

KPMG's 20th consecutive

Global Automotive Executive Survey 2019

Seamless Vehicle2Grid transition is a treasure of islands – see them sooner with KPMG.



Press conference document for January 11th, 2019 | Comprehensive executive summary PDF-report will follow end of February: www.automotive-institute.kpmg.d





The GAES 2019 is a fully interactive online platform!





What's new in 2019



🖈 New look

The platform has a completely new look: structured and easy to use!



Mew functionalities

Print-, share- and search function are now integrated!



Analyses

More interactive analyses than ever before!



Mobile version

A comprehensive mobile version for on the go!



Most executive respondents than

Explore multiple dashboards within one "story"

For several topics, there will be more than just one analysis! Use the navigation bar to switch between dashboards and click your way through the story with different analyses!

Customize each dashboard

Apply several filters, try correlations and find out more about differences between e.g. regional perspectives or differing stakeholder views! All results displayed on a dashboard are adjusted according to the selection of applied filters. The bottom analysis on a dashboard gives you a detailed split of the upper analysis results. Choose an analytical dimension that best meets your interests and deepens your insight!

Maybe you are able to answer a question we haven't even thought of...

Executive perspective vs. consumer view

Executives and consumers were asked many of the same questions. Compare answers of both respondent groups and also see that they were asked more than just conventional survey questions!

Customize results of an executive view by stakeholder type, job title and revenue segmentation of the company. All data displaying customer views can instead be filtered by age, living circumstances and car ownership.

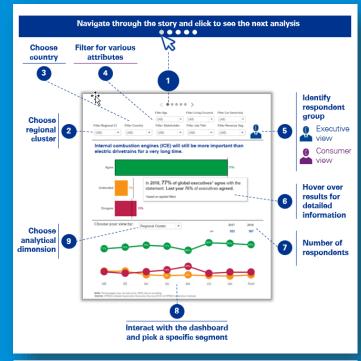
Directly interact with the dashboard

Apart from the filter function, you can also directly interact with the dashboard if you hover over results for detailed information or if you pick specific areas of interest. Just click on the respective part of an analysis and you will find all displayed results filtered accordingly.

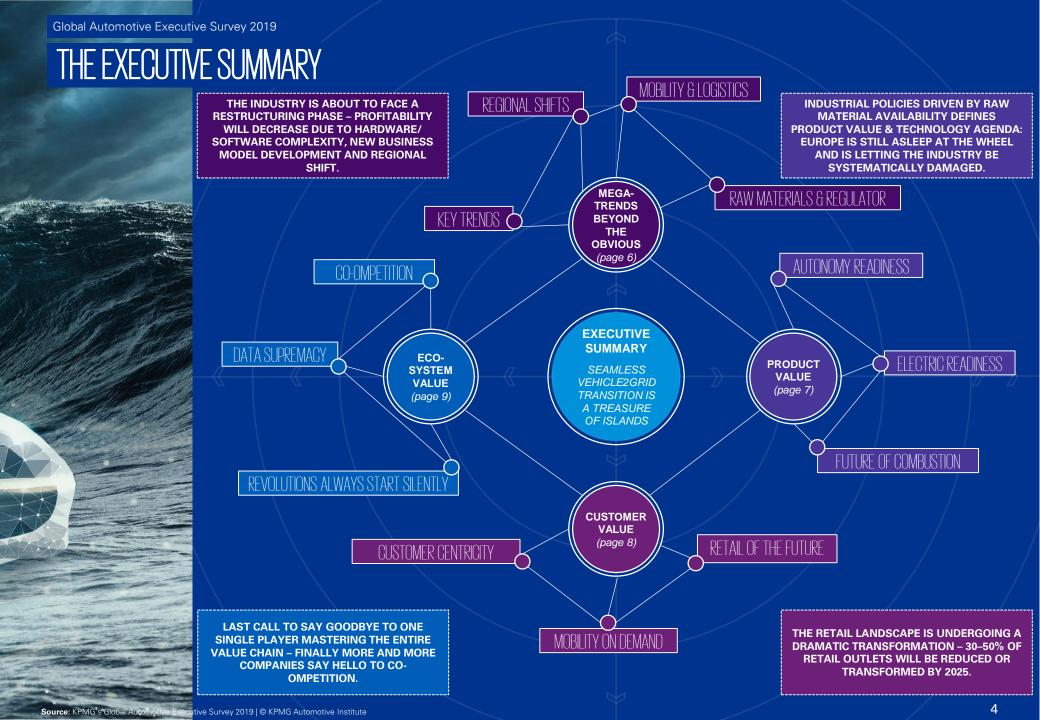
The number on the right tells you how many respondents your selection still

There is not only one global answer:

> 2 million different views







THE EXECUTIVE SUMMARY

THE INDUSTRY IS ABOUT TO FACE A **RESTRUCTURING PHASE - PROFITABILITY** WILL DECREASE DUE TO HARDWARE/ **SOFTWARE COMPLEXITY, NEW BUSINESS** MODEL DEVELOPMENT AND REGIONAL SHIFT.

REGIONAL SHIFTS

67% of execs believe that by 2030 less than 5% of global car production will originate in Western Europe.

MOBILITY & LOGISTICS

60% of execs agree: we will no longer differentiate between transport of humans & goods in future.

INDUSTRIAL POLICIES DRIVEN BY RAW MATERIAL AVAILABILITY DEFINES PRODUCT VALUE & TECHNOLOGY AGENDA: **EUROPE IS STILL ASLEEP AT THE WHEEL** AND IS LETTING THE INDUSTRY BE SYSTEMATICALLY DAMAGED.

59% of execs believe that connectivity & digitalization is the number one key trend.

MEGA-**TRENDS BEYOND** THE **OBVIOUS** RAW MATERIALS & REGULATOR

From architect to executor: 77% of execs agree that the regulator will drive OEM agenda - not to mention also being driven by industry policies.

AUTONOMY READINESS

Separation instead of integration in islands of autonomy – human driven & autonomous vehicles won't mix to which 71% of execs agree.

CO-OMPETITION

65% of execs believe in cooperation rather than competition (in China: 84%).

DATA SUPREMACY

First safety, then performance execs present a clear opinion that car companies can monetize data best with safety- and performance-oriented services.

ECO-SYSTEM **VALUE** (page 9)

EXECUTIVE SUMMARY

(page 6)

SEAMLESS **VEHICLE2GRID** TRANSITION IS A TREASURE OF ISLANDS

PRODUCT VALUE (page 7)

ELECTRIC READINESS

For consumers, the most significant entry barriers into the electric world are price, followed by charging and range.

REVOLUTIONS ALWAYS START SILENTLY

Executives show only very little fear that auto companies' profitability will decrease.

Trust for OEMs to own the customer relationship has increased both for execs (49%) and consumers (42%).

CUSTOMER CENTRICITY

LAST CALL TO SAY GOODBYE TO ONE SINGLE PLAYER MASTERING THE ENTIRE **VALUE CHAIN – FINALLY MORE AND MORE COMPANIES SAY HELLO TO CO-**OMPETITION.

CUSTOMER **VALUE** (page 8)

FUTURE OF COMBUSTION

Multiple drivetrain technologies will co-exist alongside each other - execs globally believe in a fairly even split of BEVs (30%), Hybrids (25%), FCEV (23%) and ICEs (23%) by 2040.

RETAIL OF THE FUTURE

Nearly **50%** of execs are highly confident that the number of physical retail outlets will be reduced or transformed by 30-50%.

MOBILITY ON DEMAND

Greatest potential for function-on-demand features lies in navigation systems, adaptive cruise control & power upgrade. THE RETAIL LANDSCAPE IS UNDERGOING A **DRAMATIC TRANSFORMATION - 30-50% OF** RETAIL OUTLETS WILL BE REDUCED OR TRANSFORMED BY 2025.

Source: KPMG's Global Automotive Executive Survey 2019 | © KPMG Automotive Institute

\$\rightarrow\$ AUTOMOTIVE KEY TRENDS

- Seamless into the grid: Connectivity & digitalization is back as the #1 key trend
- There is not one global answer the world is a combination of islands
- The perfect storm: the auto industry is about to run into a restructuring phase

-UNDERESTIMATED DRIVING FORCES

- 3/4 execs agree to raw materials driving the preferred powertrain technology of a country
- From architect to executor: 77% of execs agree that the regulator will drive OEM agenda not to forget also being driven by industry politics
- Results show that industry policies in Asia & USA seem to be far more advanced than in Europe

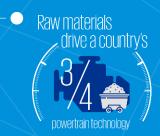
REGIONAL SHIFTS

- 2/3 of execs believe that by 2030 less than 5% of cars will be produced in Western Europe
- China is the e-mobility market to be more than ever before, execs agree that China will leapfrog the market with its battery electric vehicles

\$\rightarrow\$ -MOBILITY & LOGISTICS

- 0 60% of execs agree: we will no longer differentiate between transport of humans & goods in future
- Companies combining applied thinking (city, rural, countryside) with an ecosystem-driven technology set-up (CASE) and infrastructure joint ventures (5G, electricity grid,...) will be leaders in mobility









- Multiple drivetrain technologies will co-exist alongside each other execs globally believe in a fairly even split of BEVs (30%), Hybrids (25%), FCEV (23%) and ICEs (23%) by 2040
- Fuel cells have the least investment priority among execs

ELECTRIC READINESS -

- For consumers, the most significant entry barriers into the electric world are price, followed by charging and range
- We believe Tesla will be one of the most significant brands in vehicle-to-x technology

- AUTONOMY READINESS

- Separation instead of integration in islands of autonomy human driven & autonomous vehicles won't mix to which 71% of execs agree
- Why not think in separate lanes for autonomous & electric vehicles and incorporate necessary infrastructure for seamless charging and at the same time setting clear rules for behavior?
- 88% of execs agree to a product line by application (city, urban,...) than by class





 Autonomous and nonautonomous vehicles



-CUSTOMER CENTRICITY

- Trust for OEMs to own the customer relationship has increased both for execs (49%) and consumers (42%)
- Data privacy & security remains the number one purchasing criteria, but transparency of TCO is catching up too

\$\rightarrow\$ MOBILITY ON DEMAND

 Greatest potential for function-on-demand features lies in navigation systems, adaptive cruise control & power upgrade – those being the features consumers are most willing to pay for in order to individualize their vehicles

-RETAIL OF THE FUTURE

- Retail landscape transforms nearly 50% of execs are highly confident that the number of physical retail outlets will be reduced by 30-50%
- 82% of execs strongly agree that the only viable option for physical retail outlets will be the transformation of becoming service factories, used car hubs or focus on ID-management
- The product continues to be the driving force behind retail strategy 80% of execs view the retail landscape mainly as product-driven
- 92% of execs agree that the aftermarket is most likely to become part of the OEM business







-CO-OMPETITION

- Gravity further shifts towards the ICT companies: In 2018, market capitalization of the top 15 mobile tech and web digital companies is ~5 times as high as that of top 50 auto players
- Cooperation of auto and ICT players becomes more realistic than ever 2 out of 3 execs believe in cooperation rather than competition

-DATA SUPREMACY

- For vehicle data there is growing evidence for OEMs being the winner
- First safety, then performance executives present a clear opinion that car companies can monetize data best with safety- and performance-oriented services

-REVOLUTIONS ALWAYS START SILENTLY

- Executives show only very little fear that auto companies' profitability will decrease
- Execs expect the number of transactions to boost over the next years (69%) most likely dominated by China
- 81% of execs show confidence that a shift from traditional unit sales towards mobility service offers and fleet management may lead to an increase in debt levels of OEMs
- Toyota is the undisputed leader with the highest prospects for success, followed by BMW & Tesla







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BE INSPIRED BY THE KEY HEADLINES

SEAMLESS VEHICLE2GRID TRANSITION IS A TREASURE OF ISLANDS

"Connectivity & digitalization is back as the number one key trend. This is followed by battery electric vehicles, while last year's number one key trend, fuel cell electric vehicles, ranks third."

INDUSTRIAL POLICIES DRIVEN BY RAW MATERIAL AVAILABILITY DEFINES PRODUCT VALUE AND TECHNOLOGY ——AGENDA: EUROPE IS STILL ASLEEP AT THE WHEEL AND IS LETTING THE INDUSTRY BE SYSTEMATICALLY DAMAGED.

"From architect to executor: 77% of execs agree that the regulator will drive OEM agenda – not to mention also being driven by industry policies."

"Western Europe continues on a downward spiral – 2 out of 3 (67%) execs still believe that by 2030 less than 5% of global car production will originate in Western Europe (~15% today)."

THE RETAIL LANDSCAPE IS UNDERGOING A DRAMATIC TRANSFORMATION – 30–50% OF RETAIL OUTLETS WILL BE —
REDUCED OR TRANSFORMED BY 2025.

"Nearly 50% of execs are highly confident that the number of physical retail outlets will be reduced or transformed 30-50% by 2025."

THE INDUSTRY IS ABOUT TO FACE A RESTRUCTURING PHASE – PROFITABILITY WILL DECREASE DUE TO HARDWARE/SOFTWARE COMPLEXITY, NEW BUSINESS MODEL DEVELOPMENT AND REGIONAL SHIFT.

"As predicted in last year's survey: the gravity further shifts towards ICT companies: in 2018, market capitalization of the top 15 mobile tech and web digital companies is almost 5 times as high as that of top 50 traditional auto companies (OEMs & suppliers). – In comparison to 2017 this was only 3,5 times as high."

O—LAST CALL TO SAY GOODBYE TO ONE SINGLE PLAYER MASTERING THE ENTIRE VALUE CHAIN – FINALLY MORE AND MORE COMPANIES SAY HELLO TO CO-OMPETITION.

"Complete mindset change: cooperation of auto companies and ICT players becomes more realistic than ever – 2 out of 3 executives (65%) believe in cooperation rather than competition; Chinese executives absolutely lead this opinion at 84%."









Aline Dodd Global Executive for Automotive **KPMG** in Germany

Tel: +49 89 9282-6259 alinedodd@kpmg.com

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www.kpmg.com/automotive

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