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Global Automotive Consumer Study

Module 1: Future Vehicle Technologies
European Comparison Report

March 2017

Introduction

As part of Deloitte's continuous assessment of consumer behaviour via our Global Automotive Consumer Insight Platform, we recently surveyed more than 22,000 consumers in 17 countries to shed light on consumers' preferences for automotive technologies.

Our goal was to find out:

- What future vehicle technologies are global consumers most interested in and what are they willing to pay for them?
- How do consumers feel about autonomous vehicle technology?
- What do they think about related issues, such as data use?

Examining these key dimensions and other important questions can help players in this space to better position their strategies and prioritise their investments.

All consumers surveyed agree on what's most useful: safety-related technologies. Our findings confirm that interest in advanced vehicle technologies is on the rise.

Consumers' stated willingness to pay for these technologies has decreased over the last two years – even those features designed to improve safety.

This suggests that a significant share of consumers believe that the auto industry should bear the entire cost for bringing these advanced technologies to market.

Younger consumers may offer some relief for automakers and tech players, as a much higher percentage of those born after 1976 indicate strong interest in both partial and fully self-driving cars and a willingness to pay for the technology.

All of our recently collected data demonstrate that there are significant generational and geographic differences in consumer preferences. Tailoring a marketing strategy for any player in this space will have to consider preferences by age, gender and location.

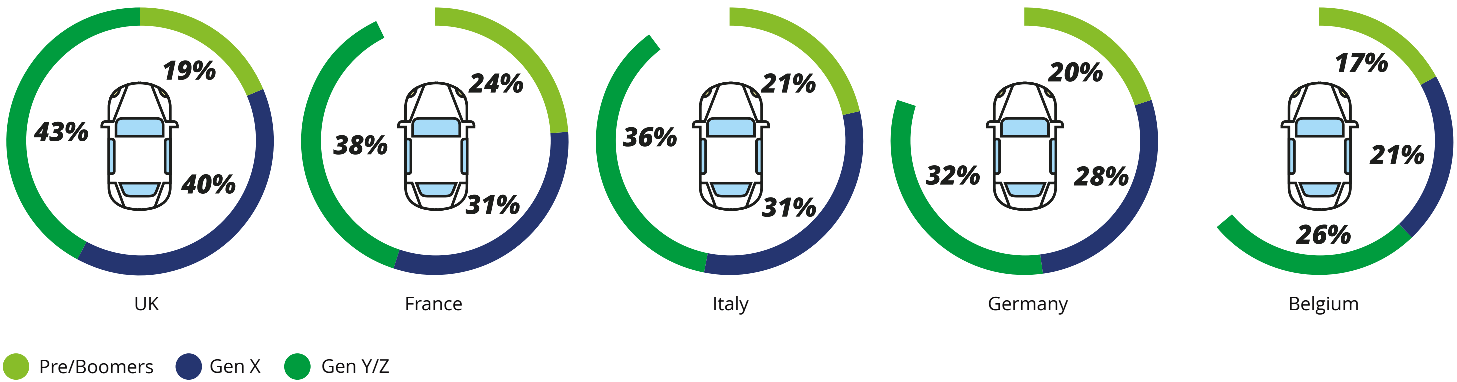
The auto manufacturers are placing big bets on the future of vehicle technologies but it is ultimately consumers that will dictate both the pace of transformation and the market rate of new technologies.

Global Automotive Consumer Study: Country Comparison

Consumer interest in autonomous vehicles is higher among younger generations

The good news is that younger consumers are much more accepting of fully self-driving cars. Millennials are not wedded in the same way as older generations to the traditional idea of the car, either in terms of who owns it or who drives it.

Figure 1: Consumer interest in fully autonomous vehicles, by generation

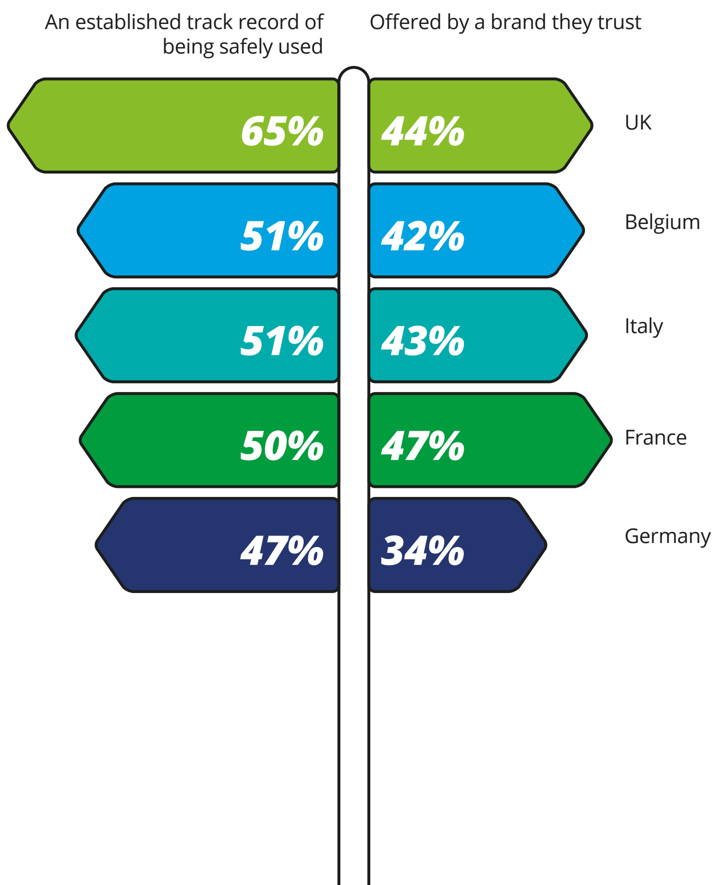


What would make consumers trust fully autonomous cars?

Consumers said they want proof over time that driverless cars are safe. They also want to see an established brand bring such vehicles to market.

A lot of the scepticism is due to unfamiliarity – it's hard to form an opinion of a hypothetical offering. Most respondents have never interacted with a driverless car, and they can't quite imagine what it might be like or what the benefits would be.

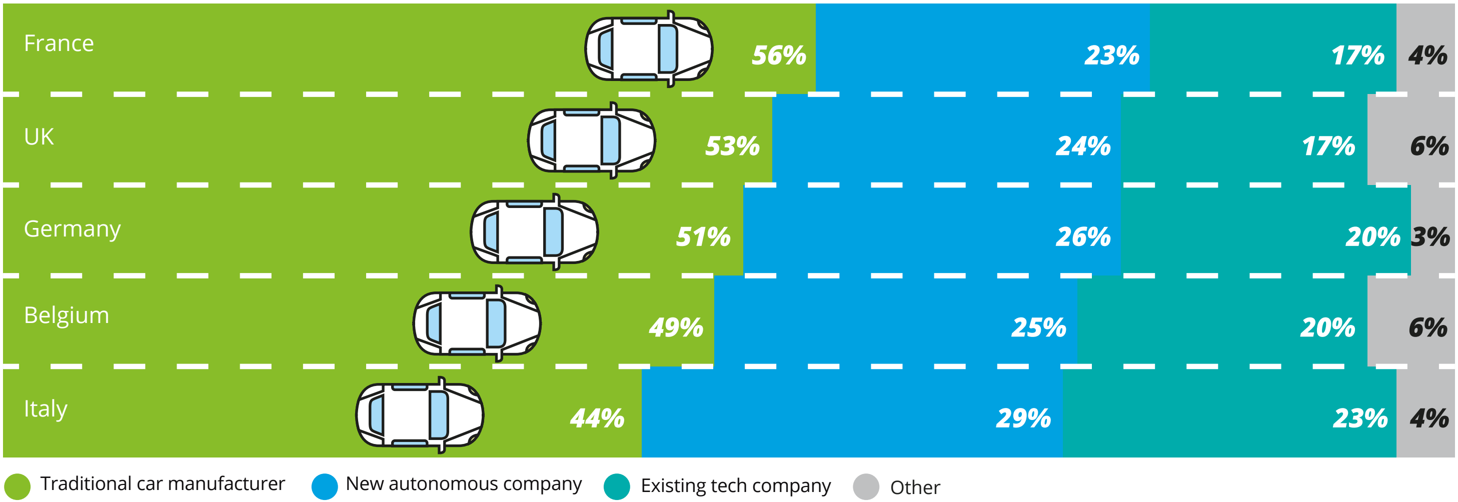
Figure 2: An established track record of being safely used vs. Offered by a brand they trust



The types of companies consumers trust most

Consumers in markets with strong auto manufacturers tend to trust the OEMs the most to introduce fully autonomous vehicles. This was actually a minority view in the survey – most markets trusted a new autonomous specialist or a technology company. Of the 17 countries surveyed, consumers in only five markets trust auto manufacturers more: Brazil, France, Germany, the UK and Japan.

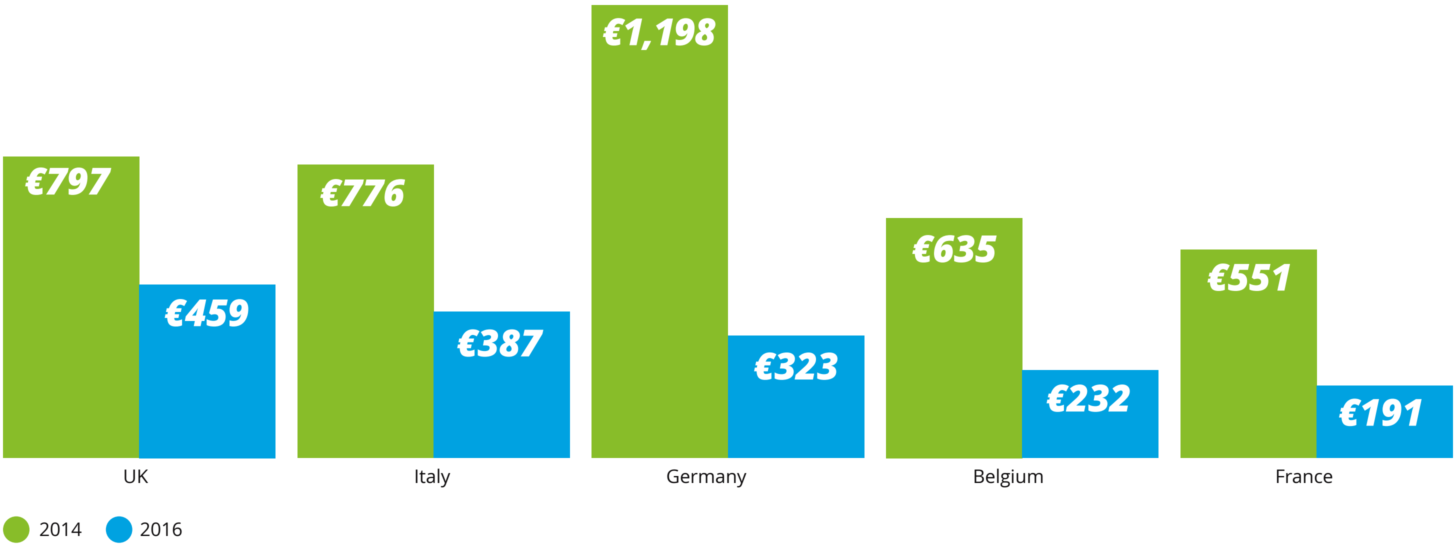
Figure 3: Types of companies consumers trust most to bring fully autonomous technology to market



Prices consumers are willing to pay

Consumers are less eager to pay for the new technologies than in previous years, suggesting that they expect the auto manufacturer or supplier to bear the brunt of any price increases. The amounts people will pay are far below what fully automated cars are expected to cost at first, so initial deployment will likely be for vehicles that can recoup the cost quickly – haulage and ride-hailing – and the mass market will take longer.

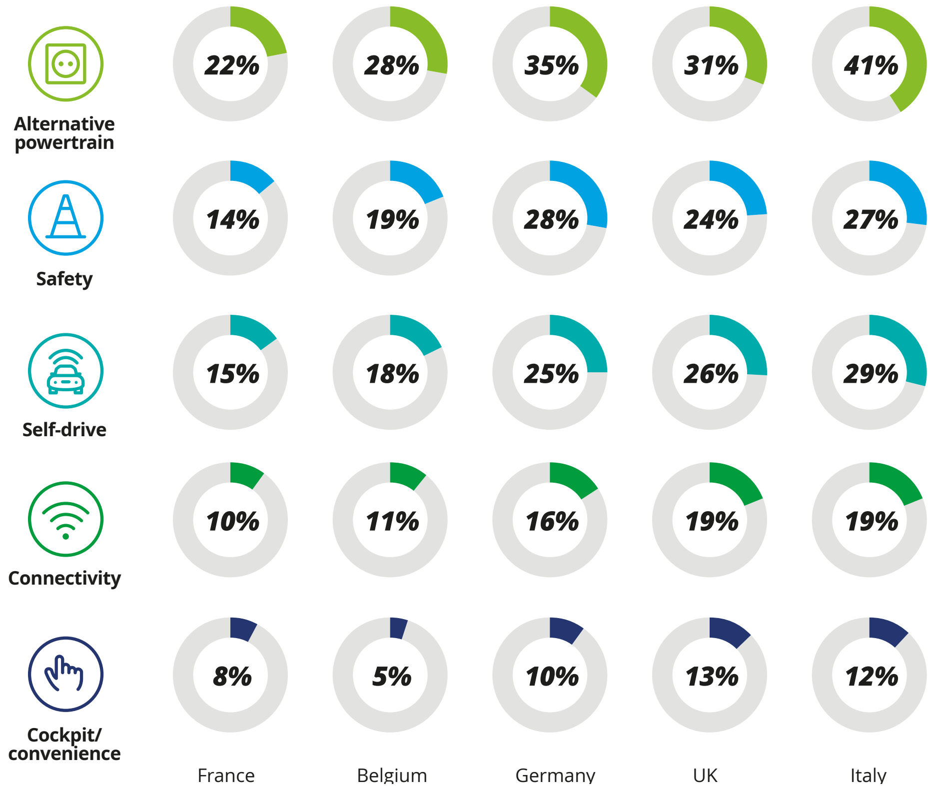
Figure 4: Overall expected price consumers are willing to pay for advanced automotive technologies (2014 and 2016)



Technologies consumers value most

Alternative powertrains and safety features – these are what people know and are seeing in cars and are thus willing to pay for. Self-drive still seems so far off for most consumers that they aren't willing to pay a lot for it. Consumers value least the connectivity and cockpit or convenience features – because they already can get them on their devices.

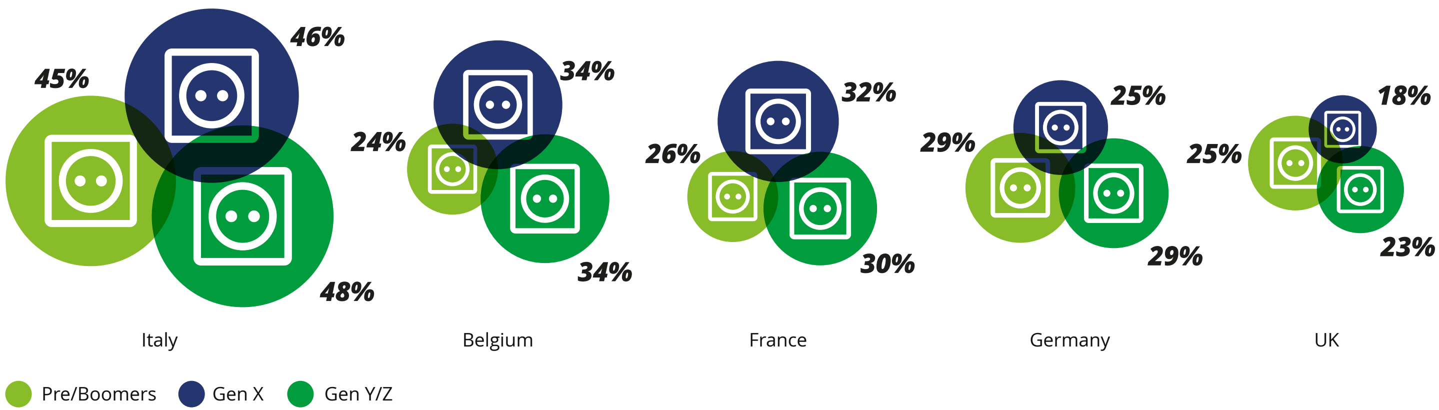
Figure 5: Percentage of consumers who are willing to pay more than €400 for various advanced vehicle technologies



How popular are alternative drivetrains?

There are many reasons consumers are interested in purchasing a vehicle with an alternative powertrain: EU programs to reduce emissions, wider availability of the supporting infrastructure, scrappage schemes and falling costs. The older generations tend to be the most enthusiastic, except in the UK and Italy, where interest is highest among younger populations.

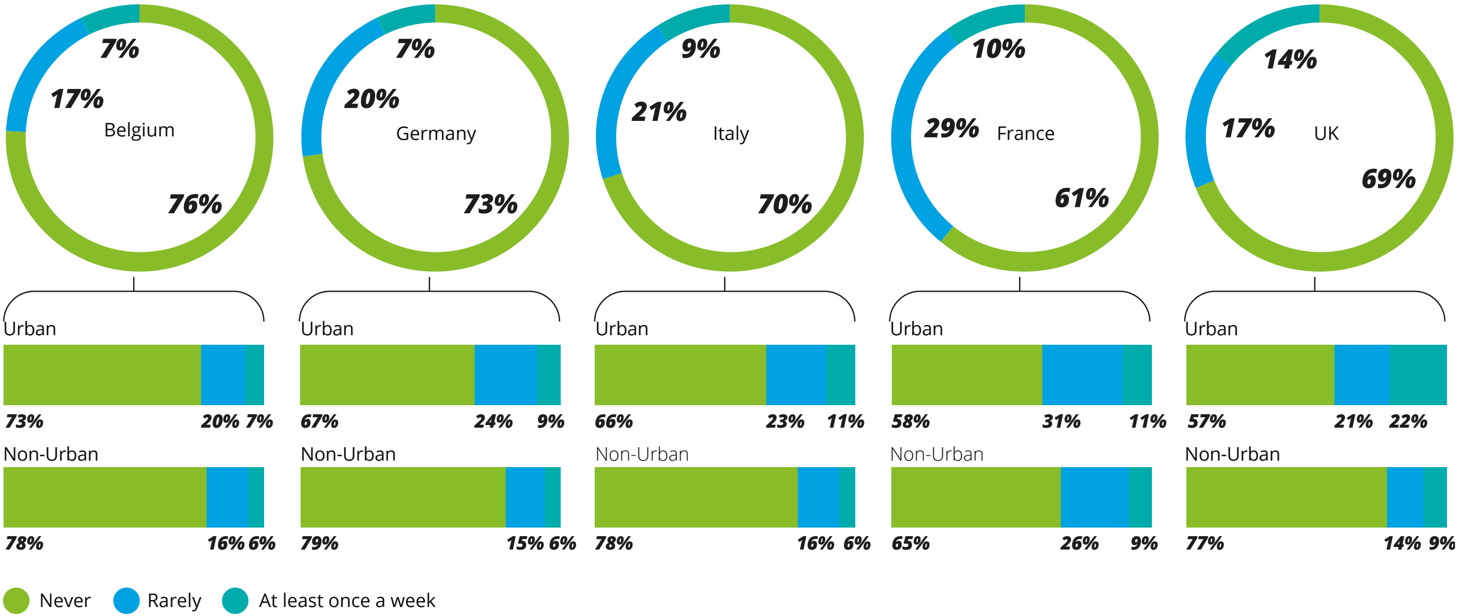
Figure 6: Percentage of consumers, by generation, who would prefer an alternative powertrain in their next vehicle



Ride-sharing has room to rise

Much has been made of the growth in the shared economy, particularly when it comes to vehicle use. Our results bear this out: while ride-sharing is more popular in countries like France and the UK, it tends to be biggest among the Gen Y/Zers and also among urban dwellers. It is already established in UK cities, but has not made quite the same inroads in Belgium, Germany or Italy.

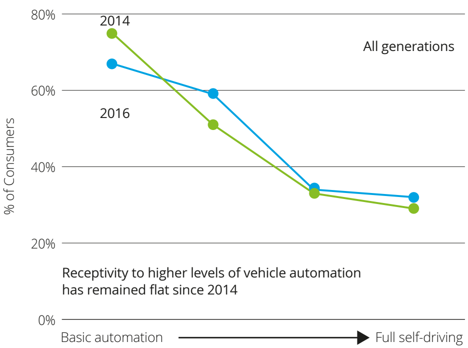
Figure 7: Frequency that consumers use ride-sharing services, by country and living area



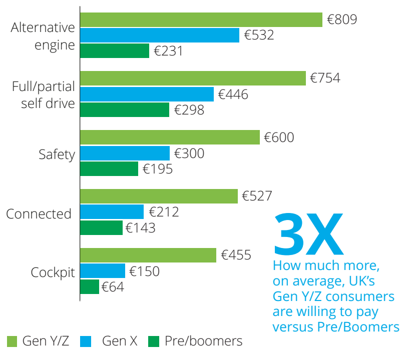
Global Automotive Consumer Study: Individual Countries

United Kingdom

UK consumers are showing interest towards assisted driving features…



…and UK Gen Y/Z consumers say they will pay more than other generations



- People are most willing to pay for safety features and are least willing to pay for cockpit/convenience features (because they can get them on their devices)
- The amount people are willing to pay for self-drive is high – but half of respondents are not willing to pay anything. The younger generations are willing to pay more – to a very large margin.

SAFETY features win…

Features deemed most useful by UK consumers

Recognises objects on road and avoids collision

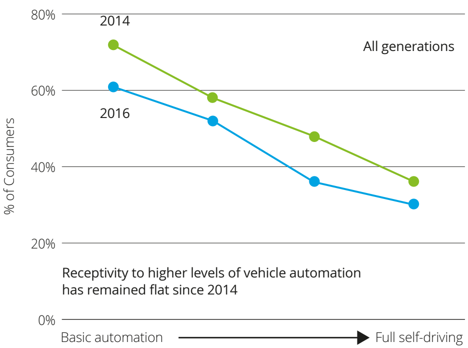
Informs driver of dangerous driving situations

Blocks driver from dangerous driving situations

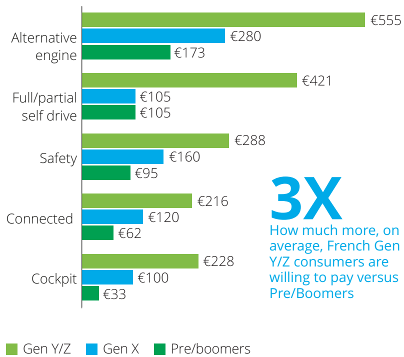
Takes steps in medical emergency or accident

France

French consumers are showing resistance to assisted driving features…



…but French Gen Y/Z consumers say they will pay more than other generations



- 72% of consumers do not see autonomous cars as becoming a reality in the next 20 years
- 77% preferred buying cars equipped with technologies that assist driving but don't take full control of the driving
- People want limited self-driving for specific conditions, such as heavy traffic. Those who want full self-driving do so for long travels.

SAFETY features win…

Features deemed most useful by French consumers

Informs driver of dangerous driving situations

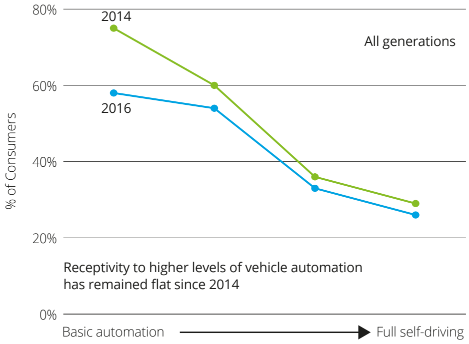
Recognises objects on road and avoids collision

Blocks driver from dangerous driving situations

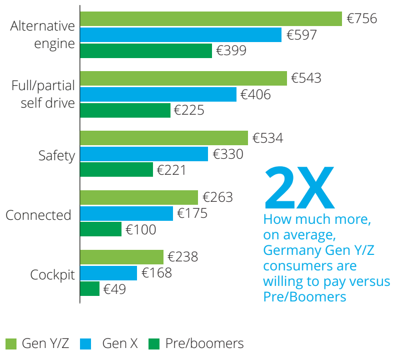
Takes steps in medical emergency or accident

Germany

German consumers are showing resistance to assisted driving features...



...but Germany's Gen Y/Z consumers are willing to pay more compared to other generations



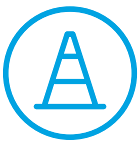
- Consumer desirability for all levels of automation is lower in Germany than other EMEA countries surveyed. This is noteworthy given that German auto manufacturers are at the forefront of driverless car development

- Only 51% of respondents trust traditional auto manufacturers to bring self-driving technology to market. This poses a risk to traditional OEMs if half the people are willing to buy an autonomous vehicle from a new player.

SAFETY features win...

Features deemed most useful by consumers in Germany

Recognises objects on road and avoids collision



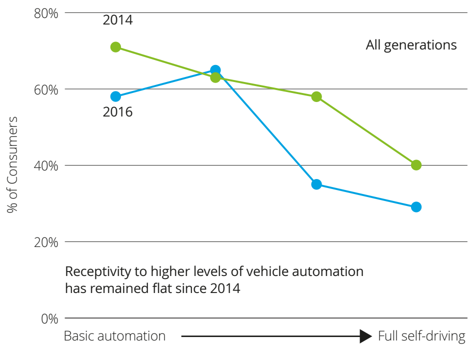
Blocks driver from dangerous driving situations

Informs driver of dangerous driving situations

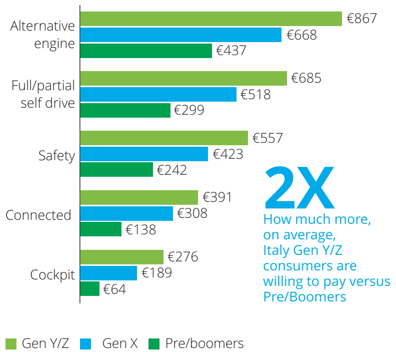
Takes steps in medical emergency or accident

Italy

Italian consumers are showing resistance to assisted driving features...



...but Italy's Gen Y/Z consumers say they will pay more than other generations



- Consumer desirability for advanced vehicle automation is the highest among EMEA nations surveyed but has significantly decreased over the last 2 years
- Technologies that enable use of alternative fuels rank within the top five "most useful" features. Italians are willing to pay more for alternative engine technologies (€640 on average).

SAFETY features win...

Features deemed most useful by Italian consumers

Recognises objects on road and avoids collision

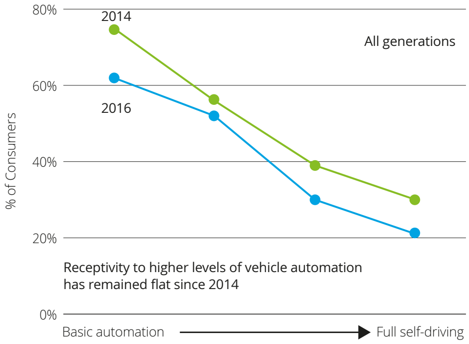
Blocks driver from dangerous driving situations

Informs driver of dangerous driving situations

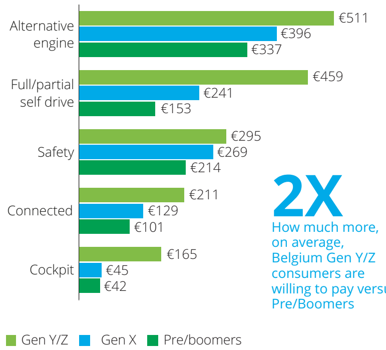
Takes steps in medical emergency or accident

Belgium

Belgium consumers are showing resistance to assisted driving features...



...but Belgium's Gen Y/Z consumers say they will pay more than other generations



2X
How much more, on average, Belgium Gen Y/Z consumers are willing to pay versus Pre/Boomers

SAFETY features win...

Features deemed most useful by consumers in Germany

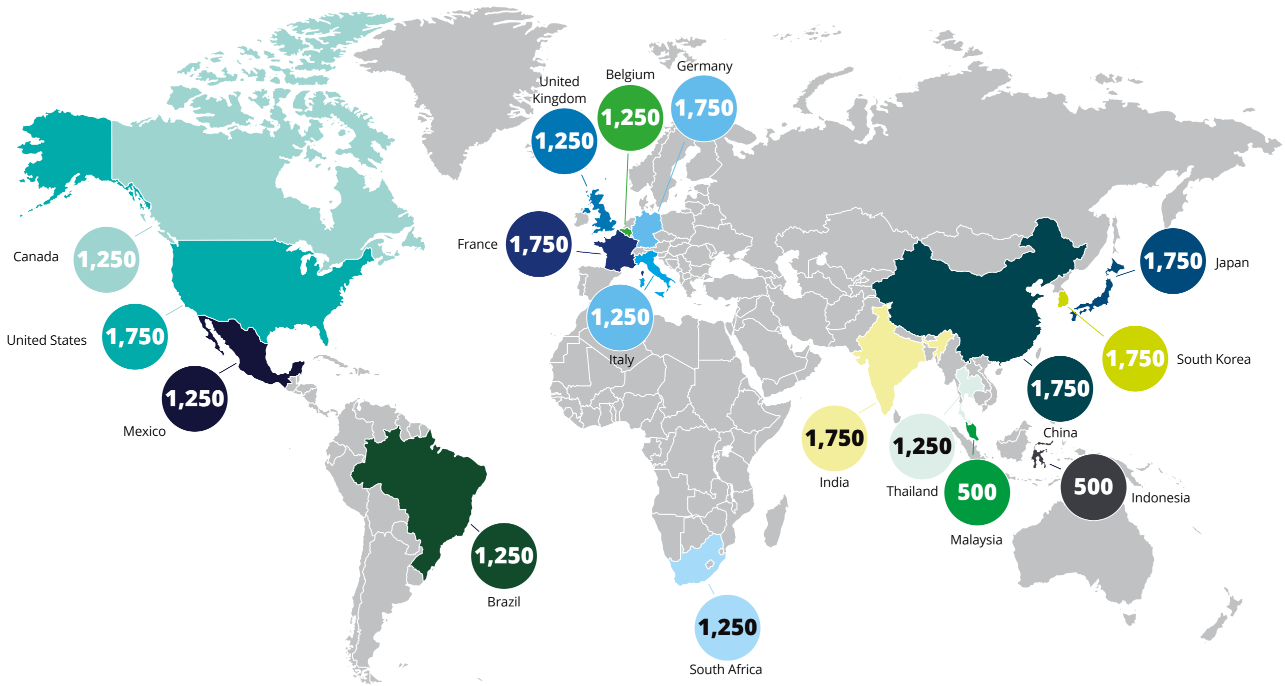
Recognises objects on road and avoids collision

Blocks driver from dangerous driving situations

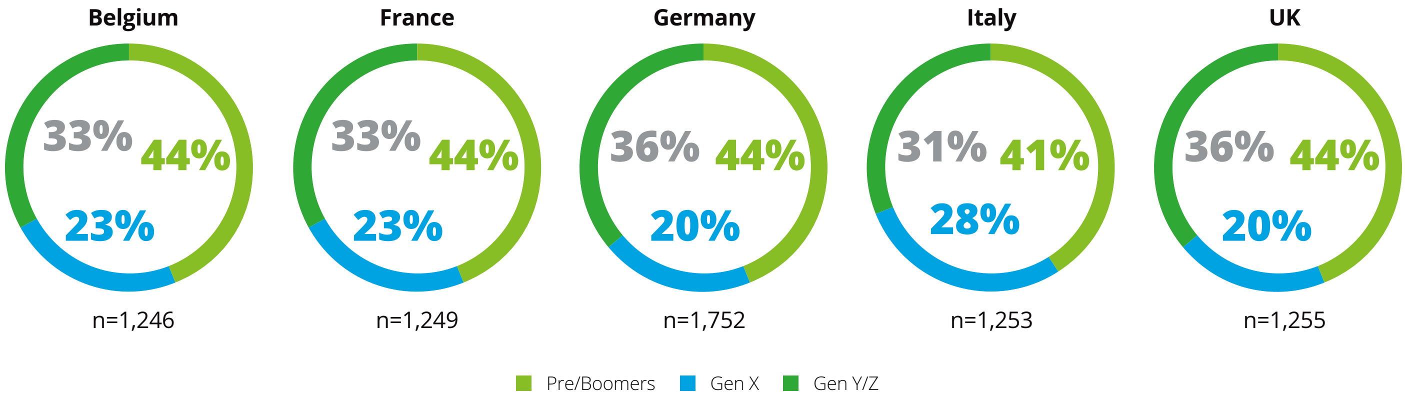
Informs driver of dangerous driving situations

Takes steps in medical emergency or accident

The Global Automotive Consumer Study surveyed over 22,000 consumers in 17 countries around the world

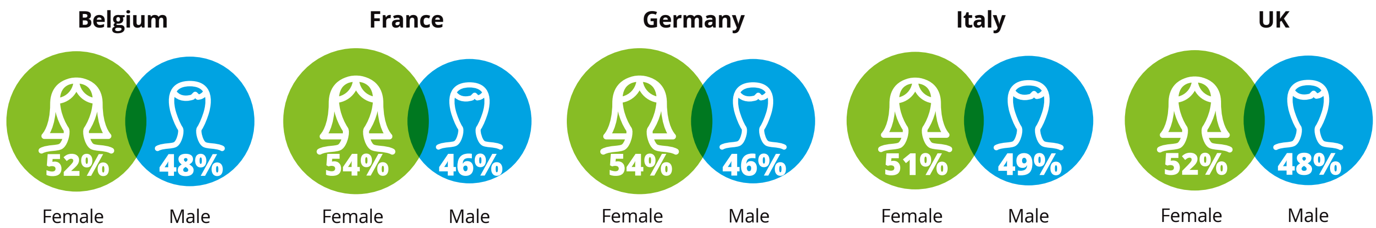


Generational segments (%)



Note: Pre/Boomers: Born Before 1965; Gen X: Born Between 1965-1976; Gen Y/Z: Born After 1976 (sample excludes consumers under 16 years of age)

Gender (%)



Deloitte LLP is a limited liability partnership registered in England and Wales with registered number OC303675 and its registered office at 2 New Street Square, London EC4A 3BZ, United Kingdom. Tel: +44 (0) 20 7936 3000
Fax: +44 (0) 20 7583 1198.

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