



KPMG's 19th consecutive

Global Automotive Executive Survey 2018

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

www.kpmg.com/GAES

Ricardo BACELLAR
KPMG Brazil Head of Automotive



Seminário AutoData

MEGATENDÊNCIAS DO SETOR AUTOMOTIVO

OS DESAFIOS DE 2018 COM OU SEM A ROTA 2030

05

MARÇO • Hotel Transamérica • 08h30 às 17h30

Mar / 2018

We have what to celebrate...



EDIÇÃO N° 1055 02.02



ÚLTIMAS REVISTA TV DINHEIRO ECONOMIA NEGÓCIOS MERCADO DIGITAL FINANÇAS INVESTIDOR ESTILO BLOGS ÍNDICES



Entrevista



ANTONIO MEGALE, PRESIDENTE DA ANFAVEA

Começamos 2018 com um crescimento de 23% ”

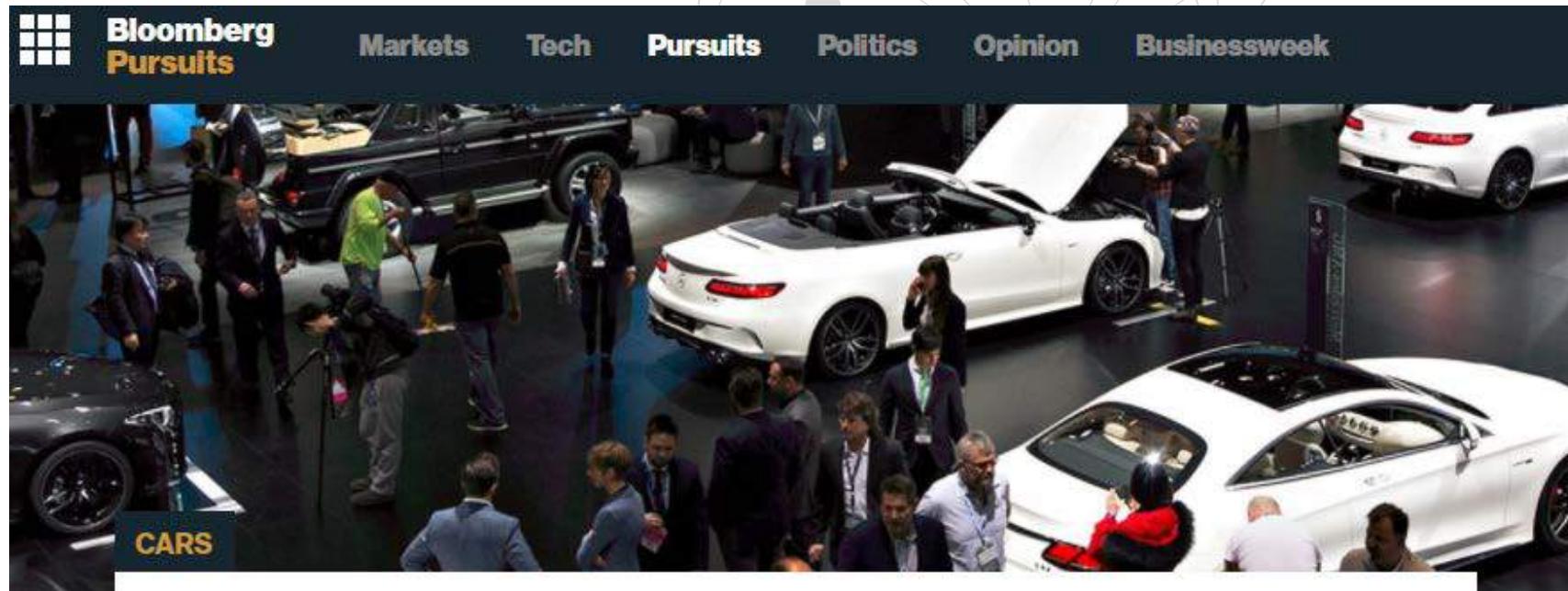
Gabriel Reis



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Note: Percentages may not add up to 100 % due to rounding | **Source:** KPMG's Global Automotive Executive Survey 2017

... But there's much more to be done!



Adapt or Die Is Marchionne's Stark Farewell Message to Carmakers

By **Tommaso Ebhardt**

January 15, 2018, 4:00 AM GMT-2 *Updated on* January 15, 2018, 7:12 AM GMT-2

...But there's much more to be done!



What will the future
mobility ecosystem
look like?

But there's much more to be done!



HOME MARKETING ONLINE DEALER

Google

How Artificial Intelligence is changing the car industry

The Detroit News

HOME NEWS SPORTS BUSINESS AUTO

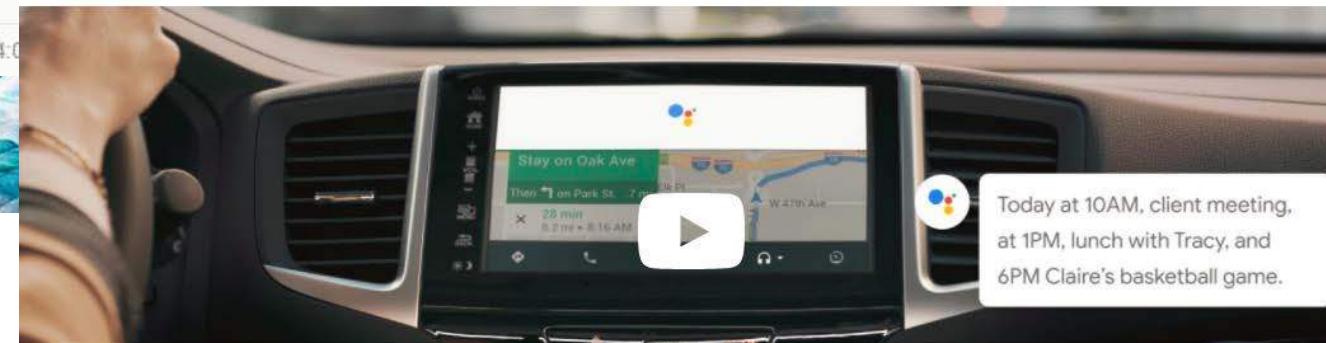
Testing of artificial

Nora Naughton, The Detroit News Published 4:00 AM ET, Jan 12, 2017



In your car

The Assistant can also help you in the car, so that you can keep your hands on the wheel and eyes on the road. Starting this week in the U.S., the Assistant is coming to Android Auto.



connected cars and things



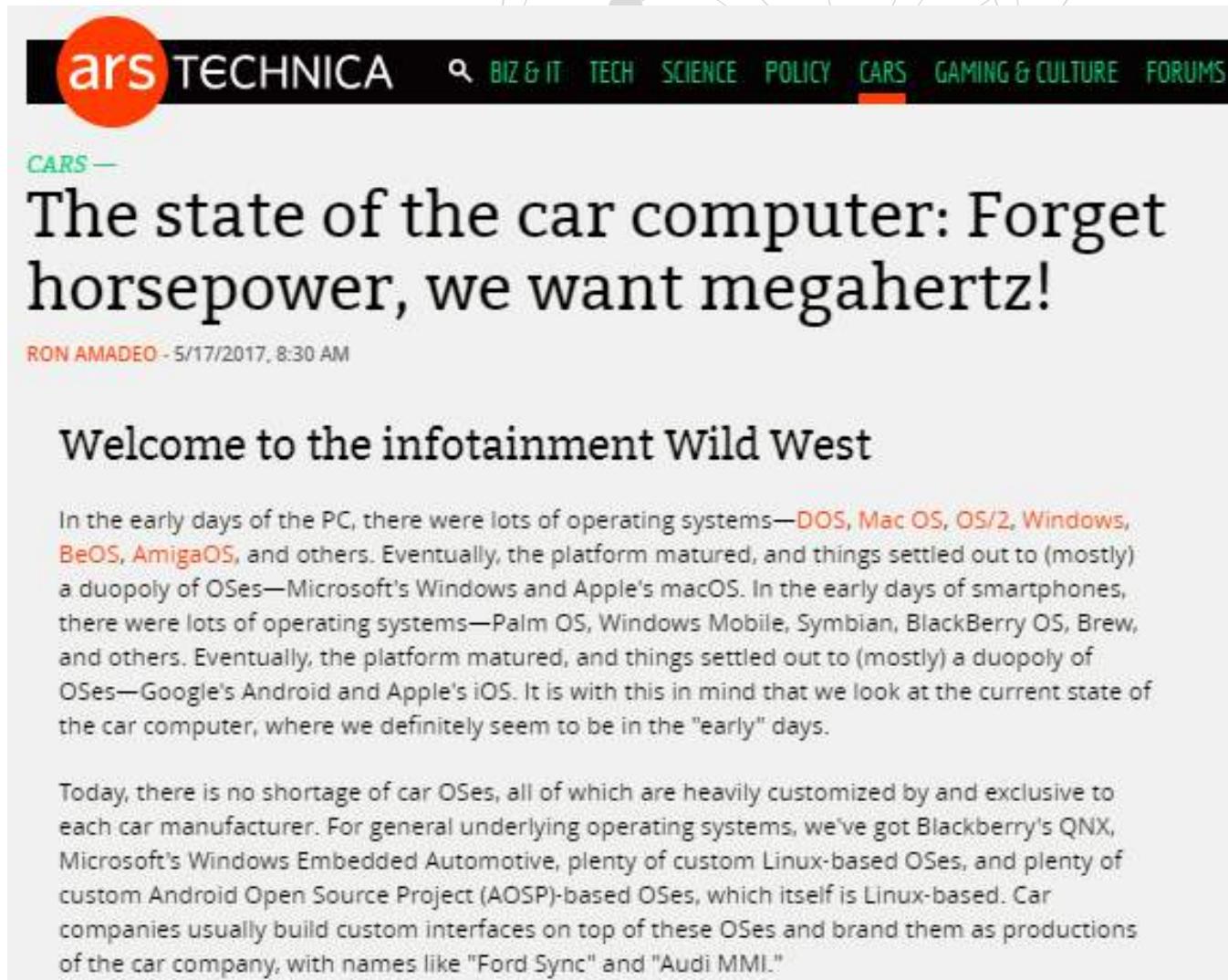
HOME SERVICES NEWS EDUCATION ABOUT US

Impact of AI and Big Data on the Automotive Sector: 2017 Research

Report has been added to

E is primarily focused toward the impact of AI on the automotive sector and some of its related business topics, such as Management

But there's much more to be done!



The screenshot shows the Ars Technica website. The header features a navigation bar with categories: BIZ & IT, TECH, SCIENCE, POLICY, CARS (which is highlighted in red), GAMING & CULTURE, and FORUMS. Below the header, a sub-navigation bar shows 'CARS —'. The main title of the article is 'The state of the car computer: Forget horsepower, we want megahertz!' by Ron Amadeo, posted on 5/17/2017, 8:30 AM. The article begins with a paragraph about the early days of computing platforms, comparing the current state of car computers to those early days. It then discusses the current landscape of car operating systems, mentioning BlackBerry's QNX, Microsoft's Windows Embedded Automotive, custom Linux-based OSes, and custom Android Open Source Project (AOSP)-based OSes.

The state of the car computer: Forget horsepower, we want megahertz!

RON AMADEO - 5/17/2017, 8:30 AM

Welcome to the infotainment Wild West

In the early days of the PC, there were lots of operating systems—[DOS](#), [Mac OS](#), [OS/2](#), [Windows](#), [BeOS](#), [AmigaOS](#), and others. Eventually, the platform matured, and things settled out to (mostly) a duopoly of OSes—Microsoft's Windows and Apple's macOS. In the early days of smartphones, there were lots of operating systems—Palm OS, Windows Mobile, Symbian, BlackBerry OS, Brew, and others. Eventually, the platform matured, and things settled out to (mostly) a duopoly of OSes—Google's Android and Apple's iOS. It is with this in mind that we look at the current state of the car computer, where we definitely seem to be in the "early" days.

Today, there is no shortage of car OSes, all of which are heavily customized by and exclusive to each car manufacturer. For general underlying operating systems, we've got BlackBerry's QNX, Microsoft's Windows Embedded Automotive, plenty of custom Linux-based OSes, and plenty of custom Android Open Source Project (AOSP)-based OSes, which itself is Linux-based. Car companies usually build custom interfaces on top of these OSes and brand them as productions of the car company, with names like "Ford Sync" and "Audi MMI."

But there's much more to be done!



The image shows a screenshot of the Visa website. The top navigation bar is dark blue with the Visa logo in white. Below the logo are five menu items: "Pay With Visa", "Partner With Us", "Run Your Business", "Travel With Visa", and "Visa Everywhere". To the right of the menu is a magnifying glass icon for search. The main headline on the page is "The connected car: Visa looks ahead". Below the headline is a photograph of a car's side-view mirror. The mirror reflects a road lined with trees, suggesting a journey or travel. The background of the page is white.

... But there's much more to be done!



John **orders lunch** for
pick-up through his
in-car app

But there's much more to be done!

≡ EXAME

Revista EXAME WhatsApp Bolsonaro Agronegócio EXAME 50 Anos Clube

NEGÓCIOS

Acionistas fecham acordo para vender Sem Parar por R\$ 4 bi

Todos os acionistas da STP teriam chegado a um acordo para vender 100% do negócio

Por Mônica Scaramuzzo

5 mar 2016, 09h36



But there's much more to be done!

← → ⌂  Secure | <https://economia.uol.com.br/cotacoes/bolsas/acoes/bvsp-boves>

LOCALIZA ON (RENT3.SA)

Periodo a ser consultado:

de a



But there's much more to be done!



REUTERS

World

Business

Markets

Politics

TV

#DEALS

OCTOBER 12, 2017 / 9:23 AM / 4 MONTHS AGO

Shell buys NewMotion charging network in first electric vehicle deal



REUTERS

World

Business

Markets

Politics

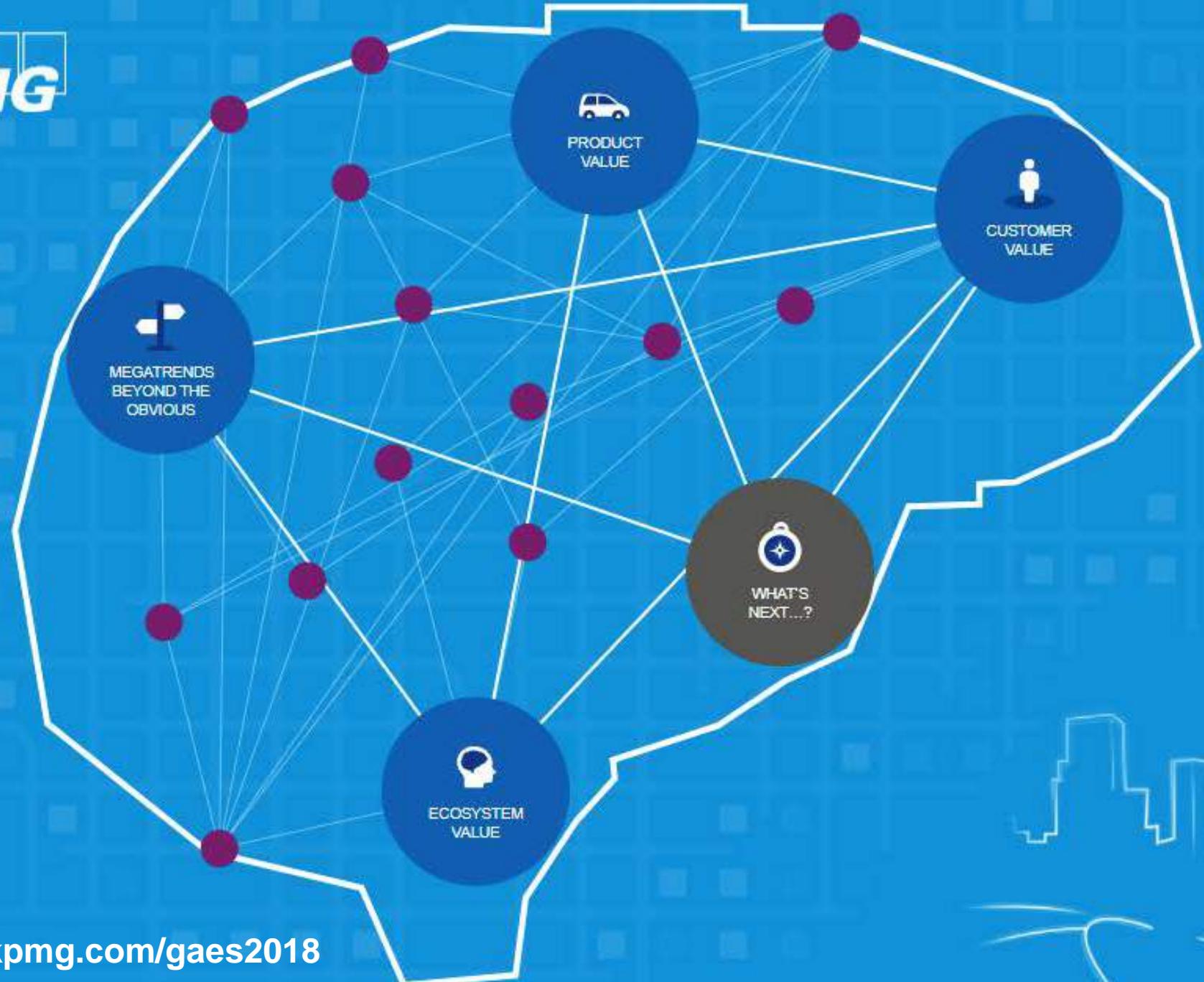
TV

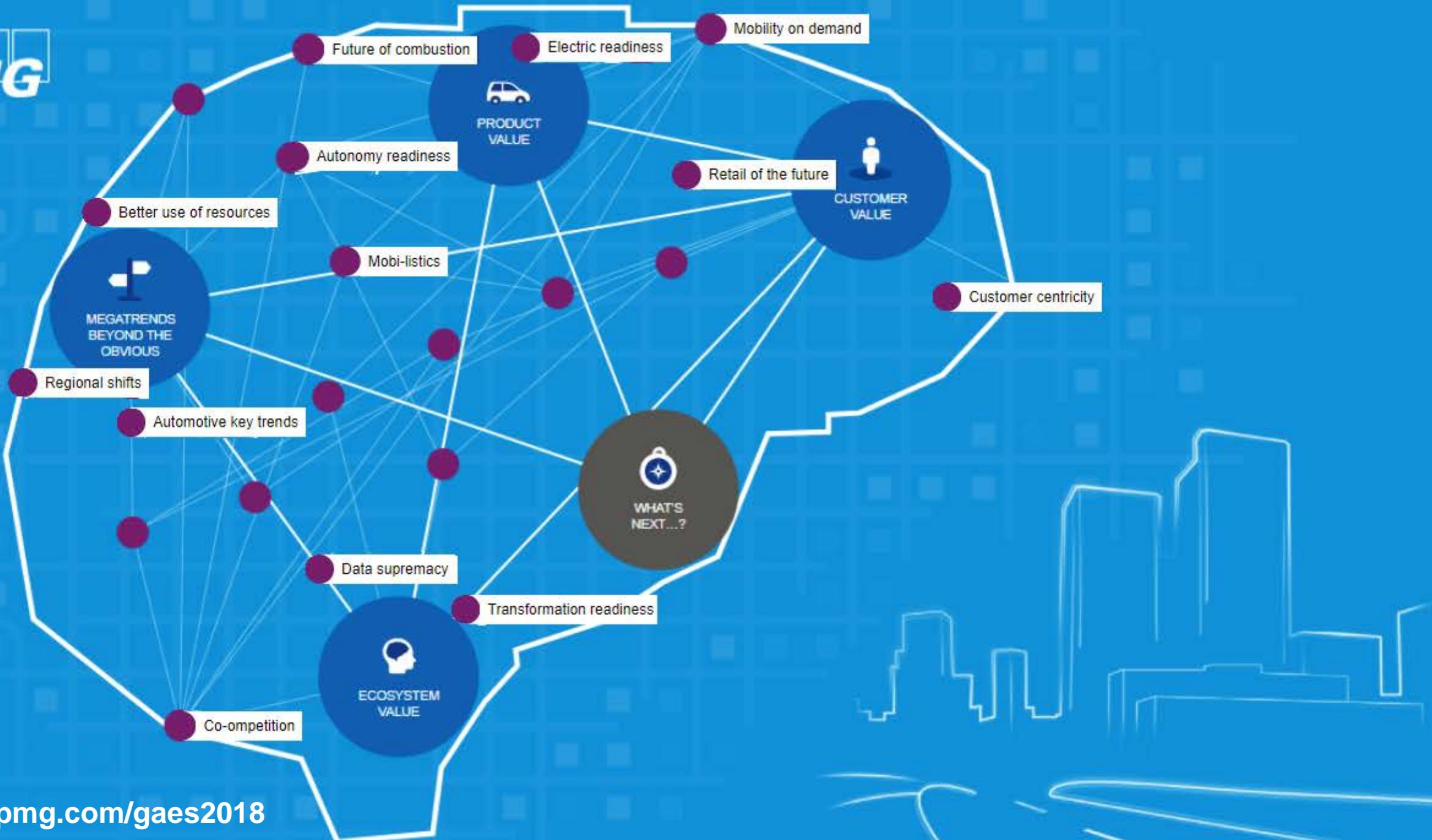
#TECHNOLOGY NEWS

JANUARY 30, 2018 / 8:17 AM / 2 DAYS AGO

BP invests \$5 million in FreeWire in electric vehicle move







About the executive survey

For the 2018 survey we gathered the opinions of more than 900 executives from 43 countries.

TOP 5 RESPONDENTS - EXECUTIVES

135 China

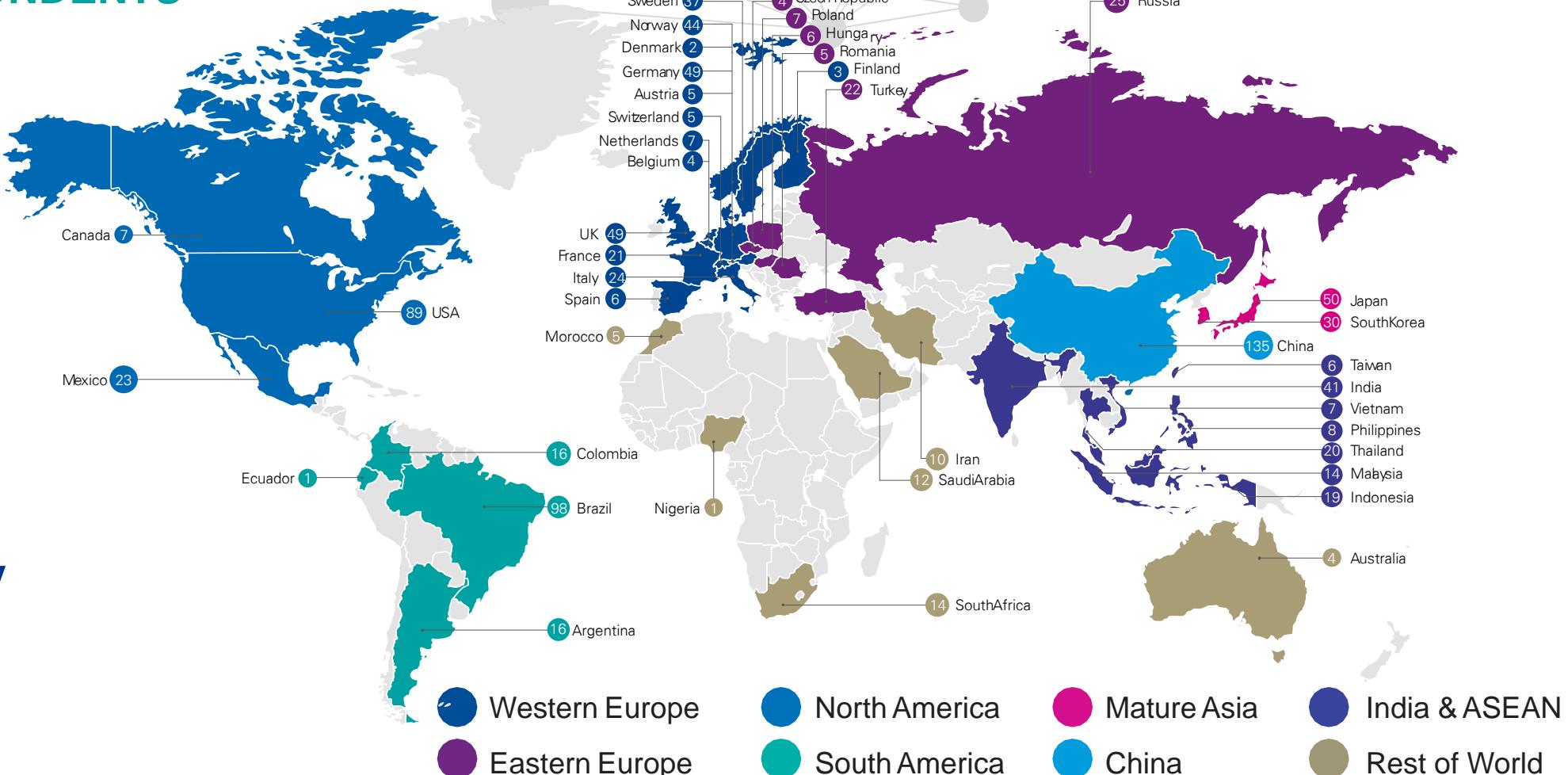
98 Brazil

89 USA

50 Japan

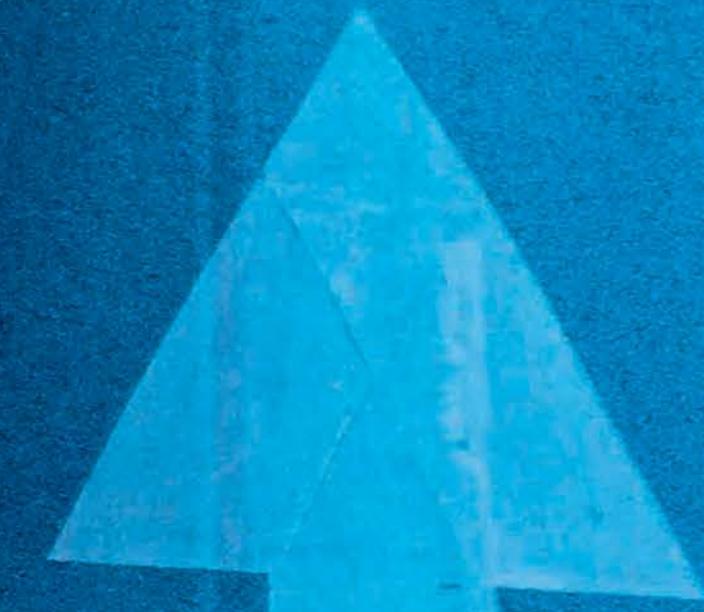
49 Germany

49 UK

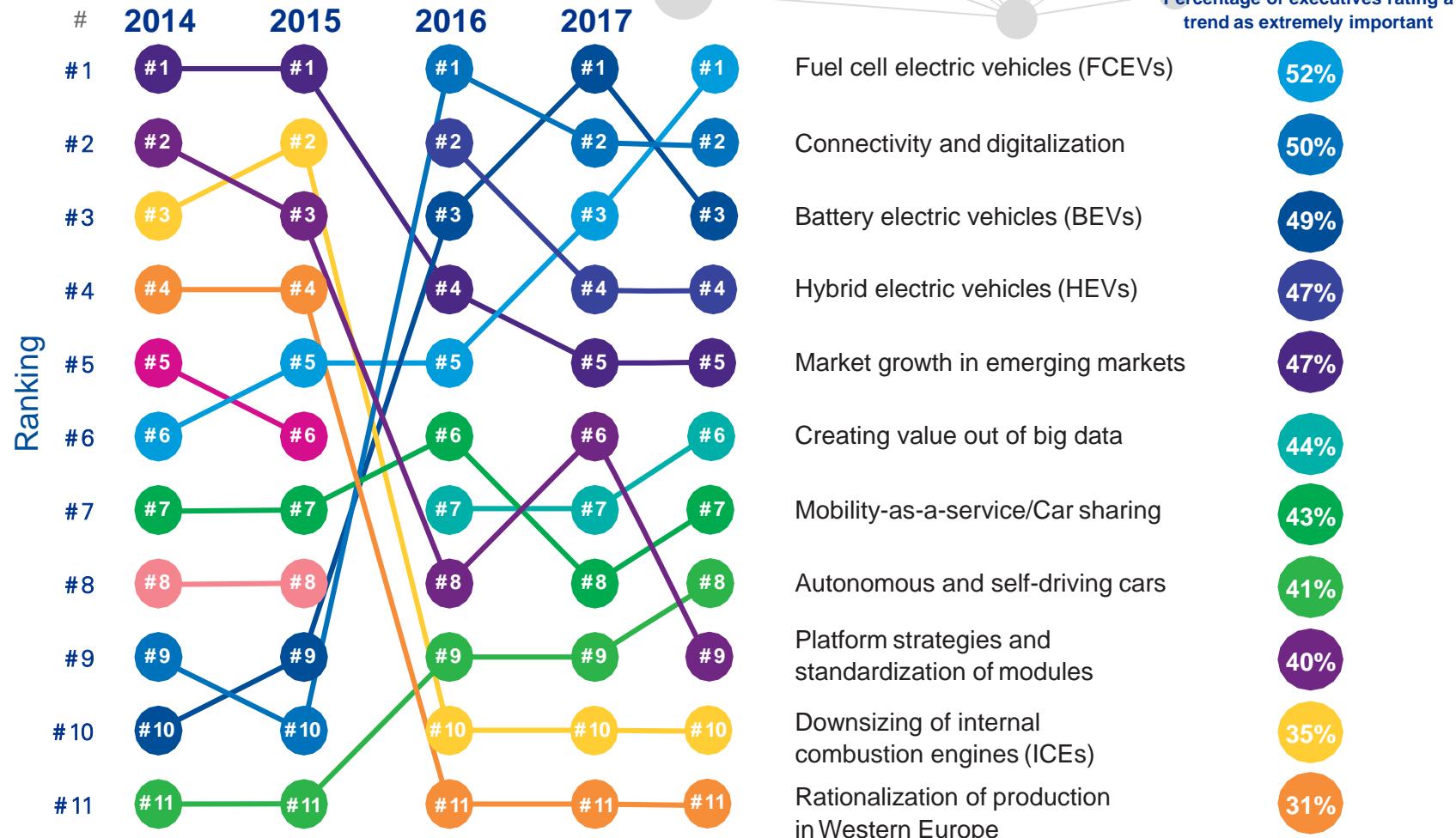


Note: Map shows number of respondents from each country | Source: KPMG's Global Automotive Executive Survey 2017

Key trends until 2025

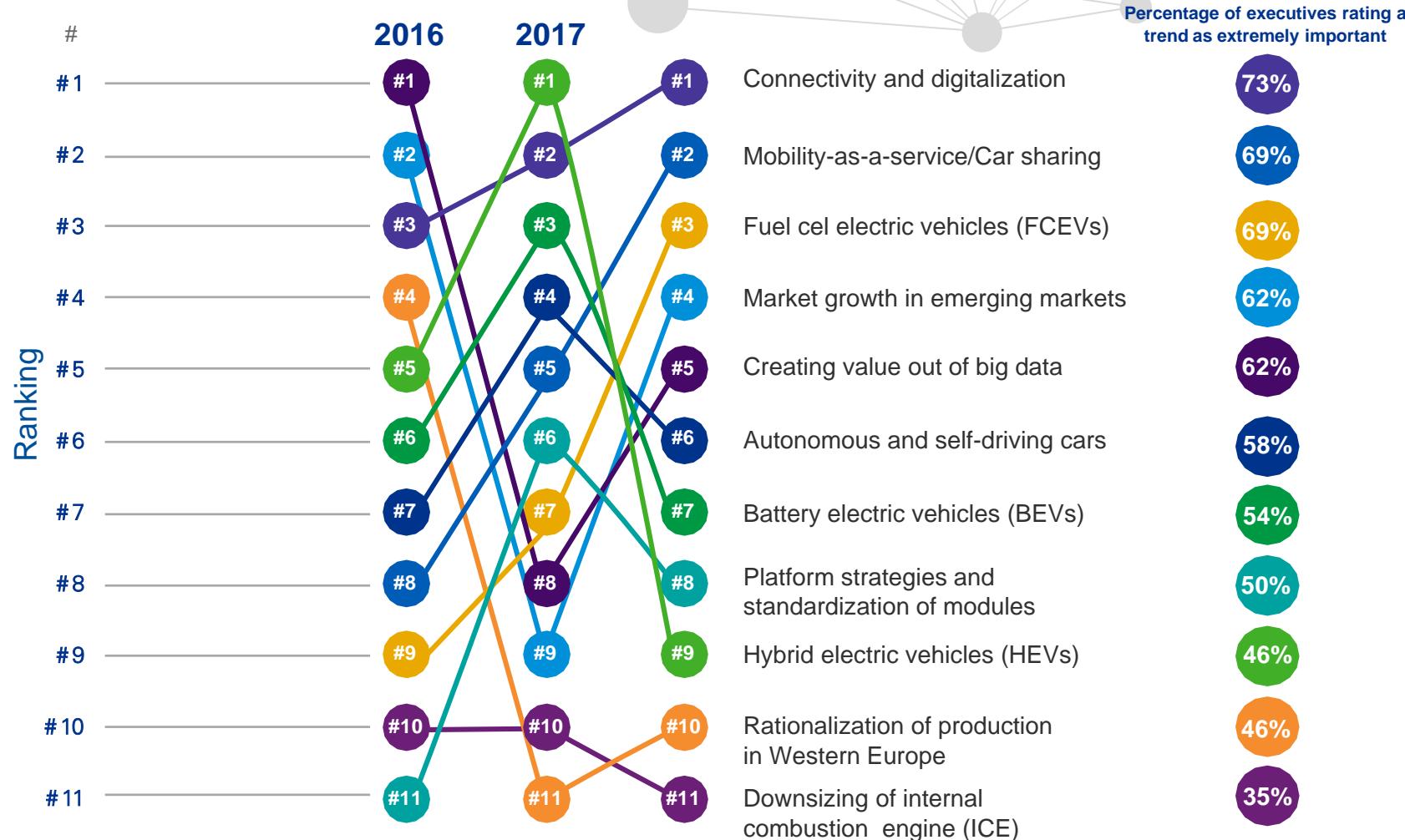


Key trends until 2025



Source: KPMG's Global Automotive Executive Survey 2017

Key trends until 2025

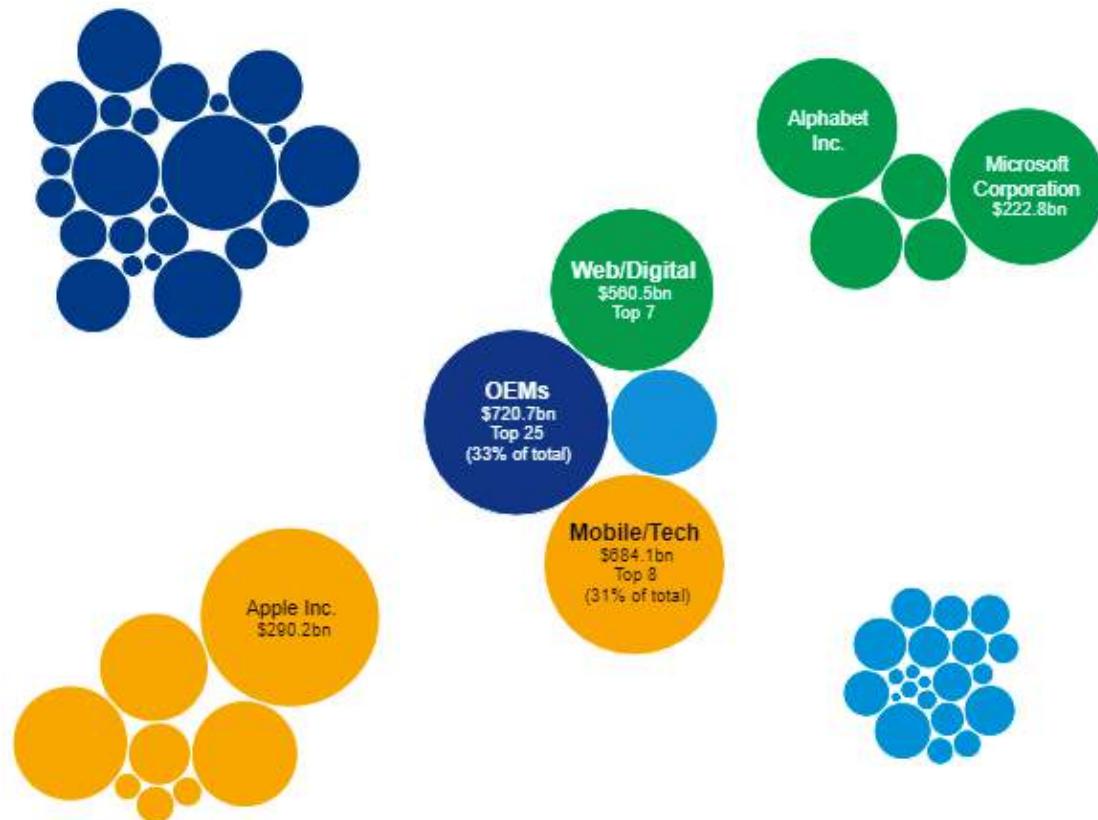


Source: KPMG's Global Automotive Executive Survey 2017

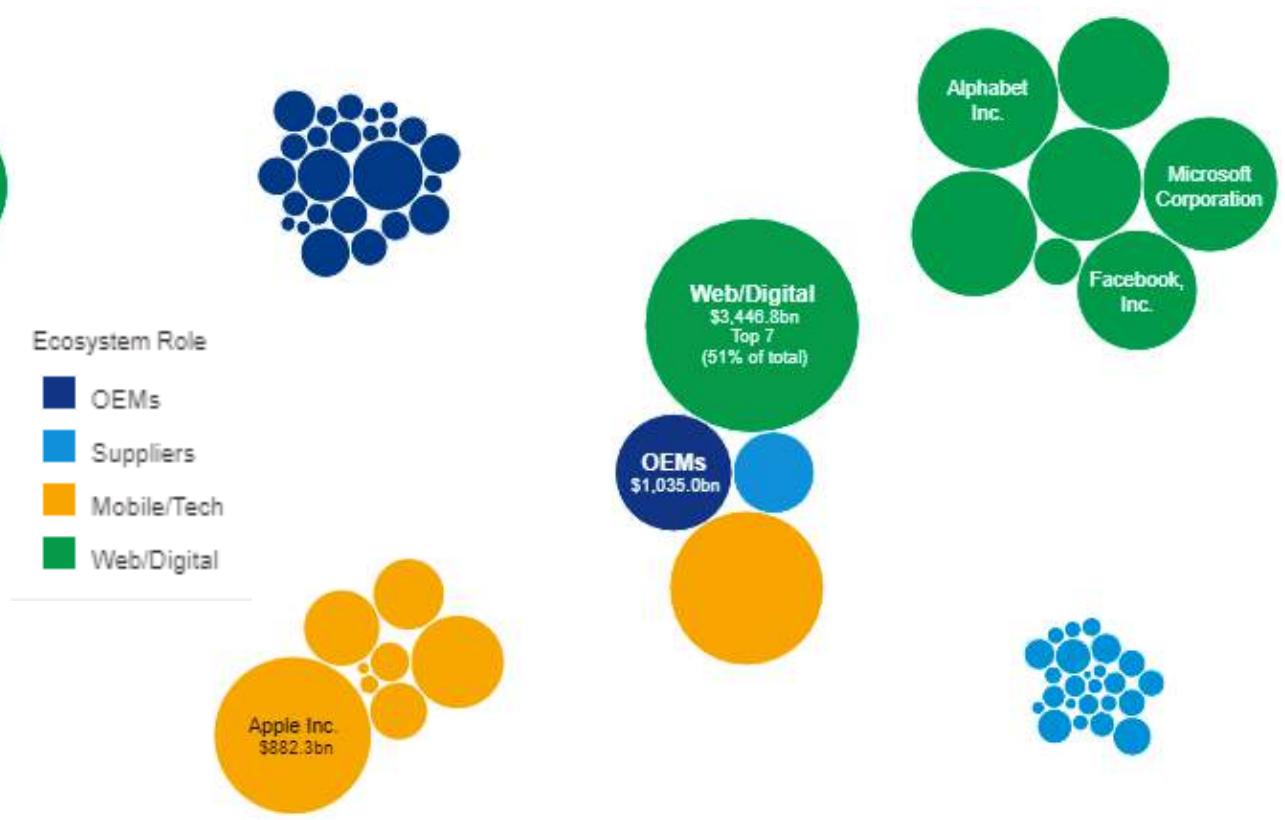
The auto industry has to transform the business

Total market capitalization (in \$bn)

2010



2017

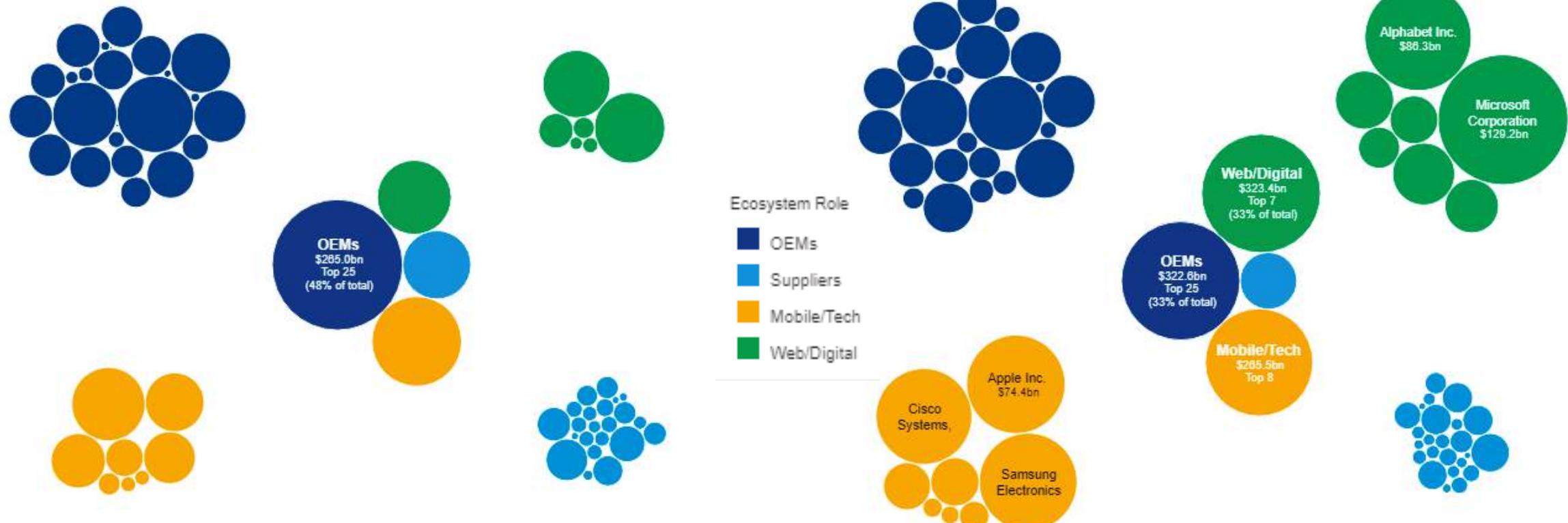


The auto industry has to transform the business

Total cash position (in \$bn)

2010

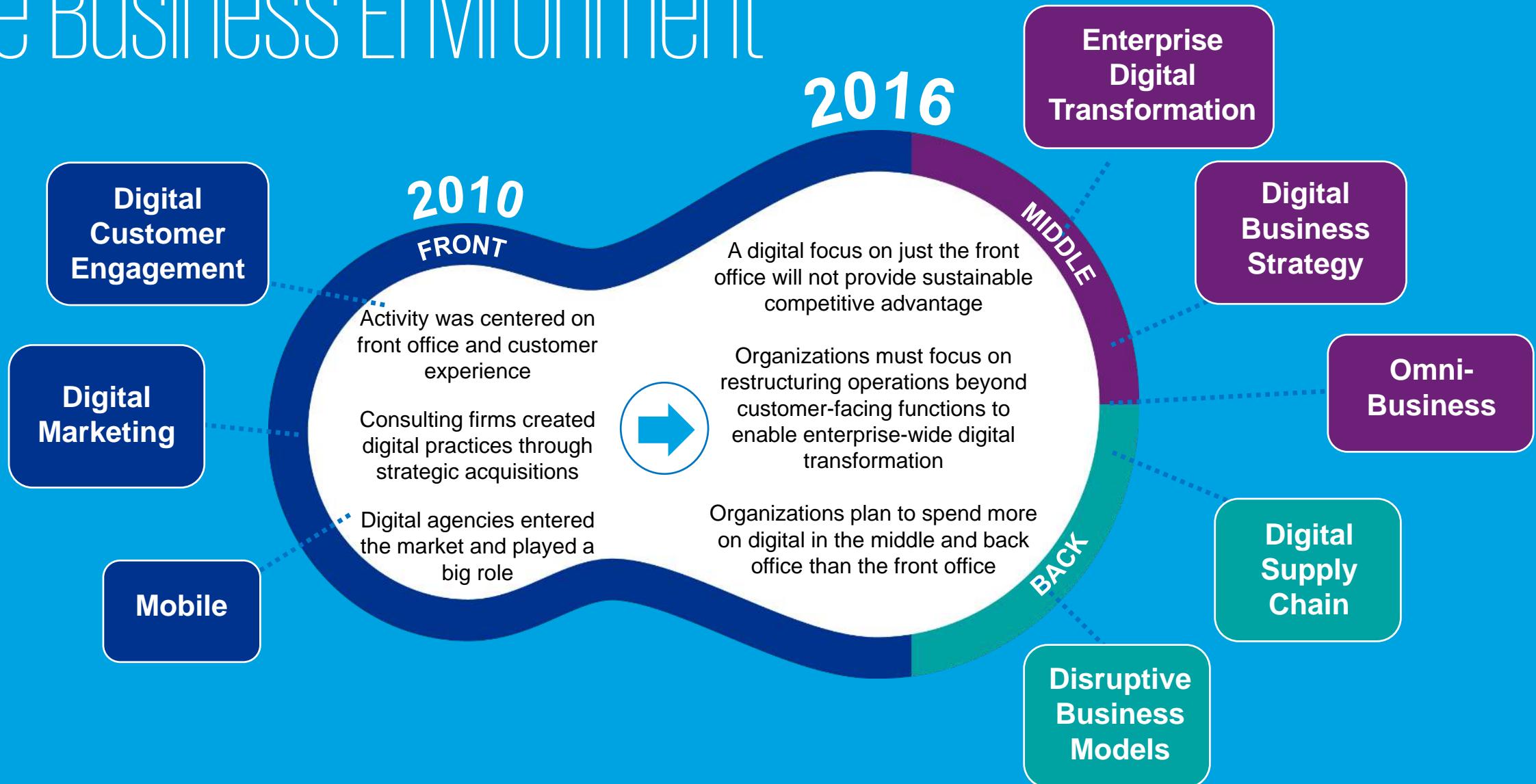
2017



Business Ecosystem Transformation



Digital Disruption has dramatically changed the Business Environment



Digital disruption

is the change in **form and substance** that occurs when new **digital technologies** and **mental models** which create new **business models** with **value propositions** that **exponentially** challenge existing goods and services.



Asset Light

Data Rich

Customer Centric

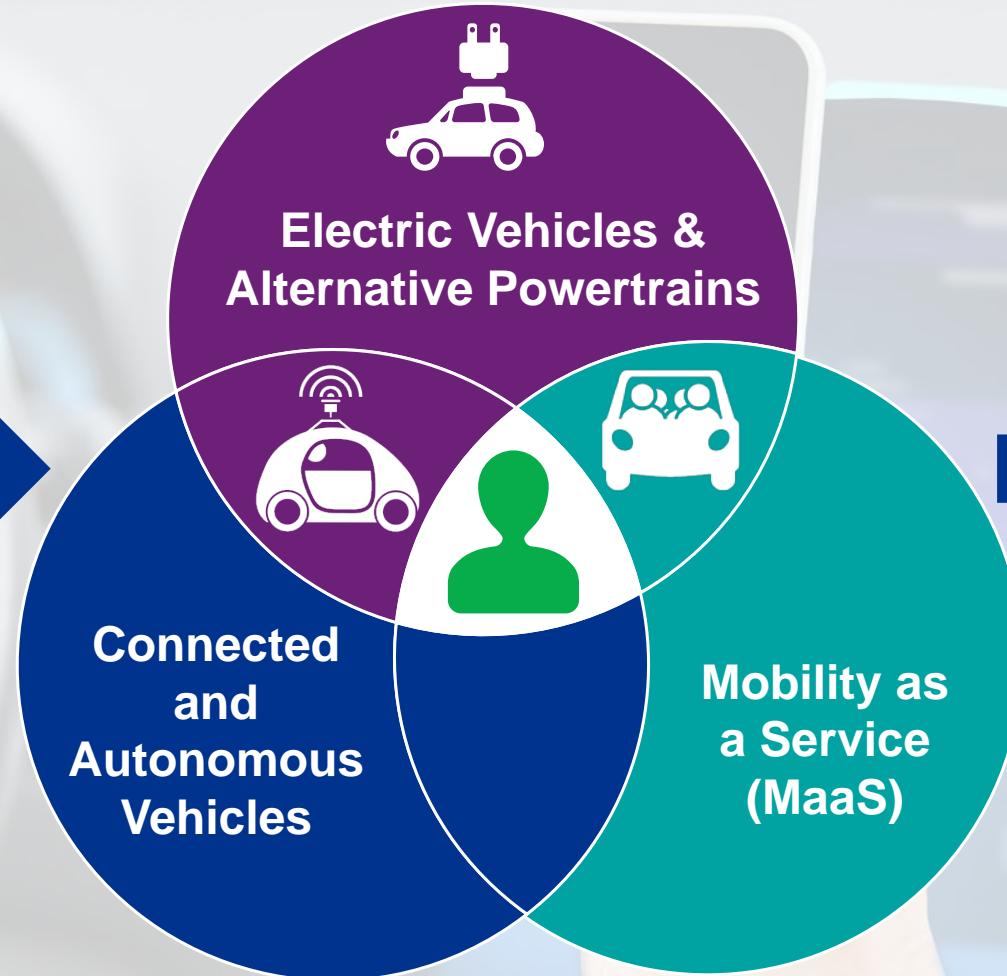
Platform Based

The Future Auto Industry



Changing consumer and societal demands

- Moving people
- Moving goods



Mobility Value Chain

Collaboration in the future Mobility Ecosystem

The auto industry has to transform the business



78% of global automotive executives would choose an electric car if they were to buy a car over the next 5 years.

Data is the fuel for future auto business model for **83%** automotive executives



Digitalization will drive more innovation in the **next 20 years** than there was been in the **past 100 years**.

50% of global consumers consider privacy & security as an extremely important purchasing criteria.



By 2020, more than **90%** of cars sold will be connected

80% of global consumers expect the OEM to take care of charging stations.

Source: 2016, WEF, Digital Transformation of Industries: Automotive and 2017, KPMG, Global Automotive Executive Survey

The auto industry has to transform the business



83% believe there will be a business model disruption in the next 5 years

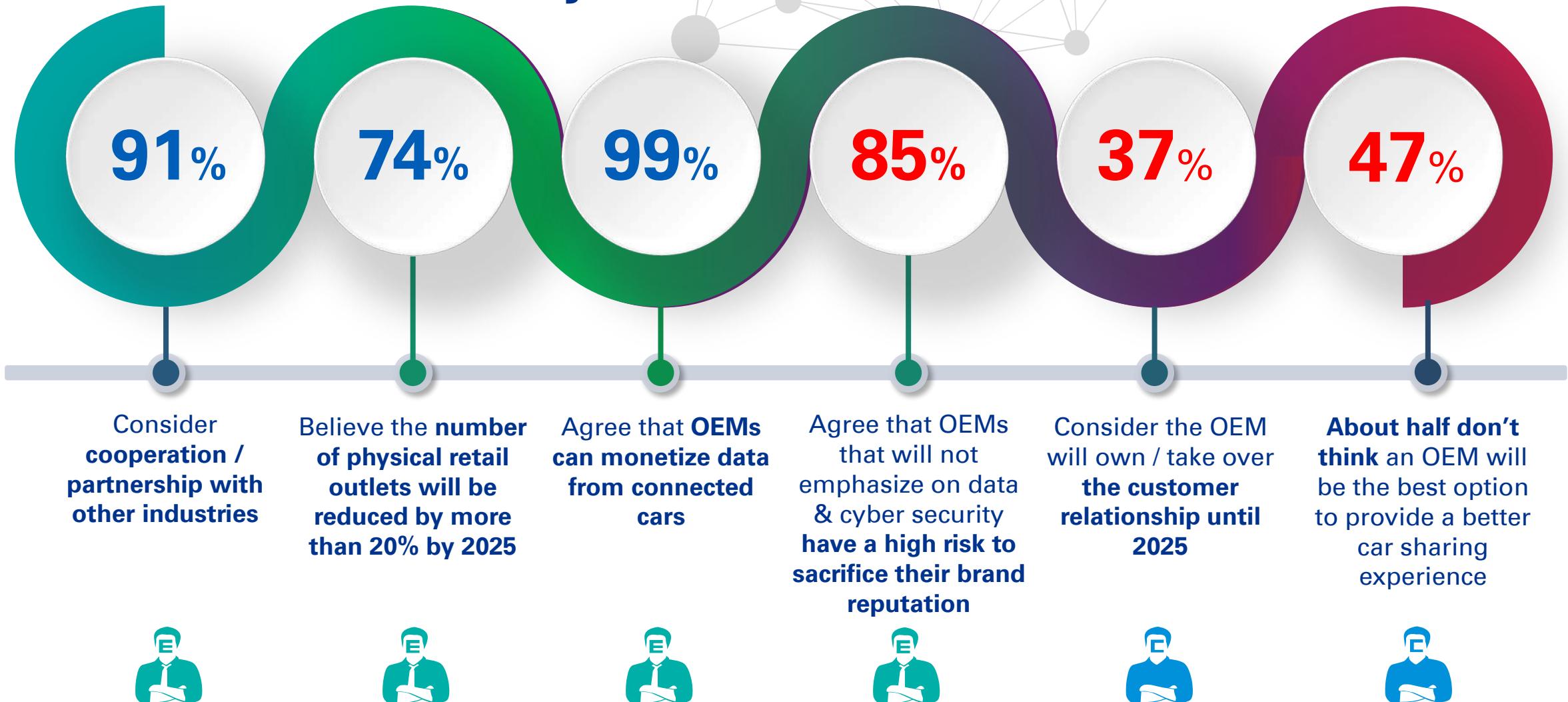
84% agree that digital ecosystem will generate higher revenues in the automotive value chain than the hardware of the car itself.

75% say that measuring market shares simply based on unit sales is outdated.

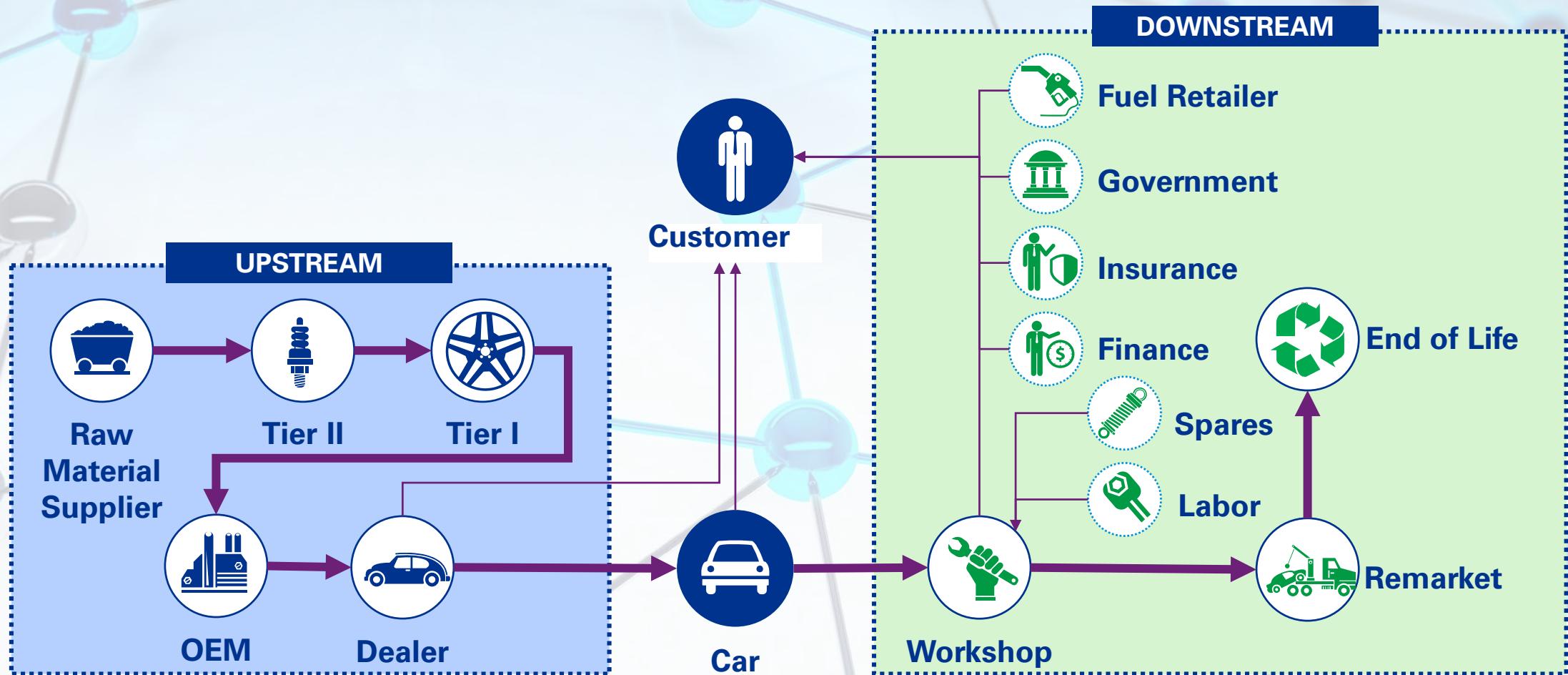
81% agree that if OEMs don't have a structured approach to integrate or cooperate with innovative startups, they will fail.



The auto industry has to transform the business

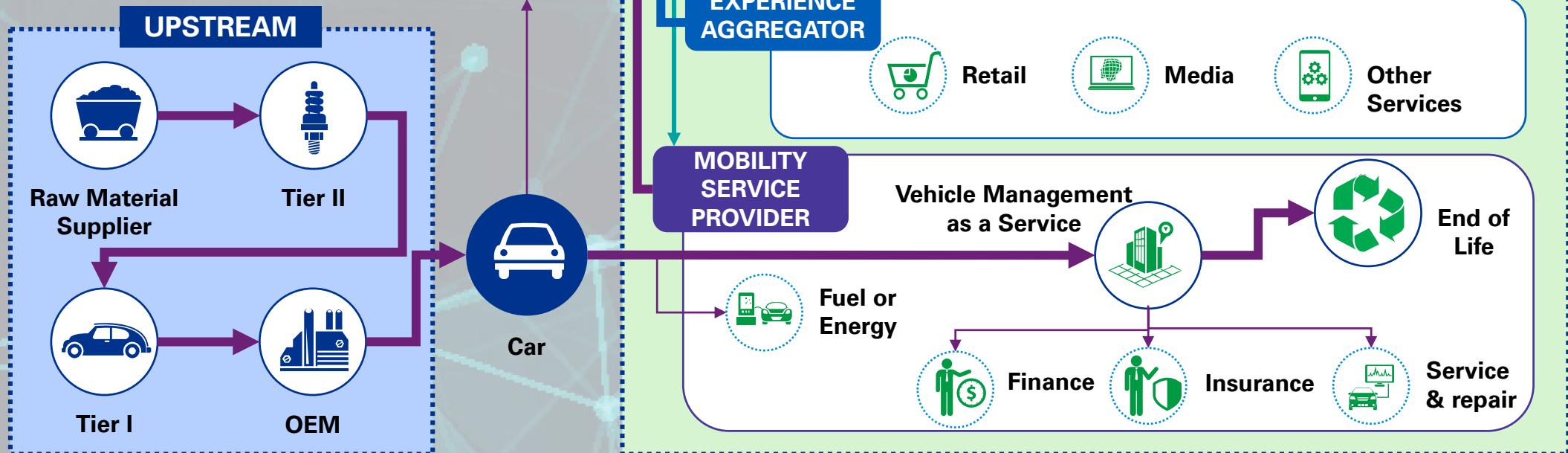


The actual ecosystem



The new ecosystem

85% of executives agree that the digital ecosystem will generate higher revenues than the hardware of the car itself.



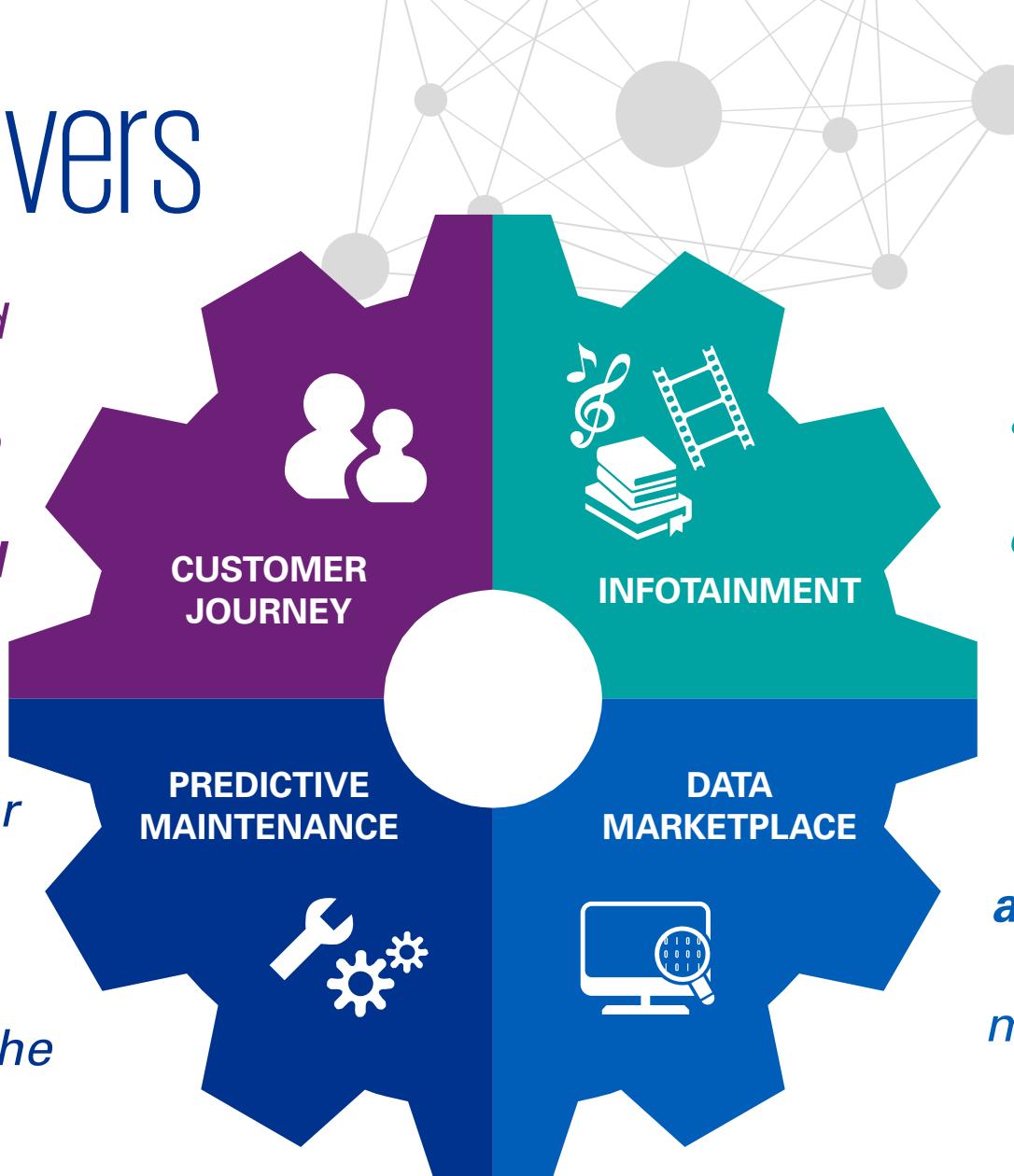
The new ecosystem



New value drivers

*“Measuring success based on unit sales is outdated. Management according to Product profitability is over – **Customer value will become core focus**”*

*“Possible applications, for example, include **online maintenance** (updating software remotely), **self-diagnosis** (...) provided to the client via the cloud”*



60% of customers agree when buying a self-driving car that they will only be interested in what they **can do with their time in the car**.

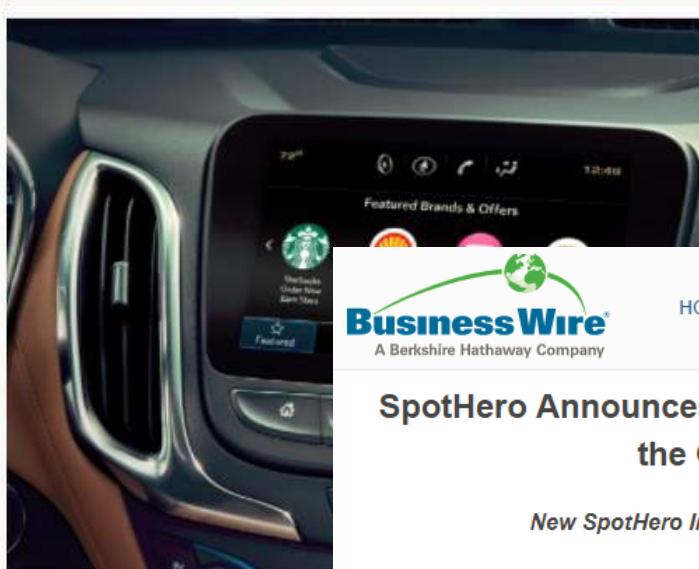
84% of executives agree that **data is the fuel** for the future business model of auto companies.

NEW business partnerships / revenue streams

TC News Startups Mobile Gadgets Enterprise Social Europe

GM launches Marketplace for in-car shopping and reservations

Posted Dec 5, 2017 by [Darrell Etherington \(@etherington\)](#)



BusinessWire
A Berkshire Hathaway Company

SpotHero Announces Voice-Activated, In-Car Parking Reservations via the Google Assistant in Android Auto

New SpotHero Integration on the Google Assistant Showcased at CES 2018

January 18, 2018 09:15 AM Eastern Standard Time

CHICAGO--(BUSINESS WIRE)--SpotHero, North America's leading parking reservation service, has launched a new integration that enables drivers to book parking with the Google Assistant using voice commands. With the Google Assistant's recent integration into Android Auto, drivers with Android Auto will soon be able use SpotHero and the Google Assistant to find and pay for parking on the go, completely hands-free, in more than 50 major markets across North America. Starting today, drivers can book parking with the Assistant on eligible devices, including Android phones and iPhones, simply by saying "Hey Google, book parking."

KPMG

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Auto infotainment is next big advertising, marketing playground

With that warning in place, the in-car, infotainment system experience will be a new playground for the marketer. The good and bad news is there are no rules yet. Companies will try many different ways to deliver messages to the user. Some will be successful, and some will fail.



The connected car: Visa looks ahead

HOME SERVICES NEWS EDUCATION ABOUT US

siliconbeat

The tech blog of The Mercury News | Home to Good Morning Silicon Valley

SILICONVALLEY.COM
TWITTER
FACEBOOK
GOOGLE+
RSS

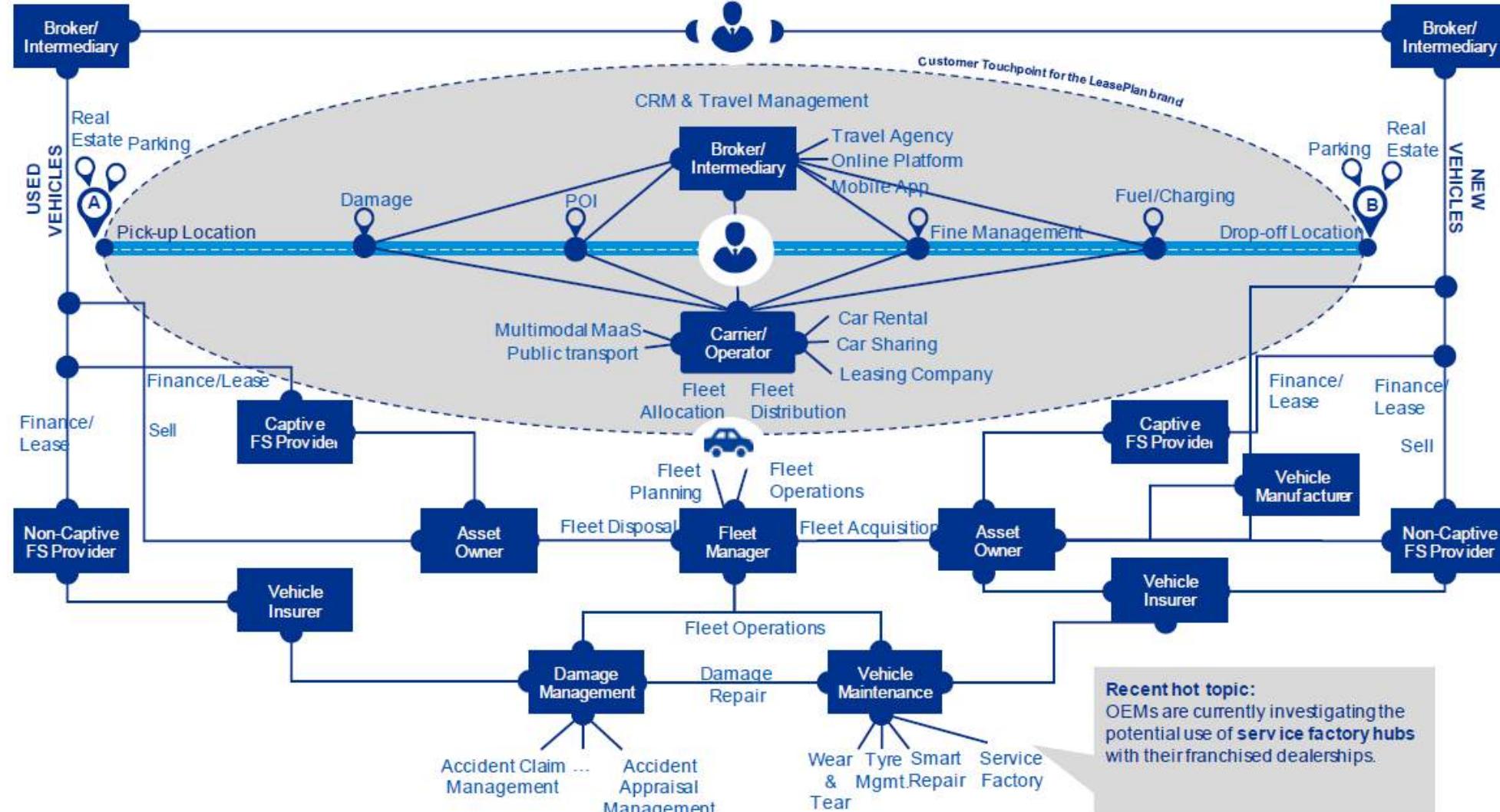
Social Web Mobile Cloud Gadgets Cleantech VC Data Games Policy Media

Your car may soon serve you ads — how about a pizza?

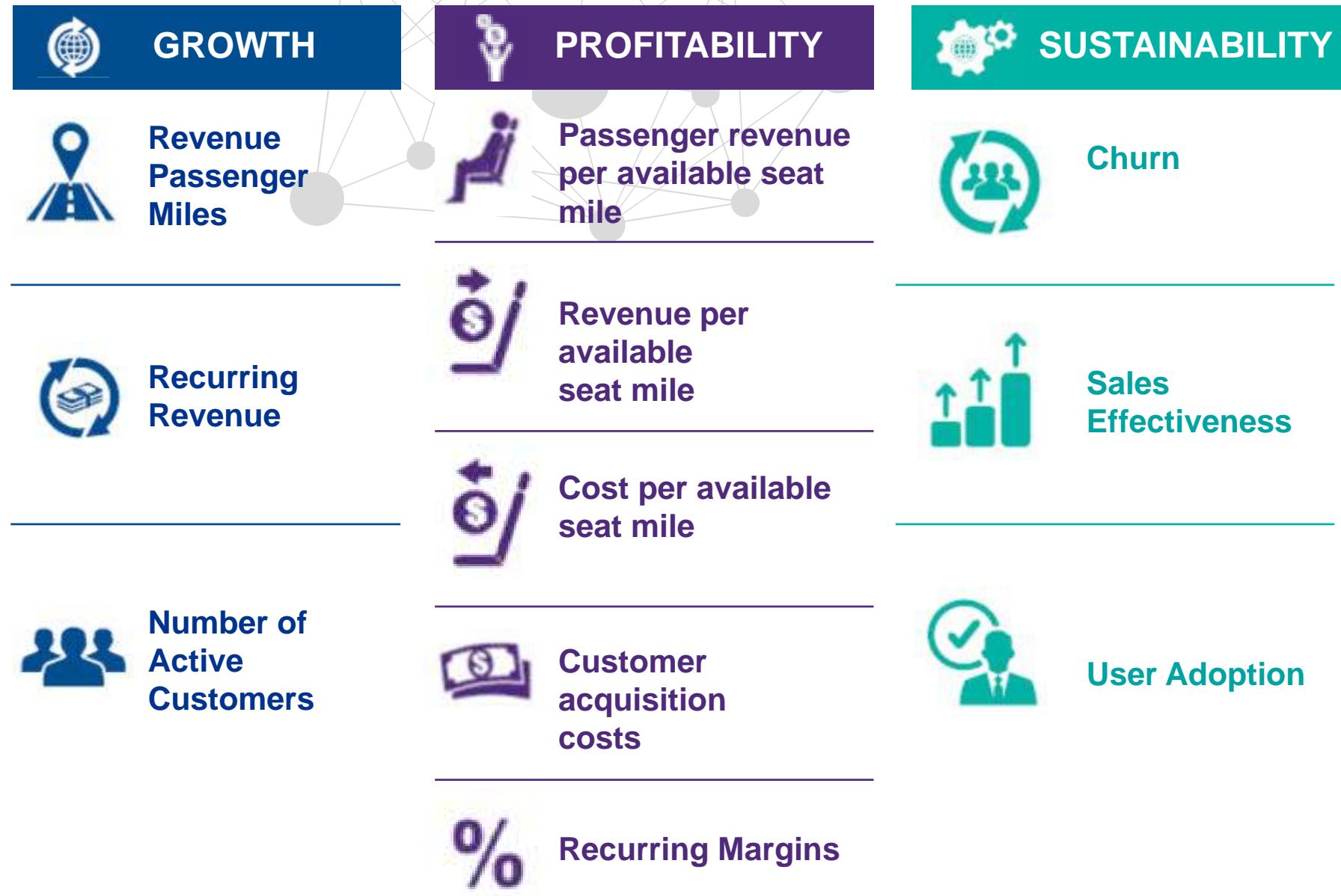
By Ethan Baron / January 5, 2018 at 2:48 PM



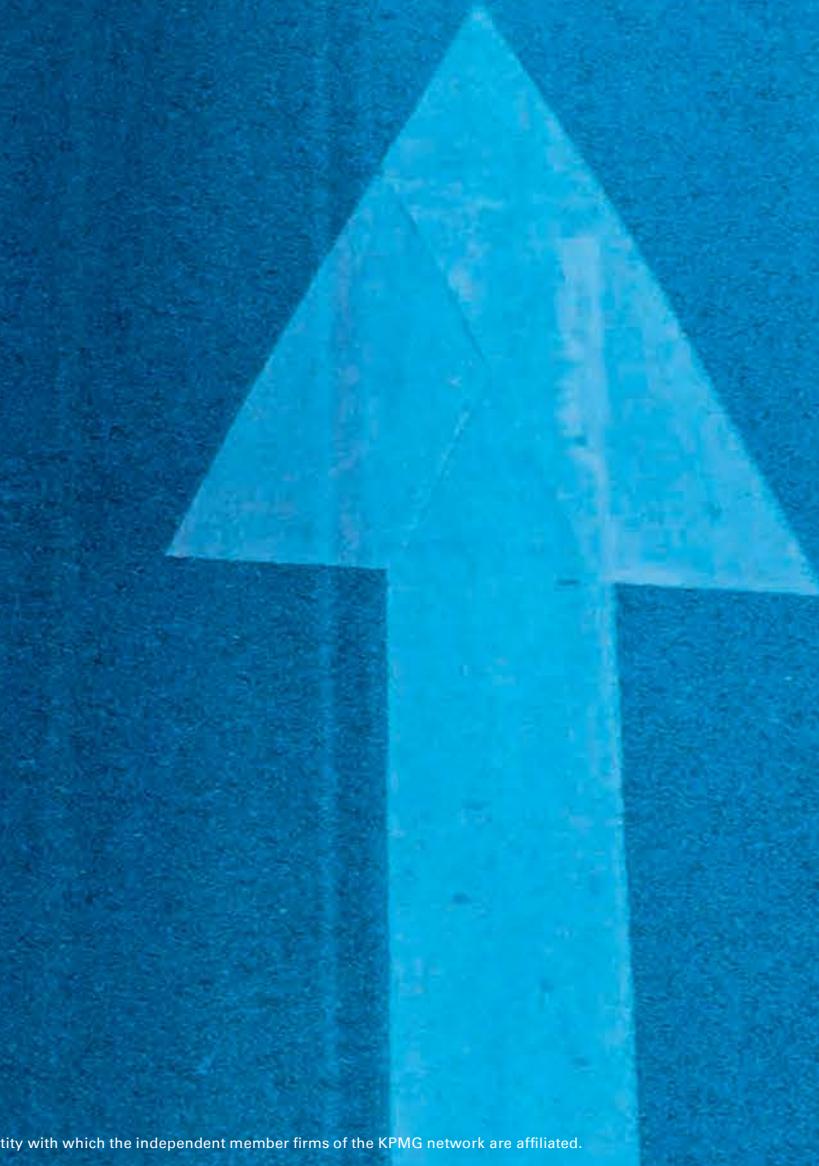
NEW business partnerships / revenue streams



NEW KPIs

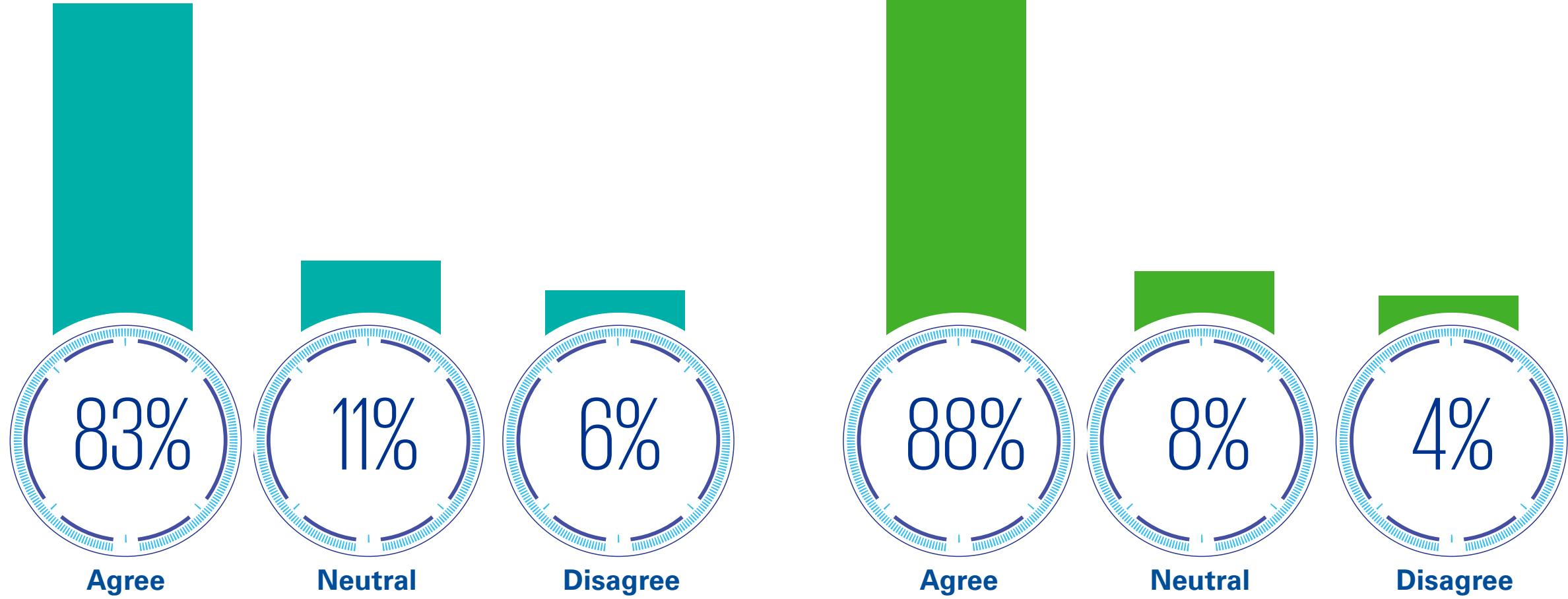


Three core elements
for new clockspeeds:
Data & Analytics



Data supremacy

Data is the fuel for the future business model of automotive companies.



Automotive Data & Analytics Use Cases



Benefits Auto & Manufacturing Companies Achieve from Analytics

1% increase in OEM's customer loyalty is worth \$700 million – OEM aims to increase by 7 points

20% reduction in warranty cases per vehicle through advanced pattern detection

Spare parts inventory optimization
– 30-60% reduction in inventory levels
– 18% reduction in replenishment levels

50% reduction in defect rate in production using predictive analytics

80% reduction in scrap rate in 15 weeks from enhanced root cause analysis

25% reduction in direct maintenance costs using cost and availability modeling

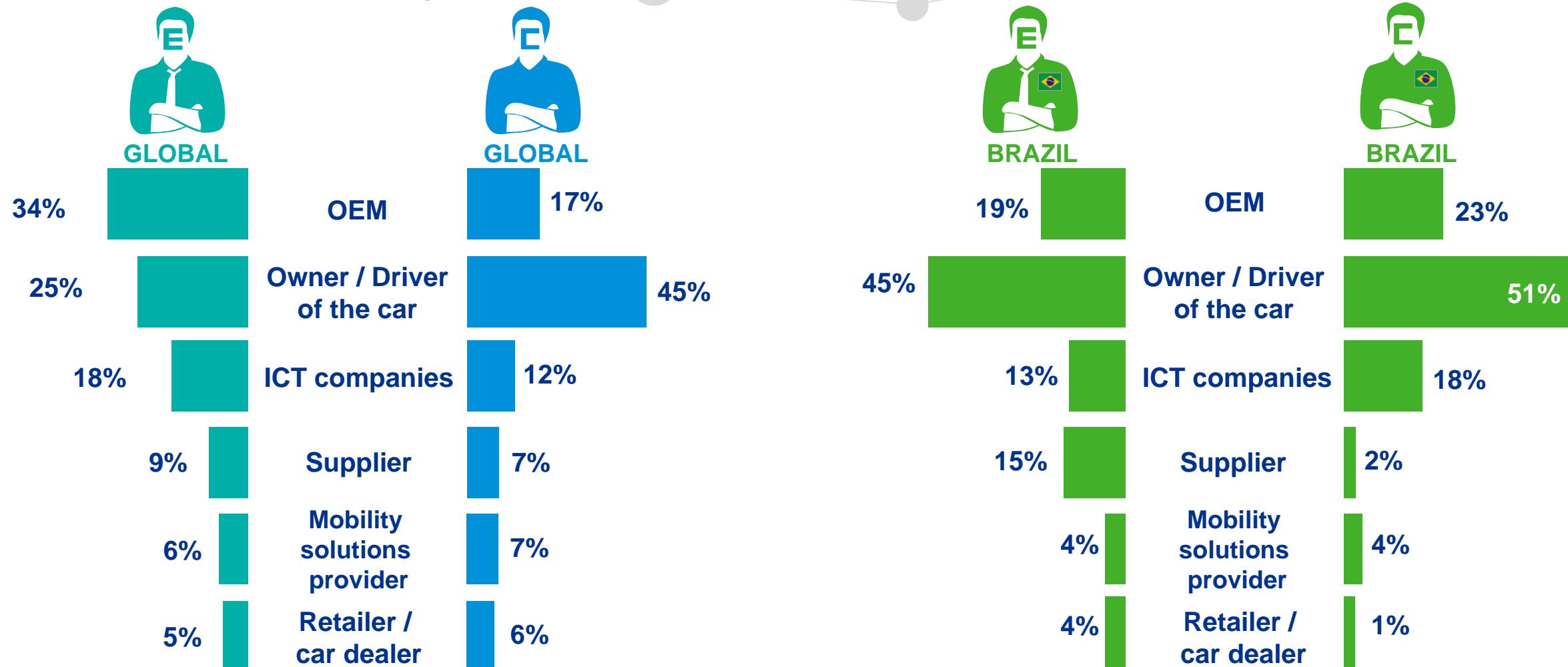
Improved production effectiveness using optimization analytics
– **30%** increase in potential production capacity
– **90%** increase in schedule adherence using production scheduling and sequencing optimization

Optimized extended warranty contract pricing using predictive cost modeling

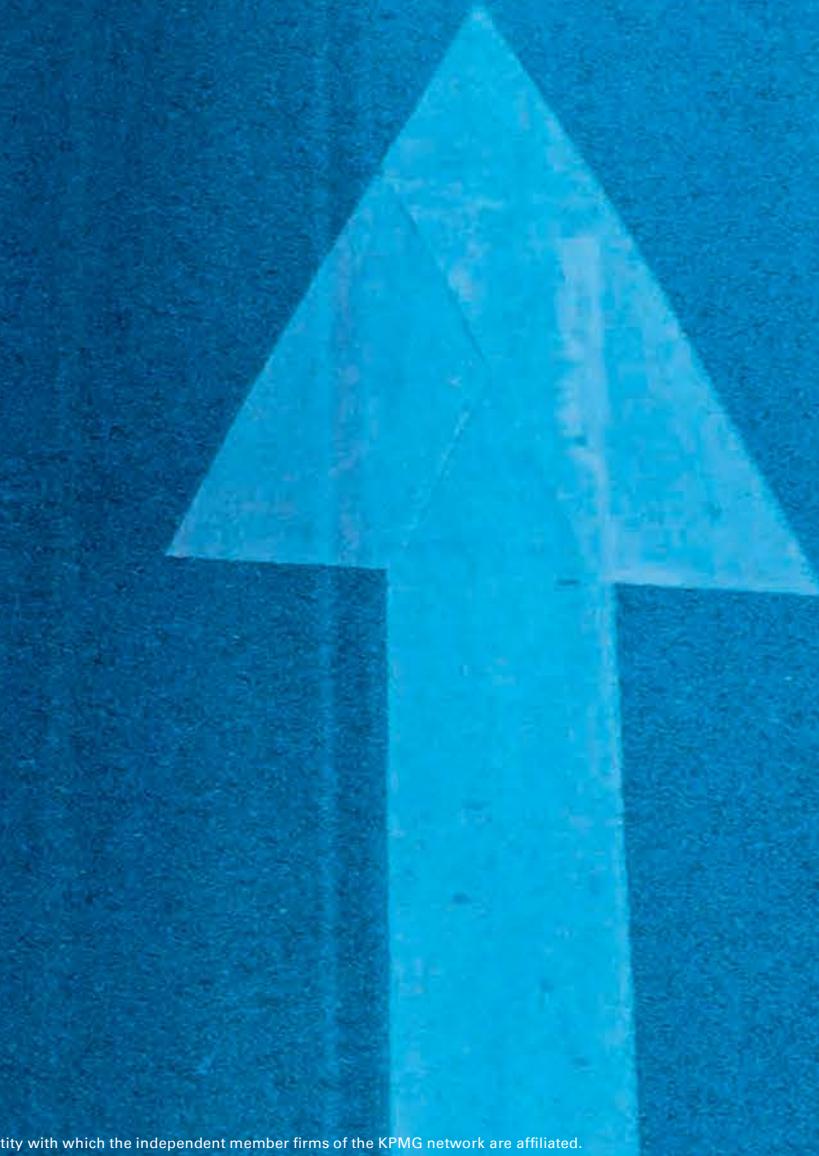
Mid-cycle product change prompted by social media feedback

Data supremacy

Connected cars generate an enormous amount of consumer & vehicle data.
Who do you think will be the owner / guardian of the consumer data in 2025?



Three core elements
for new clockspeeds:
IA & Digital Tools



Customer centricity

Imagine you are sitting in your car and you have turned on your in-car navigation system and your smartphones navigation app with traffic info. The in-car navigation system tells you it would be favorable to take a right, while your smartphone tells you to take a left. Which information would you rather trust and follow?



That of your car



That of your smartphone



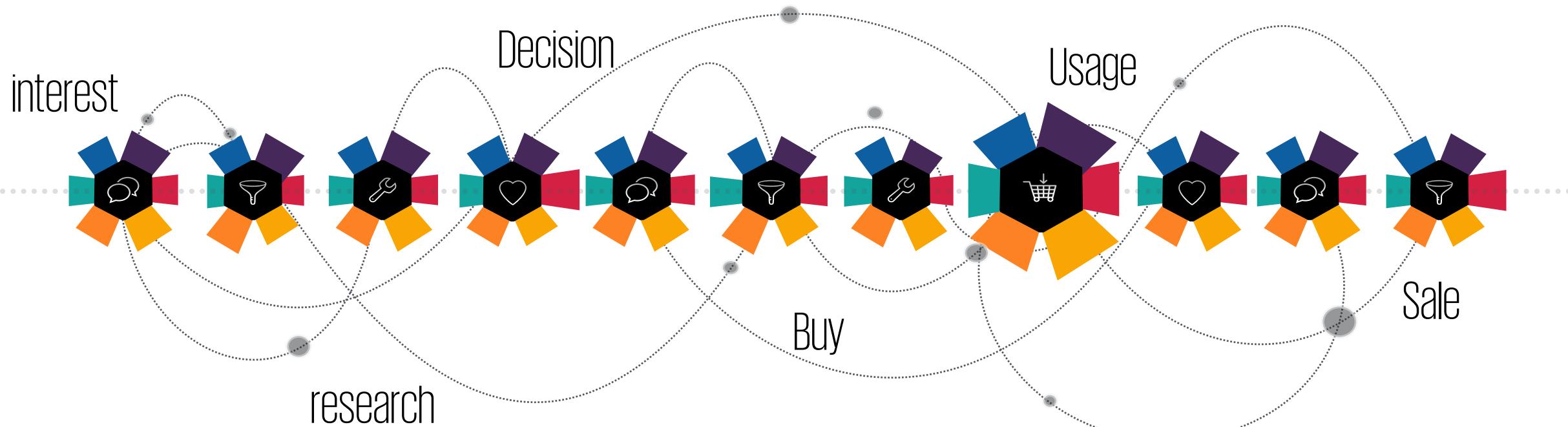
That of your car



That of your smartphone

Customer centricity

At the heart of relationship building we have the customer journey mapping technique, connecting every single point of contact between the brand and its customers



Customer centricity

Customer: Joseph (young single designer)

Usage: driving to work

Customer: Joseph (young single designer)

Usage: driving to the beach on weekends

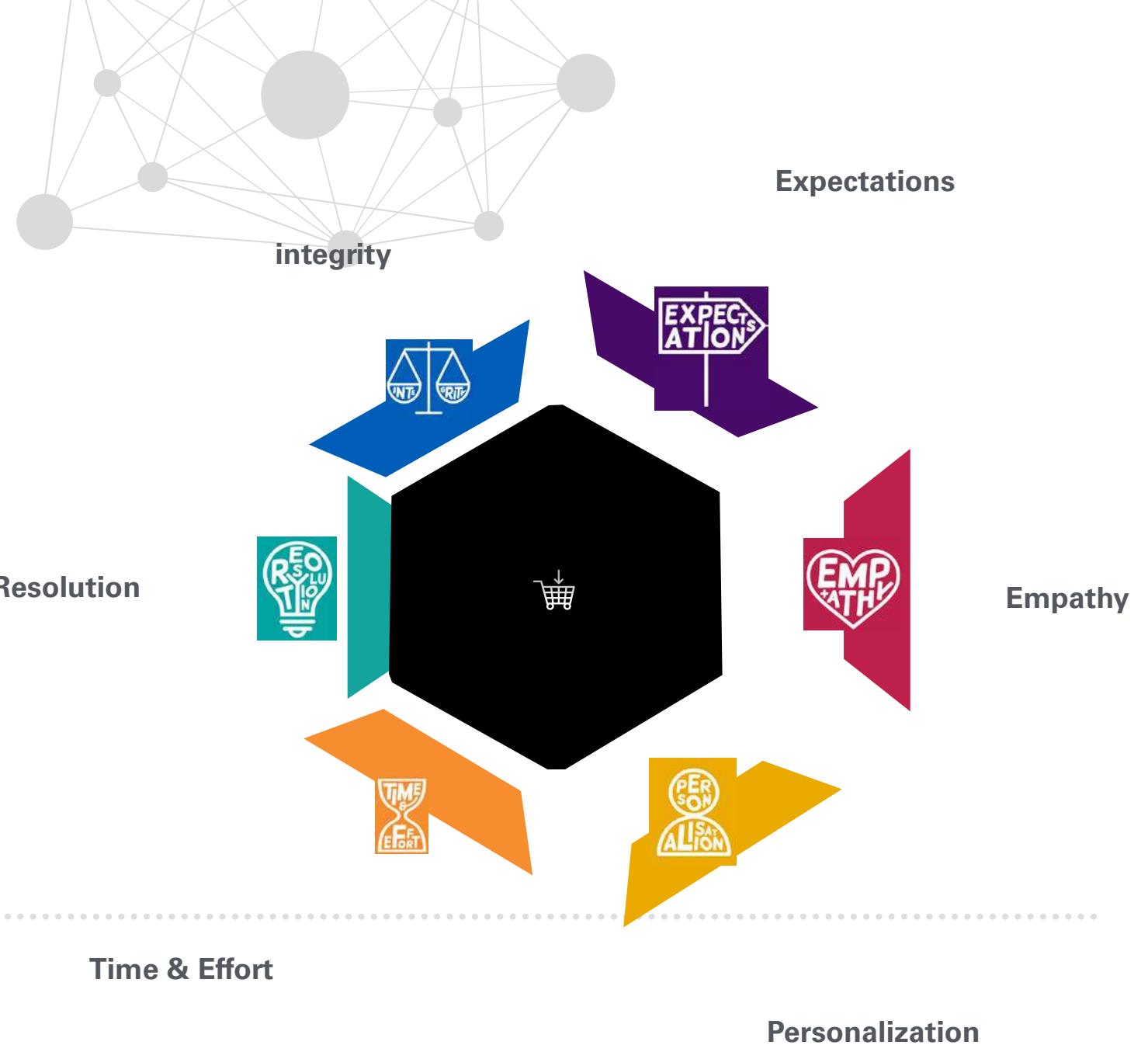
Customer: Rose (young married nurse)

Usage: driving to the beach on weekends



Resolution

Time & Effort



Expectations

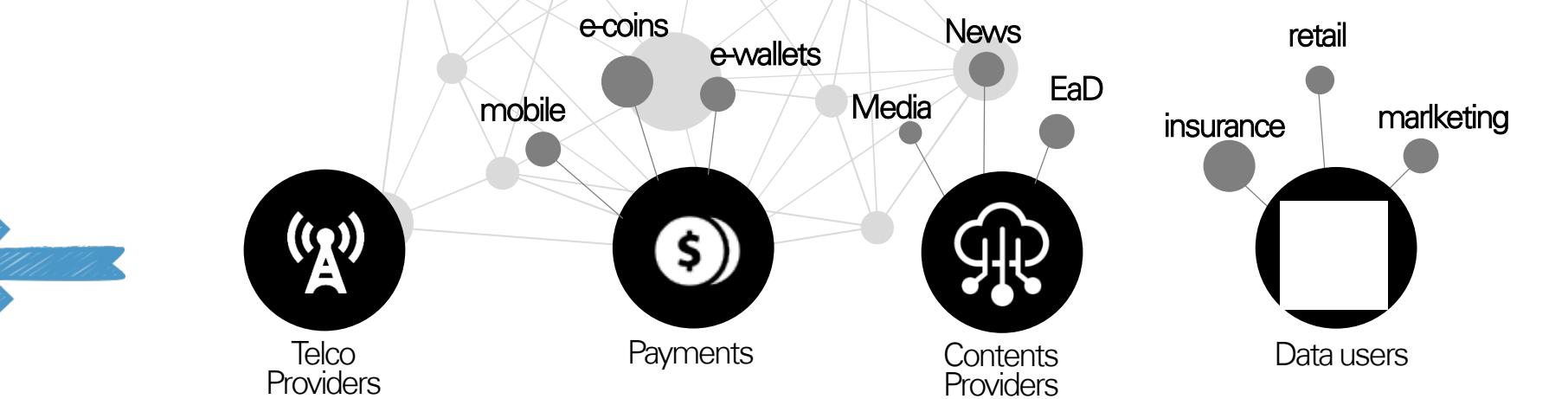
Empathy

Personalization

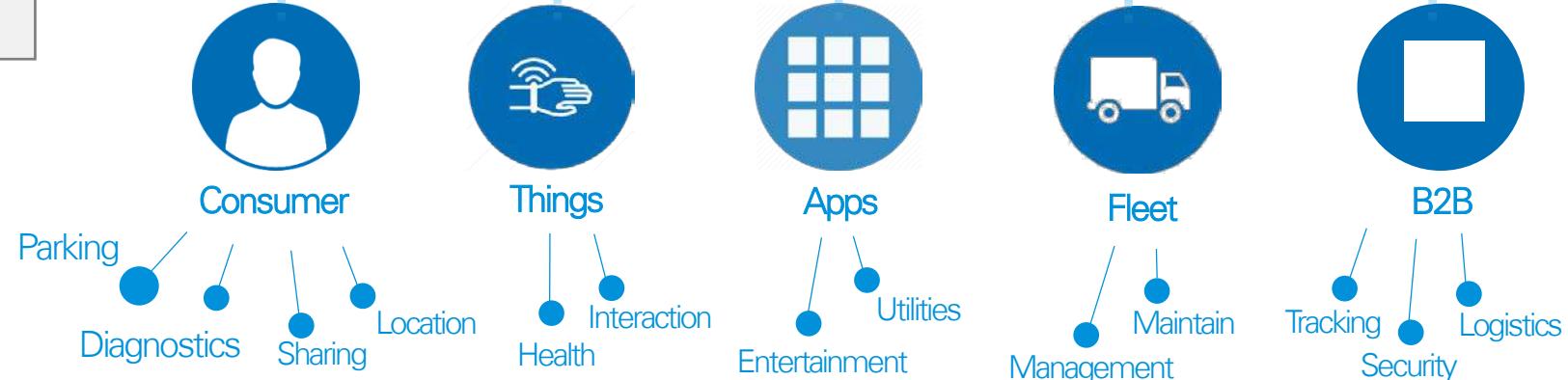
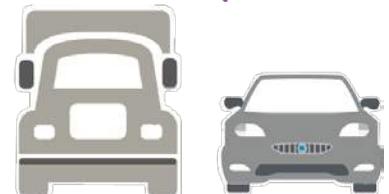
Ecosystem

Datacentric ecosystem

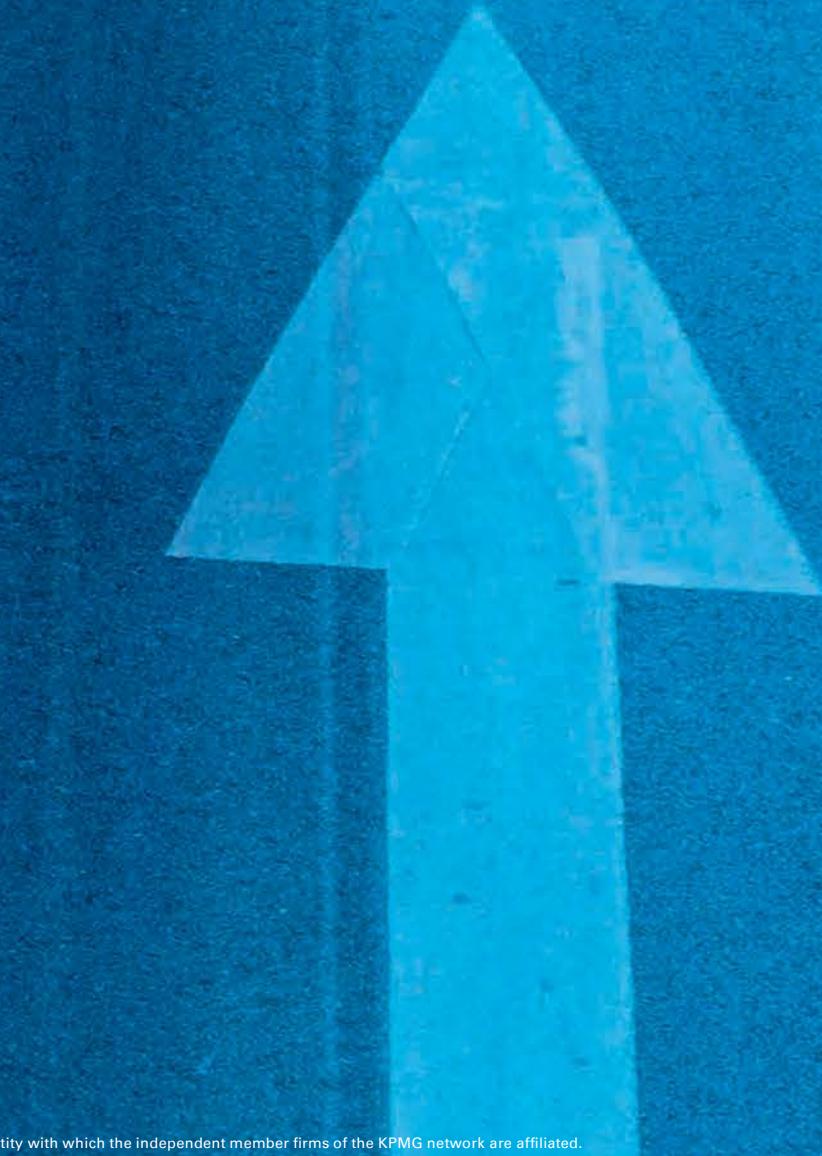
Automotive Digital
Data Gateway
Standards
Cyber Sec
Data Governance



Open Digital Platform

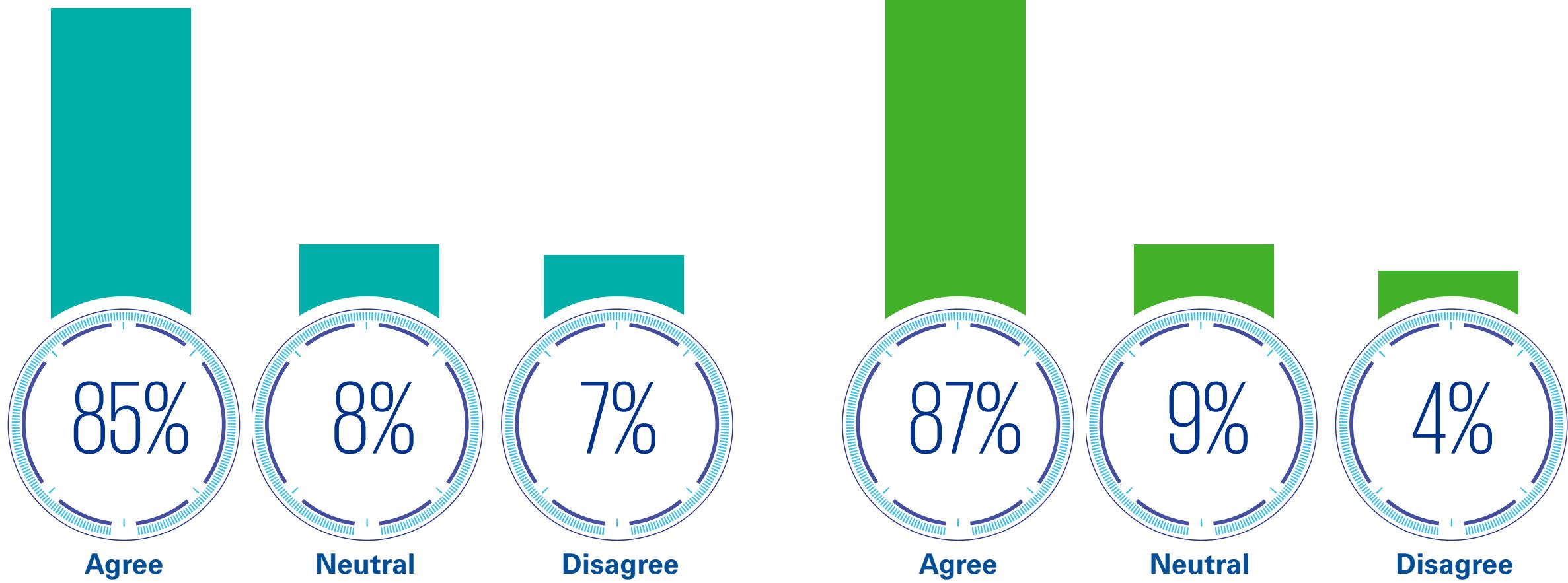


Three core elements
for new clockspeeds:
Cyber Security



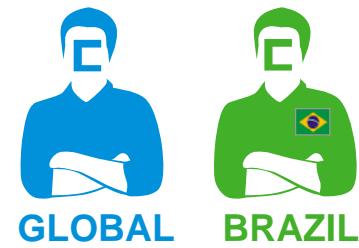
Data supremacy

Companies that will not emphasize on data & cyber security have a high risk to sacrifice their brand reputation and value proposition for zero-error tolerance and releasability.



Data supremacy

How important is data privacy & security for you as a purchasing decision of a vehicle / to use of a mobility service over the next 5 years?



Extremely important 49%

72% Extremely important

Somewhat important 28%

18% Somewhat important

Neutral 16%

9% Neutral

3% Somewhat unimportant

Somewhat unimportant 1%

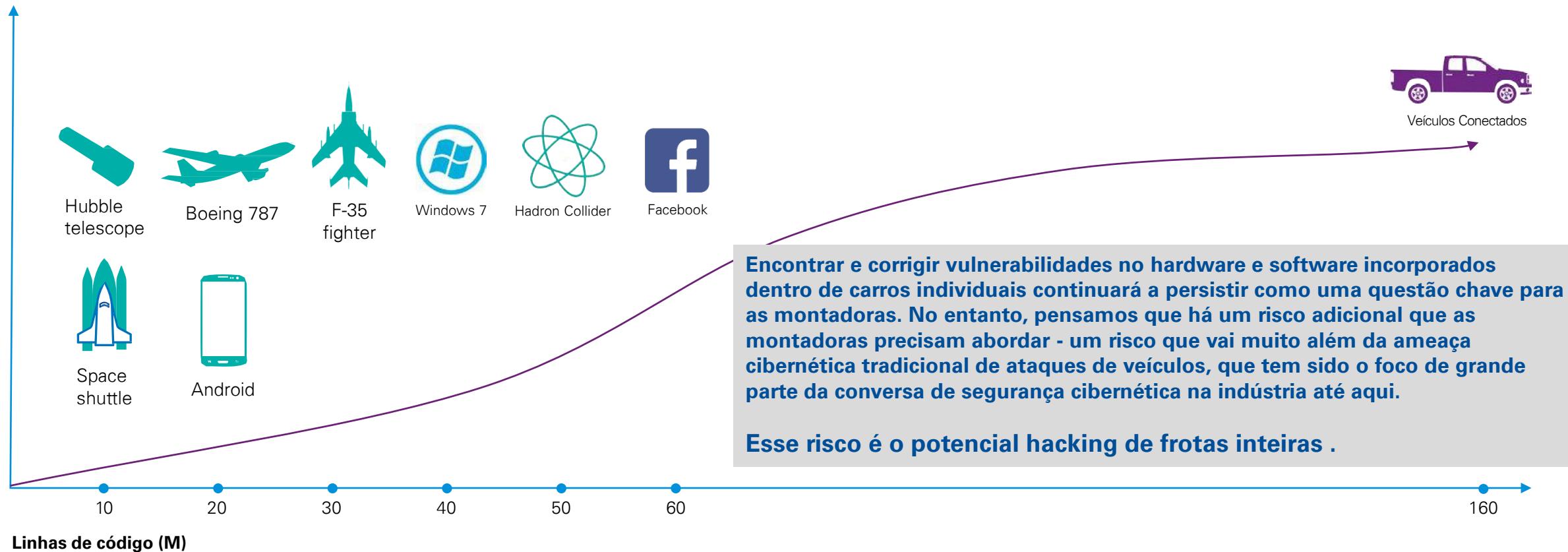
4% Not at all important

Not at all important 1%

Cyber Security



A crescente complexidade da tecnologia do veículo tem inúmeros benefícios, mas, ao mesmo tempo, cria um risco real de ataque cibernético - um risco que tememos e que muitas empresas da indústria automotiva possam estar subestimando.



Cyber Security



Powertrain technologies



Electric readiness

Executive opinion

 **(BEVs) Battery Electric Vehicles**
will fail due to infrastructure challenges.



Absolutely agree **22%**

Absolutely agree **33%**

Partly agree **40%**

Partly agree **45%**

Neutral **20%**

Neutral **16%**

Partly disagree **12%**

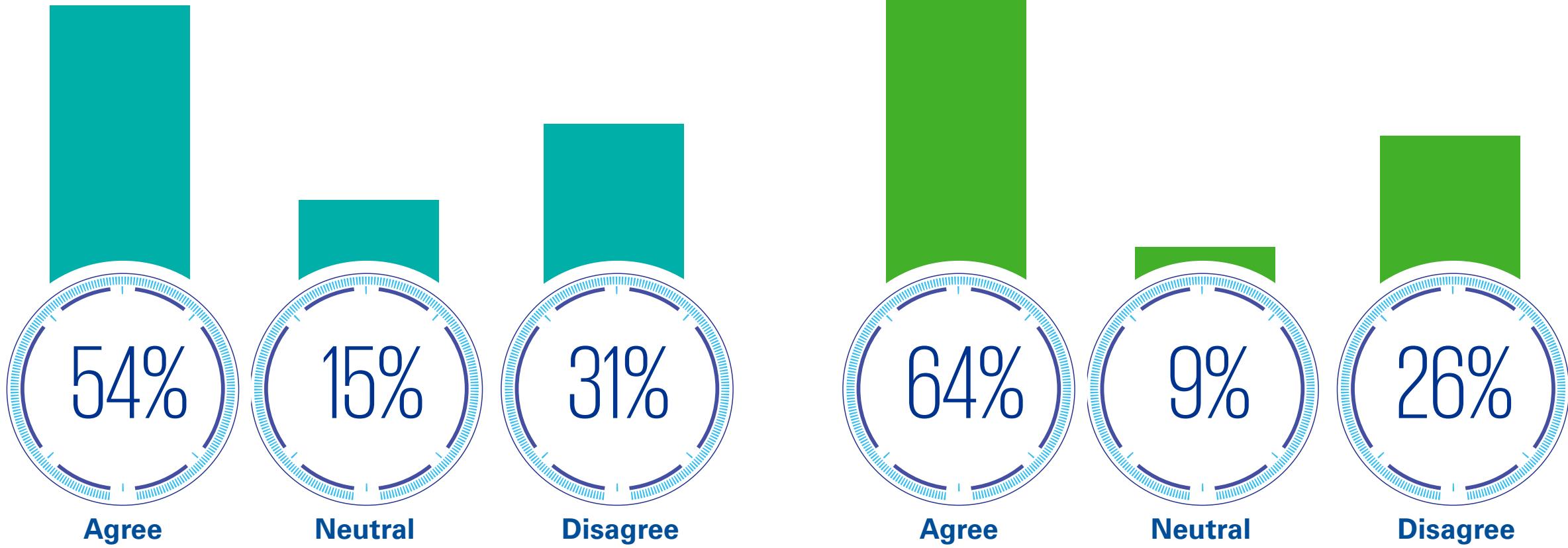
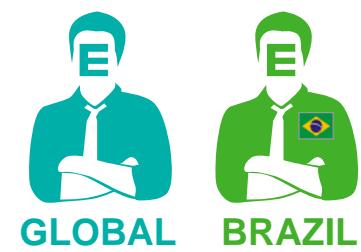
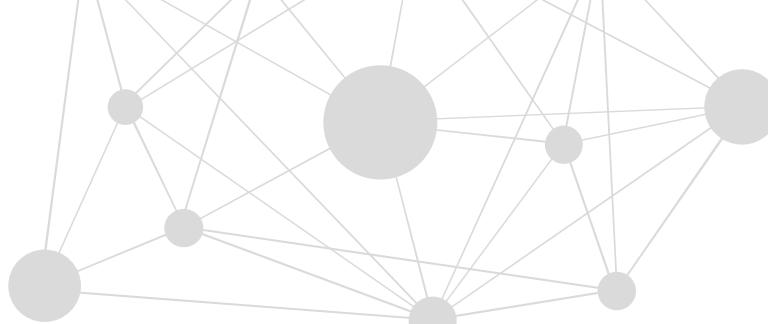
Partly disagree **5%**

Absolutely disagree **6%**

Absolutely disagree **1%**

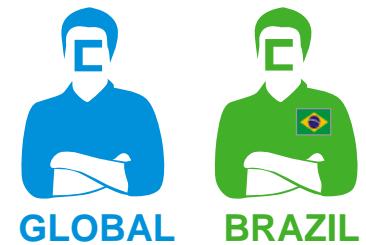
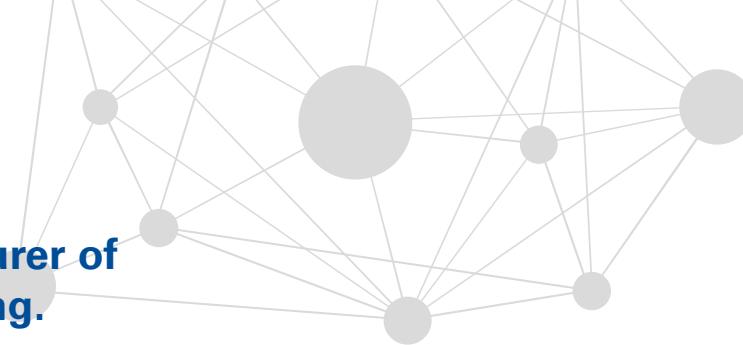
Electric readiness

Pure battery electric vehicles (BEV) will fail due to the challenges related to setting up the required infrastructure.



Electric readiness

If I buy an electric vehicle I expect the manufacturer of the car to take care of all matters around charging.



Absolutely agree 45%

Partly agree 35%

Undecided 14%

Partly disagree 4%

Absolutely disagree 2%

Absolutely agree 69%

Partly agree 22%

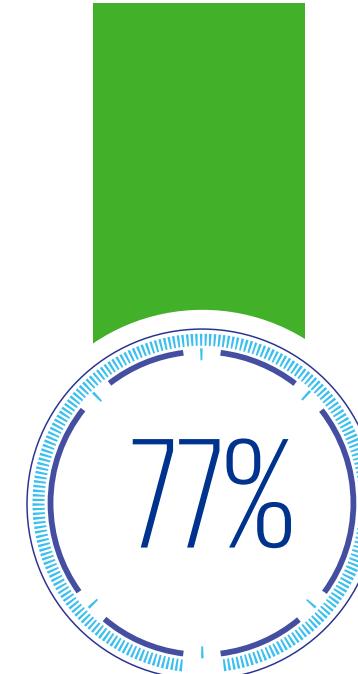
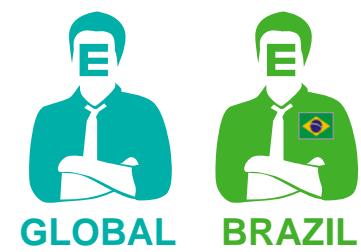
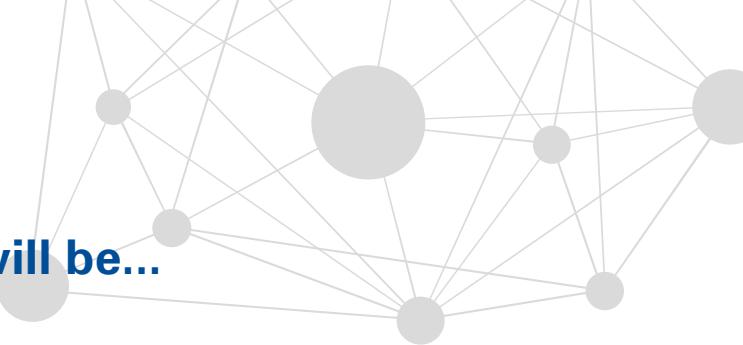
Undecided 7%

Partly disagree 2%

Absolutely disagree 0%

Electric readiness

OEMs strategies with regard to charging will be...



**OEMs create their own
charging ecosystem
with proprietary
technology and services**

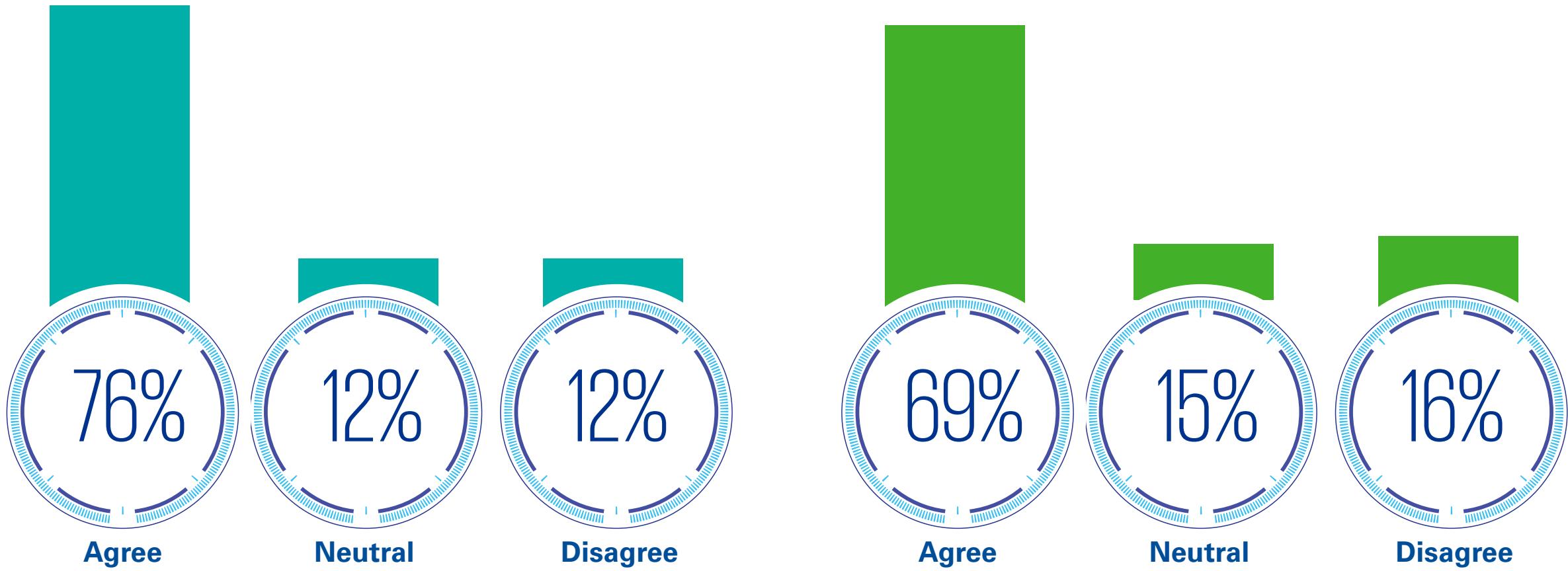
**OEMs will not
need to take care
of the charging
infrastructure**

**OEMs create their own
charging ecosystem
with proprietary
technology and services**

**OEMs will not
need to take care
of the charging
infrastructure**

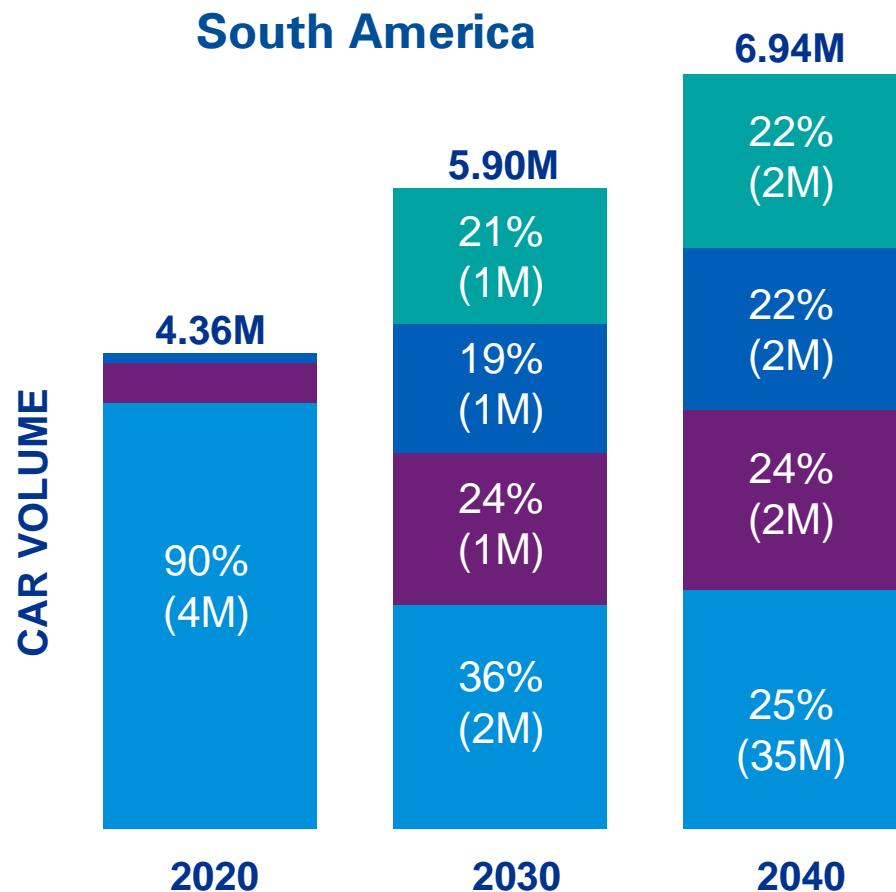
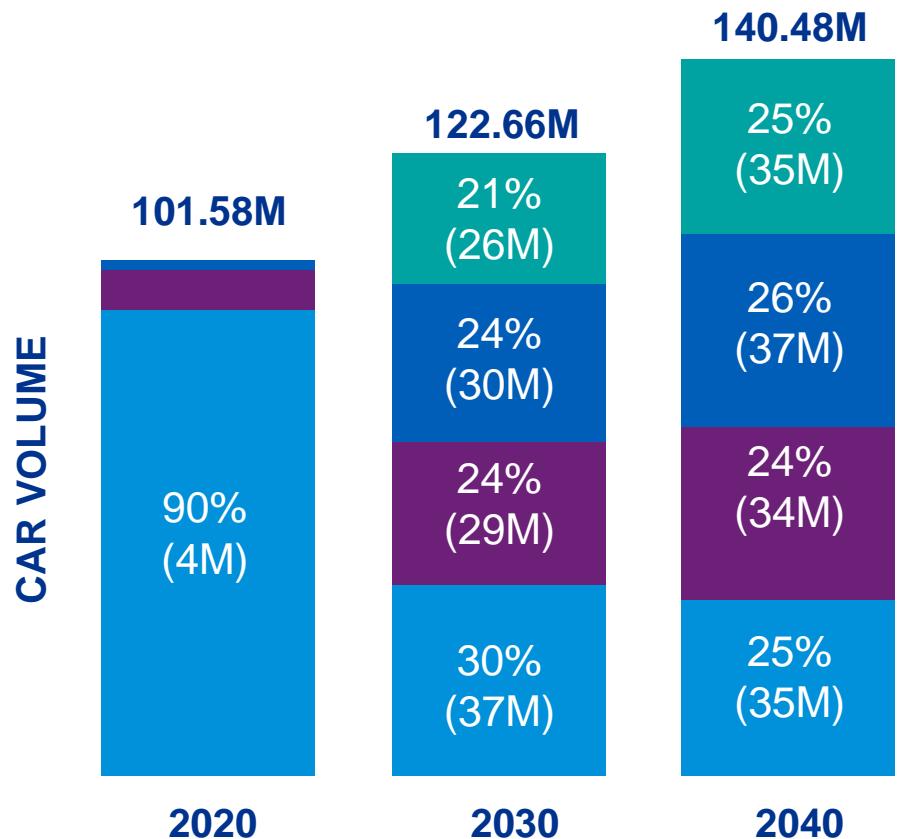
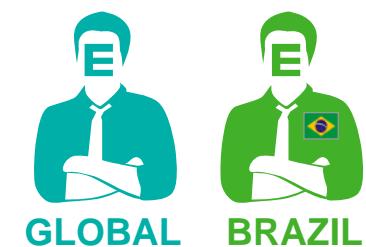
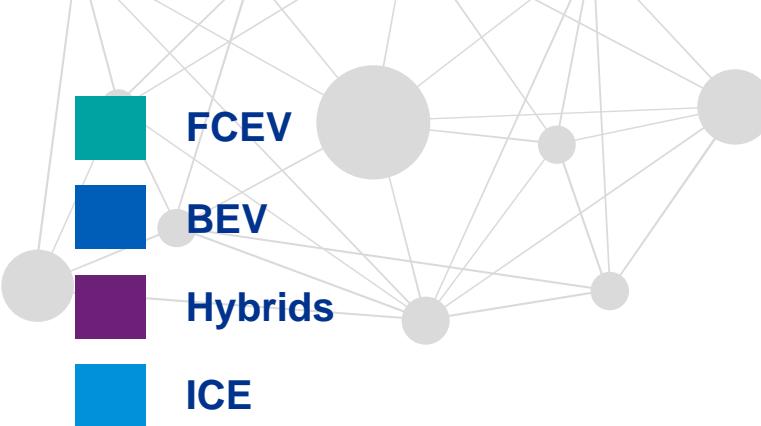
Electric readiness

Internal combustion engines (ICE) will still be more important than electric drivetrains for a very long time.

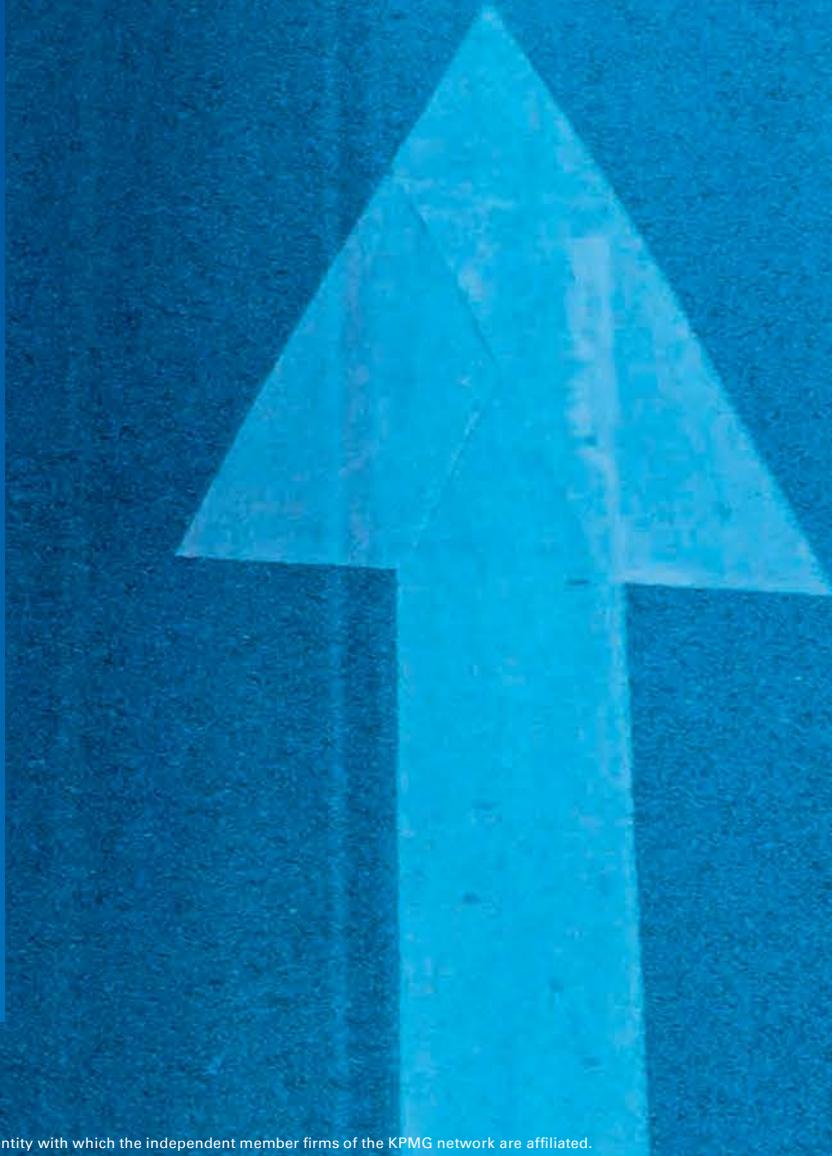


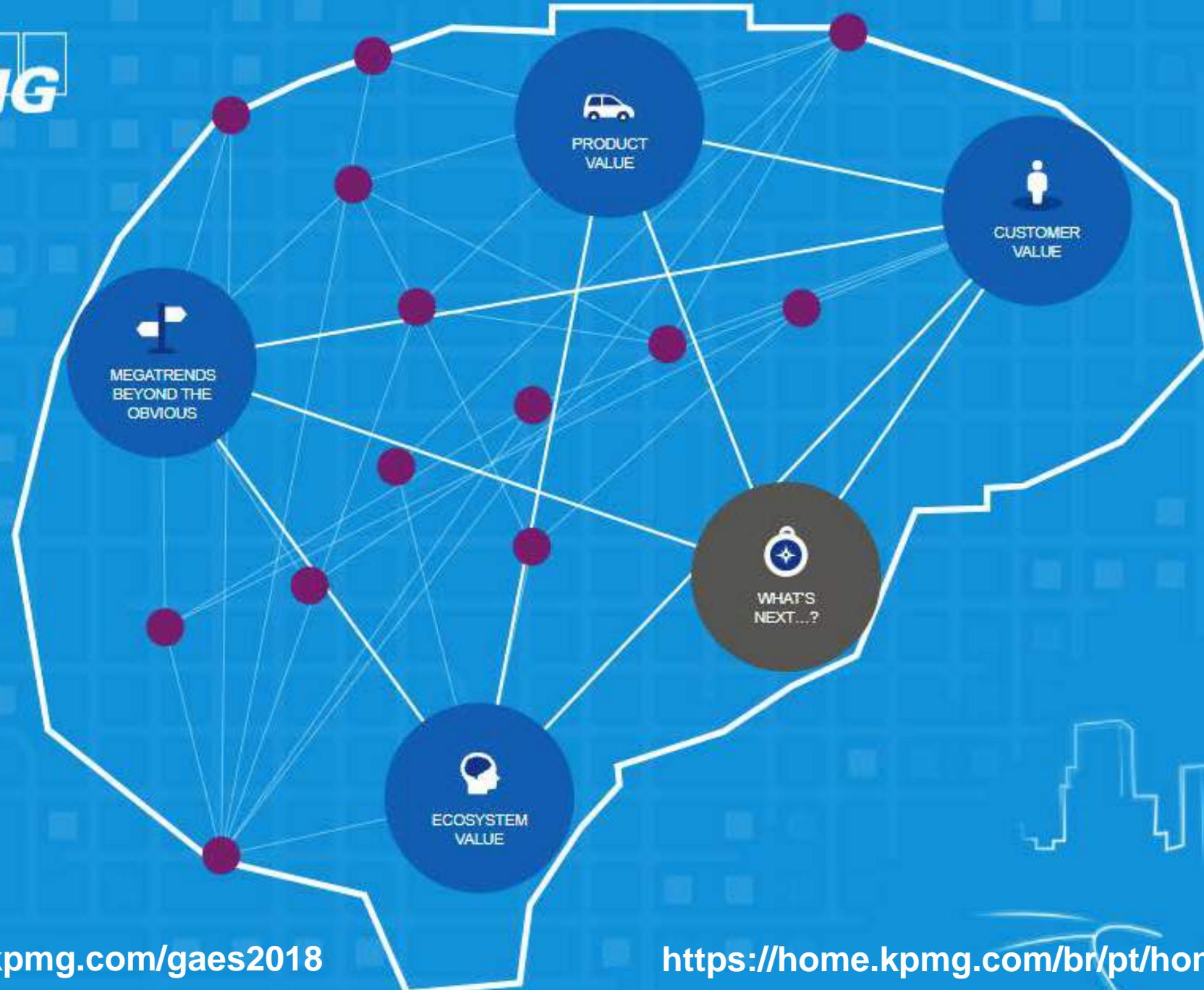
Electric readiness

What is your opinion on the share between ICE, Hybrids, BEV & FCEV in 2030 and 2040?



Closing





Publicações



Thank you

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