McKinsey & Company

McKinsey Mobility Consumer Pulse

Media Presentation

June 2024

McKinsey Mobility Consumer Pulse investigates global consumer perceptions around core future mobility trends

Regular MCFM consumer survey

5+ years of historic data

200+ Questions on the industry-shaping mobility trends & disruptions

30,000+ respondents who regularly use mobility allowing for detailed consumer profiling and segmentation

15 countries since 2021 across the globe, covering more than 80% of global sales volumes

Countries in 2024

The most comprehensive view on mobility consumer trends…

- Mobility consumer segments
- Shared autonomous mobility
- Mobility trends & outlook
- Car owner journey insights
- Two-wheeler mobility insights
- EV charging customer insights
- Urban mobility infra-structure & regulation
- Mobility ownership & financing
- Bicycle rider insights
- Micro-mobility consumer insights
- ADAS technology insights
- Automotive aftersales customer insights
- Connec-tivity & digital car experience
- Customer experience benchmarks
- Corporate mobility benefits
- Electric vehicle buying behavior
- Shared mobility insights
- Used car buyer insight
- …and many more

Source: MCFM Mobility Consumer Insights Solution

10 key numbers from the 2024 McKinsey Mobility Consumer Pulse

Global insights

38% Of respondents who do not have an EV yet, consider a BEV[1] or PHEV[2] as next car

29% Of electric vehicle owners consider to switch back to a traditional combustion engine car

27% Of European EV buyers open to considering a Chinese brand for next purchase

9% Consider current electric vehicle charging infrastructure to be sufficient

29% Would like to replace their private vehicle completely with other forms of transport in the next 10 years

21% Of car buyers consider autonomous driving functionalities as key buying factor for their next car

59% Of EV buyers want to use more digital connectivity services in the future

37% Of electric vehicle buyers consider to get their next car online

1. BEV = Battery electric vehicle
2. PHEV = Plug-in hybrid electric vehicle

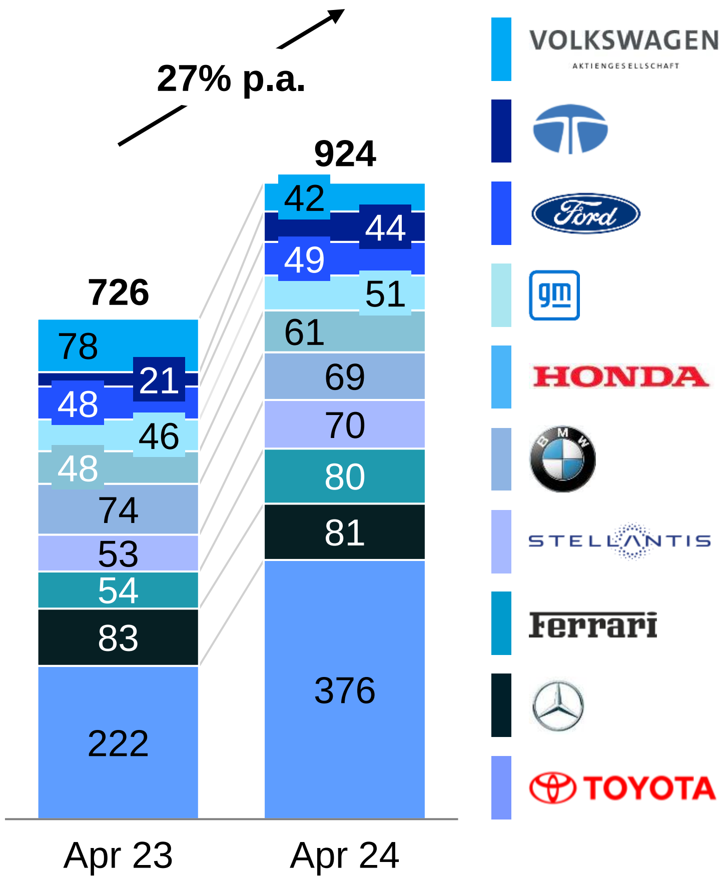
Source: MCFM Mobility Consumer Insights, Annual MCFM Mobility Consumer Survey 2024, dated February 2024, global N = 36,954

Data available for:

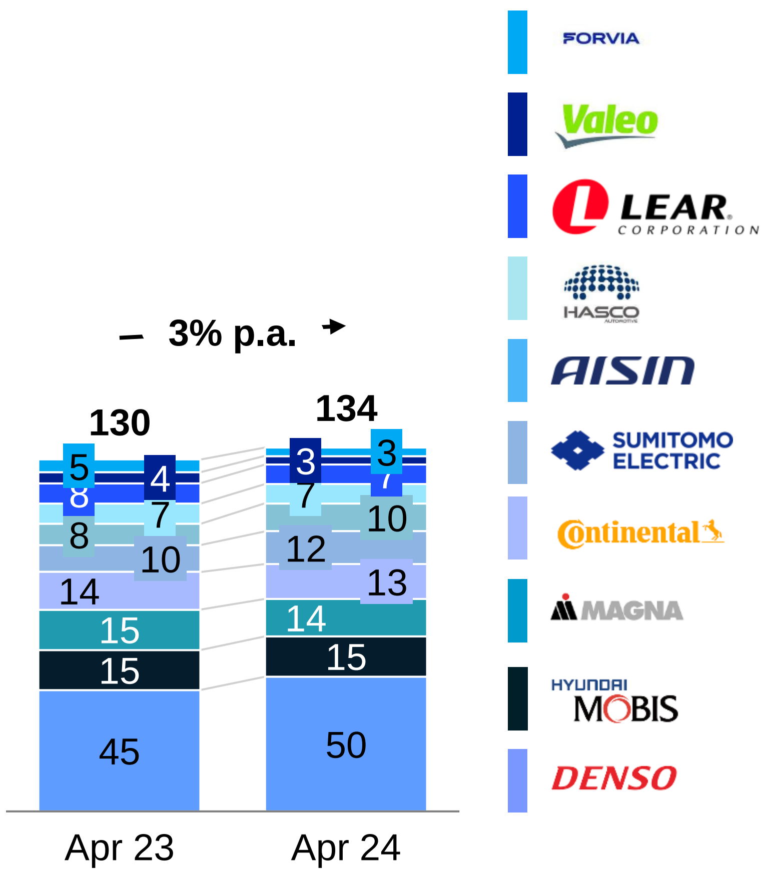
Over the past 12 months market cap of mobility companies has grown mostly with OEMs

Market capitalization
$ Billions

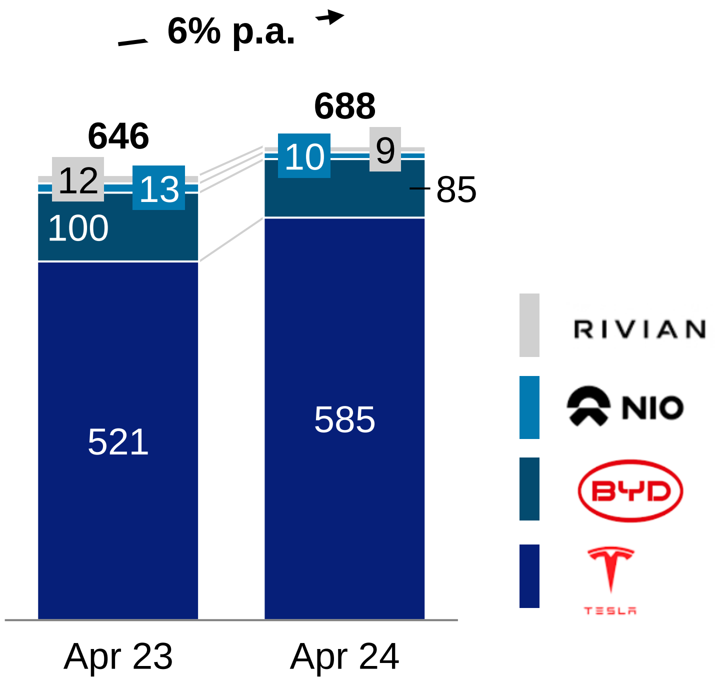
Top 10 OEMs



Top 10 suppliers



New Mobility



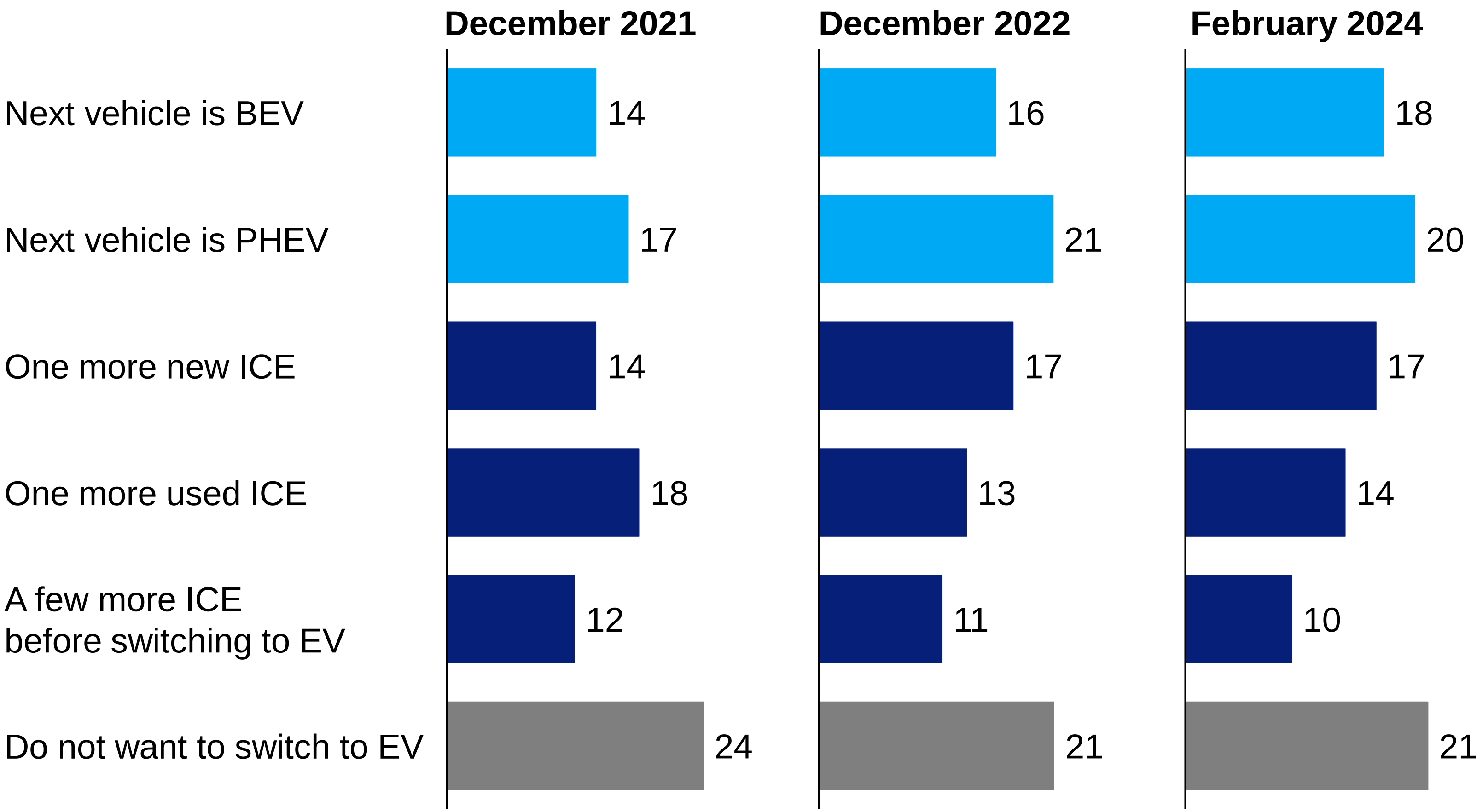
Contents

Global purchase intent for electric vehicles continues to rise, however more slowly

Powertrain consideration for current non-EV owners

Share of respondents who do not have an EV yet, globally

Countries



Additional Insights

Top reasons given by people who don’t want to switch to EV:

Too expensive	45%
Charging concerns	33%
Driving range concerns	29%

Interest in BEV from respondents who drive **premium/luxury segment** vehicles **~2x higher** than from those who drive volume/entry level cars

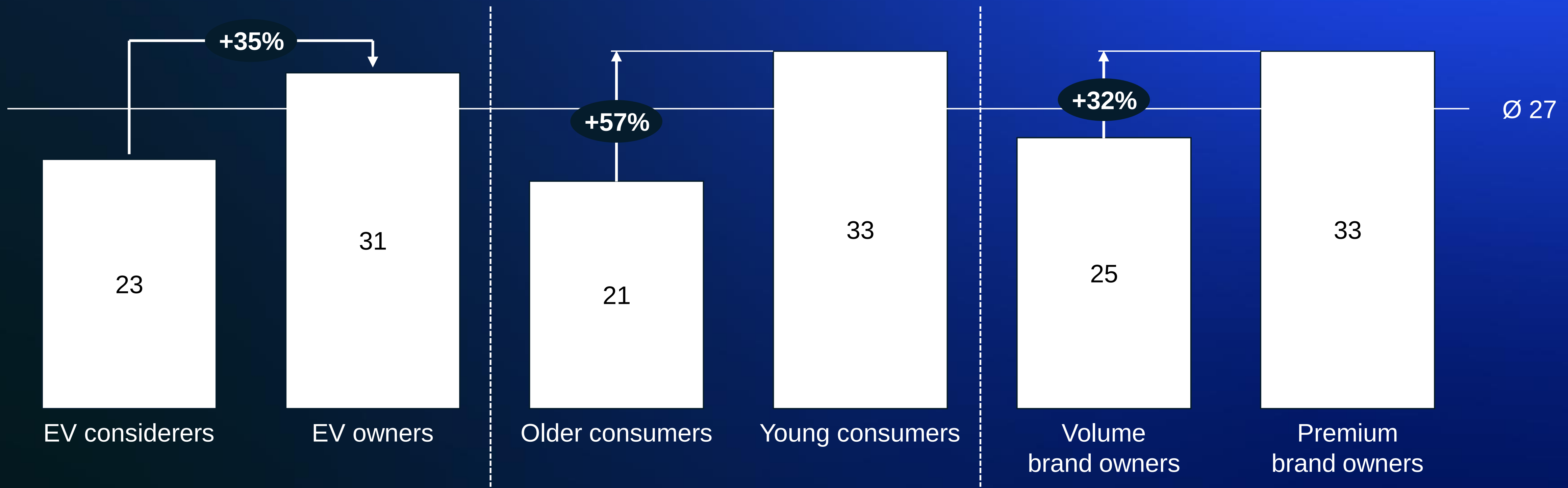
Source: MCFM Mobility Consumer Insights, Annual MCFM Mobility Consumer Survey 2024, dated February 2024, global N = 36,954

Data available for:

27% of European consumers say they are likely to consider a Chinese electric vehicle brand

Likelihood to consider purchasing an electric vehicle from a Chinese brand

Share of European respondents who own an EV or consider to do so in the future stating (very) likely



How likely are you to buy an electric vehicle from a Chinese car brand some time in the future?

Source: MCFM Mobility Consumer Insights, Annual MCFM Mobility Consumer Survey 2024, dated February 2024, global N = 36,954

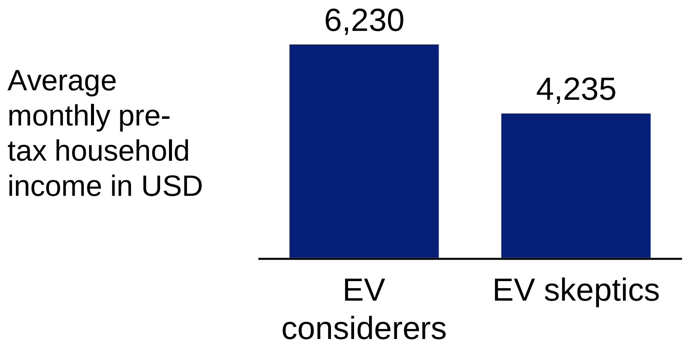
Data available for:

EV buyers are younger, more urban and more tech-savvy

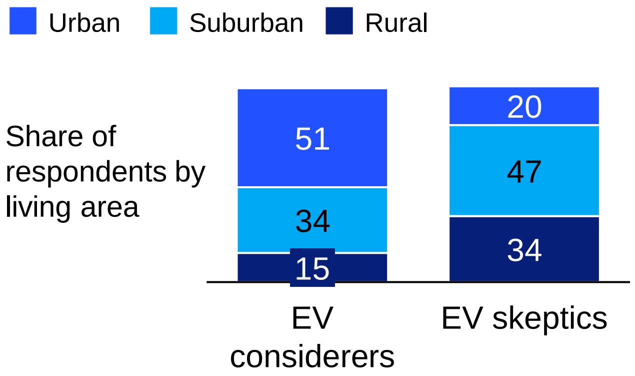
Global insights

Buyers who **consider an electric vehicle** at next purchase…

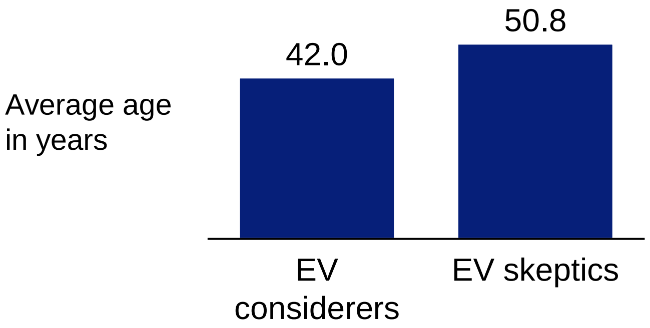
...have **higher disposable income**



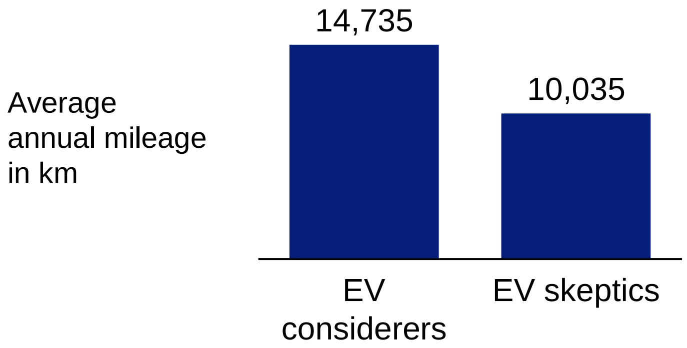
...tend to live **urban/downtown**



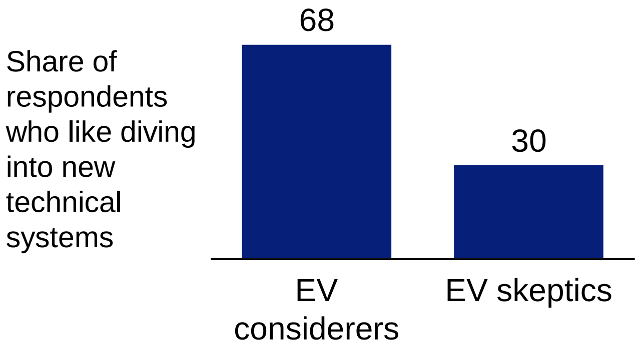
...are significantly **younger**



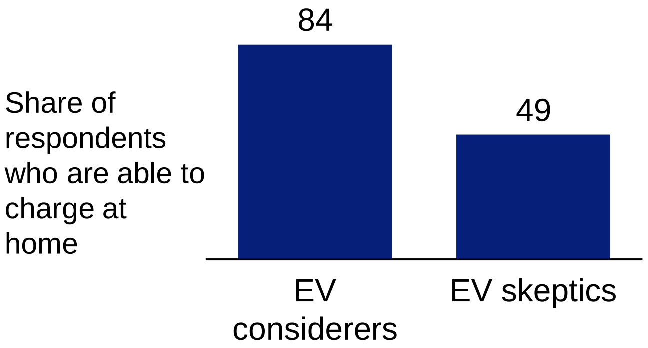
... drive **longer distances**



... are more **tech-savvy** customers



... can **charge at home**



Source: MCFM Mobility Consumer Insights, Annual MCFM Mobility Consumer Survey 2024, dated February 2024, global N = 36,954

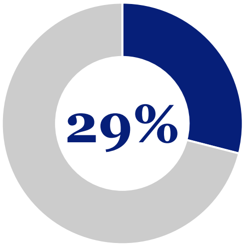
Data available for:

Highest barriers for electric vehicle adoption are low familiarity with the technology and high perceived cost

Global insights

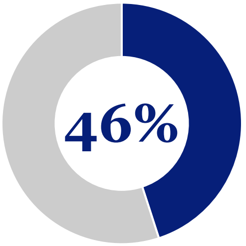
Reasons for consumers **not wanting to buy an electric vehicle**…

Range anxiety



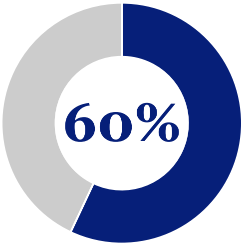
More than 1 in 4 EV skeptics have concerns around **insufficient range or charging infrastructure** – in China 42%

Cost of ownership



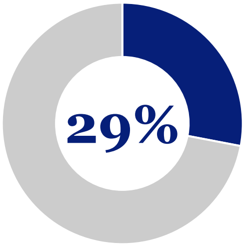
45% of EV skeptics **perceive cost of ownership as too high,** except for customers in Norway (29%) and China (9%)

Familiarity with EVs



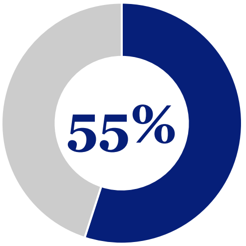
1 in 2 EV skeptics have never heard about EVs or **don't think they can explain what it is,** with lowest familiarity in Japan and France

Ability to charge at home



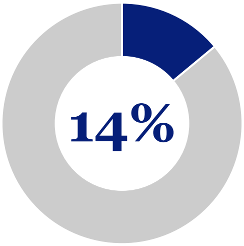
28% of EV skeptics say they have **no ability to charge at home,** highest in Japan (43%) and lowest in Brazil (15%)

Technology skepticism



More than half of EV skeptics say they **don't like to occupy themselves with new technology,** in Australia even 63%

Petrol heads



14% of EV skeptics **just enjoy driving a combustion engine car,** mostly in Germany (28%) and US (18%)

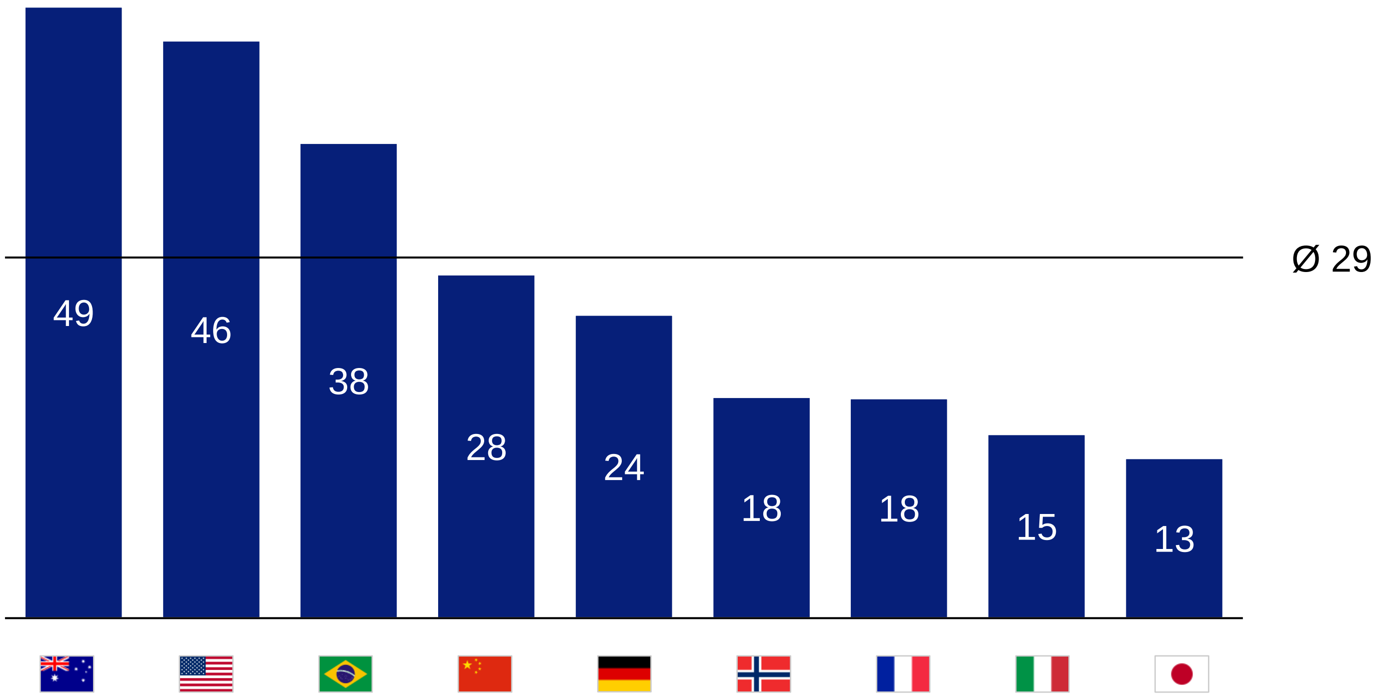
Source: MCFM Mobility Consumer Insights, Annual MCFM Mobility Consumer Survey 2024, dated February 2024, global N = 36,954

Data available for:

29% of EV owners globally likely to switch back to ICE, mostly because of difficulties with charging

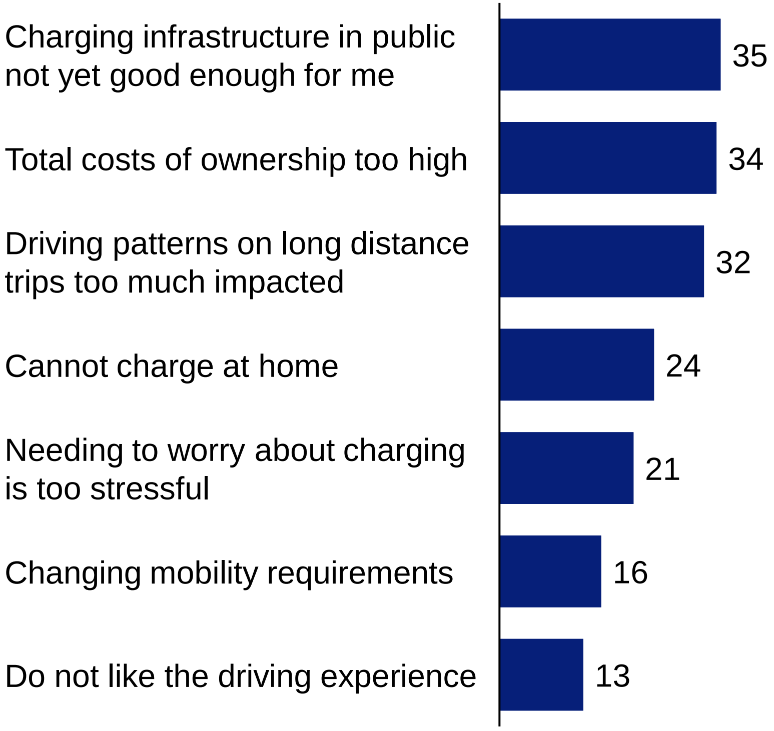
Share of EV owners (very) likely to switch back to ICE

Likelihood of current EV owners to switch back to ICE



Reasons to switch back to ICE

Global respondents



Source: MCFM Mobility Consumer Insights, Annual MCFM Mobility Consumer Survey 2024, dated February 2024, global N = 36,954

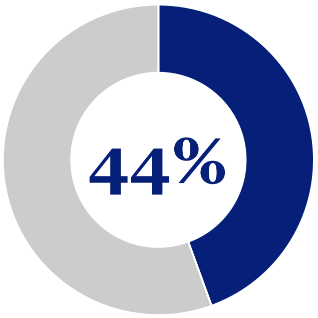
Data available for:

The current economic situation is heavily impacting car purchase behaviors – online buying is becoming more important

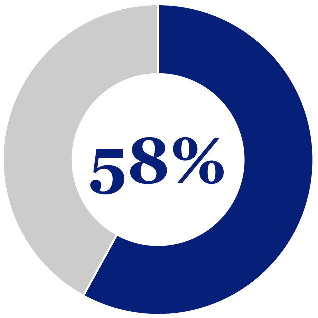
Expected adjustments to next car purchase given current economic situation

Share of respondents (very) likely

Postpone switch to electric vehicle



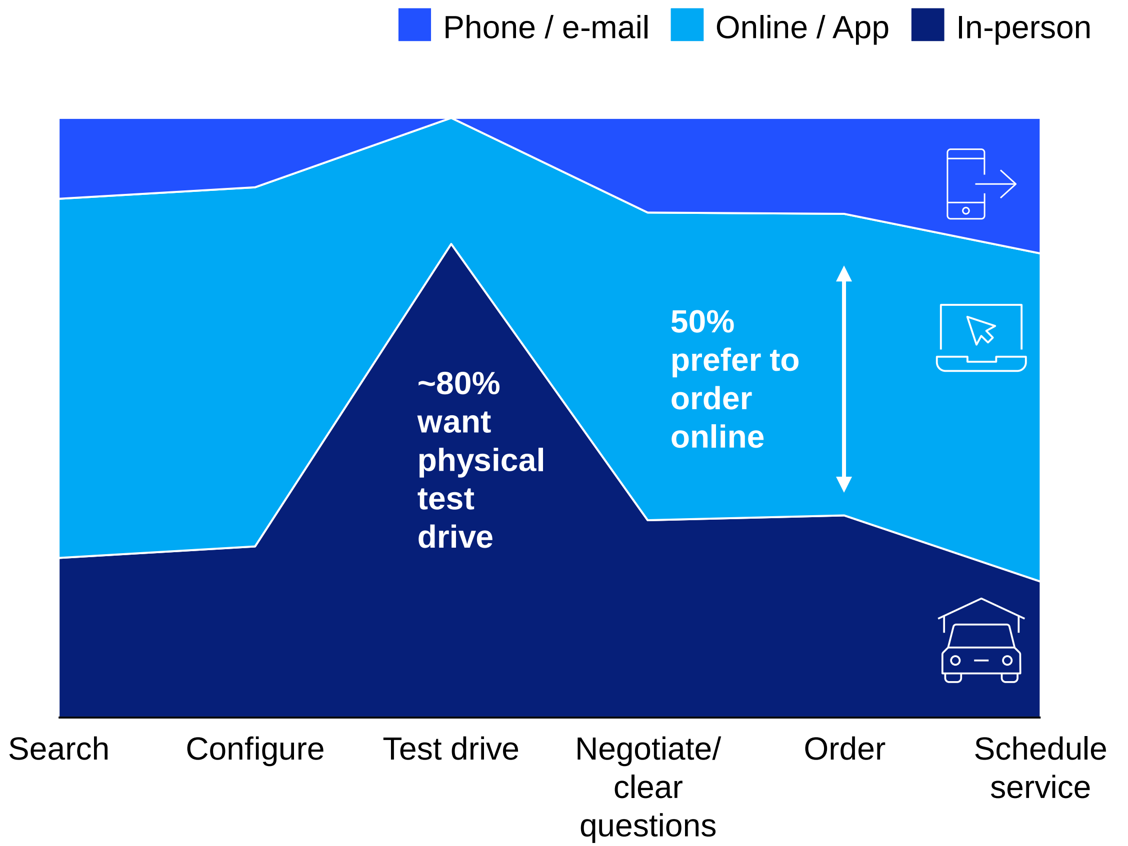
Extend holding period of current car



Trade down at next purchase

Preferred purchase channel for next electric vehicle

Share of US respondents who consider to own an electric vehicle in the future



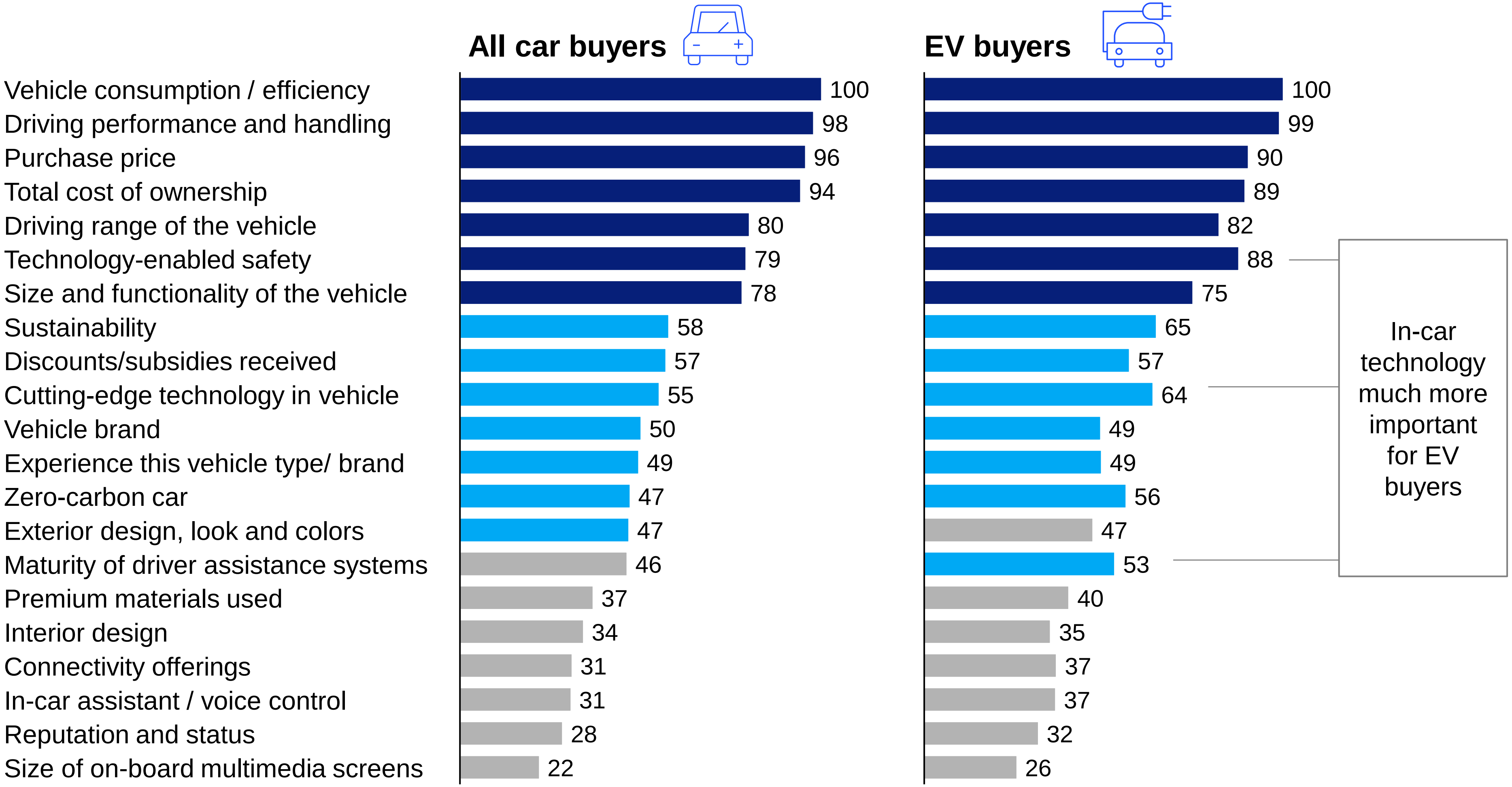
Source: MCFM Mobility Consumer Insights, Annual MCFM Mobility Consumer Survey 2024, dated February 2024, global N = 36,954 , US N = 4,112

Data available for:

Electric vehicle buyers consider in-car technology more important than the average car buyer

Global insights

Key decision factors for next car purchase
Relative importance of factor indexed to 100



Main purchase factors

Most important factors for car purchase decision, often driven by external constraints such as budget (price/ cost of ownership) and needs (vehicle size, range)

Rounding out factors

Factors that influence the purchase decision, after basic requirements are met → central playing field for differentiation

Non-essential factors

Elements that do not influence car purchase decision

Source: MCFM Mobility Consumer Insights, Annual MCFM Mobility Consumer Survey 2024, dated February 2024, global N = 36,954
Data available for:

Contents

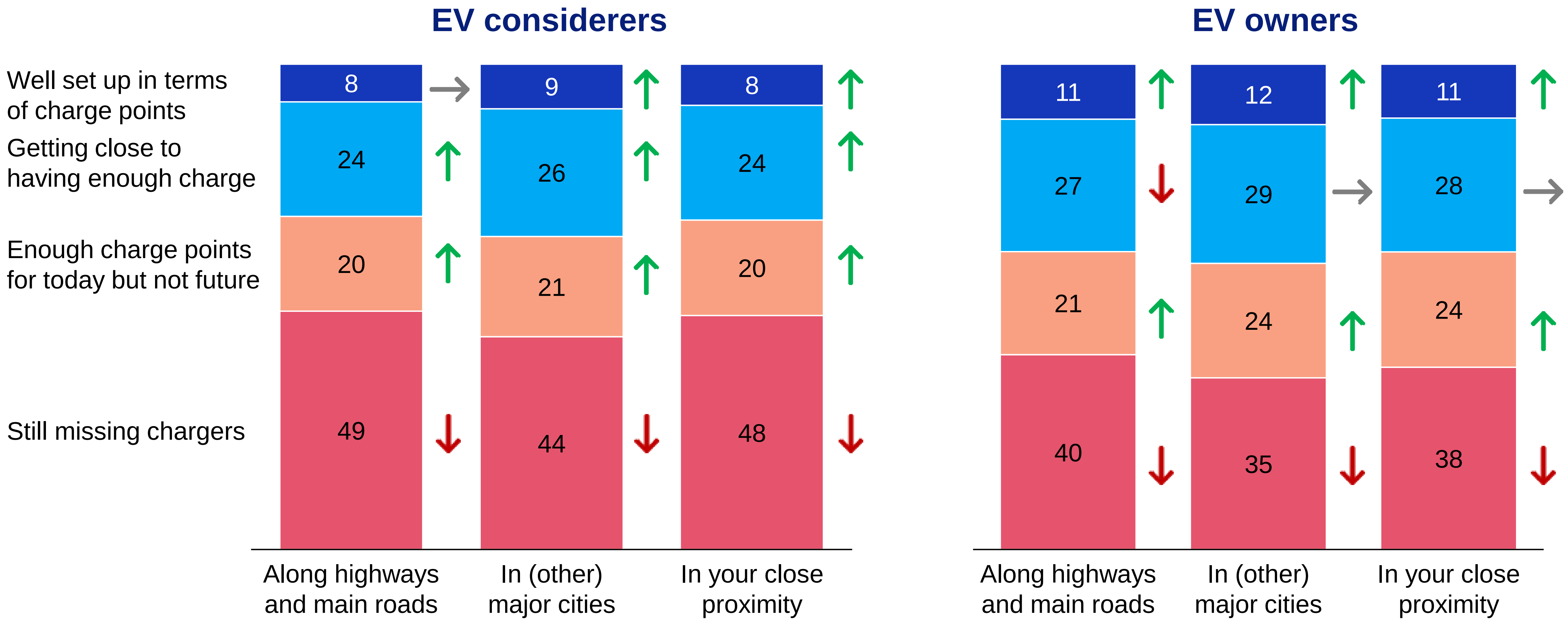
Satisfaction with charging availability has improved slightly, but still has a long way to go

Global insights

Perception of charging infrastructure readiness

Share of respondents globally

Trend since 2022



Source: MCFM Mobility Consumer Insights, Annual MCFM Mobility Consumer Survey 2024, dated February 2024, global N = 36,954

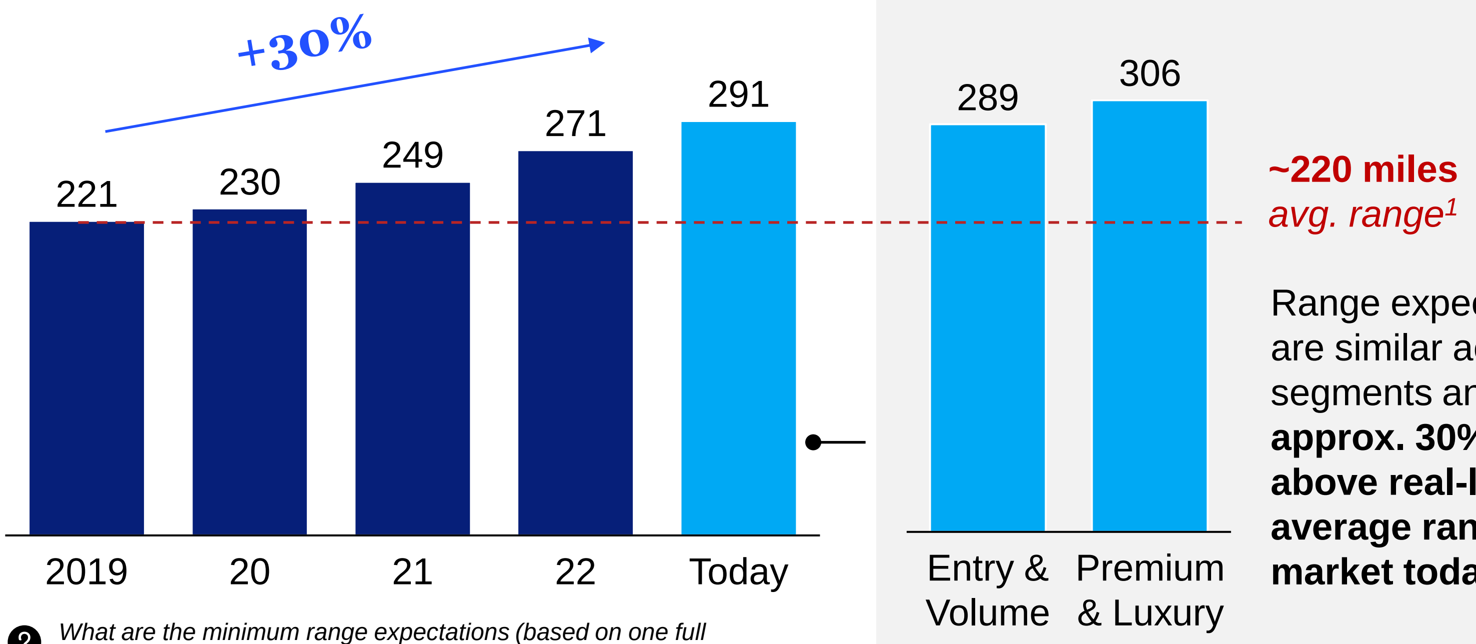
Data available for:

Battery range expectations have been increasing over time – up 30% over last 5 years

Global insights

BEV battery range expectations historically and by segment

For respondents considering to get an electric vehicle, in miles



Range expectations are similar across segments and **approx. 30% above real-life average range on market today**

What are the minimum range expectations (based on one full charge) for you to consider getting yourself an electric vehicle?

1. Real life range with assumed mix of city, country and highway driving

Additional Insights

Range expectations have been increasing over time (+ ~30% in the past 5 years) and are **outpacing actual range improvements**: Since 2022 consumers demand 5% more range, while actual range increased by only 2%

Consumers who want to buy an EV as a secondary vehicle have almost **identical range expectations as those who are looking for a primary vehicle**

47% *of EV considerers say that current EV driving range prevents them from purchasing one*

Source: MCFM MEM, IHS, MCFM Mobility Consumer Insights, Annual MCFM Mobility Consumer Survey 2024, dated February 2024, global N = 36,954

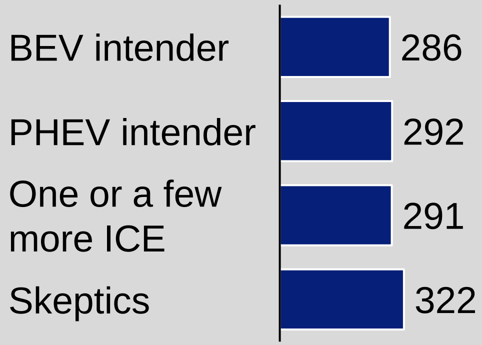
Data available for:

EV skepticism and age are strongest influencing factors for battery range expectations

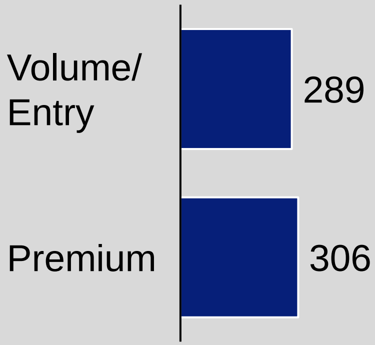
Global insights

Battery range requirements for customers to be willing to switch from ICE to EV

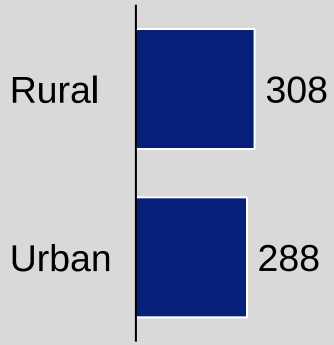
Battery range in miles, global average battery range requirement of 291 miles



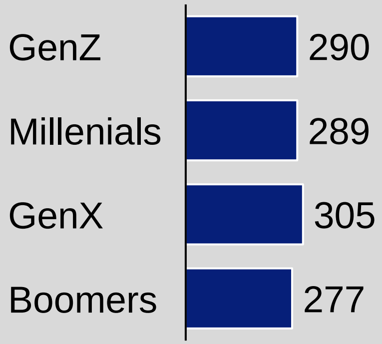
BEV intenders less battery range overall



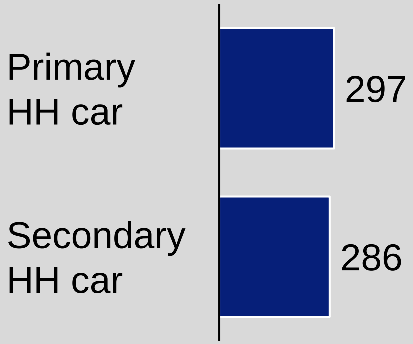
Premium brand buyers ~6% more battery range



Rural customers ~7% more battery range



Boomers substantially less battery range



Multi-car households ~4% less battery range

1 of 2

of EV considerers says they are anxious about buying an EV because of limited driving range

Source: MCFM Mobility Consumer Insights, Annual MCFM Mobility Consumer Survey 2024, dated February 2024, global N = 36,954

Data available for:

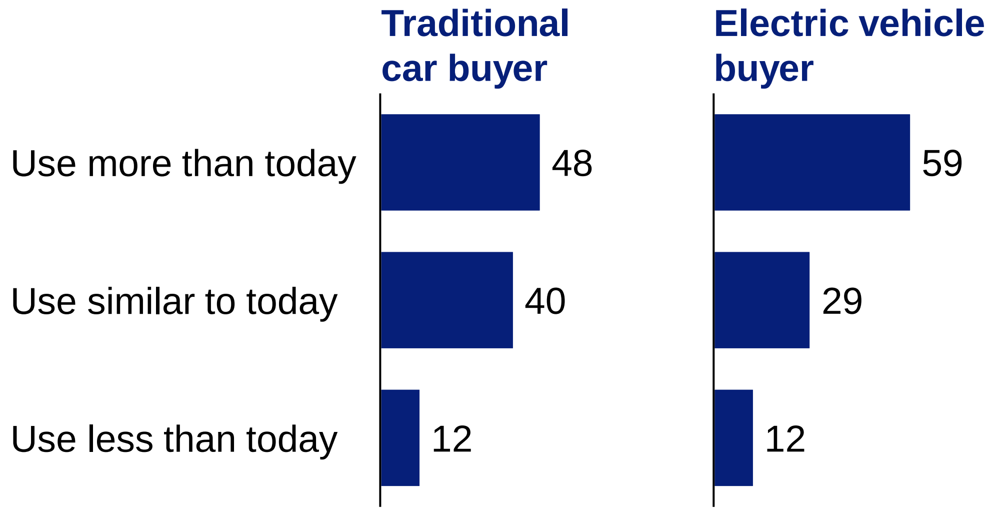
Contents

Consumers looking to increase usage of digital services in their car significantly – yet only 20% are satisfied with today's offering

Global insights

Future usage of in-car connectivity solutions

Share of respondents

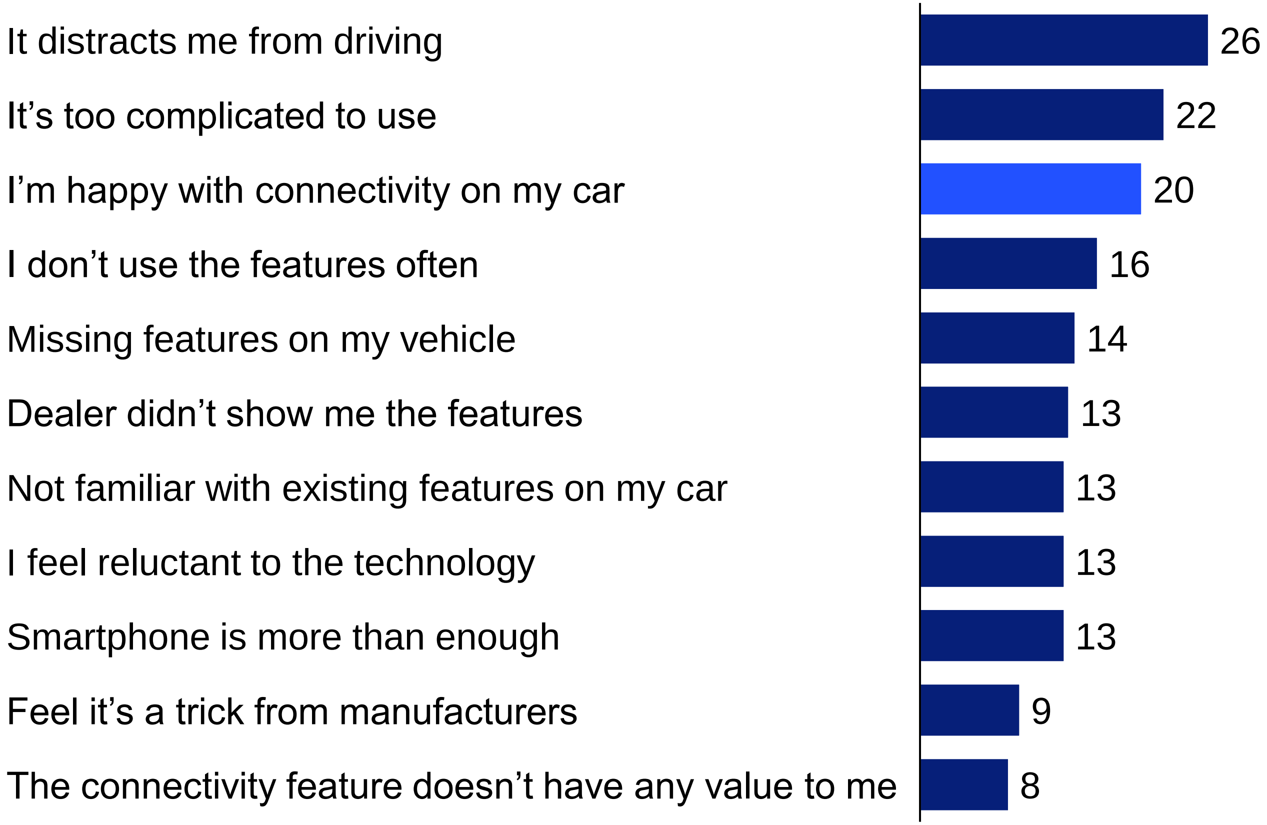


only 20%

of consumers are satisfied with their current in-car connectivity offerings

Pain points of digital car solutions and connectivity offers

Share of respondents



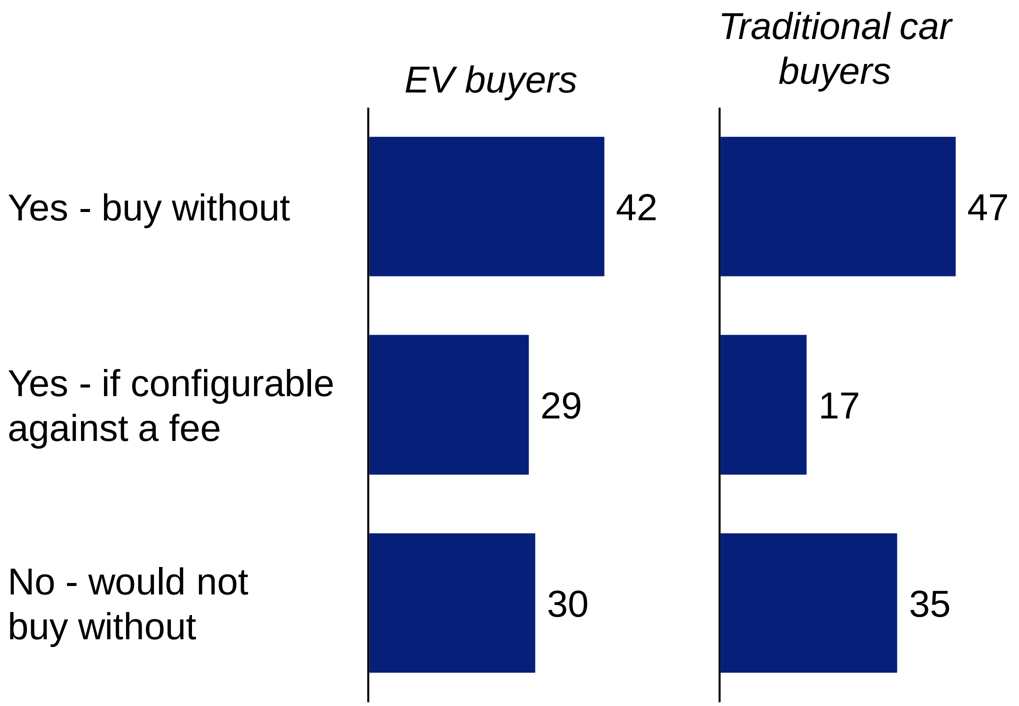
Source: MCFM Mobility Consumer Insights, Annual MCFM Mobility Consumer Survey 2024, dated February 2024, global N = 36,954

Data available for:

Majority of car buyers anchors on smartphone integration systems as default connectivity experience

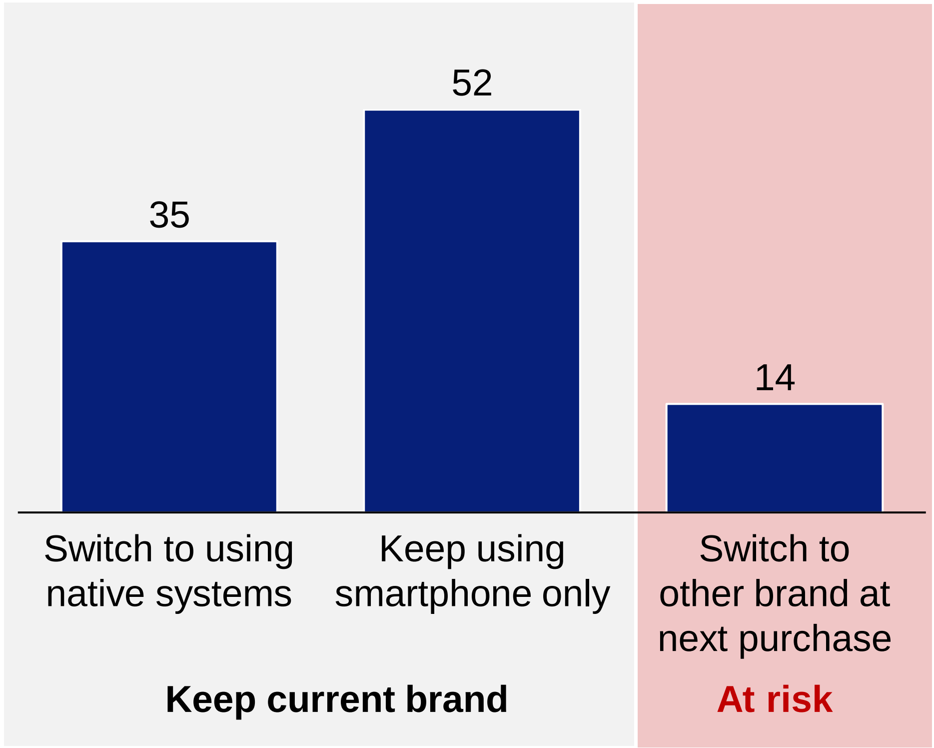
Global insights

1 out of 3 car buyers **would not buy a car without smartphone integration**, another 20-30% is open to pay for it



Would you buy a car that has no automatic smartphone integration interface as part of its base vehicle specification?

Only **35% of customers** would **switch to using native system** if smartphone integration was cut – **14% at risk for switching brand**



What would you do, if smartphone integration was no longer available in your car to project your smartphone content?

Source: MCFM Mobility Consumer Insights, Annual MCFM Mobility Consumer Survey 2024, dated February 2024, global N = 36,954

Data available for:

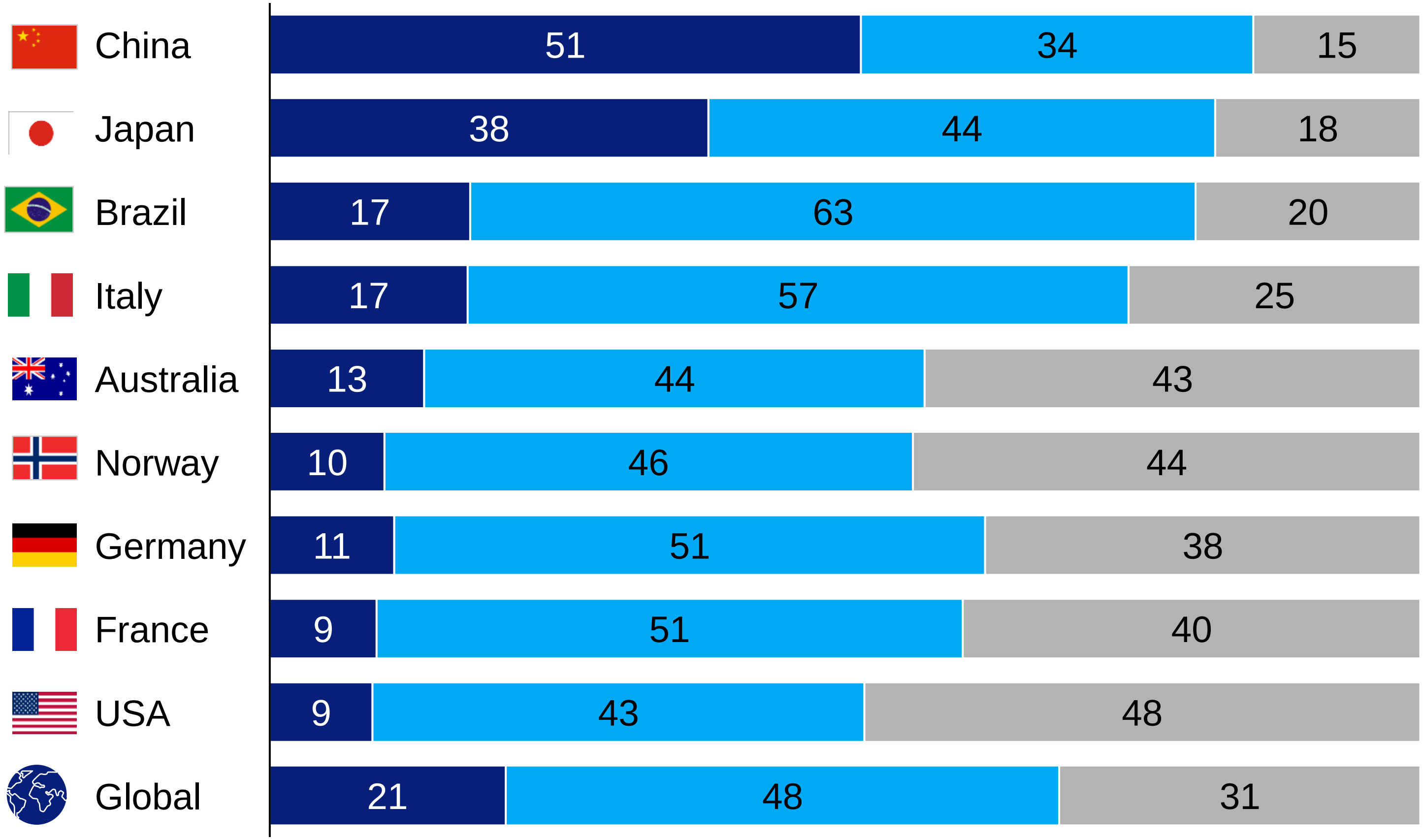
Contents

Driver assistance features as core purchase factor for 21% of global car buyers

Main purchase factor (1-7) Rounding-out purchase factor (8-14) Non-essential purchase factor (15-21)

Importance of driver assistance features for car purchase

Share of respondents



3 groups of car buyers regarding driver assistance features

Fans

Mature driver assistance features are among **main purchase factors**

Considerers

Driver assistance features are **rounding out purchase factors,** car purchase decision is determined by other factors

Agnostics

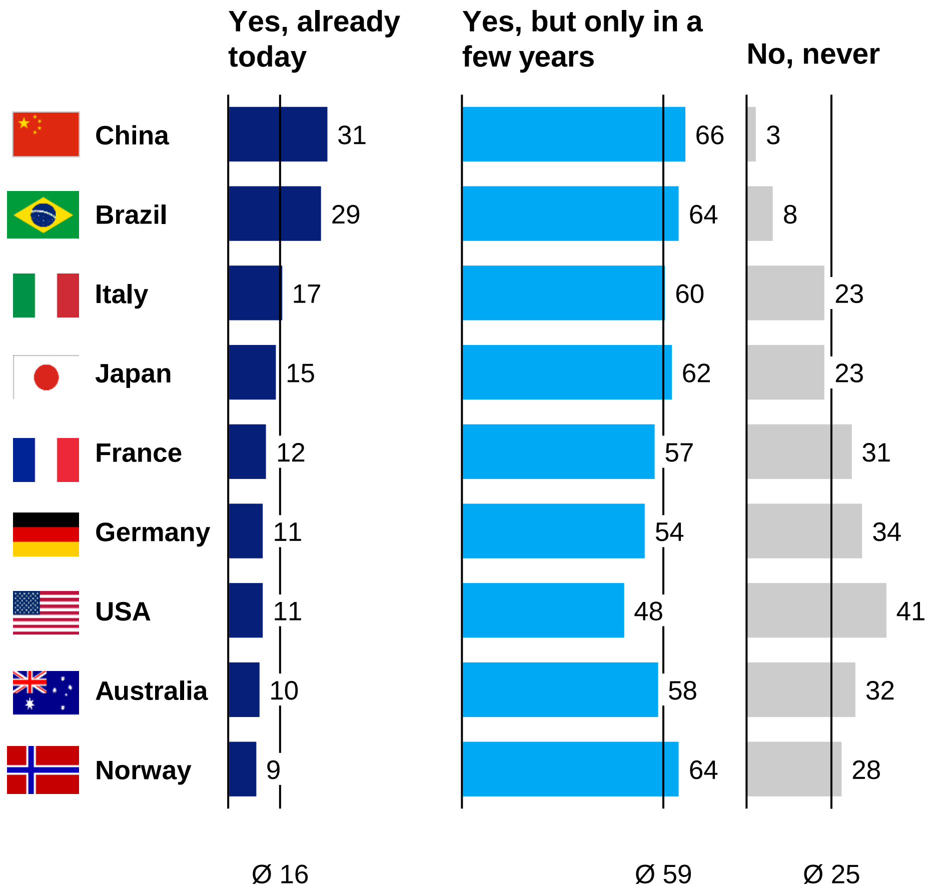
Driver assistance features are **non-essential purchase factors**

Source: MCFM Mobility Consumer Insights, Annual MCFM Mobility Consumer Survey 2024, dated February 2024, global N = 36,954

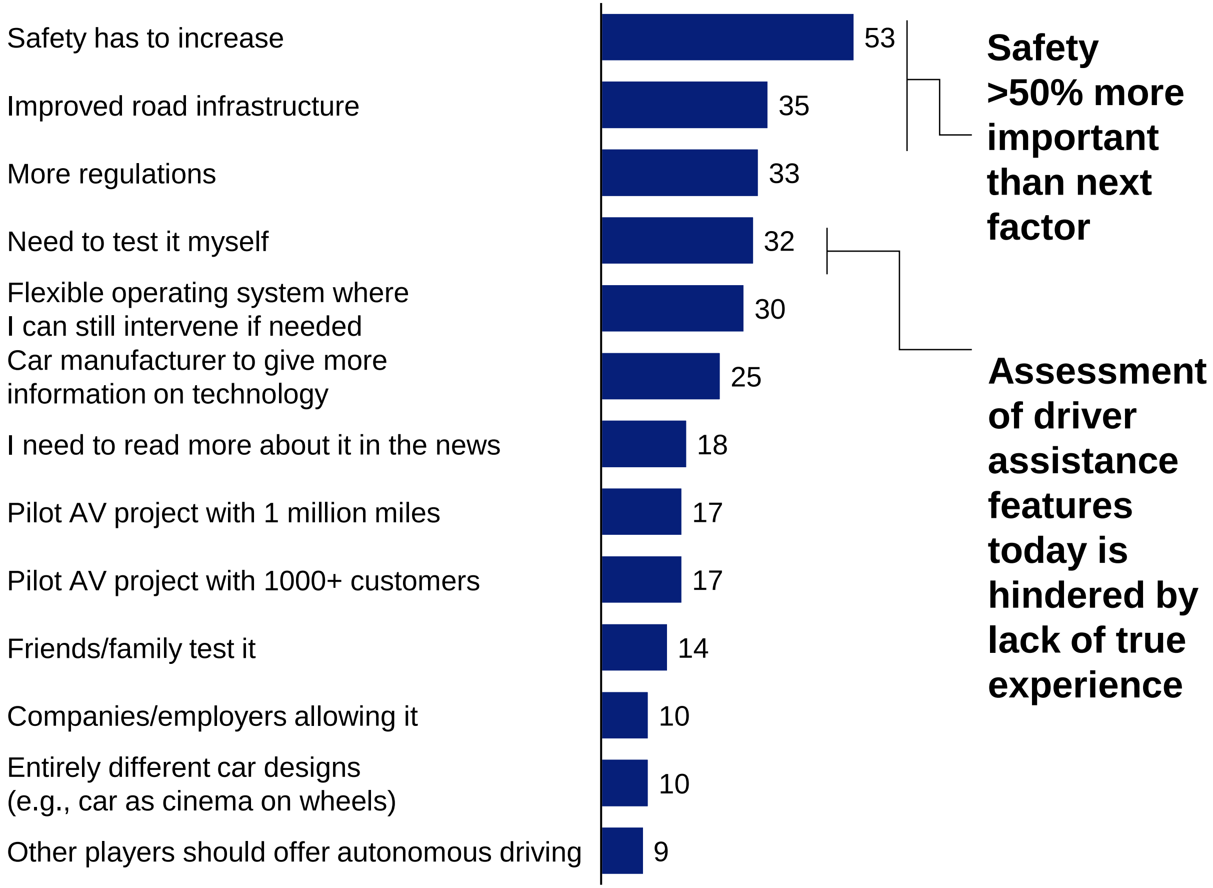
Data available for:

Overall readiness to adopt autonomous driving technology varies across markets, safety is the biggest concern

Agreement to government legalization of fully autonomous cars on the roads
Share of respondents



Main roadblocks to adopt autonomous driving technology
Share of global respondents

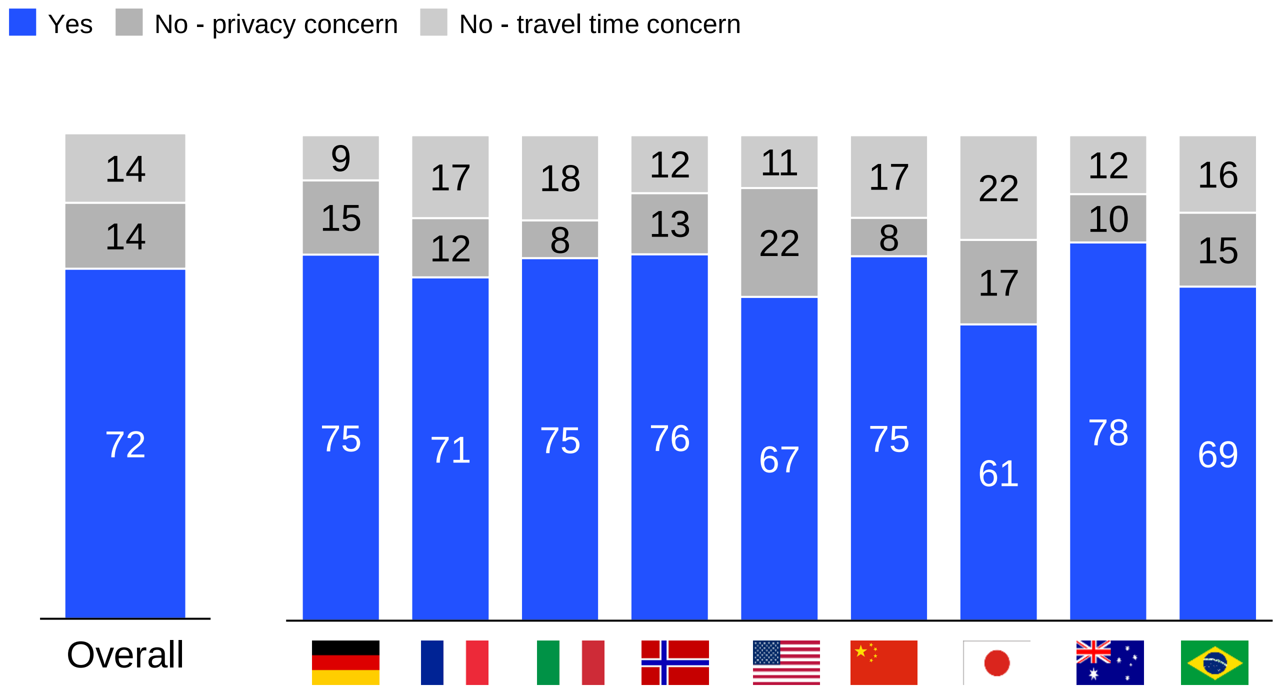


Source: MCFM Mobility Consumer Insights, Annual MCFM Mobility Consumer Survey 2024, dated February 2024, global N = 36,954
Data available for:

Majority of urban mobility users is open to using shared autonomous shuttles

Consideration to use shared autonomous shuttles

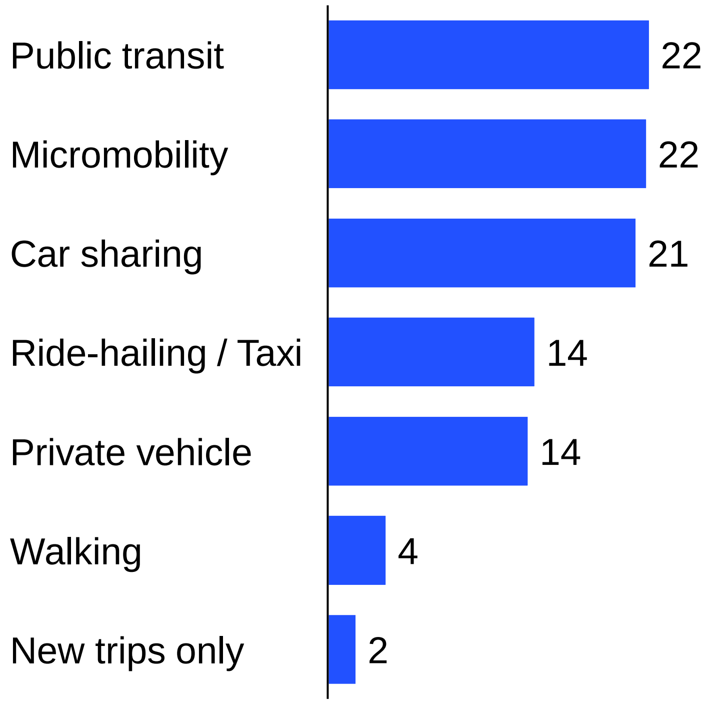
Share of urban respondents



Would you share a Robo-shuttle service with 4-8 passengers if it would add not more than 10-15% to your travel time and saved you 50% of the cost?

Mobility mode replaced by shared AV shuttles

Share of global urban respondents who consider using AV shuttles



Which transport mode are you currently using for the trips that you plan to use a robo-shuttle for in the future?

Source: MCFM Mobility Consumer Insights, Annual MCFM Mobility Consumer Survey 2024, dated February 2024, global N = 36,954

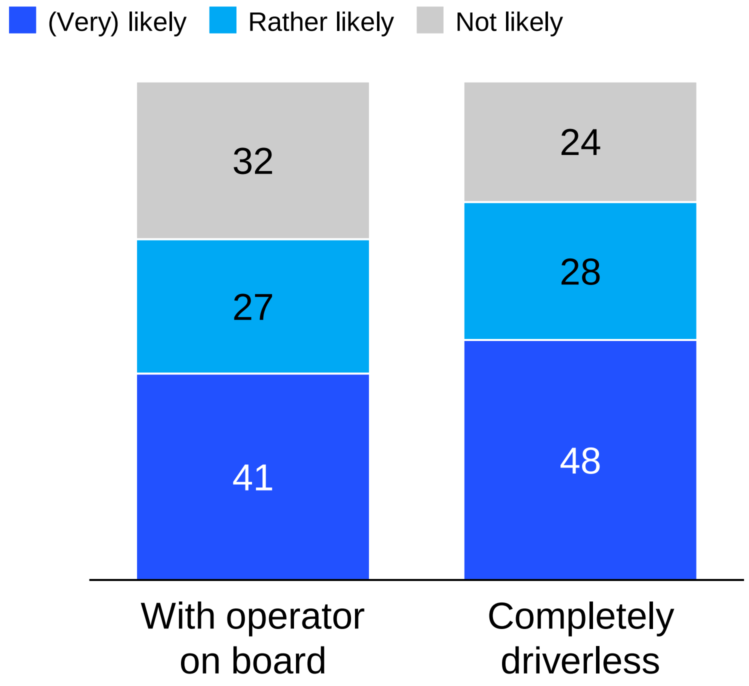
Data available for:

Consumers are open towards autonomous taxi services and most expect to pay less than for a traditional taxi

Global insights

Consideration to use autonomous taxis

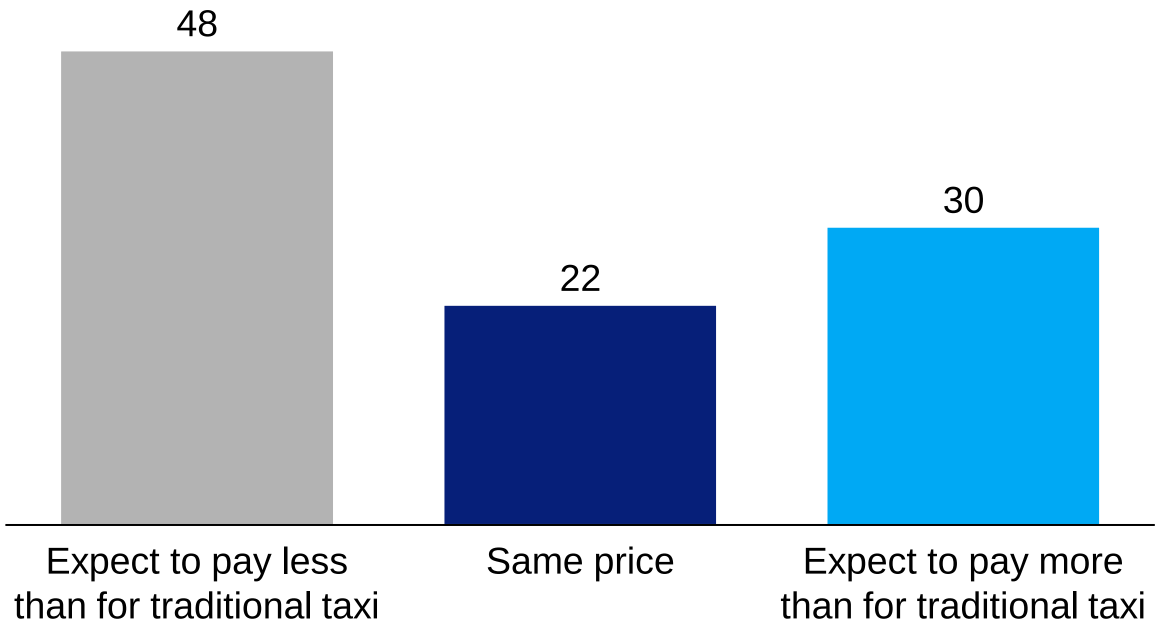
Share of respondents



? *Provided the technology is safe and service operations are reliably established, how likely are you to use autonomous taxi services?*

Price expectation for autonomous taxis vs. traditional taxi

Share of respondents who consider using



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Data available for:

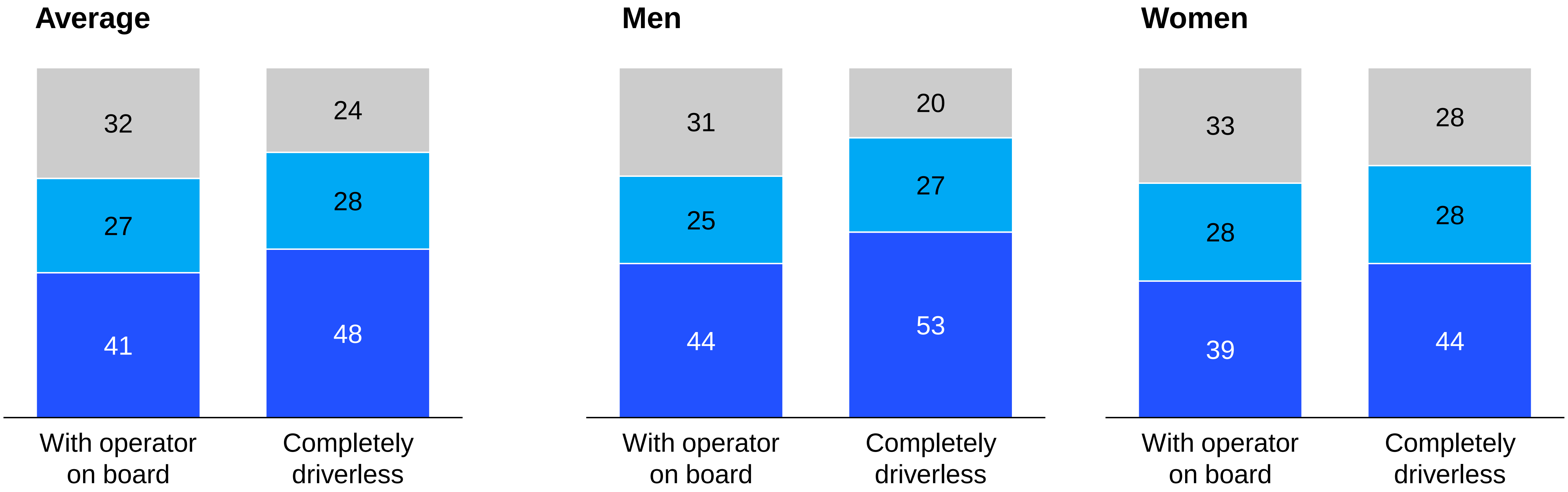
Consumers are open towards autonomous taxi services and most expect to pay less than for a traditional taxi

Global insights

Consideration to use autonomous taxis

Share of respondents

(Very) likely Rather likely Not likely



Provided the technology is safe and service operations are reliably established, how likely are you to use autonomous taxi services?

Source: MCFM Mobility Consumer Insights, Annual MCFM Mobility Consumer Survey 2024, dated February 2024, global N = 36,954
Data available for:

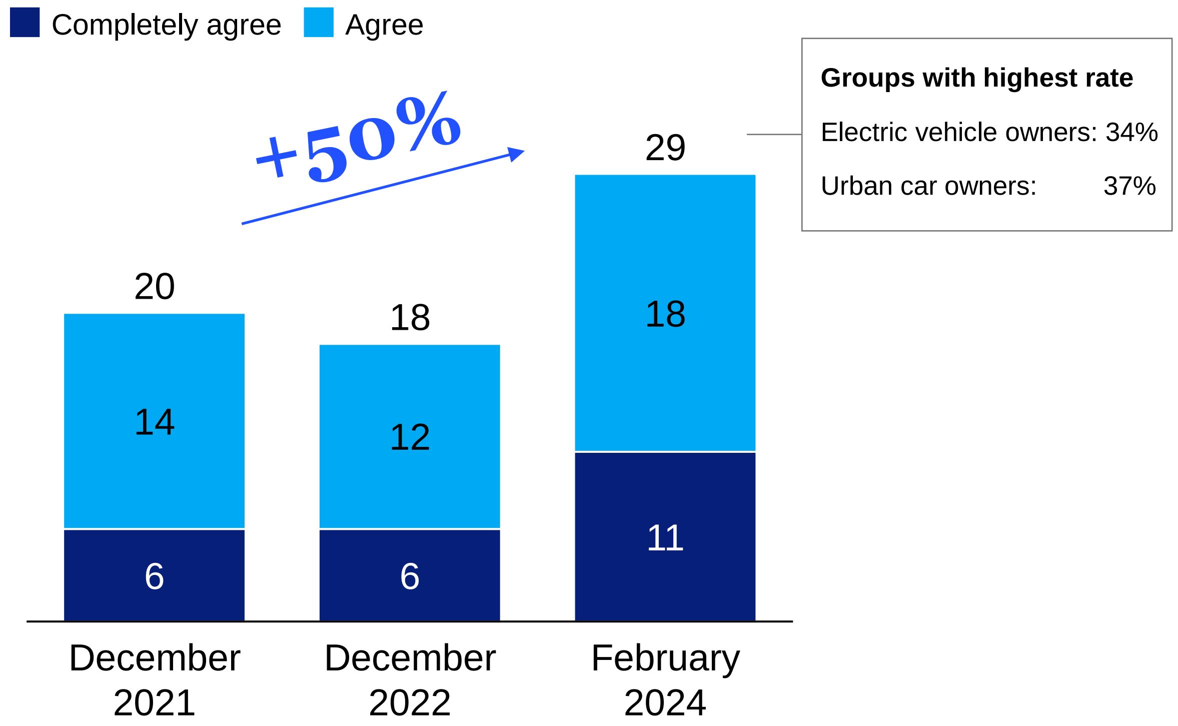
Contents

29% want to replace their car by other forms of transport in the future – driven by cost and sustainability concerns

Global insights

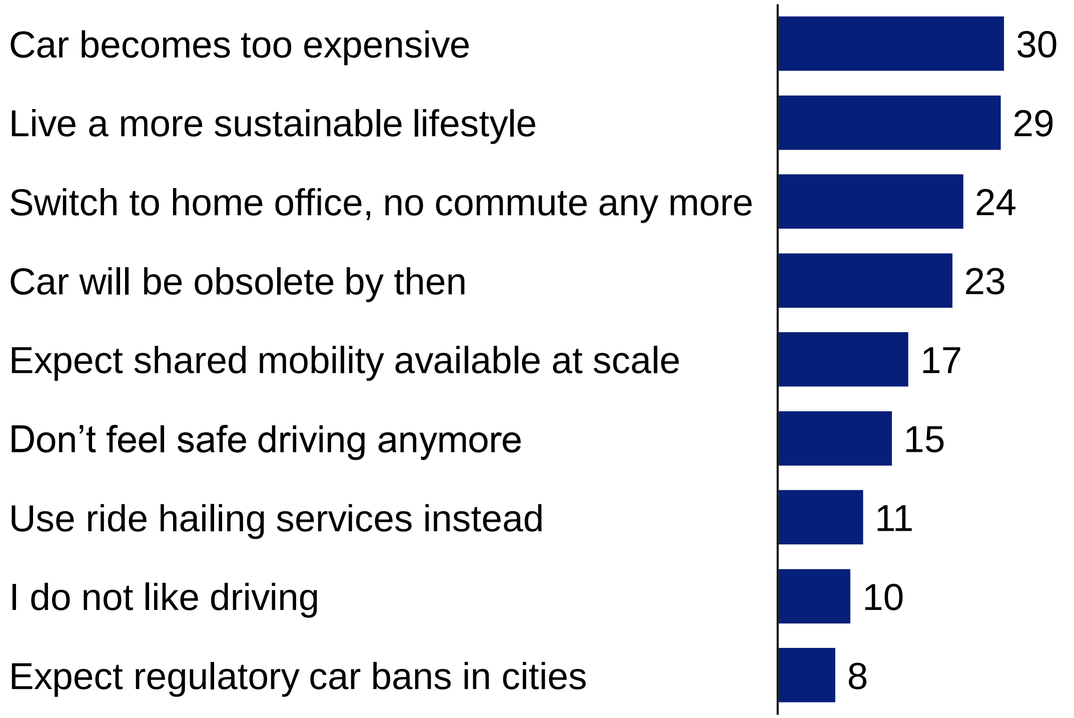
“Within the next 10 years, I will **replace my private vehicle completely** with other forms of transport.”

Share of respondents, who own a car



Main reasons to replace car entirely in the future

Share of respondents, who own a car



Source: MCFM Mobility Consumer Insights, Annual MCFM Mobility Consumer Survey 2024, dated February 2024, global N = 36,954

Data available for:

Stop counting cars and start counting users – classical ownership shifts to an access and usership mindset

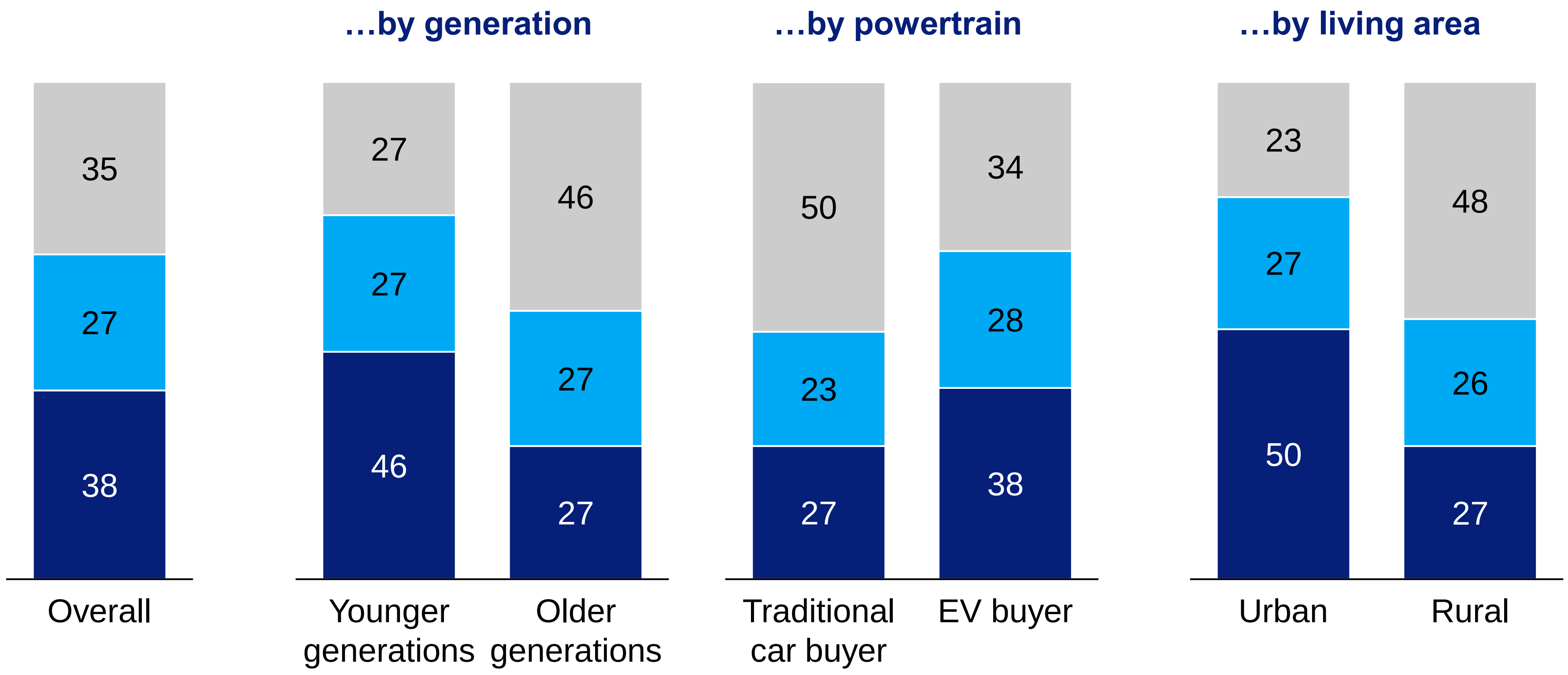
Global insights

Consumer sentiment on flexible mobility ownership

Share of respondents

Do not agree | Rather agree | (Completely) agree

*Within the next 10 years, I want **flexible usership models** to be in place so that I **only pay for the rides I take with a private vehicle**.*



Source: MCFM Mobility Consumer Insights, Annual MCFM Mobility Consumer Survey 2024, dated February 2024, global N = 36,954

Data available for:

The McKinsey Mobility Consumer Pulse listens to the consumer heartbeat across the main future mobility themes

On-demand mobility consumer insights

100,000+ consumer data points each year to gauge future mobility consumer sentiment

Regular global mobility consumer pulse

Regular primary consumer research using online panels: thematic deep dives every two months, one big annual survey

Collecting more than 100,000 consumer data points each year – covering wide range of mobility topics across B2C/B2B ecosystem

Working together with world-class consumer research agencies

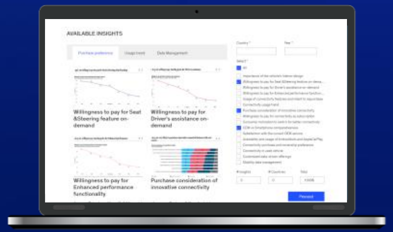
Integrated MCFM consumer data lake

One data lake with harmonized data structure and labeling across the best of our MCFM consumer knowledge

Central access to historic trajectories of more than 5 years on selected dimensions to capture consumer trends and speed of mobility evolution

Tableau-based analytics interfaces for rapid data access

Tableau Workbench tools as flexible data exploration and analytics interface to rapidly work with mobility consumer data



McKinsey Mobility Insights Portal