EY Mobility Consumer Index (MCI) 2023 study

Building a better working world

EY Mobility Consumer Index 2023

- Launched in 2020, the EY Mobility Consumer Index (MCI) is an annual study that provides unique insights on the shifts witnessed in travel patterns and mobility mix.
- Based on a global survey of respondents, the MCI also aims to gauge the car-buying intent, analyze the pace of shift toward the adoption of electric vehicles, and assess the consumers' car-buying journey process.

Survey locations

Americas	Asia-Pacific	Europe
Brazil	Australia	Austria
Canada	China	France
Mexico	India	Germany
US	Japan	Italy
	New Zealand	Netherlands
	Singapore	Norway
	South Korea	Spain
		Sweden
		UK

Added in 2023 study

Survey details

- 20 countries
- 15k respondents
- Conducted in March 2023

Themes covered

- Mobility/travel behavior
- Car buying and powertrain
- Electric vehicles, Connected vehicles and sustainability
- Retail analysis

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1 Changing lanes: evolving mobility behavior

Wave 4

Share of respondents working remotely registered a decline as the shift toward return to office becomes increasingly evident

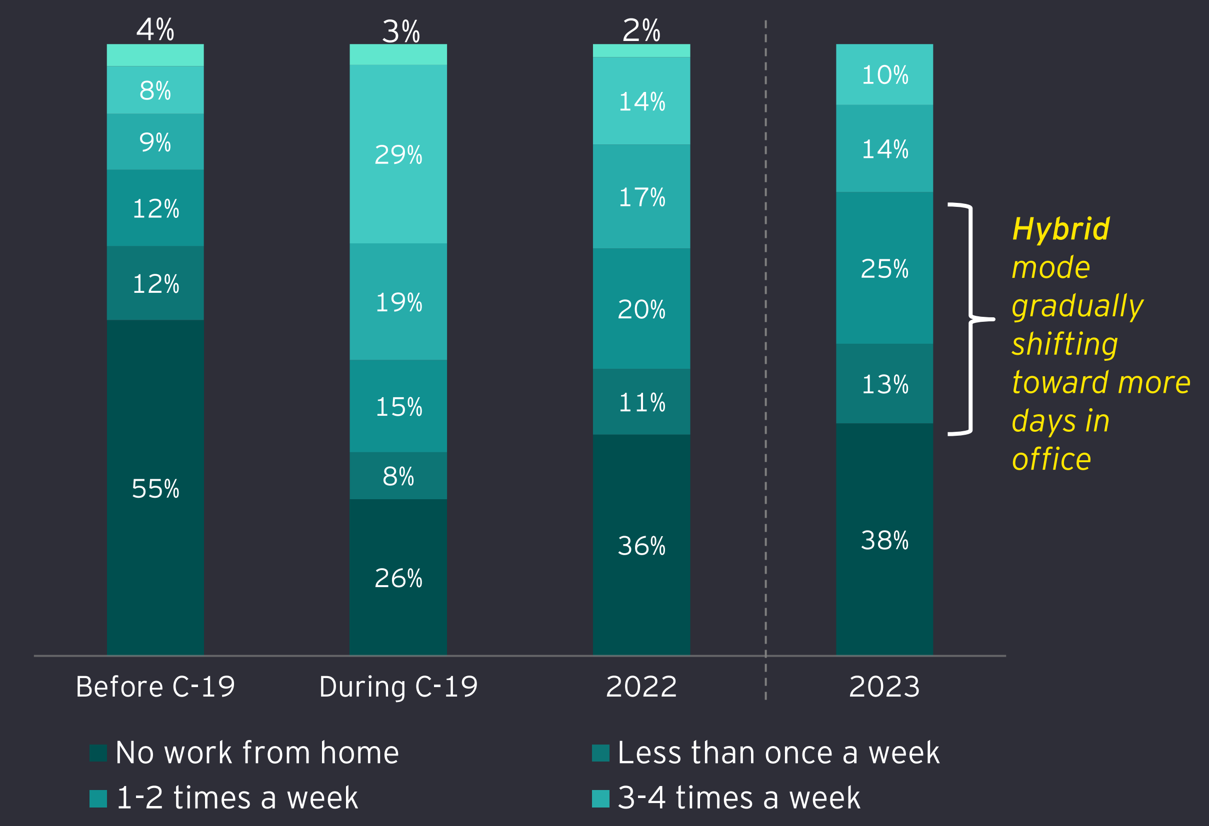
How often do you work or study remotely/from home now?

% of people working remotely at least 3 or 4 times a week

	Before Covid-19	During Covid-19	Now
2021 study	17%	73%	32%
2022 study	17%	48%	31%
2023 study	—	—	24%

Note: Work travel includes travel for work and study

Shift in work frequency patterns



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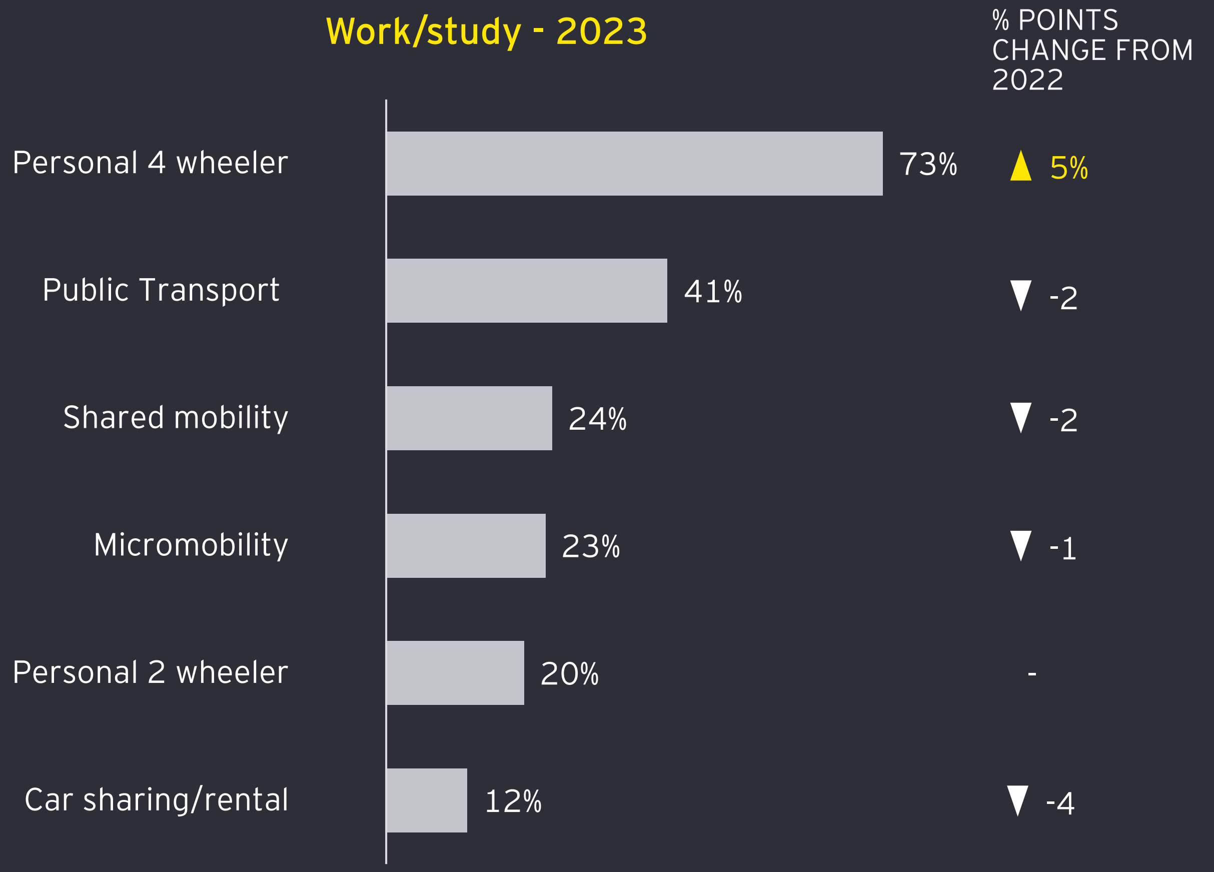
Wave 4

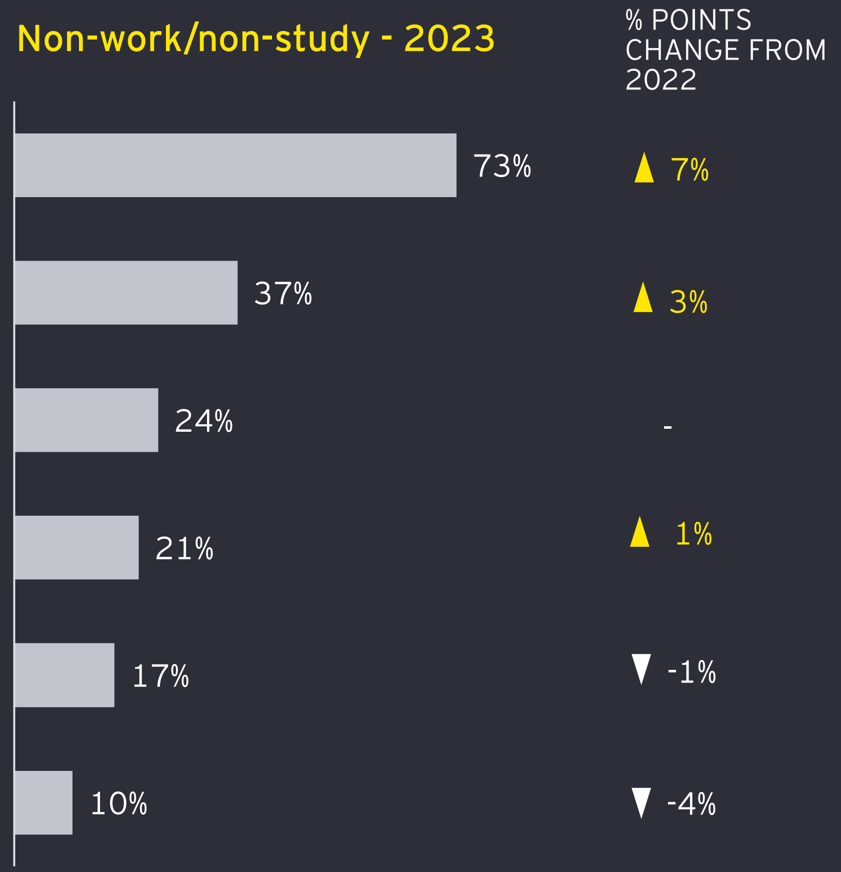
Respondents indicate an increase in use of personal cars for both work/study and non-work/non-study travel

How frequently do you now travel for work or study using the following modes of transportation?

% share of respondents using a specific mode at least once a week



% share of respondents using a specific mode at least 1-2 times a week



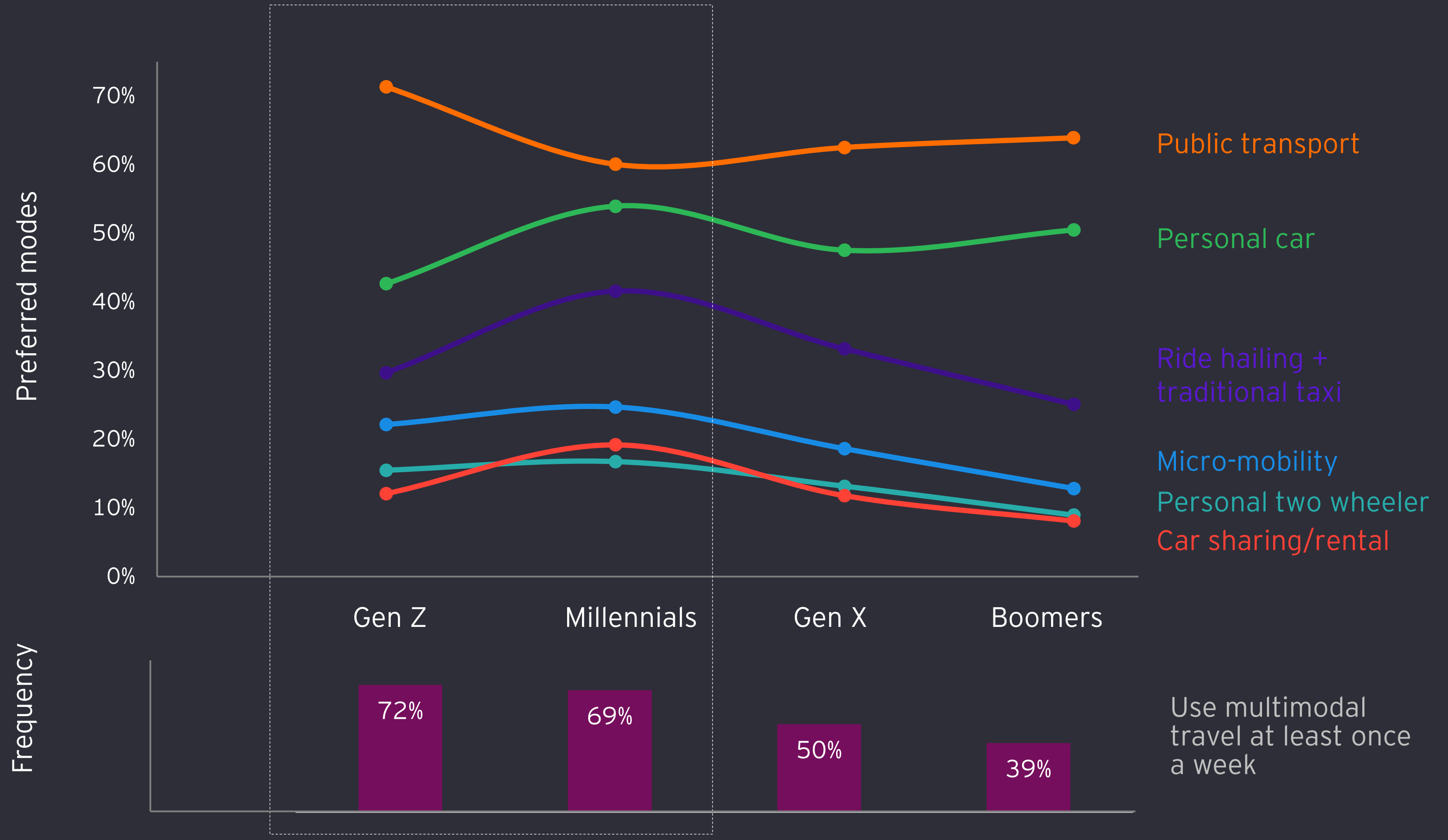
Note: Shared mobility includes private and shared ride hailing + traditional taxi service; micromobility includes personal and shared e-scooters/bikes.

Gen Z and millennial respondents are more inclined toward multimodal travel and primarily prefer public transport, personal cars and shared mobility for it

When you use multiple modes of transport in the same trip, which of the following do you typically use? Please select all that apply.

Preferred modes for multimodal travel and frequency of use (at least once a week)

% of respondents



- Gen Z is much more receptive to diverse modes of travel or hybrid mobility.
- While increasing aspirations around sustainability drive their inclination toward public transport, they haven't completely rejected the use of a personal car.
- In the case of millennial respondents, shared and micromobility also play a prominent role in shaping multimodal travel preferences.

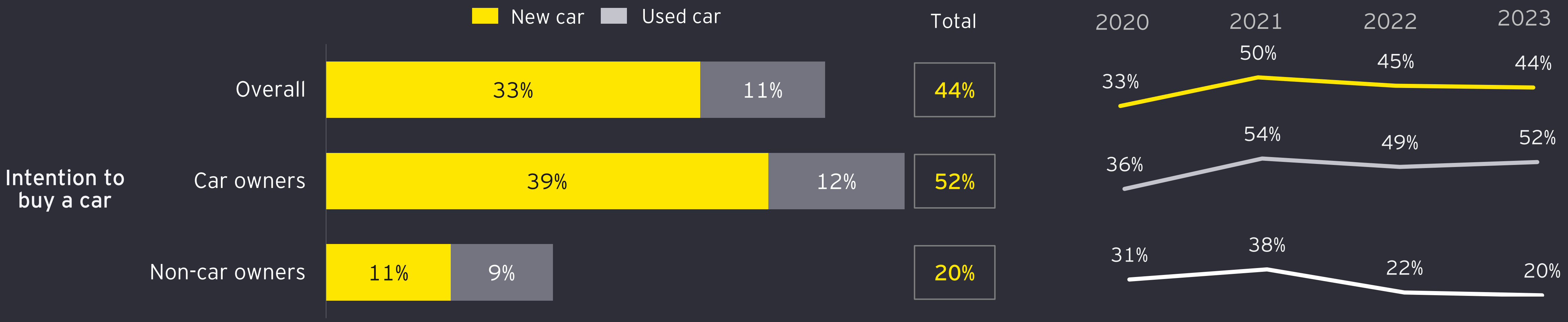
2

Driving forward: car demand stays steady

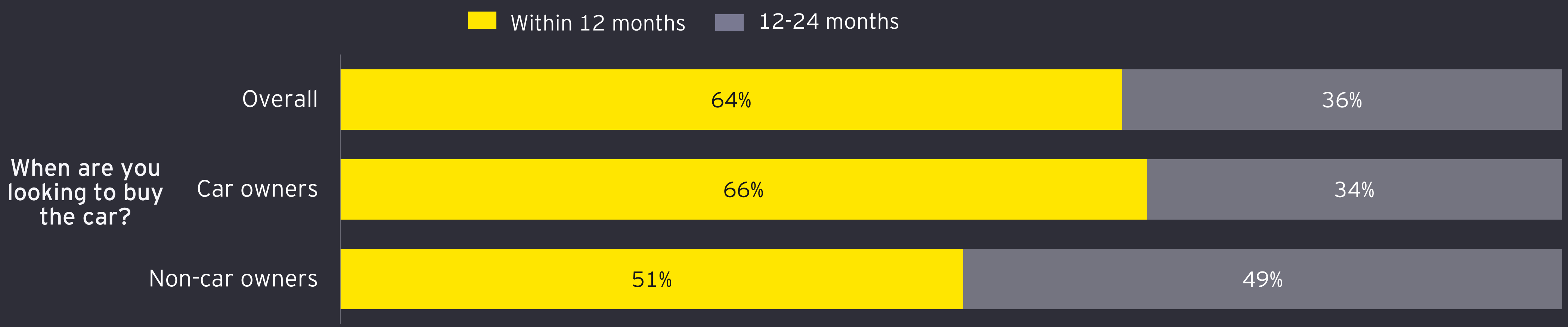
Car-buying intent continues to be strong: While the share of non-car owners intending to buy new cars declined by 2%, the same for car owners registered a 3% increase (y-o-y)

How likely are you to purchase a car in the next 24 months?

Car-buying intent (% of respondents choosing extremely likely and somewhat likely)



When would you make the purchase of your next car?

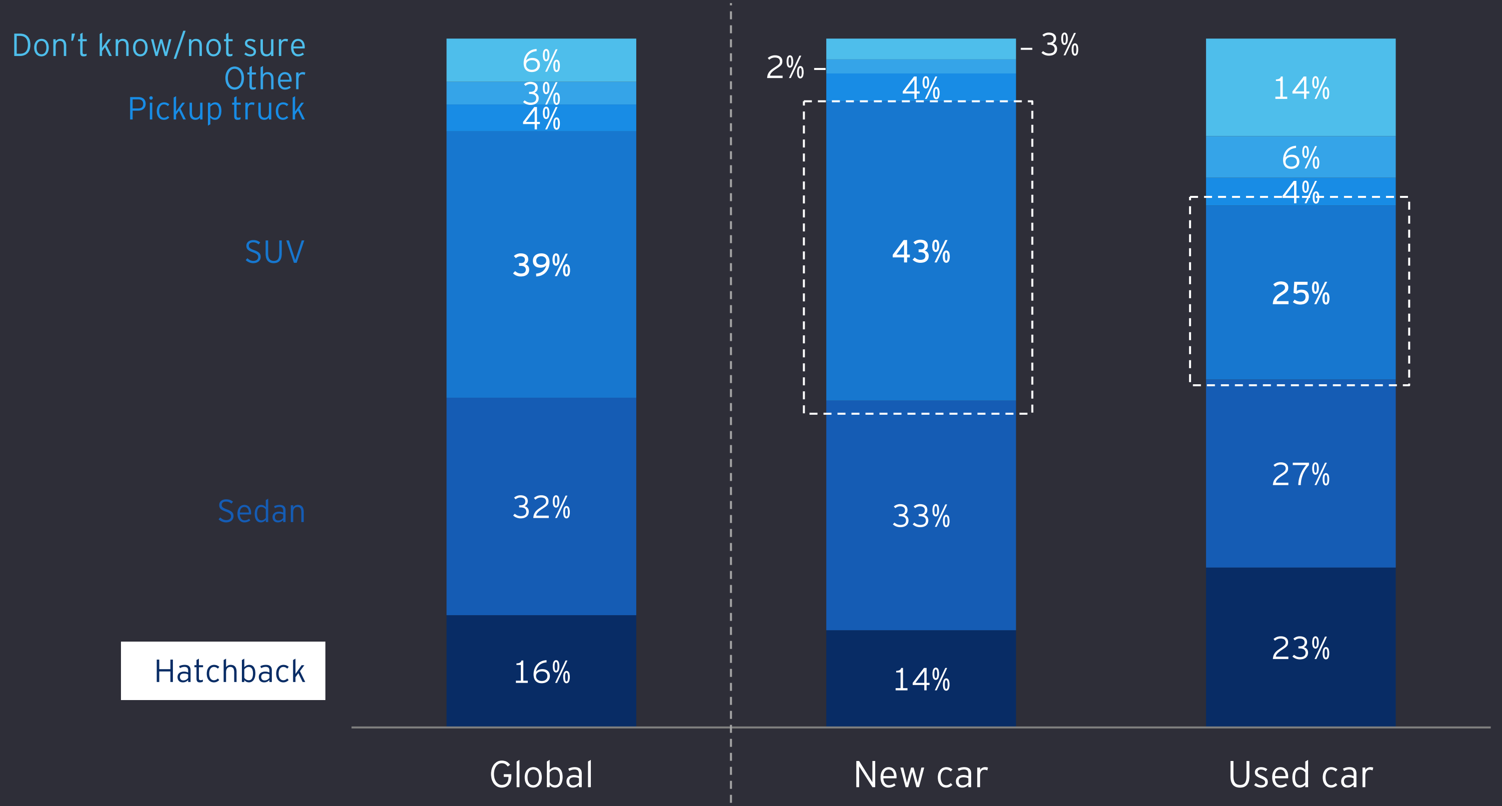


Note: In the survey, 76% of respondents were car owners , while the remaining 24% were non-car owners

Car body style: While 43% of respondents intending to buy new cars favor SUVs, the style preference-mix for used cars is evenly distributed (SUVs, sedans and hatchbacks)

What kind of car (body style) are you planning to buy?

% share of respondents



- SUVs dominate new car purchase intention.
- In the case of used cars, however, preference is well distributed across major body types (hatchbacks, SUVs and sedans).

- According to the IEA, over 400 EV models were available on the market in 2022, and over half of these (~55%) were SUVs.

3

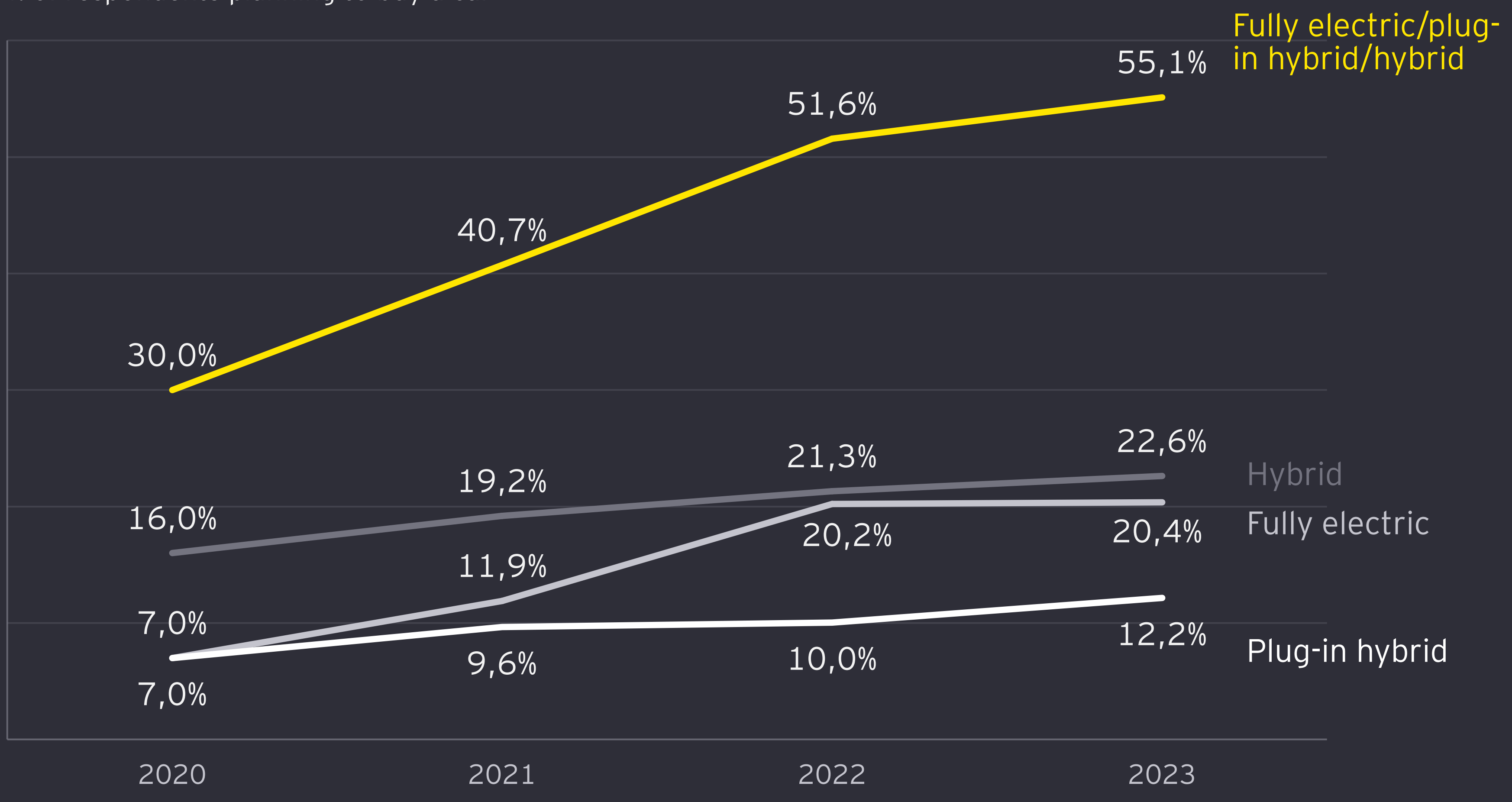
EVolution: consumer confidence gains momentum

Purchase intention for EVs (BEV, hybrid and plug-in hybrid) continues to increase, signaling an ever-growing consumer confidence

You indicated you are planning to buy a car; which of the following car fuel types are you most likely to buy?

EV-buying intent

% of respondents planning to buy a car



Rising consumer intent for EVs

Consumer confidence in EVs has increased significantly in the markets such as US, Sweden and Japan.

Strong EV interest reflected in sales volume

In 2022, the global market share of EVs reached 18% from 7% in 2020. However, in Norway, the market share reached nearly 80%.

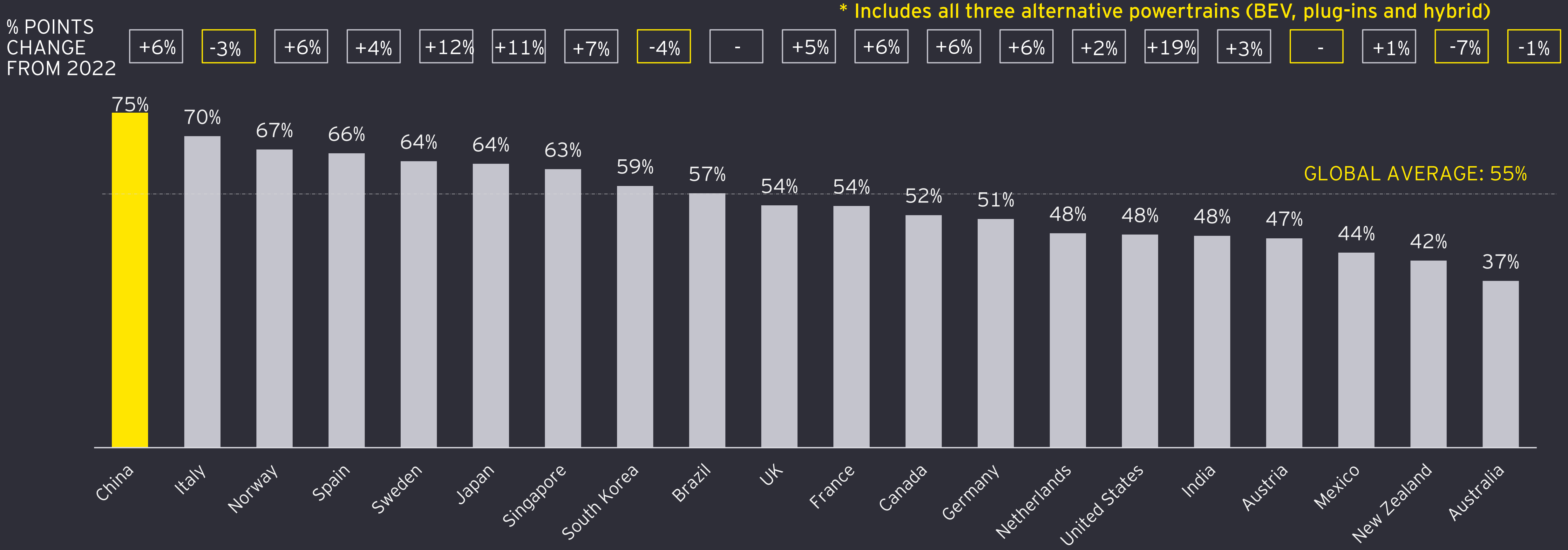
Increased government push

Around 20 key markets have set electrification targets and, under COP26, about 60 countries, including the EU have made net-zero pledges to 2050.

Wave 4

EV-buying intent across geographies witnessed a spike due to factors such as favorable government incentives, price cuts and lower cost of ownership

You indicated you are planning to buy a car; which of the following car fuel types are you most likely to buy?



- US: The Inflation Reduction Act provide a tax incentive to up to US$7,500, which is expected to further increase the EV uptake from 10.6% of all vehicles sold in 2022 to 14.9% in 2023.
- Nordics: The region has been a front-runner in EV adoption, with manufacturers producing high quality EVs and encouraging more consumers to consider them as a viable alternative.

Wave 4

Motivators: High fuel prices, rising environmental concerns and penalties on ICE vehicle are emerging to be the key motivators for potential EV buyers

Why are you considering buying an/another EV? (in the next few years).

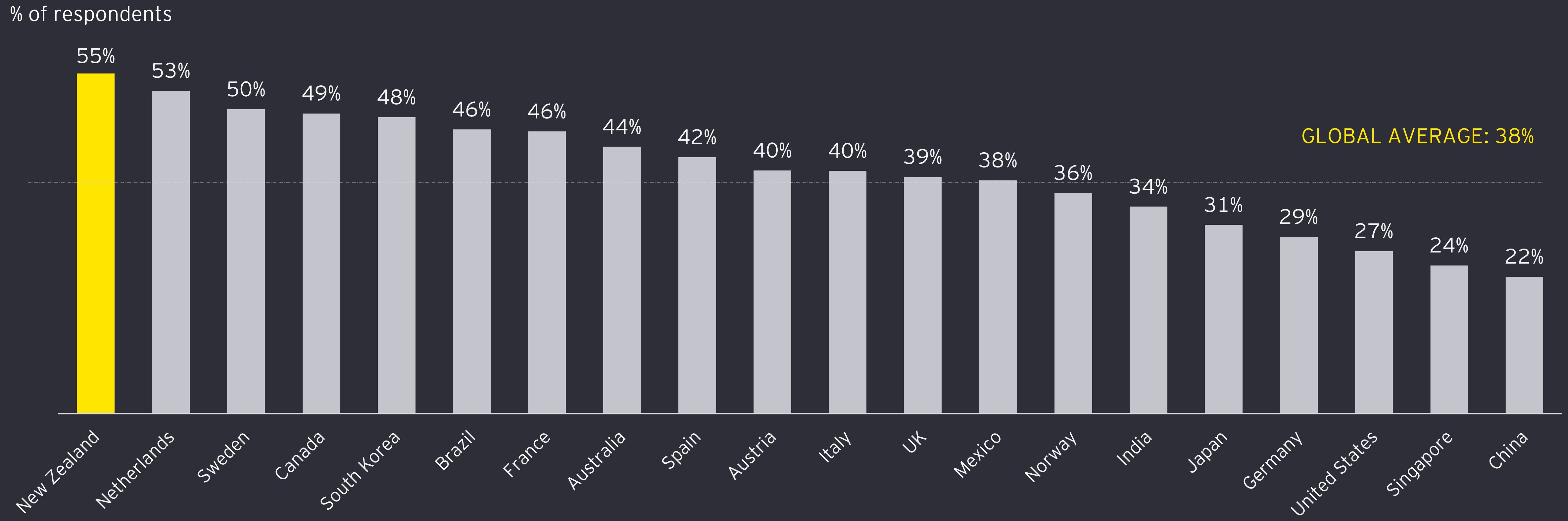
TOP FIVE MOTIVATORS FOR RESPONDENTS TO BUY AN EV

2021 study	2022 study	2023 study
49% Environmental concerns	38% Environmental concerns	38% High fuel/oil/gas prices
29% Monetary incentives	34% Rising penalties on ICE	36% Environmental concerns
28% Longer range	25% Monetary incentives	25% Rising penalties on ICE
28% Better charging infrastructure	25% Cost of ownership	21% Longer range
26% Cost of ownership	24% Longer range	21% Cost of ownership

Note: Figures indicate the sum of the top three ranks of the share of responses per category.

High fuel/oil/gas prices have become a significant driving force for EV adoption among consumers

High fuel/oil/gas prices as a key motivator for purchasing an EV*



EVs* include BEVs, PHEVs and hybrids.

Note: Figures indicate the sum of the top three ranks of the share of responses per category.

4

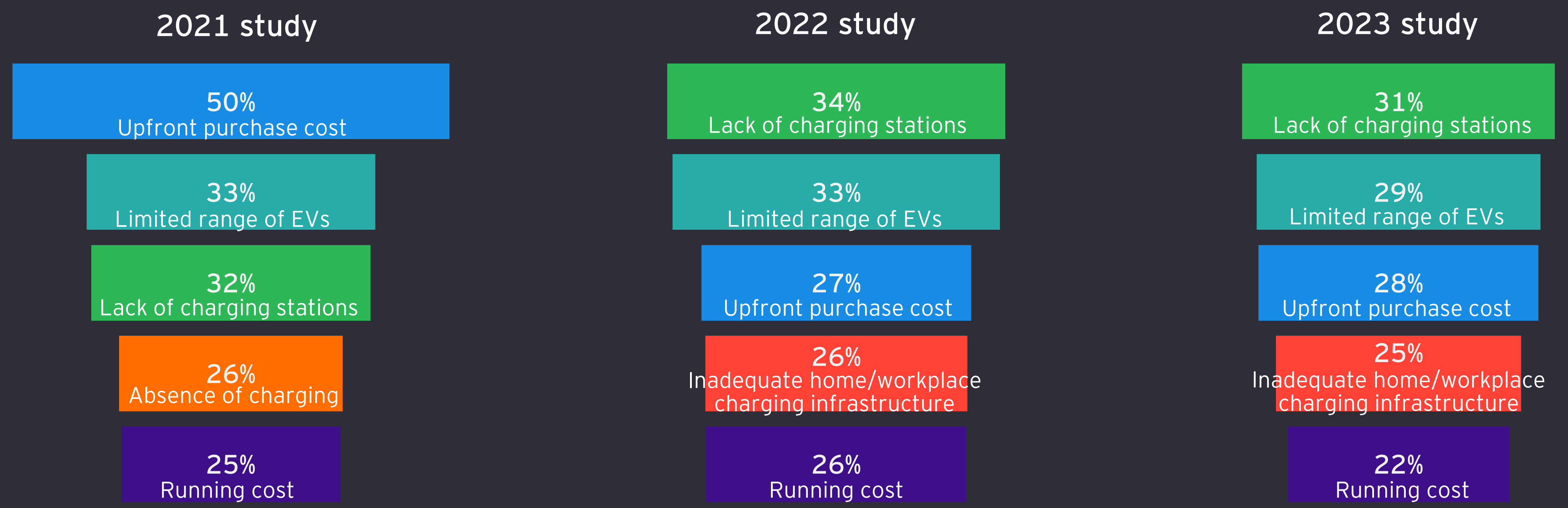
Powering progress: chargers aren't home yet

Wave 4

Concerns: Favourable government subsidies have reduced upfront purchase cost for EVs; however, lack of charging infrastructure and range anxiety continue to be the key deterrents for consumers

Why are you not considering buying an EVs for your next car purchase?

TOP FIVE CONCERS FOR RESPONDENTS TO BUY AN EV



- At the grid level, lengthy permitting processes, compounded by bureaucracy and a lack of standardized procedures, is delaying the charging infrastructure deployment in a few key markets.
- Countries such as France, Germany and the UK do not meet the AFID* recommended charger availability criteria (EV/EV Supply Equipment ratio of 10), due to the inadequate grid capacity and prolonged funding mandates.

*AFID: Alternative Fuels Infrastructure Directive

Note: Figures indicate sum of the top three ranks of the share of responses per category

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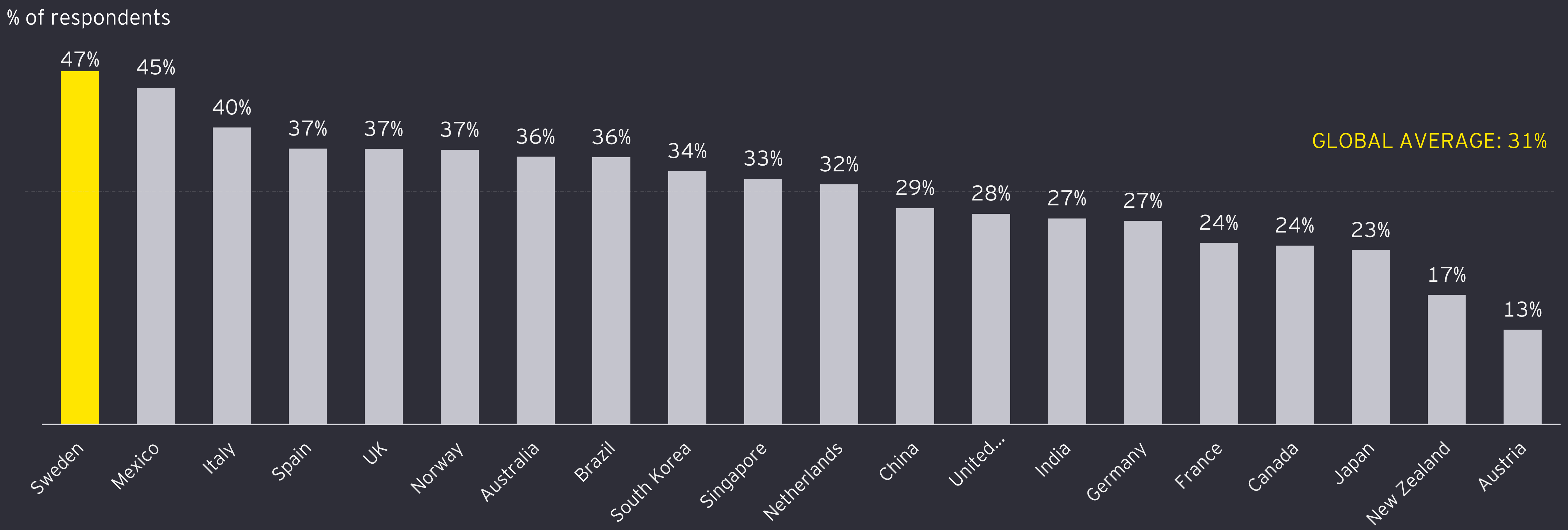
Lack of charging stations emerges as a prominent inhibitor that hinders consumer adoption of EVs

Lack of charging stations as a key concern for respondents not considering an EV



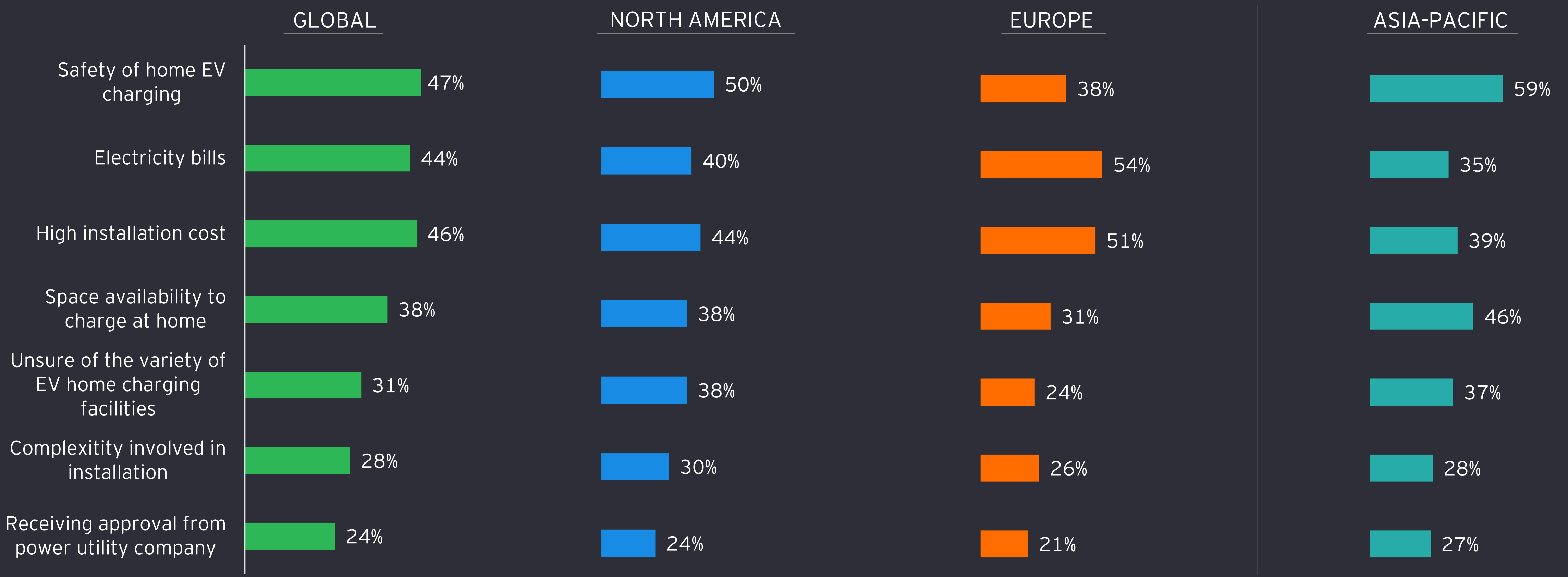
* EVs include BEVs, PHEVs and hybrids.

Note: Figures indicate the sum of the top three ranks of the share of responses per category.

Wave 4

The recent spike in energy costs has raised concerns among European respondents; high-rise dwellers in China have also expressed concerns about space availability for chargers

What is your main concern (if any) regarding at-home charging facilities for EVs?



- EU: Russia's war on Ukraine and its decision to suspend deliveries of fuel/gas to some EU Member States has pushed up the electricity price in the region, affecting nearly 54% of the surveyed consumers.
- China: As majority of Chinese respondents (78%) reside in a major metropolitan area (city center), space availability for home chargers is a major concern.

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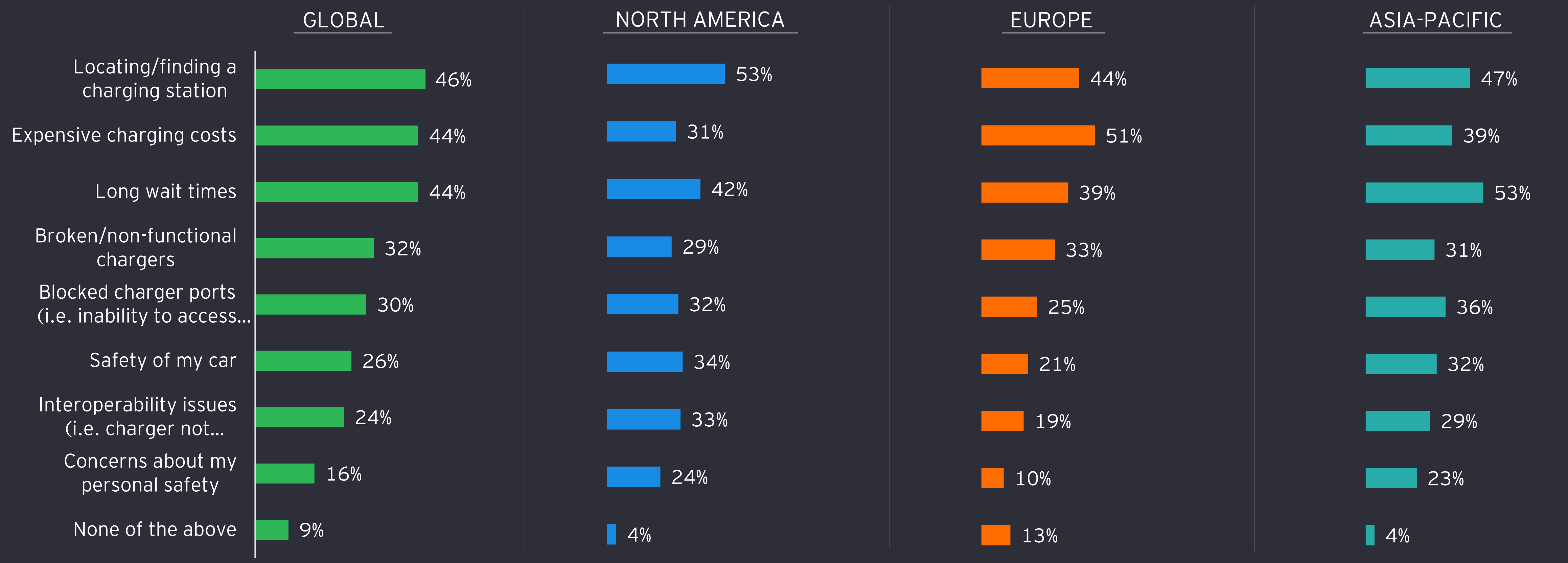
Wave 4

More than 50% of respondents in Europe consider charging costs as the key deterrent; high-rise dwellers in China are more concerned about the long waiting time

When it comes to charging an EV at a non-residential location/public charging facility, what would you say are the most important factors?



- EU: More than 50% of respondents from the EU have raised concerns about the high cost of charging. Cost per charge in a few European countries, such as Spain and Germany, is above US$25, compared with nearly US$16 in US and US$12 in Canada.
- China: Around 69% of buyers in China are apprehensive due to longer waiting times. Instances of a waiting time of up to four hours have led the government to drastically push battery swapping services in the country

5

Revving up retail: balancing online, offline and virtual experiences

Wave 4

While potential car buyers prefer an online channel for gathering vehicle information, dealerships continue to be prominent at other stages of the customer interaction lifecycle

Potential car buyers during vehicle purchase and aftersales

	Information gathering	Pre-purchase testing	Purchase	Customer care
Prominent channel	Offline / Online	Offline / Online	Offline / Online	Offline / Online
Offline *(dealerships/ showrooms)*	Interact with salesperson at dealership: 55%	Visit dealership to see and experience the car physically: 66% Visit multiple dealerships to get the best quote: 61%	Purchase car from dealership/ showroom: 61%	Visit authorized dealerships/ manufacturer to service the car: 58%
Online *(dealership/ OEM websites, third-party websites)*	Use dealership/OEM websites/ social media/third-party apps: 87%	AR/VR will make their car purchase decision easier: 30% Visit mobile pop-up stores/digitally advanced showrooms: 34%	Purchase car from online sources: 25%	Want car breakdown, tracking, recovery and emergency assistance-related features in their connected car: 62% Prefer scheduling maintenance services directly from the website/mobile app: 31%

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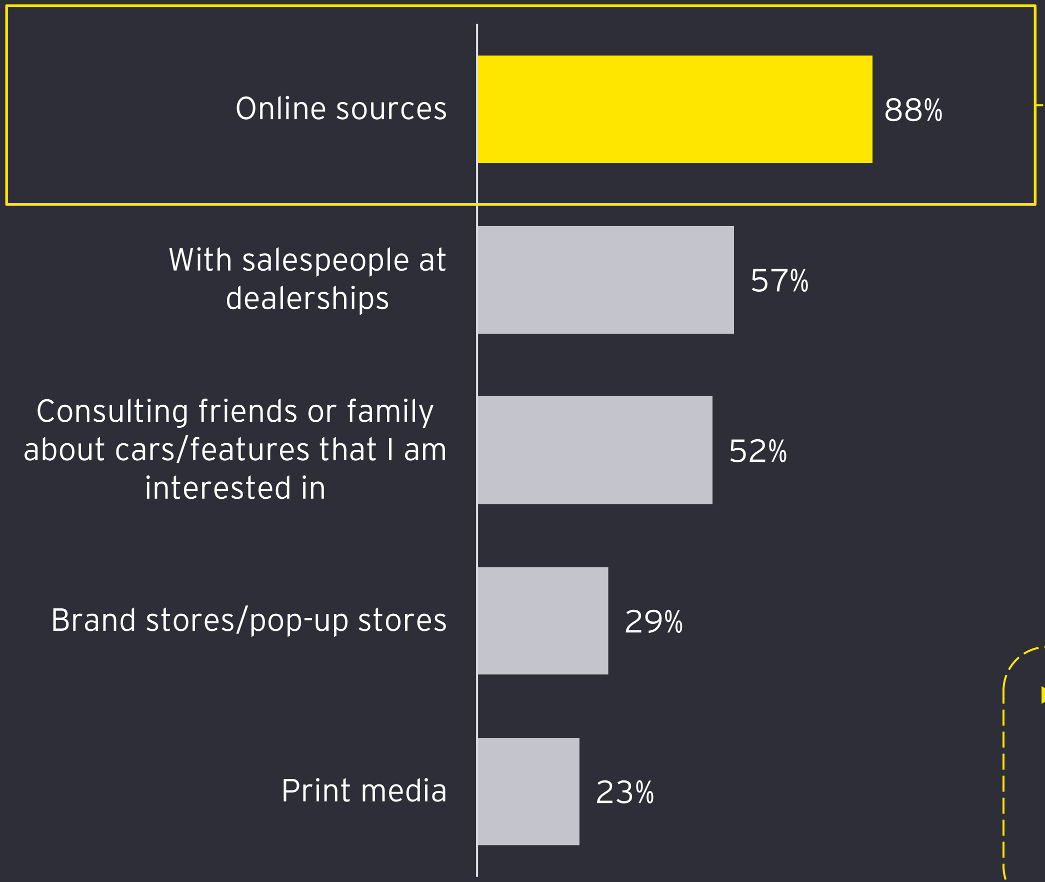
Wave 4

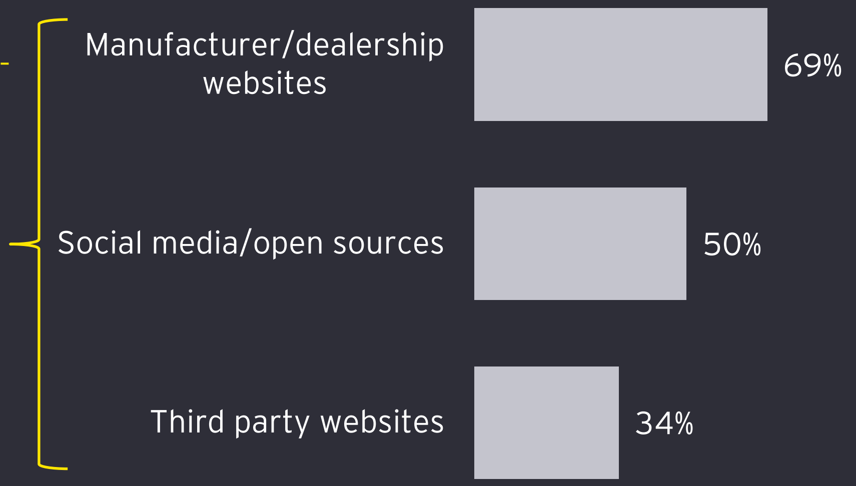
Almost 90% of potential car buyers research the vehicle online; dealers increase their investments in digital advertising

NEW CAR

Information gathering | Pre-purchase testing | Purchase | Customer care

How do you gather information before buying a car?





- Dealerships and automotive marketers look to maintain a strong online presence across a variety of digital channels to influence consumers across the purchase journey. In the US, automotive advertisers spent **~US$17 billion on digital advertising** in 2022.

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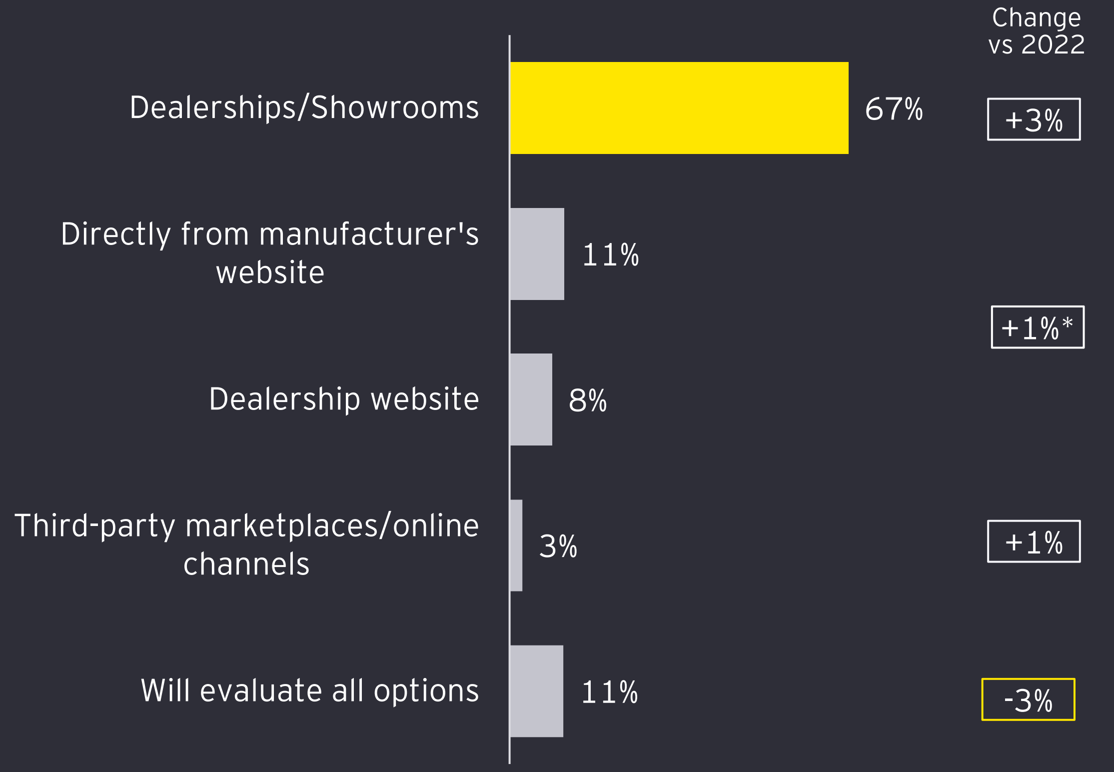
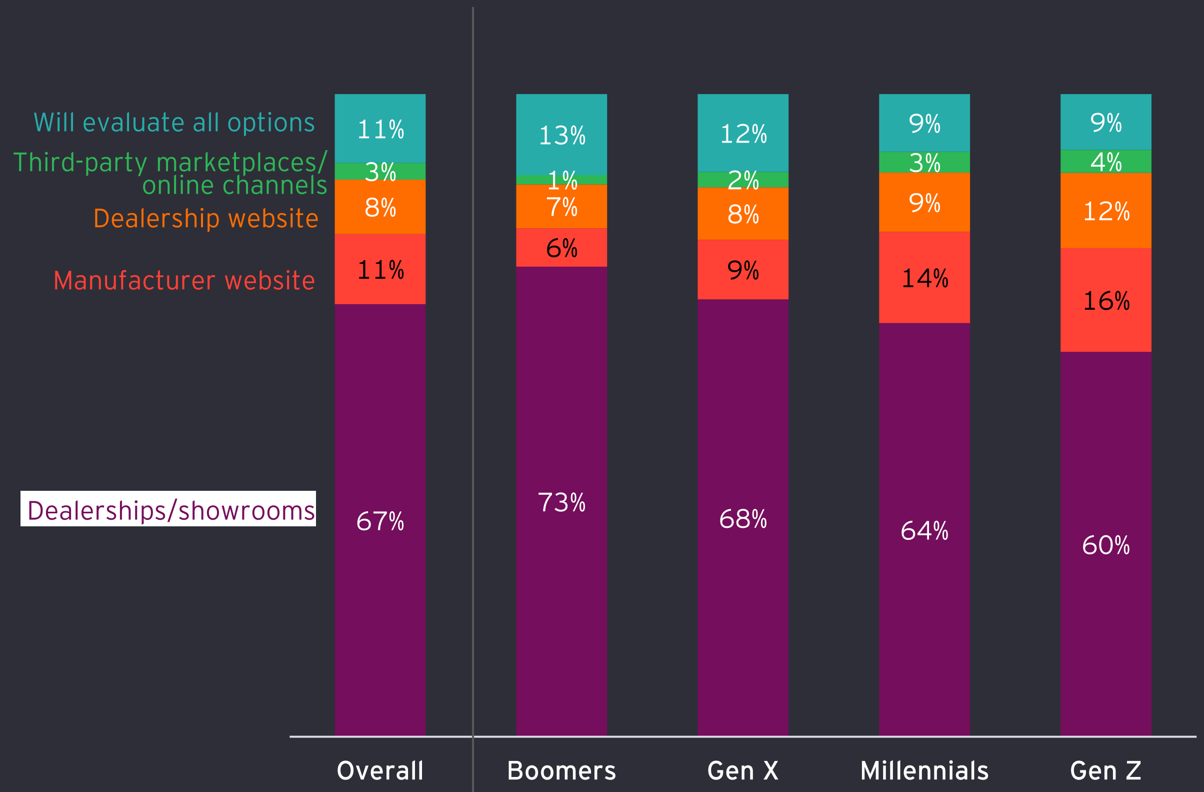
Dealerships/showrooms continue to be the preferred channel for purchasing a new car, reaffirming their importance in the buying journey

NEW CAR

Which option would you most likely choose when buying a new car?



By generation



"The dealer franchise system is the most consumer-friendly, efficient and effective model of distribution for motor vehicles in the US. Dealers are truly essential to the future of ICE and EVs … only a local dealership network can provide the personal relationship consumers want." - Mike Alford, National Automobile Dealers Association (NADA) Chairman

*Includes both manufacturer and dealership websites.

6 Connected but not convinced: consumer preference remains tepid

Wave 4

Real-time traffic alerts and car breakdown, tracking, recovery and emergency assistance emerge as the most important features in a connected car

Which of the features related to connecting the car to the internet would you use?

% POINTS CHANGE FROM 2022		
4%	62 %	Real-time traffic alerts/navigation
12%	62 %	Car breakdown, tracking, recovery and emergency assistance
5%	44 %	Location monitoring for security
5%	35 %	In-car entertainment
0%	29 %	Insurance premium based on driving data and behavior
0%	29 %	Automatic service alerts direct to or from dealer
2%	19 %	Over-the-air (OTA) updates for product improvement by a car manufacturer
1%	17 %	Notifications of discounts and recommendations for nearby shops and restaurants
4%	15 %	In-car payment features to enhance customer experience (e.g., automated payment)
1%	14 %	Location sharing for direct to trunk services (e.g., purchase of food, goods from an e-shop)

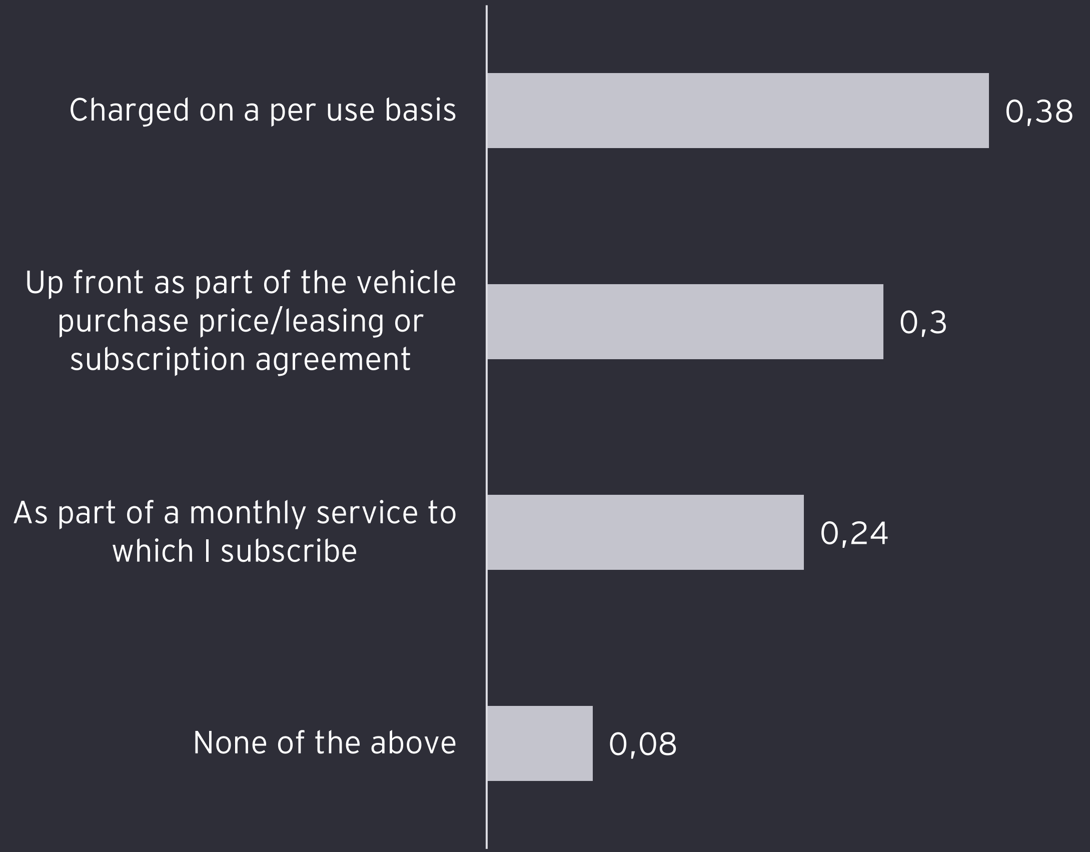
Wave 4

Consumers are willing to pay a premium only where they see a practical use case, such as emergency call; willingness to pay for "good to have" connected car features is low

Which of the following connectivity technologies are you willing to pay more for?

46 %	Safety features such as automated emergency call (in case of an accident)
28 %	Vehicle can self-diagnose/schedule service appointments
25 %	Communication technology to optimize traffic flow
24 %	Automatically find and pay for parking
24 %	Ability to connect to the internet to facilitate infotainment and personal communication activities

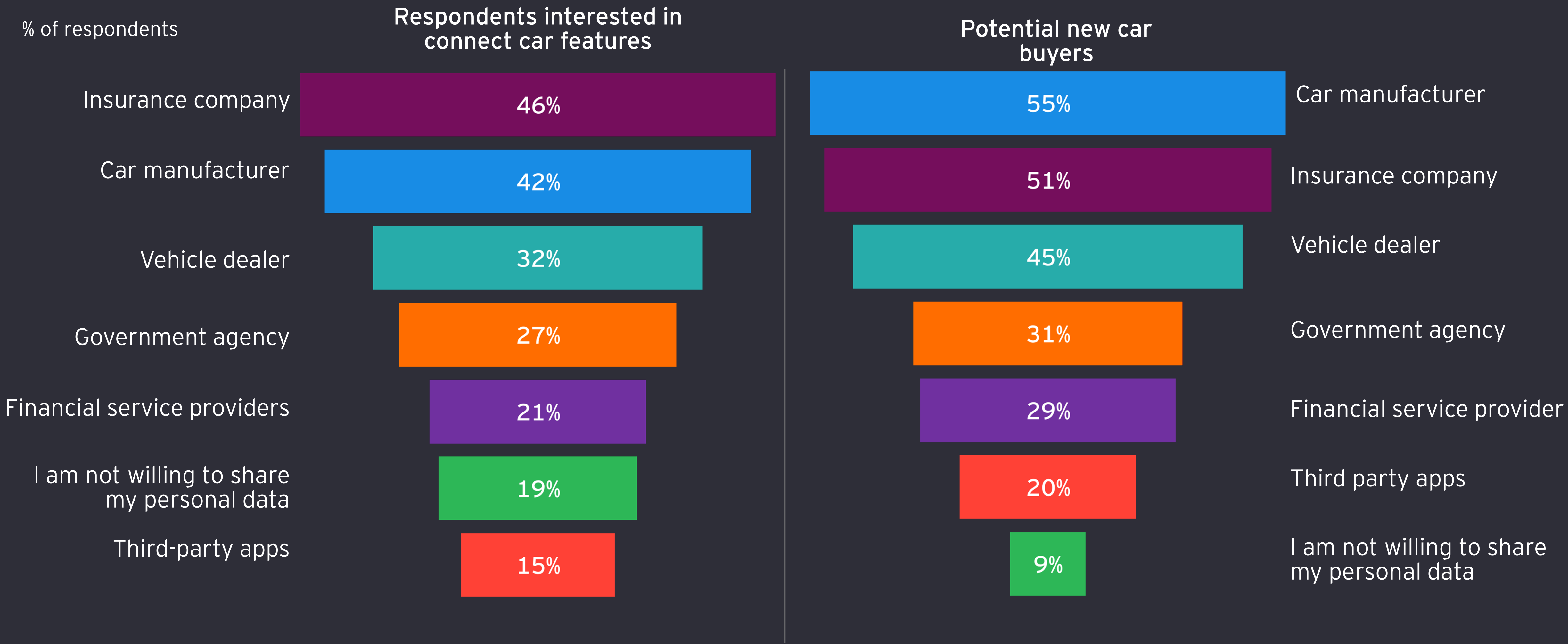
How would you prefer to pay for additional connectivity technologies in your vehicle?



Wave 4

Respondents interested in connected car features are comfortable sharing their personal data with car manufacturer, insurance company and vehicle dealer

Which of the following entities would you trust to access the personal data being generated?



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Enabled by data and technology, diverse EY teams in over 150 countries provide trust through assurance and help clients grow, transform and operate.

Working across assurance, consulting, law, strategy, tax and transactions, EY teams ask better questions to find new answers for the complex issues facing our world today.

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