



KPMG's 19th consecutive

Global Automotive Executive Survey 2018

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The GAES 2018 is a fully interactive online platform!

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...

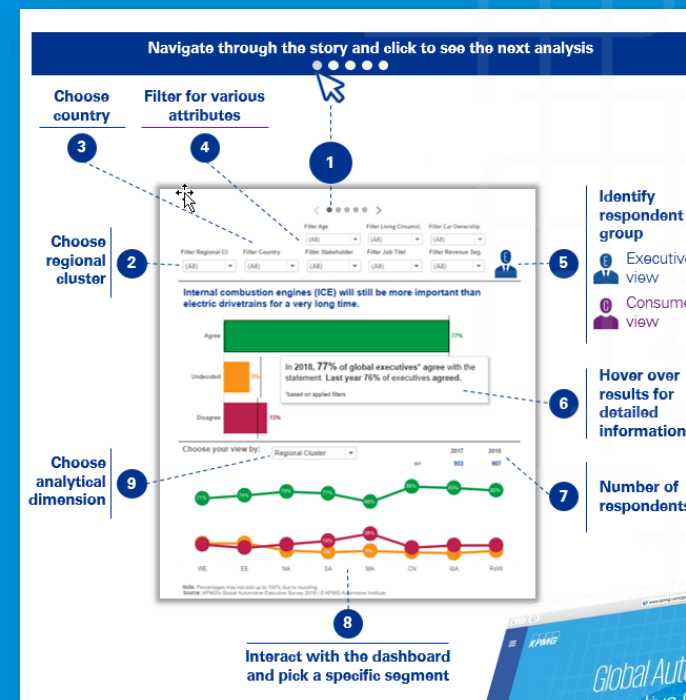
Executive perspective vs. consumer view

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 counts.

There is not one global answer:
> 2 million different views



Our GAES heritage

2011 “Within the next decade the **internet will revolutionize private transport**. Web providers and car manufacturers are vying for supremacy.”

2012 “New **non-asset based players will increase in significance** in the automotive value chain until 2025.”

2013 “Get ready for the **post powertrain ecosystem**. Acceleration is not all that matters in self-driving cars.”



“The automotive industry will have to adapt to and shape the converging world of **personalized mobility** and the **internet of everything**.”

2014

“OEMs need to think about how to **reshape their business model from a genuinely product-driven approach to a more service- & customer oriented model**.”

2015

“**Mobile connectivity**, the value of **customer data** and **self-driving cars** are the next big thing.”

2016

“Say goodbye to a complete auto-digital fusion – say hello to the **‘next’ dimension of co-integration**.”

2017

For **2018** I would like to provoke your thoughts with the following:

2018

“**The auto business is part of an open, dynamic & self-organizing ecosystem consisting of physical assets, services and content. Finding the right balance between where to compete, cooperate or consolidate with industry peers and to wisely co-integrate content from non-asset based digital challengers is key.**”



"In a different league: Together, the top 50 auto companies had just over 20% of the **market capitalization** of the top 15 digital companies in December 2017 (dropping from above 40% in 2010)."

"**Fuel cell electric vehicles** have replaced battery electric vehicles as this year's #1 key trend until 2025"

"**Brand above all** – this year 41% of execs believe a trustful brand to be the key success factor for a sharing economy, followed by **communities sharing the same values** (24%)"

"The flip side of regional shifts: 74% of executives believe that **production in Western Europe** will be less than 5% by 2030. [2017: 65%]"

"Stuck in a "**co-ompetition**" mind-set: Asked whether they expect ICT companies and automotive companies to compete rather than cooperate, 49% voted for competition and 51% for cooperation."

"**Infrastructure first, e-mobility second:** Of the executives surveyed, 55% still believe that pure battery electric vehicles will fail due to the challenge of setting up the required infrastructure."

"94% of executives believe that a fully working and effective driving policy and regulations for **autonomous vehicles** will be set up no later than **2040.**"

"2 of 3 executives are convinced that **product-centric usage of data to improve bottom-line results**, performance and safety of the product should be the focus for **asset-based auto companies.**"

"**Number 1 strategy for success is cooperation** with non-asset based players from converging industries to fully tap the potential of the future ecosystem that extends beyond the product "car"."

"In this new world, **consolidating with industry peers** may be the only way for the auto business to survive and keep up with non-asset based ecosystem players. **Finding the right balance between where to compete, cooperate and co-integrate is key.**"

"Learning from the aviation industry – almost 90% of the executives fully agree that **remanufacturing** is a feasible concept for the automotive industry to ensure the **best use of resources.**"

"73% of executives are convinced that traditional public transport solutions could be replaced **by on-demand autonomous capsules** in 10 years' time"

"OEMs will never succeed with all other features not directly linked to the vehicle and which are far away from their home turf, and should think of **forming partnerships and cooperation with non-asset based players from the converging ICT industry.**"

"57% of all executives say that in the future we will no longer differentiate between the business models for **transporting humans and goods.**"

"Auto **OEMs** are considered to be more trustworthy as **data guardian** than digital players – but only as long as no data breach happens."

"Over half of all execs (56%) are highly confident that the number of **physical retail outlets** as we know them today will be reduced by 30 – 50% already by 2025"

"There will **not be a single solitary drivetrain technology:** Executives project a similar split by 2040 for BEVs (26%), FCEVs (25%), ICEs (25%) and hybrids (24%)."

"It is still undecided whether **diesel is dead** or not: 50% of executives still believe that diesel is a technologically viable option. [2017: 47%]"

"This year's results reveal that finding one single player who owns all **customer relationships** and dominates/manages the entire ecosystem alone is rather unlikely"

"Executives see **BMW as the #1 e-mobility leader.** BMW, already last year's #1, has strengthened its position by increasing the gap to **Tesla**, which stabilized its second place ranking. The **Chinese OEM BYD** has made a big leap forward, moving up on the podium to replace last year's third place, Honda."

"Of the executives, 74% believe that **mixing autonomous and non-autonomous traffic will lead to severe safety issues.**"

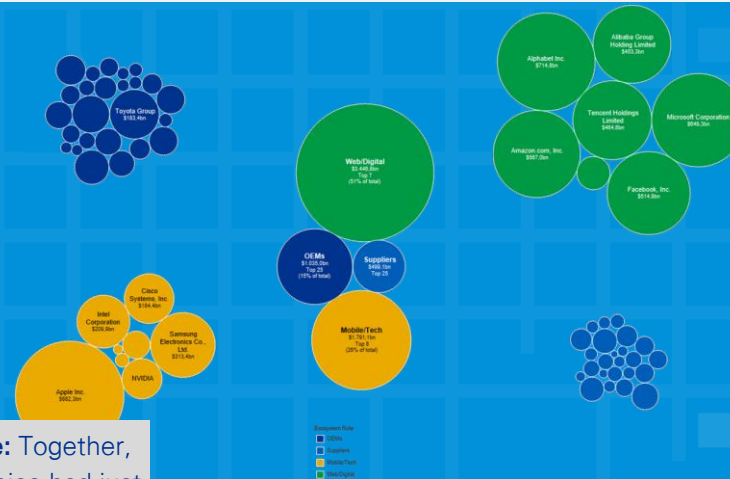
"Standard equipment of connected cars will need to be redefined: 85% of all executives and 3 out of 4 consumers are convinced that **data & cyber security** is the number 1 prerequisite for future purchasing decisions."

Time for a wake up: in the ecosystem the power is shifting...

Total market capitalization | 2010 |

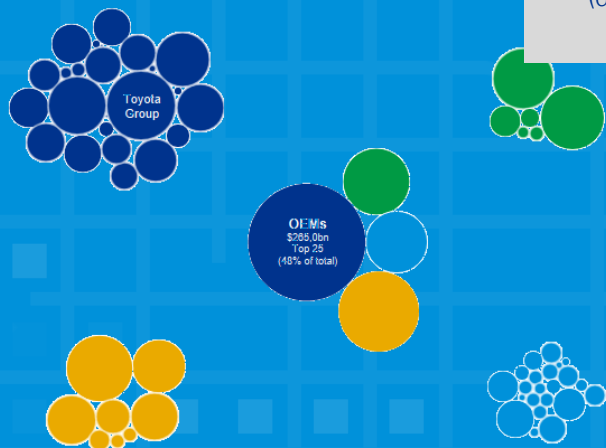


Total market capitalization | 2017 |

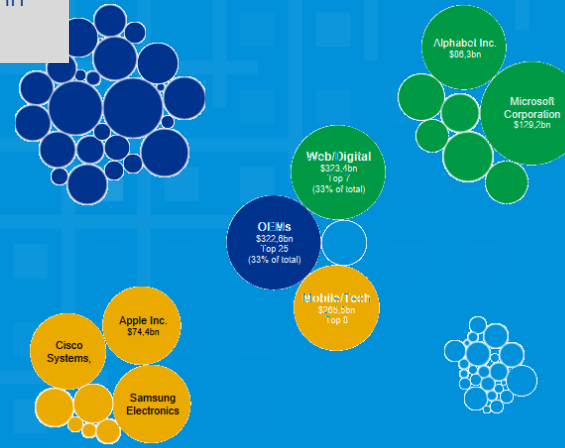


“In a different league: Together, the top 50 auto companies had just over 20% of the market capitalization of the top 15 digital companies in December 2017 (dropping from above 40% in 2010).”

Total cash positions | 2010 |

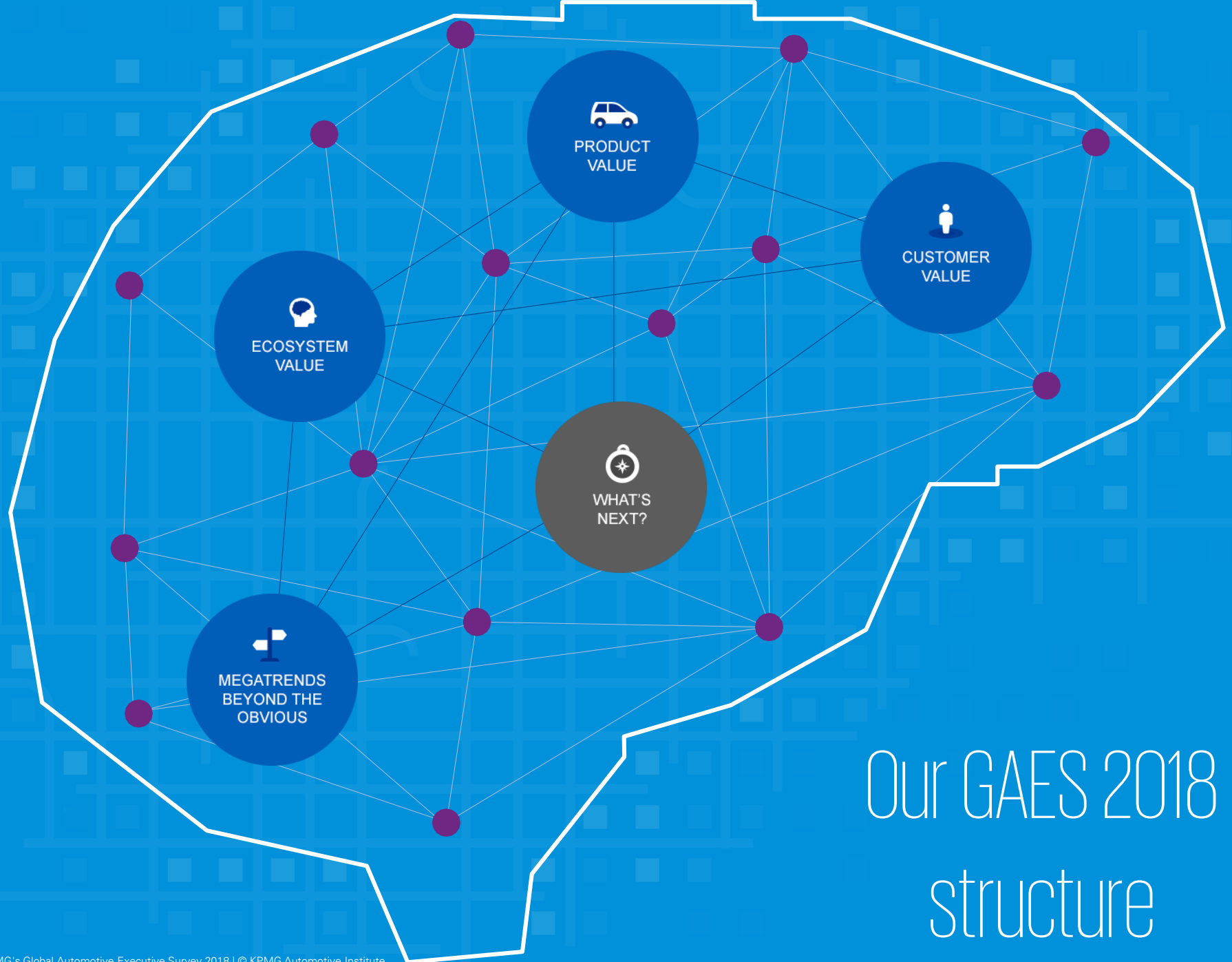


Total cash positions | 2017 |



- OEMs
- Suppliers
- Mobile/Tech
- Web/Digital

Note: For non-listed companies a simplified market multiple valuation (EBITDA) was applied
Source: KPMG’s Global Automotive Executive Survey 2018 | © KPMG Automotive Institute, Capital IQ (Dec. 2017)



Our GAES 2018
structure



MEGATRENDS
BEYOND THE
OBVIOUS

Automotive key trends

“Fuel cell electric vehicles have replaced battery electric vehicles as this year’s #1 key trend until 2025”

Although fully electric drivetrains dominate the ranking again this year, trends indicate that the future technology roadmap is likely to see various drivetrain technologies co-existing.

Regional shifts

“The flip side of regional shifts: 74% of executives believe that production in Western Europe will be less than 5% by 2030. [2017: 65%]”

China is no longer just a hub merely focused on volume growth in the automotive world. According to this year’s survey respondents, China is also outstripping mature markets in regard to new business model innovation launches.

Better use of resources

“Learning from the aviation industry – almost 90% of the executives fully agree that remanufacturing is a feasible concept for the automotive industry to ensure the best use of resources.”

Three out of four executives are convinced that making the most efficient use of resources will be one of the biggest drivers in the industry and will evolve as the overarching key trend, essentially influencing the way we think and live even in areas that exceed mobility.

Mobi-listics

“57% of all executives say that in the future we will no longer differentiate between the business models for transporting humans and goods.”

Autonomy, sharing and platform-based delivery services will revolutionize mobility patterns and lead to “mobi-listics”, the merging of mobility and logistics.

“73% of executives are convinced that traditional public transport solutions could be replaced by on-demand autonomous capsules in 10 years’ time”

Recent concepts for urban transportation solutions covering longer distances, like Hyperloop or Sedric by the Volkswagen Group, already spotlight developments that can potentially turn mobility patterns upside down.



Co-ompetition

“Stuck in a “co-ompetition” mind-set: Asked whether they expect ICT companies and automotive companies to compete rather than cooperate, 49% voted for competition and 51% for cooperation.”

Of course this is still very much 50:50, but compared to the past, this year is the first time the tendency is more towards the cooperative than the competitive approach – interestingly with striking regional differences.

Data supremacy

“2 of 3 executives are convinced that product-centric usage of data to improve bottom-line results, performance and safety of the product should be the focus for asset-based auto companies.”

On the contrary, only one third of respondents consider customer- and ecosystem-oriented business models based on downstream data as a great opportunity to monetize data.

“Standard equipment of connected cars will need to be redefined: 85% of all executives and 3 out of 4 consumers are convinced that data & cyber security is the number 1 prerequisite for future purchasing decisions.”

Providing data security will only be a prerequisite in the future ecosystem, it will not be an USP. Failing to provide it, however, will lead to severe negative consequences.

“Auto OEMs are considered to be more trustworthy as data guardian than digital players – but only as long as no data breach happens?”

The answer to this will play an integral role in defining which player can use and consequently monetize the data generated in the ecosystem. Looking at the results, neither the executives nor the consumers seem to actually differentiate between the value and ownership of upstream (vehicle) and downstream (consumer) data yet.

Transformation readiness

“Number 1 strategy for success is cooperation with non-asset based players from converging industries to fully tap the potential of the future ecosystem that extends beyond the product “car”.”

Aside from the difficulties to match the often completely diverging business models and corporate cultures of asset- and non-asset based companies mentioned before, almost every second executive (48%) considers cooperation with players from converging industries extremely important.



CUSTOMER
VALUE

Customer centricity

“This year’s results reveal that finding one single player who owns all customer relationships and dominates/manages the entire ecosystem alone is rather unlikely”

44% of executives and 37% of consumers believe OEMs to be the big winners in the battle for the direct customer relationship [Executives: 2017: 41%; Consumers: 2017: 26%].

“OEMs will never succeed with all other features not directly linked to the vehicle and which are far away from their home turf, and should think of forming partnerships and cooperation with non-asset based players from the converging ICT industry.”

Retail of the future

“Over half of all execs (56%) are highly confident that the number of physical retail outlets as we know them today will be reduced by 30 – 50% already by 2025”

Mobility patterns are changing and if customers request more and more intelligent mobility solutions instead of owning a private car, we will see a shift from a one-off transaction towards TCO-driven recurring transactions throughout the entire customer lifecycle.

Mobility on demand

“Brand above all – this year 41% of execs believe a trustful brand to be the key success factor for a sharing economy, followed by communities sharing the same values (24%)”

In the past, customer perception of a trustful brand was very much linked to the product itself and possibly to a visit to the retailer – an environment which was solely dominated and managed by the manufacturer. The future is more complex: Brand perception goes far beyond the mere product.

“Almost half (43%) of the surveyed respondents show confidence that half of the car owners they know today will no longer want to own a personal vehicle by 2025.”

According to this year’s executives, the most important reasons for this are living circumstances (32%), followed by total cost of ownership (23%). Especially vehicle manufacturer executives believe that living circumstances and the resulting urbanization are the most important reason (43%).



PRODUCT
VALUE

Combustion engines

“There will not be a single solitary drivetrain technology: Executives project a similar split by 2040 for BEVs (26%), FCEVs (25%), ICEs (25%) and hybrids (24%).”

Differences in market maturity, economic wealth and national interest lead to different regional distributions of ICEs, Hybrids, BEVs and FCEVs, driven by CO2 and NOX emission agendas.

“It is still undecided whether diesel is dead or not: 50% of executives still believe that diesel is a technologically viable option. [2017: 47%]”

The consumer results show that even though the majority opposes diesel cars, a quite significant percentage continues to favour them; mainly due to cost advantages followed by longer engine durability.

Electric readiness

“Infrastructure first, e-mobility second: Of the executives surveyed, 55% still believe that pure battery electric vehicles will fail due to the challenge of setting up the required infrastructure.”

Norway, a leading e-mobility market, has suffered first drawbacks in their ambitions of a complete e-mobility roll-out. In September last year, Norwegian officials recommended refraining from buying new electric cars, due to a shortage of public charge points. An imposed growth of e-mobility subsidized by tax benefits, or imposed by bans of ICEs will fail if the foundation of a reliable charging infrastructure is not put in place first.

“Executives see BMW as the #1 e-mobility leader.”

BMW, already last year’s #1, has strengthened its position by increasing the gap to Tesla, which stabilized its second place ranking. The Chinese manufacturer BYD has made a big leap forward, moving up on the podium to replace last year’s third place, Honda.

Autonomy readiness

“Of the executives, 74% believe that mixing autonomous and non-autonomous traffic will lead to severe safety issues.”

“Secured spaces” for an interim time might be a solution to disconnect autonomous vehicles from the complexity of today’s car environment, making it nearly impossible to include every eventuality into an algorithm.

“94% of executives believe that a fully working and effective driving policy and regulations for autonomous vehicles will be set up no later than 2040.”

Mixed traffic is not possible, it is unlikely that fully autonomous vehicles and human drivers will use the same roads. As a result, we will see the trend of separation instead of integration and with it the implementation of new road concepts and traffic systems over the next 10 years.

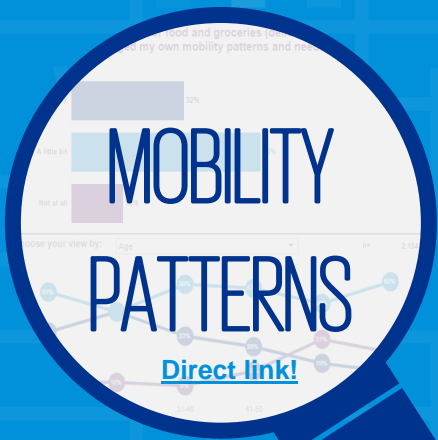


KEY TRENDS

[Direct link!](#)

EXAMPLE ENCLOSED

Regional view & Stakeholder type view



MOBILITY PATTERNS

[Direct link!](#)

Age of consumers



CO-OMPETITION

[Direct link!](#)

EXAMPLE ENCLOSED

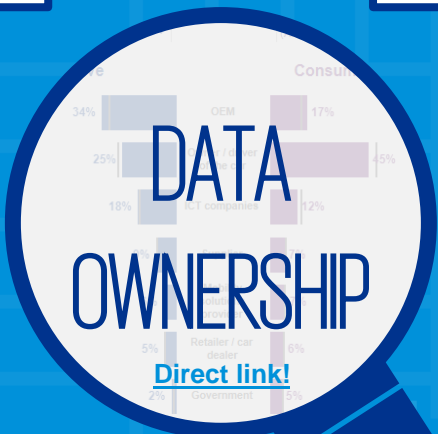
Regional view & Stakeholder view



CAR SHARING

[Direct link!](#)

Living circumstances



DATA OWNERSHIP

[Direct link!](#)

China consumer view



E-MOBILITY CHALLENGES

[Direct link!](#)

Norway & Sweden view

QUICK

Key Trends

Regional view & Stakeholder type view



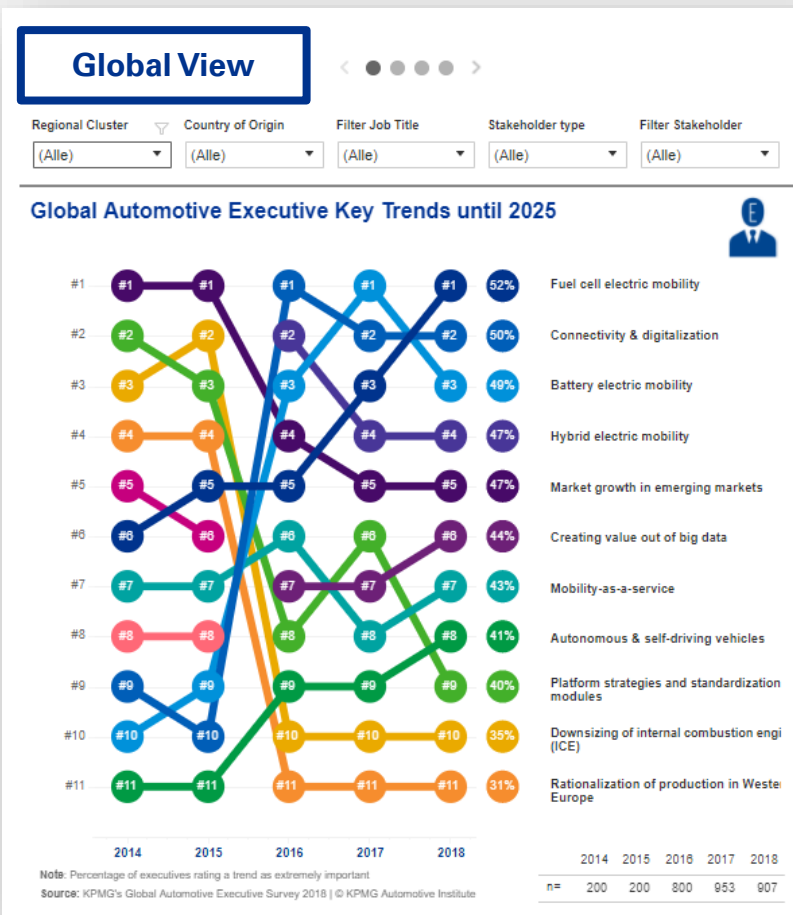
AUTOMOTIVE KEY TRENDS

Fuel cell electric vehicles have replaced battery electric vehicles as this year's #1 key trend until 2025

Although fully electric drivetrains dominate the ranking again this year, trends indicate that the future technology roadmap is likely to see various drivetrain technologies co-existing with high dependency on specific application areas, local regulations and customer preferences.

RELATED

- Regional shifts
- Better use of resources
- Mobi-lictics



QUICK

Key Trends



Regional view & Stakeholder type view



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Regional shifts

Better use of resources

Mobi-lics



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- Who owns the mobility customer?
- Stuck in co-competition mindset
- Strategies to balance power
- Roles in the ecosystem
- Success factors and automotive industry: key aspects of success for OEMs

CO-OMPETITION

Compete 49%

Cooperate 51%

Regional view & Stakeholder view

Execs from both sides are stuck in a “co-competition” mindset, but with striking differences at a closer look

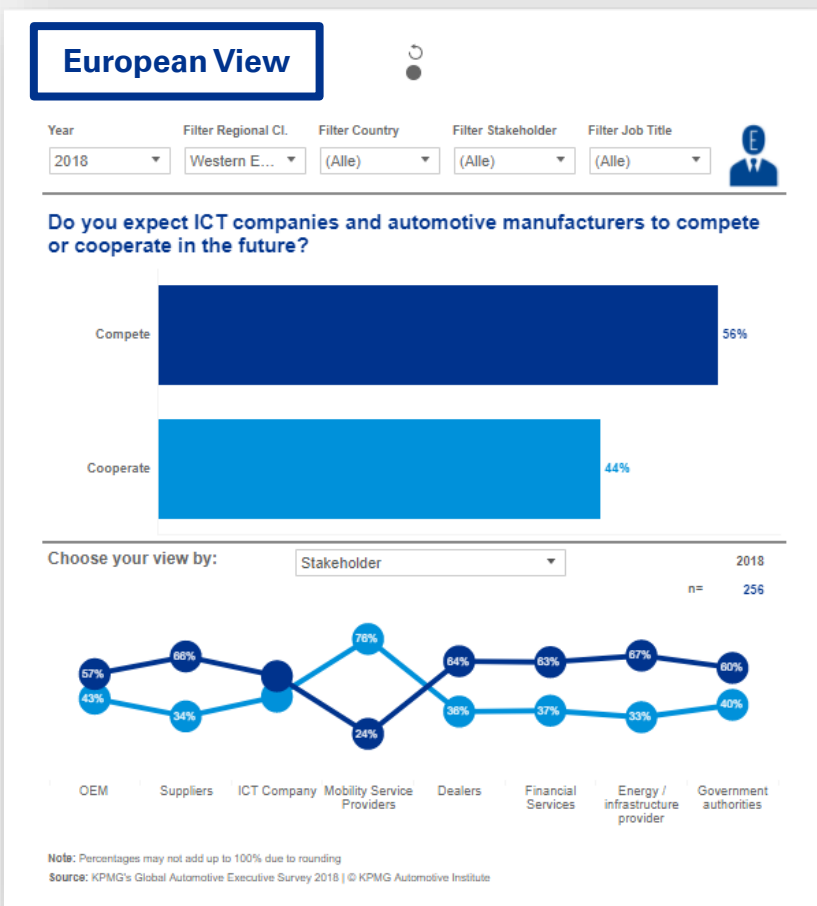
This year’s results very accurately demonstrate the current state of mind of all players involved in the ecosystem. Asked whether they expect ICT companies and automotive companies to compete rather than cooperate, 49% voted for competition and 51% for cooperation. Of course this is still very much 50:50, but compared to the past, this year is the first time the tendency is more towards the cooperative than the competitive approach – interestingly with striking regional differences.

While respondents from mature markets like North America (59%) and Western Europe (56%) still rather tend towards competition, many Chinese executives (71%) see it almost as a given that a successful way forward can only lie in a strong cooperation between asset-based manufacturing companies and non-asset based digital players.

RELATED

Data supremacy

Transformation readiness



QUICK

Who owns the mobility customer?

Stuck in co-competition mindset

Strategies to balance power

Roles in the ecosystem

Success factors and automotive industry success for OEMs



Regional view & Stakeholder view

Execs from both sides are stuck in a “co-competition” mindset, but with striking differences at a closer look

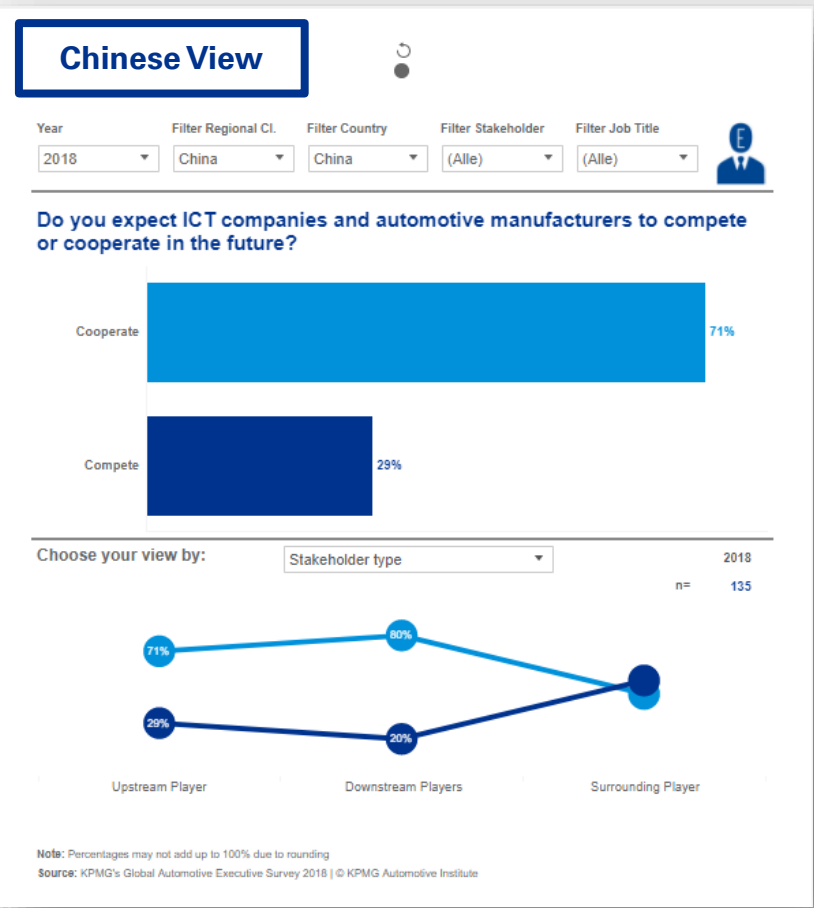
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RELATED

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WHAT'S
NEXT?

Stay tuned for what's next!

You will find it on the GAES platform whenever a new idea has been revealed to us!

<http://kpmg.com/GAES2018>

What you will get today:

- The key messages of the new Global Automotive Executive Survey
- The link to the new online platform
- The printed version will be available end of January

To keep in mind...the most important headlines in this year's survey

Digital players are in a different league:

Together, the top 50 auto companies had just over 20% of the market capitalization of the top 15 digital companies in December 2017 (dropping from above 40% in 2010)."

[Stuck in a "co-ompetition" mind-set: Asked whether they expect ICT companies and automotive companies to compete rather than cooperate, 49% voted for competition and 51% for cooperation.]

Nothing will stay the way it is today:

- **The usage of data** shall be re-thought completely
- **Regional shifts** could have severe implications for the future of Western Europe
- **Standard equipment** re-defined with connectivity arising
- **Physical retail outlets** will be reduced significantly and the retail landscape is undergoing a transformation phase

There will not be a single solitary drivetrain technology:

Executives project a similar split by 2040 for BEVs (26%), FCEVs (25%), ICEs (25%) and hybrids (24%).

[It is still undecided whether diesel is dead or not: 50% of executives still believe that diesel is a technologically viable option. (2017: 47%)]

Connectivity requires a new definition of the standard equipment of vehicles:

85% of all executives and 3 out of 4 consumers are convinced that **data & cyber security** is the number 1 prerequisite for future purchasing decisions.

[Auto OEMs are considered to be more trustworthy as data guardian than digital players – but only as long as no data breach happens.]

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