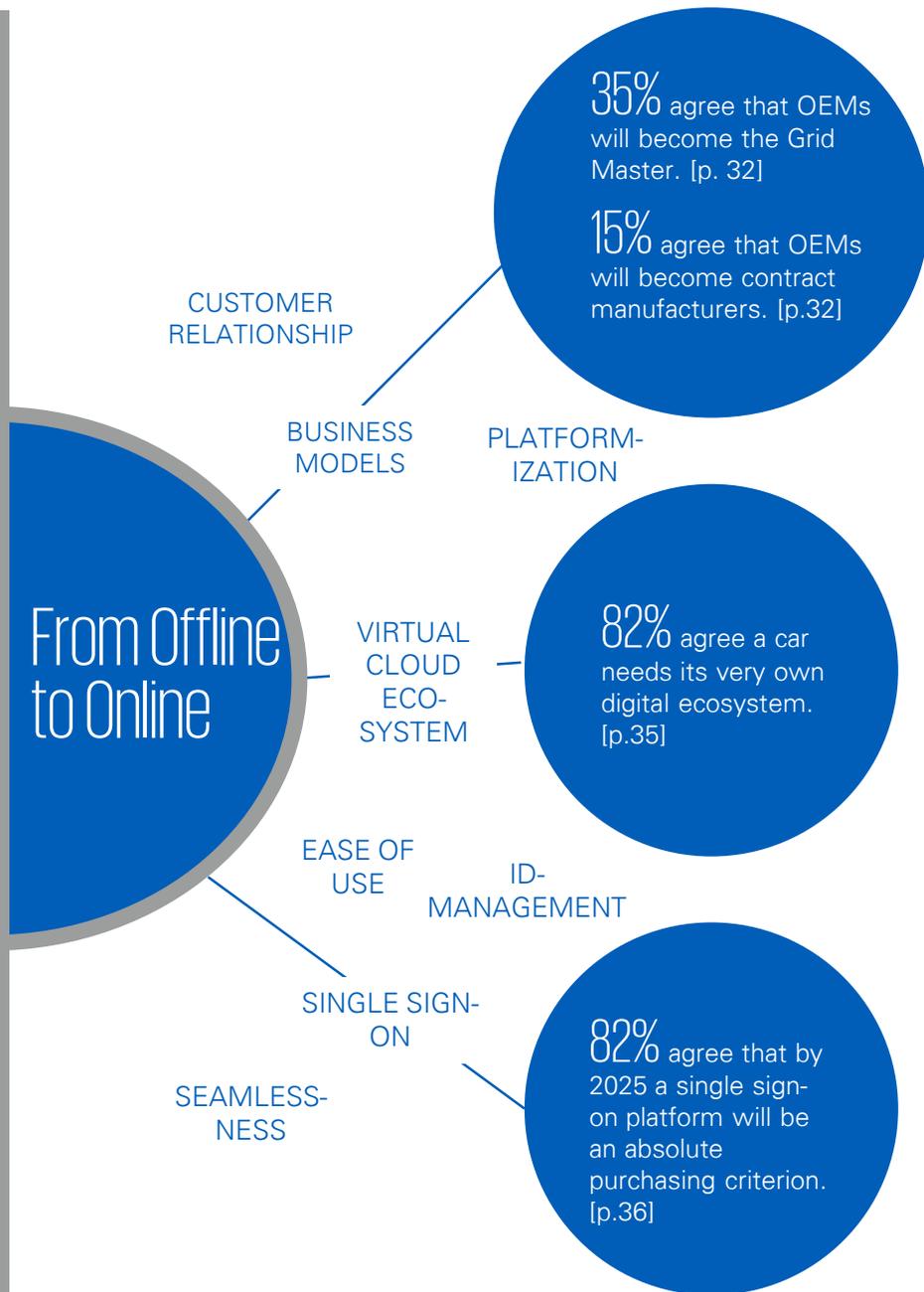
Digital ecosystem will be the main source for revenue and not the car itself

With significant upcoming changes in powertrain technologies the profits of today's OEMs will decrease due to the necessity of high investments. The digital ecosystem can counter strike these developments and generate higher revenues if it taps both data streams, the one generated within the car (upstream) and the one customers bring into the car (downstream).

The connected car will revolutionize the way we measure success

Measuring success based on unit sales is outdated. Connected vehicles will generate higher revenue streams based on endless digital upselling potentials over the entire lifecycle. Management only based on product profitability is over – customer value will become the core focus.





OEMs have to decide on their future role today

OEMs understand that they have to decide on whether they want to be a contract manufacturer or a customer-centric service provider (Grid Master). There will definitely be manufacturers that will not be able to monetize data due to a lack of data literacy and premium brand awareness. These OEMs will most likely only provide hardware in the future.

Efficient use of resources is key in a connected world

The future is about better utilization. Although there will be less cars on the road, personal miles travelled will increase significantly. Consumers will decide on their mobility based on the seamlessness and ease of use of the provided solution.

A car will need its very own ecosystem with a direct customer relationship

An independent virtual cloud ecosystem is needed to balance the power between end-consumers, digital tech giants and traditional “offline” hardware companies such as auto manufacturers. The direct customer relationship will be material to succeed.

Co-integration requires a superior single sign-on platform

It is not about bringing the auto and digital worlds up to the same speed of innovation but rather about creating a superordinate platform to host both worlds and integrating all upstream and downstream elements in a seamless and easy to use platform.

From Offline to Online

DATA IS GOLD

48% of consumers believe that drivers of vehicles are the sole owners of consumer data. [p.37]

31% of executives believe OEMs are the natural owners of customer data. [p.37]

TRUST & DATA SECURITY

34% of execs agree that consumers would trust an OEM the most with their data. [p.40]

TRUSTED DATA HUB

52% rank data privacy and security as the most important purchasing criterion. [p.41]

HOW TO SECURE UP- & DOWNSTREAM DATA

ZERO-ERROR TOLERANCE VS. RELEASABILITY

49% agree that premium OEMs are most trustworthy with zero-error tolerance. [p.29]

Only 25% of consumers agree that newcomers from Silicon Valley are most trustworthy. [p.29]

Data ownership is gold

To establish a sustainable service and data-driven business model the key question that needs to be answered is who owns the up- and downstream data generated in a vehicle. Security, trust and ownership are key, and that different cultures handle data differently has to be considered.

There is a difference between vehicle and customer data

Customers are more willing to share vehicle data compared to behavior data – but in any case this only works if there is a basis of trust. Today, executives grant customers a small say on what happens to their data.

Data security is the new key purchasing criterion

Today OEMs are still considered most trustworthy. Execs and consumers agree but have different opinions about driving experience and cost – what counts for consumers: data security, cost, speed.

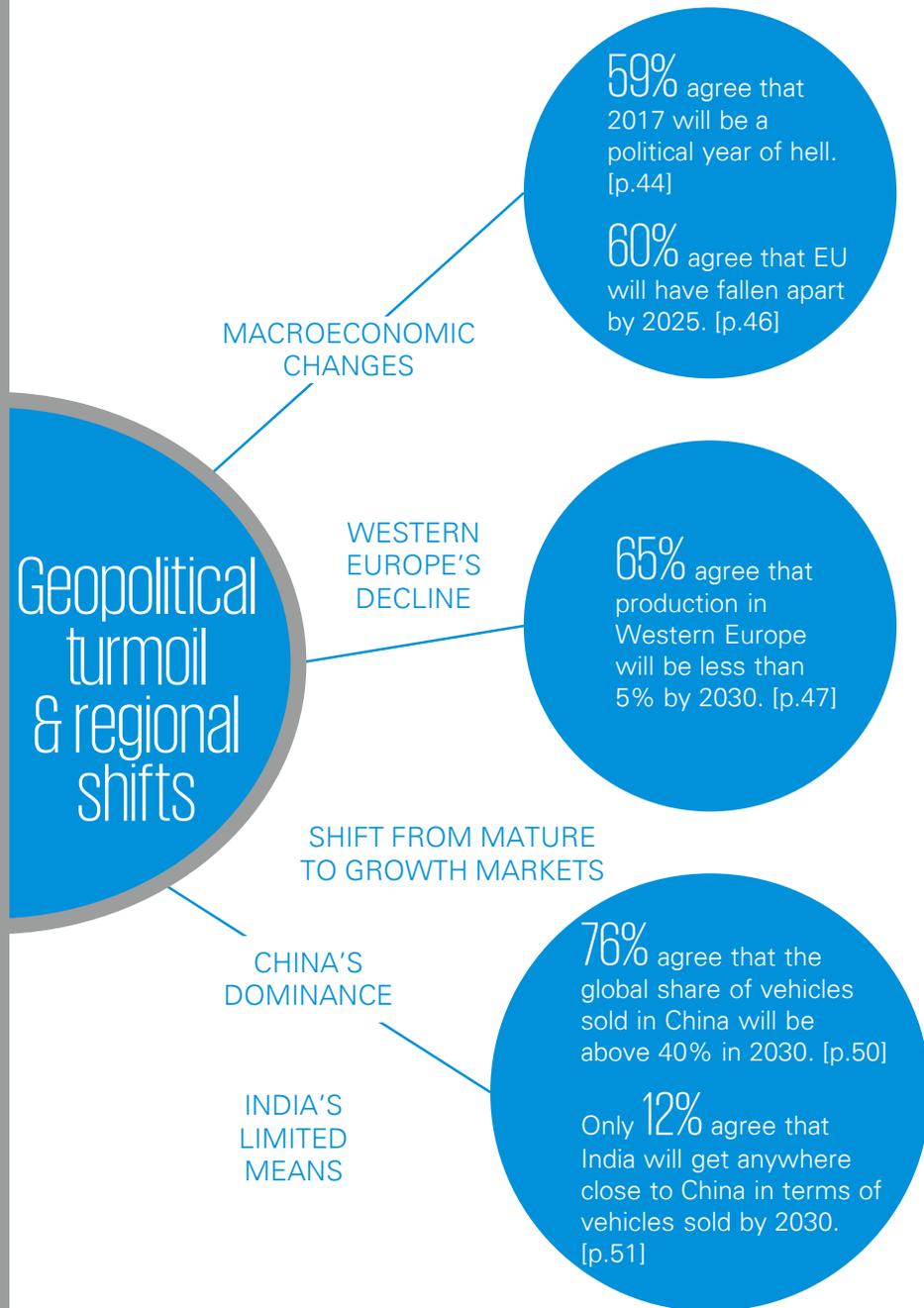
Zero-error ability is a key element of future mobility

Executives are still very hesitant to believe that newcomers from the Silicon Valley will be trustworthy regarding the zero-error ability of autonomous vehicles. Premium OEMs seem to have a clear advantage for the executives. However, consumers are less hesitant to trust newcomers in that matter.

Zero-error ability alone will not pave the road to success

Neither zero-error ability of offline companies nor releasability of online companies alone will be sufficient for a successful future business model.





Insecure geopolitical environment

The fear of political changes has become as strong as the fear of terrorism, war and natural disasters.

Geopolitical risks and macroeconomic turmoil can have a very disruptive effect on the industry

Executives expect political and economic disruption to be most likely in the EU, followed by North America and the Middle East.

EU as it is today will be history in 2025 and will suffer from regional shifts

Western Europe is not only facing political changes. Shifting production volumes to growth markets is another serious threat to Western Europe.

There is a clear tendency for an even stronger shift towards China

The majority of executives expect the global share of vehicles sold in China to reach 40% by 2030. Nevertheless, Chinese companies are surprisingly not seen as a threat regarding disruptive innovation from the outside-in perspective.

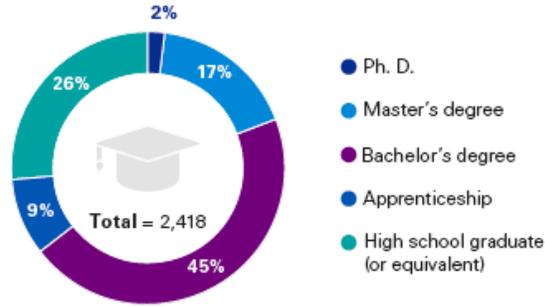
The execs' opinions on India are very conservative

India won't become a second China in terms of vehicle sales.

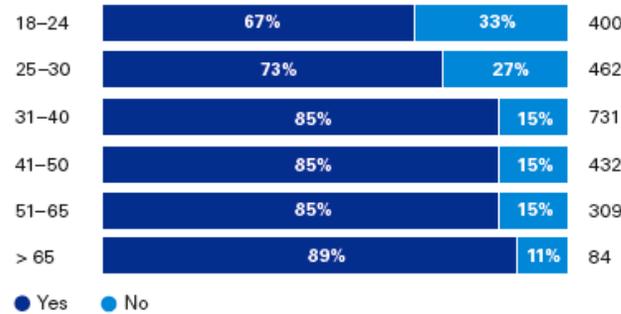


About the consumer survey

Respondents by education level



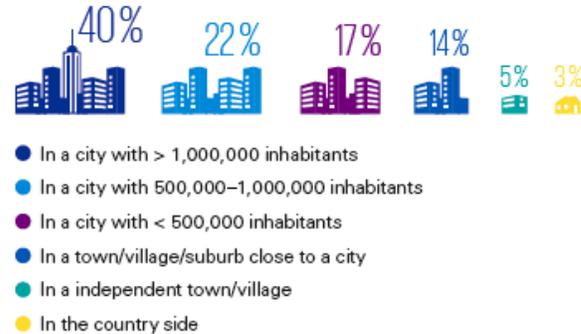
Respondents by age and car ownership



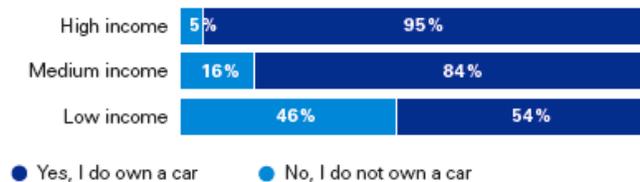
Respondents by regional cluster



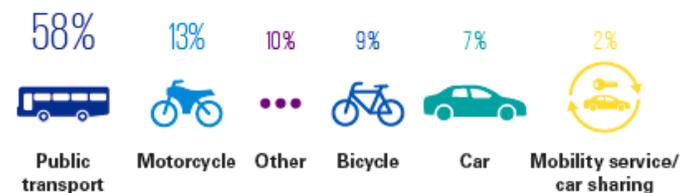
Respondents by living circumstances



Respondents by income level and car ownership



Preferred type of transport of respondents who do not own a car



Like in the previous year, we have sought the opinions of more than 2,400 consumers from all over the world in order to compare their valuable perspective against the opinion of the world's leading auto executives.

For this purpose, we asked ordinary people from 42 countries with various educational backgrounds, throughout all age groups and living circumstances.

Apart from the well-known demographics, we also asked the consumers whether they own a car, how they assess their income compared to their surroundings, and which type of transport they use for their everyday mileage. The findings reveal some noteworthy relationships.

Primarily, having a car is a matter of money. 42% of all consumers without an own vehicle claim to have a low income, compared to only 13% of car owners. We can therefore see here that car ownership is still closely related to income for many consumers, and to date living without an own car has not been an attractive option.

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