



Continental Mobility Study 2011

Klaus Sommer
Hanover, December 15, 2011

Content Continental Mobility Study 2011

International requirements and expectations for E-Mobility

Urbanization

- ▶ What are the challenges of individual mobility for international megacities?
- ▶ What are the visions of urban planners for sustainable mobility?
- ▶ Which policy measures will promote the implementation of E-Mobility?

Usage Patterns

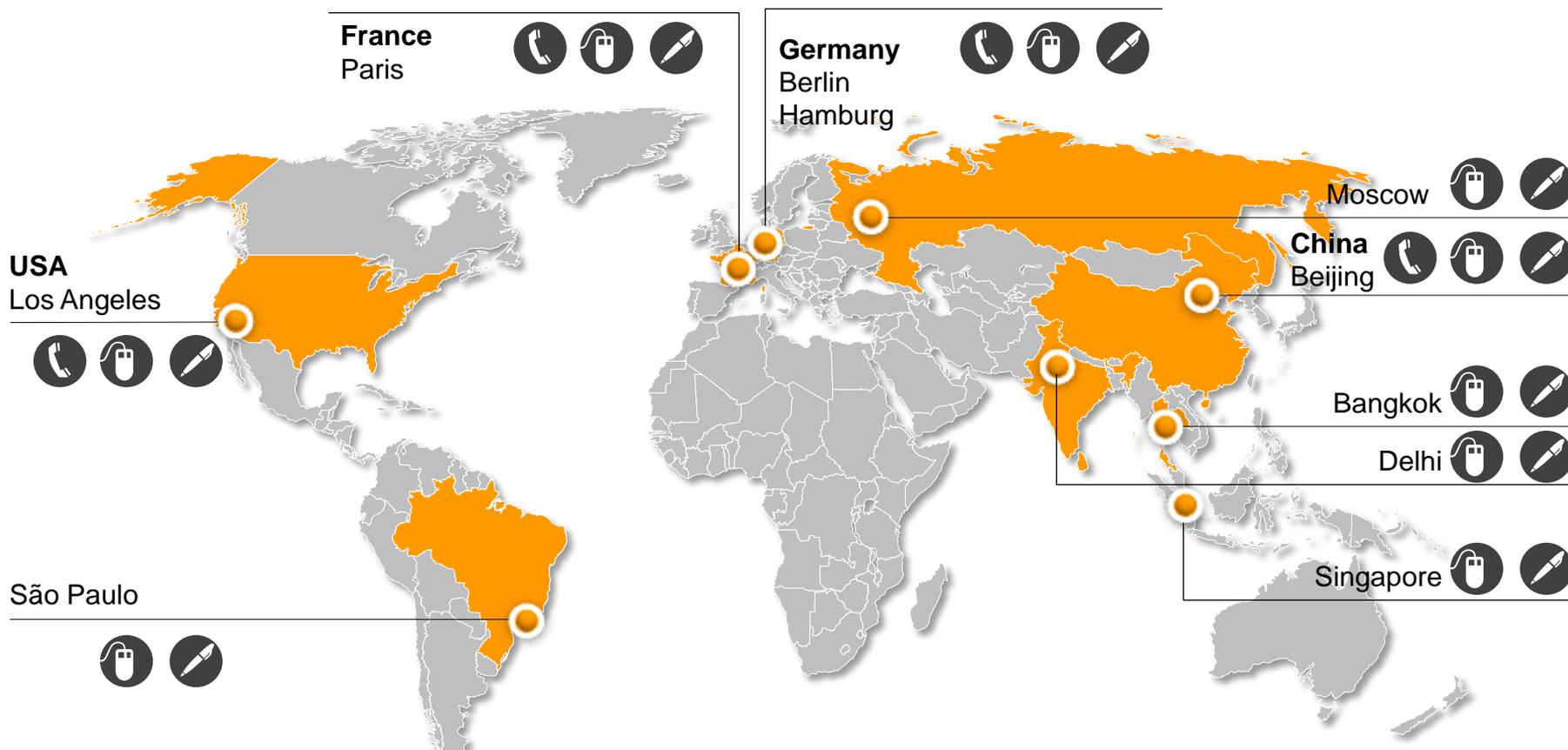
- ▶ Who uses the car and how?
- ▶ Are there regional differences in driving patterns?
- ▶ How much time do people spend in traffic jams?
- ▶ What are the requirements for hybrid and electric vehicles?

Customer Expectations

- ▶ Who expects what from a car?
- ▶ How to differentiate customer preferences by regions, car segments, driver age or vehicle manufacturer?
- ▶ How is mobility changing and what are the chances of new business models?

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Regional Coverage – 4 Countries and 10 Megacities



 Telephone interviews
(1,000 per country)

 Online interviews
young adults
(500 per megacity)

 Interviews with experts

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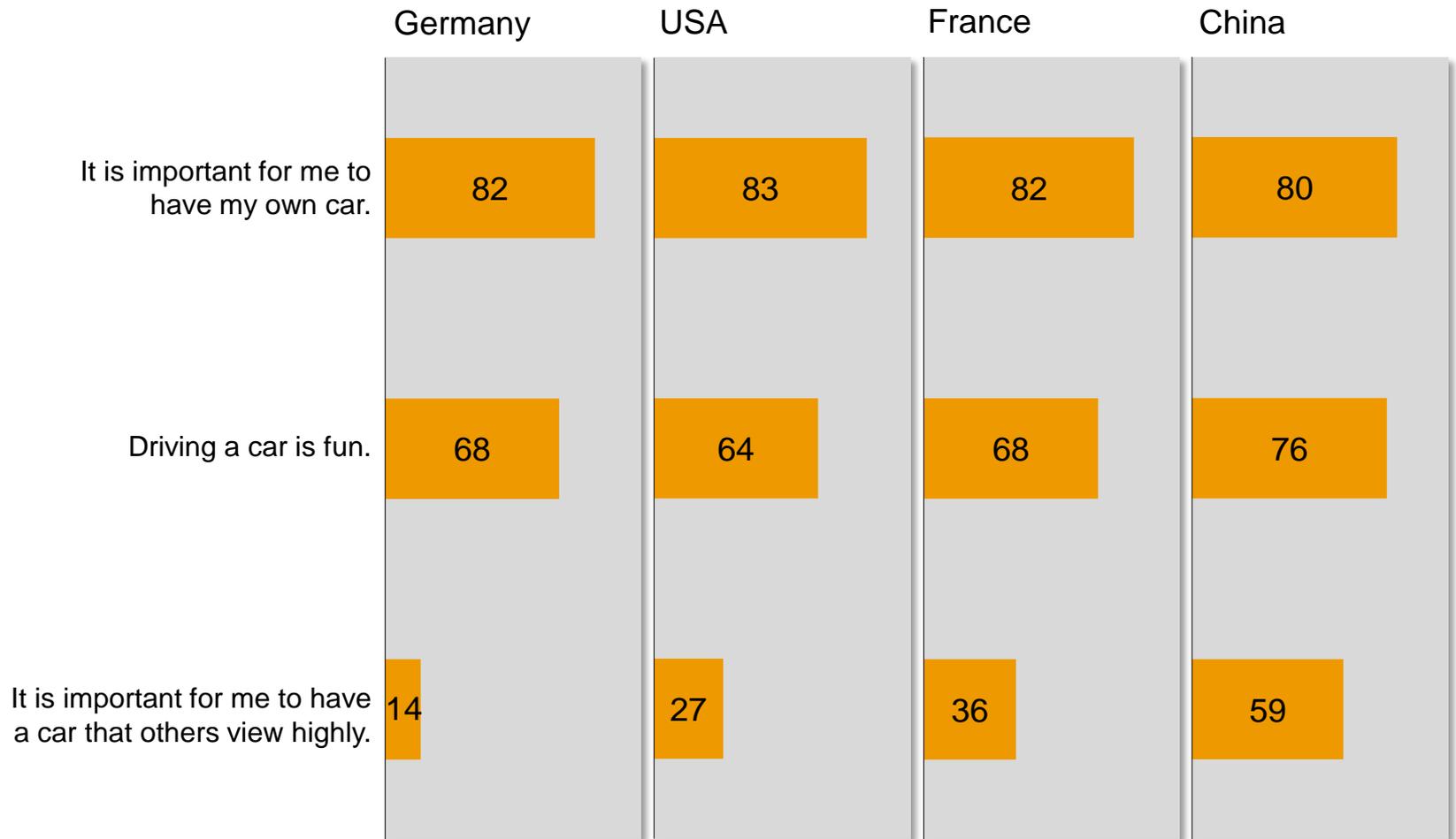
Core themes of the study

1. Market sentiment
2. Passenger car usage patterns
3. Awareness and knowledge
4. Expectations/consumer acceptance
5. Comparison of potential buyers
6. A look into the future
7. Summary and outlook



Customer View of Cars and Driving

A car is important, but status is something different



☎ Main users of a car | Top boxes | Data given in percent

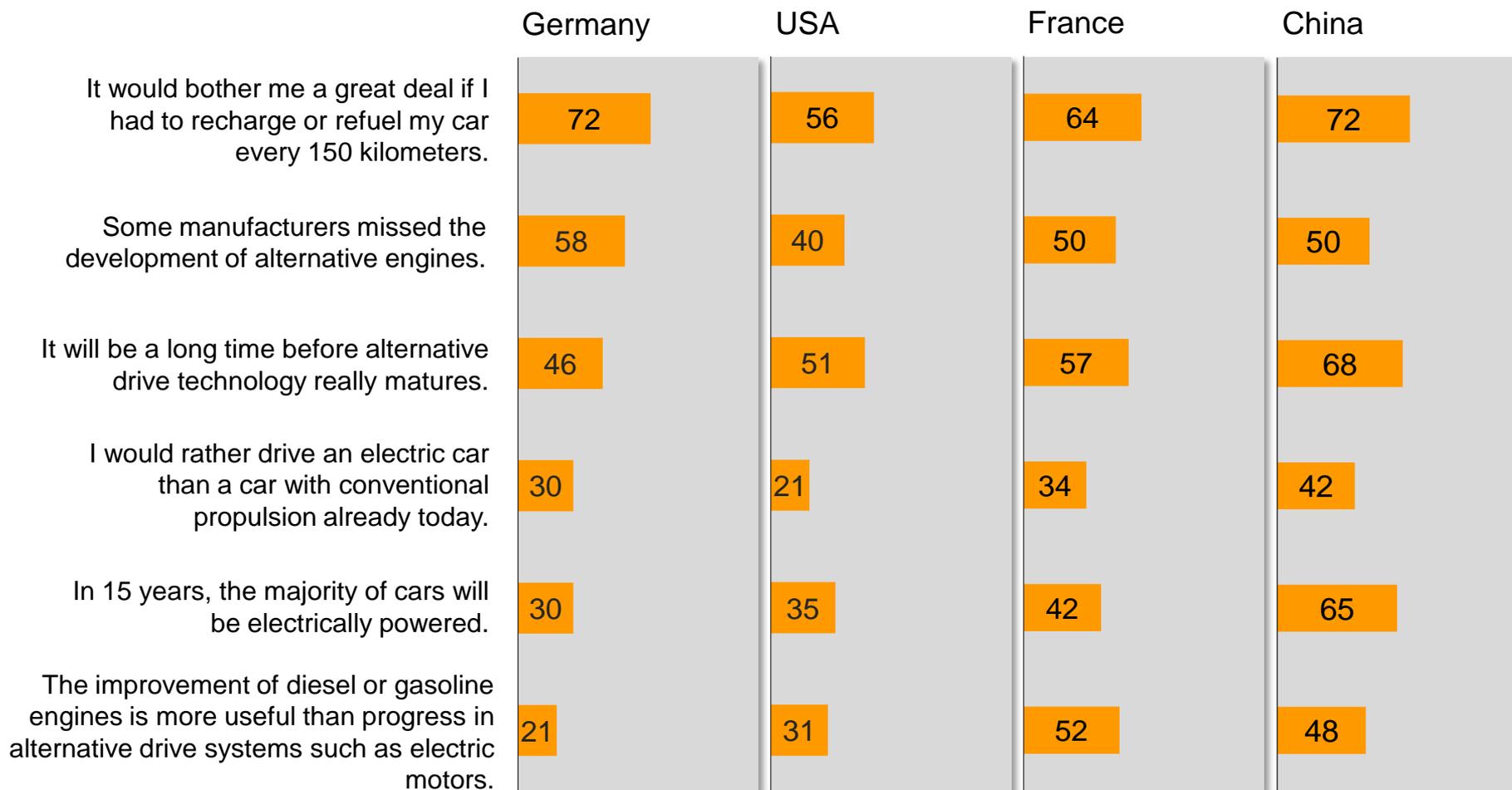
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Evaluation of the Importance of Alternative Drives

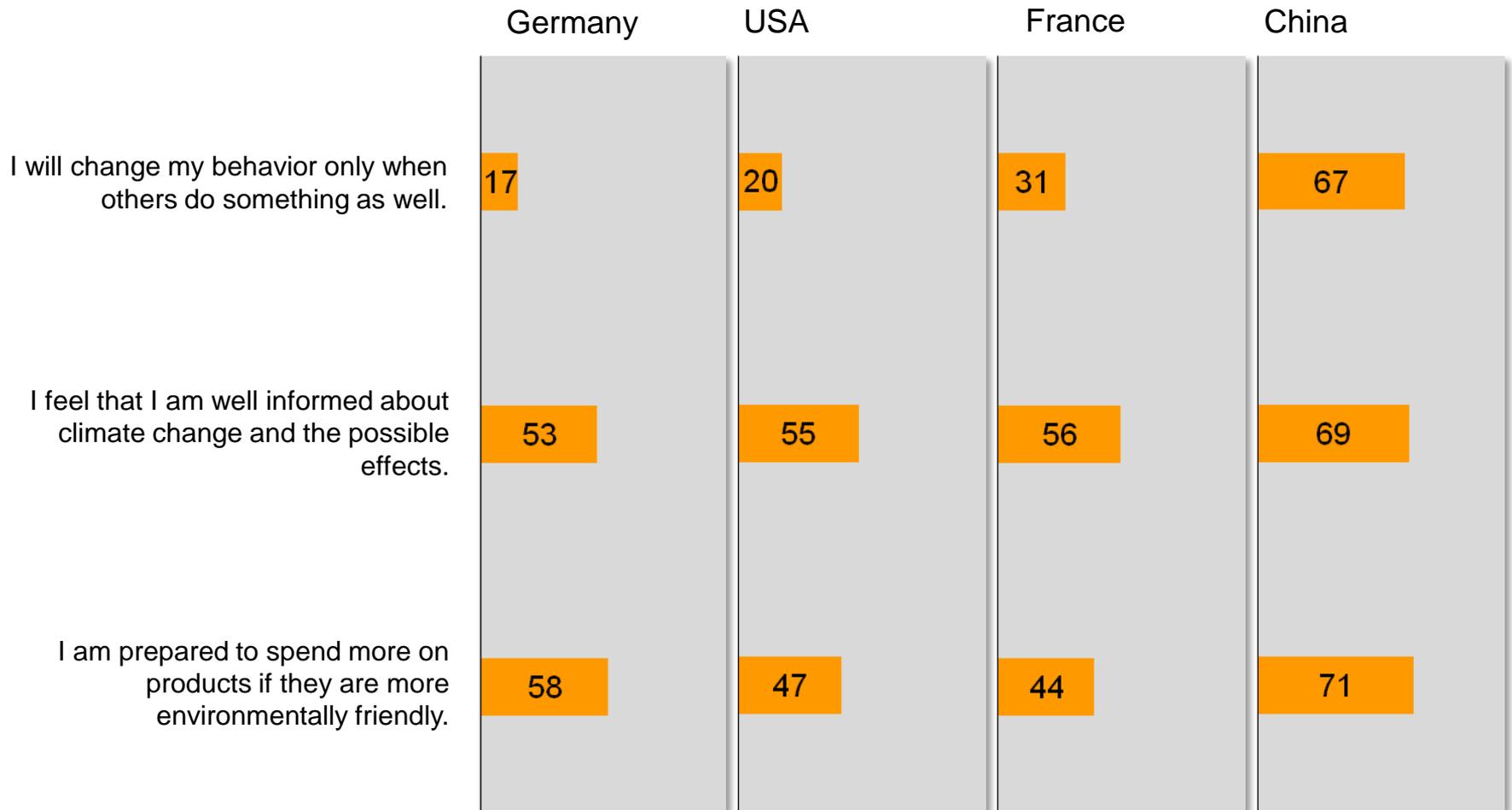
Range important for majority, customers further than manufacturers?



 Main users of a car | Only respondents who know about hybrid or electric engines | Top boxes | Data given in percent

Willingness to Help Protect the Environment

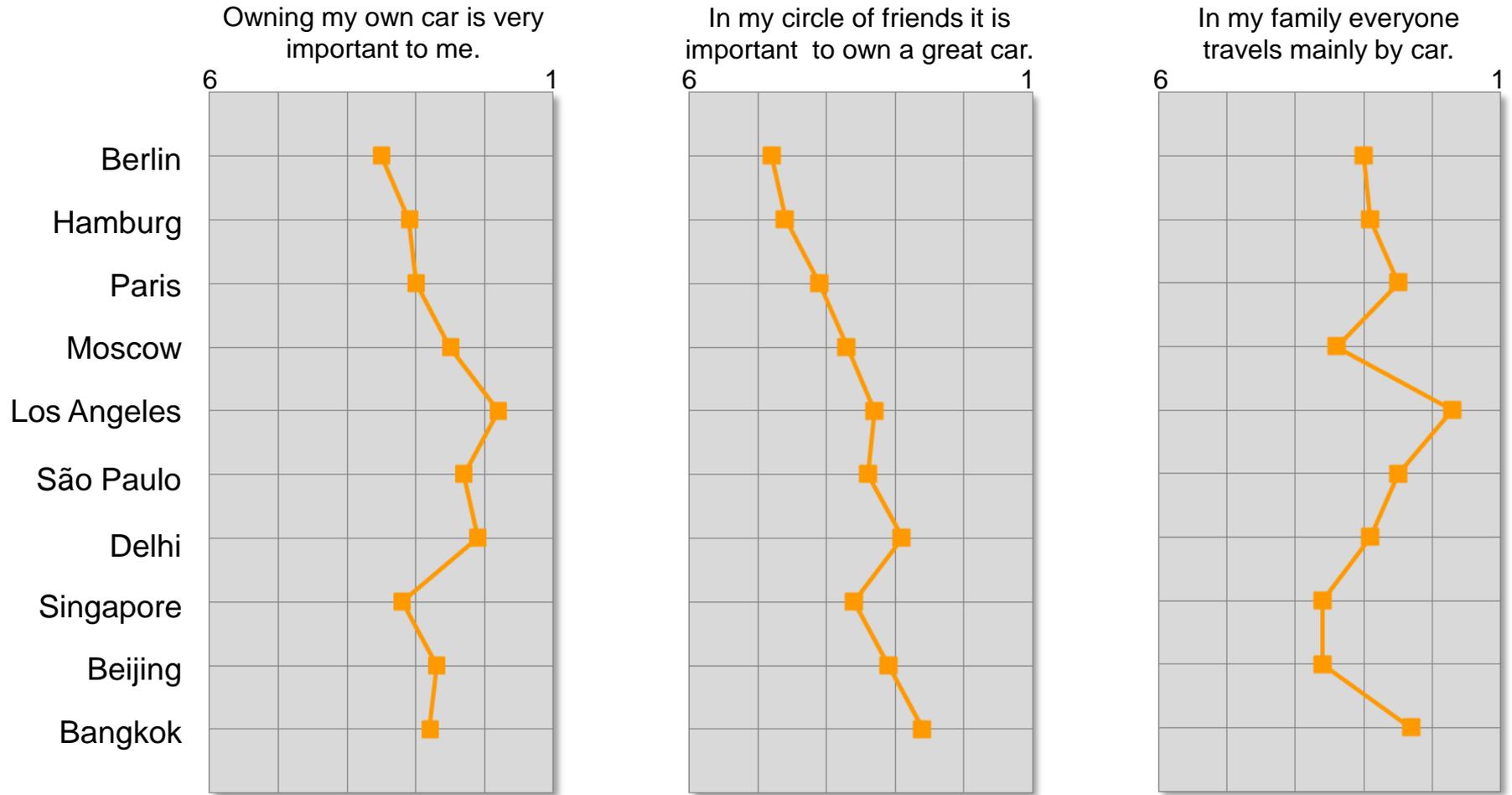
Majority feel they are informed about climate change



☎ Main users of a car | Top boxes | Data given in percent

Importance of Owning a Car in Megacities

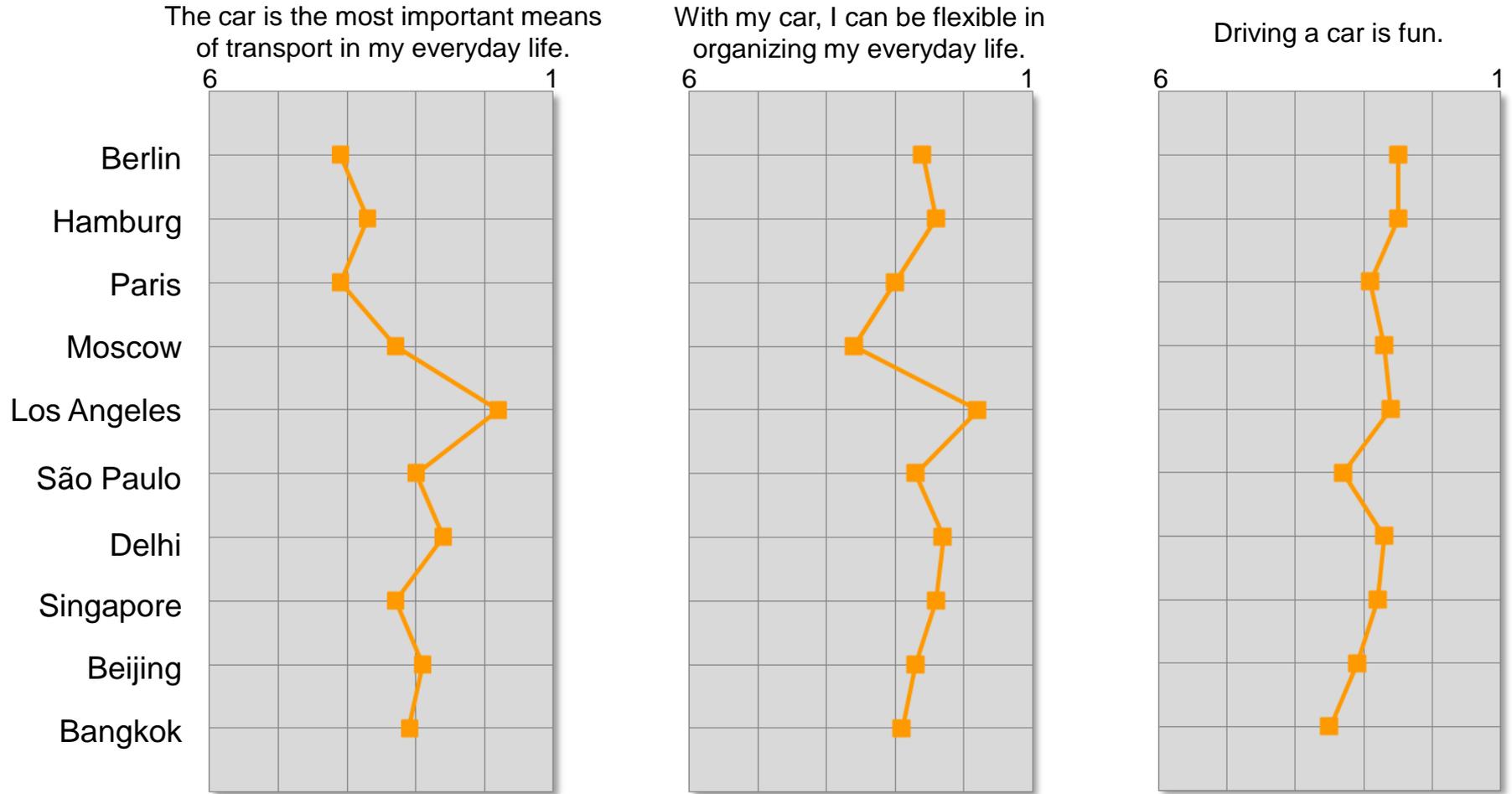
Higher in Asian and American megacities



 Young adults (18 to 35 years) | Average values on a scale of 1 = "completely true" to 6 = "not at all true"

Importance of the Car in Everyday Life

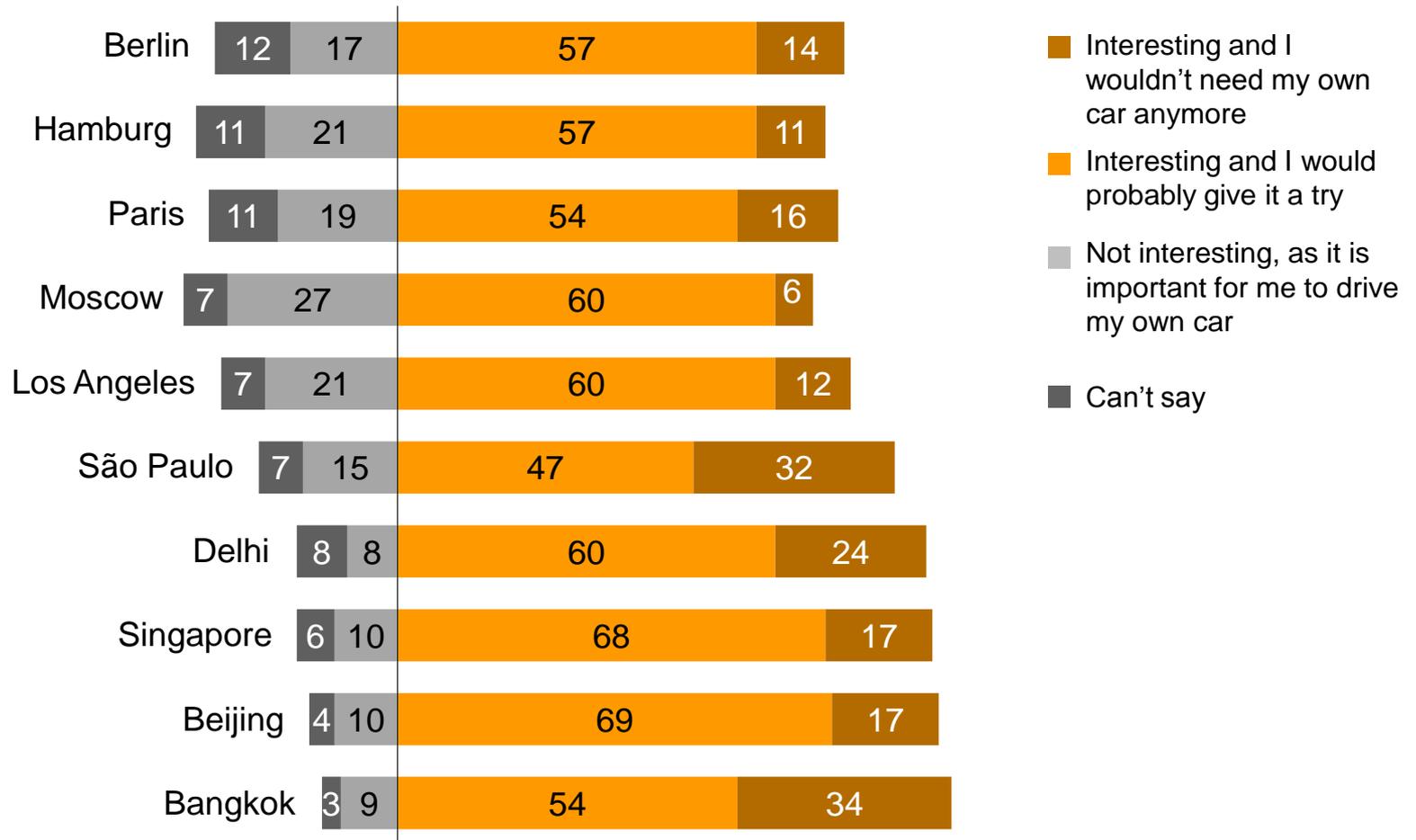
Not important in all megacities



 Young adults (18 to 35 years) | Average values on a scale of 1 = "completely true" to 6 = "not at all true"

Future of Urban Traffic, Young Adults and Car Sharing

Attractive for the majority



 Respondents 18 to 35 years old | Data given in percent

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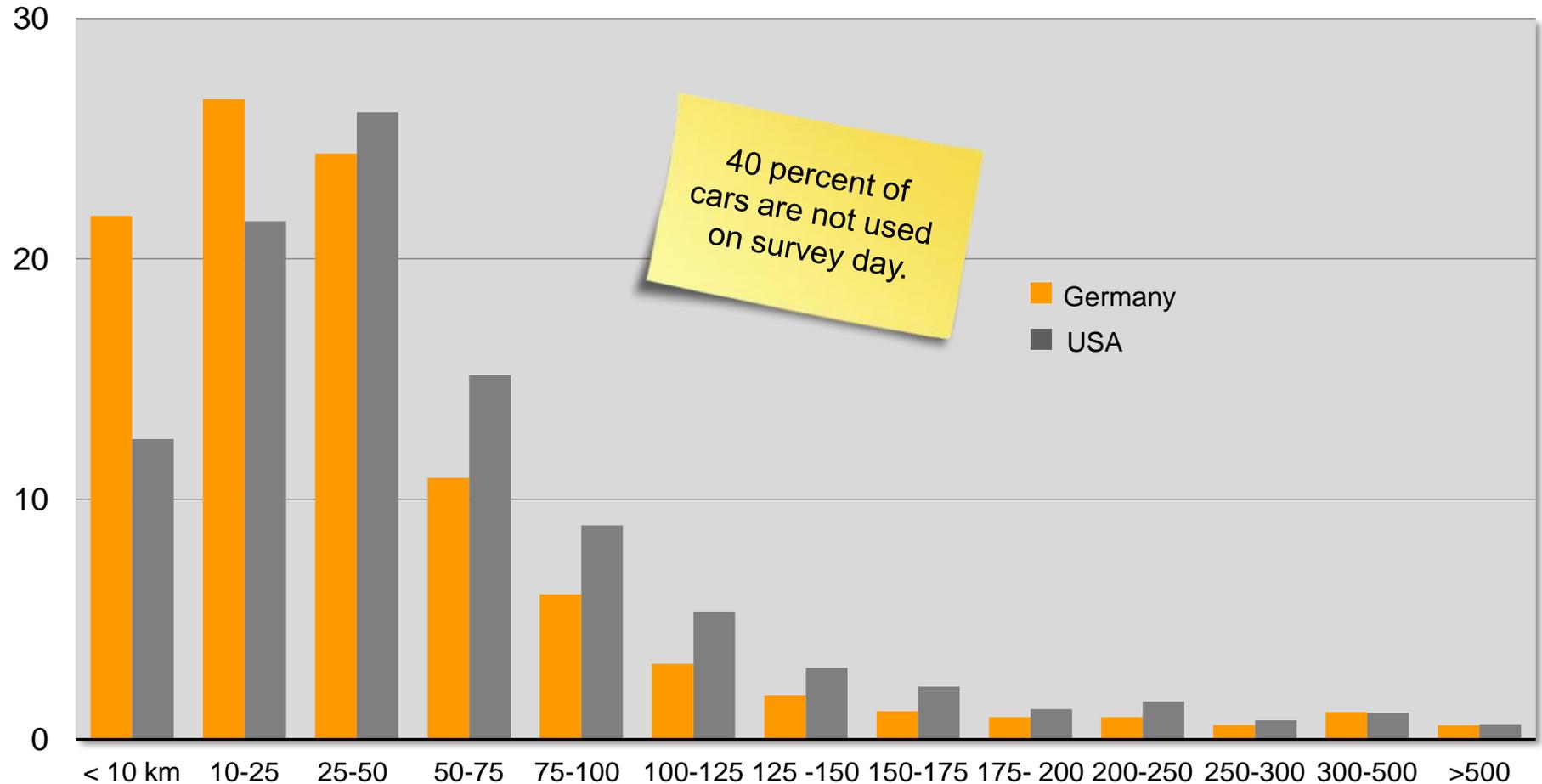
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Daily Car Usage Patterns – Germany and USA

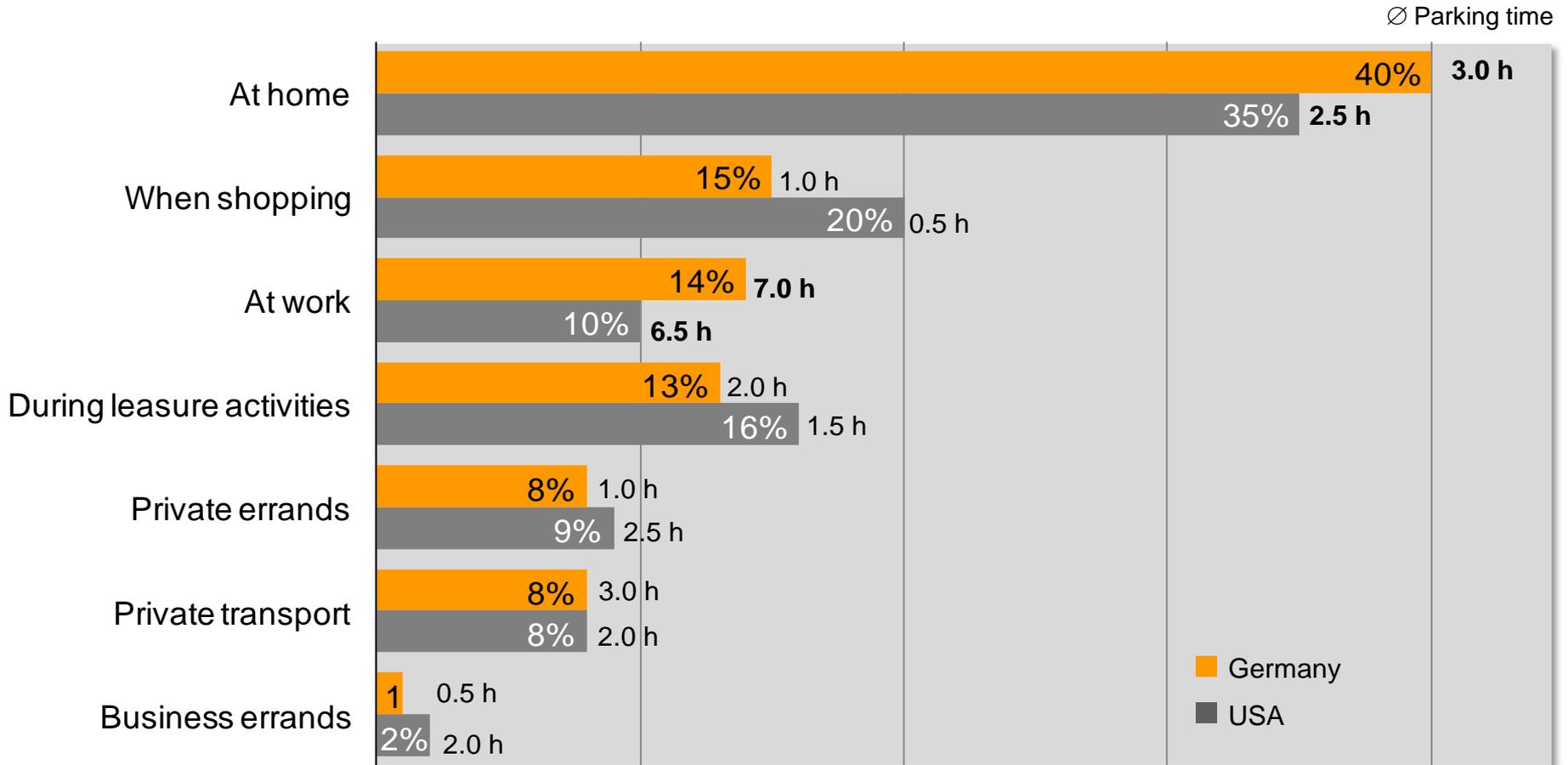
Nine out of ten cars with less than 100 km per day



Secondary analysis | Automobiles in private households | Data given in percent

Where and How Long Are Cars Parked Between Trips?

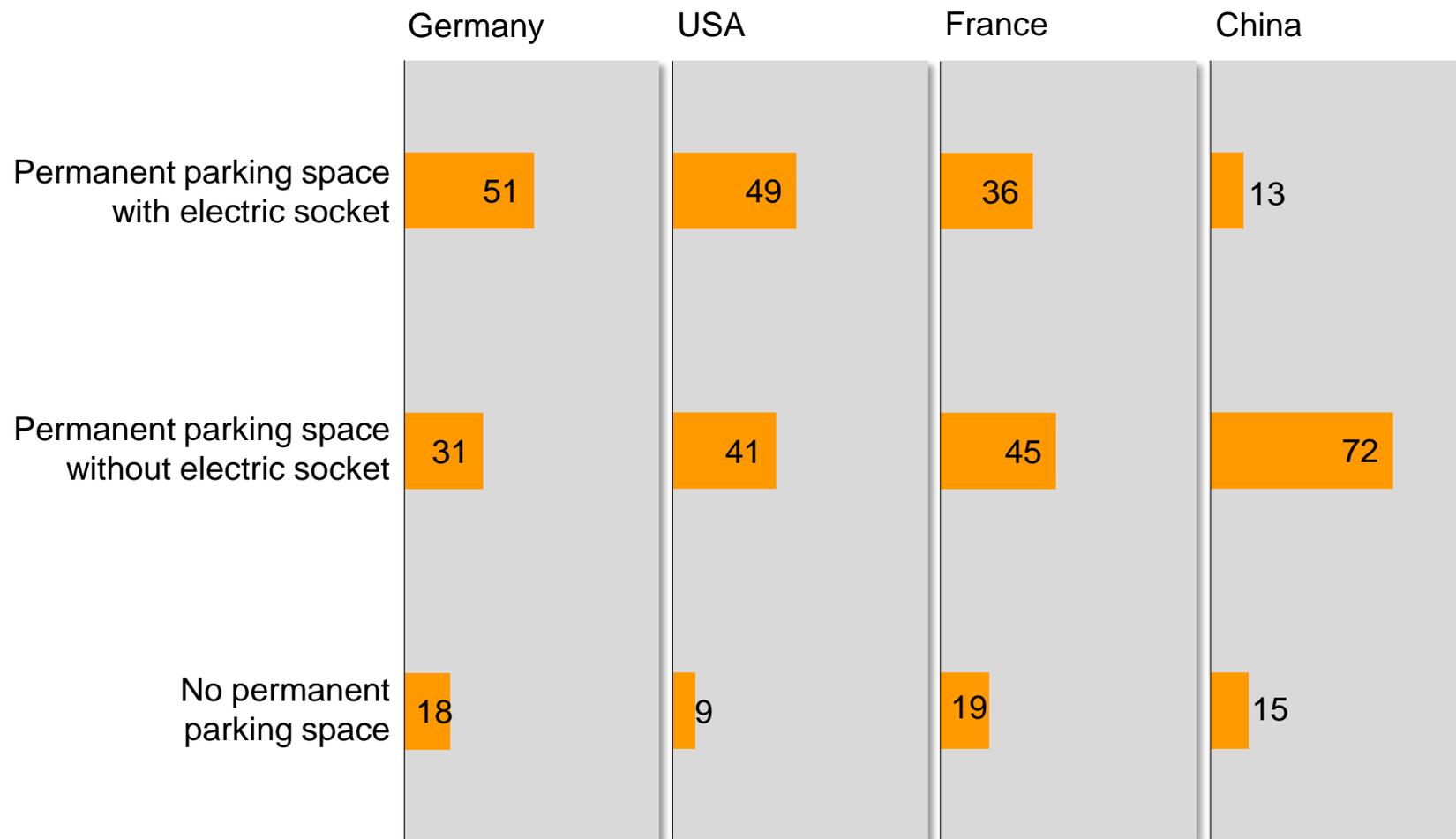
In Germany and the US: long time at workplace



Secondary analysis | Car routes on the survey day, without parking time and parking space at night | Average parking time for cars in hours

Potential for Charging Stations

The majority of cars have permanent parking spaces at home

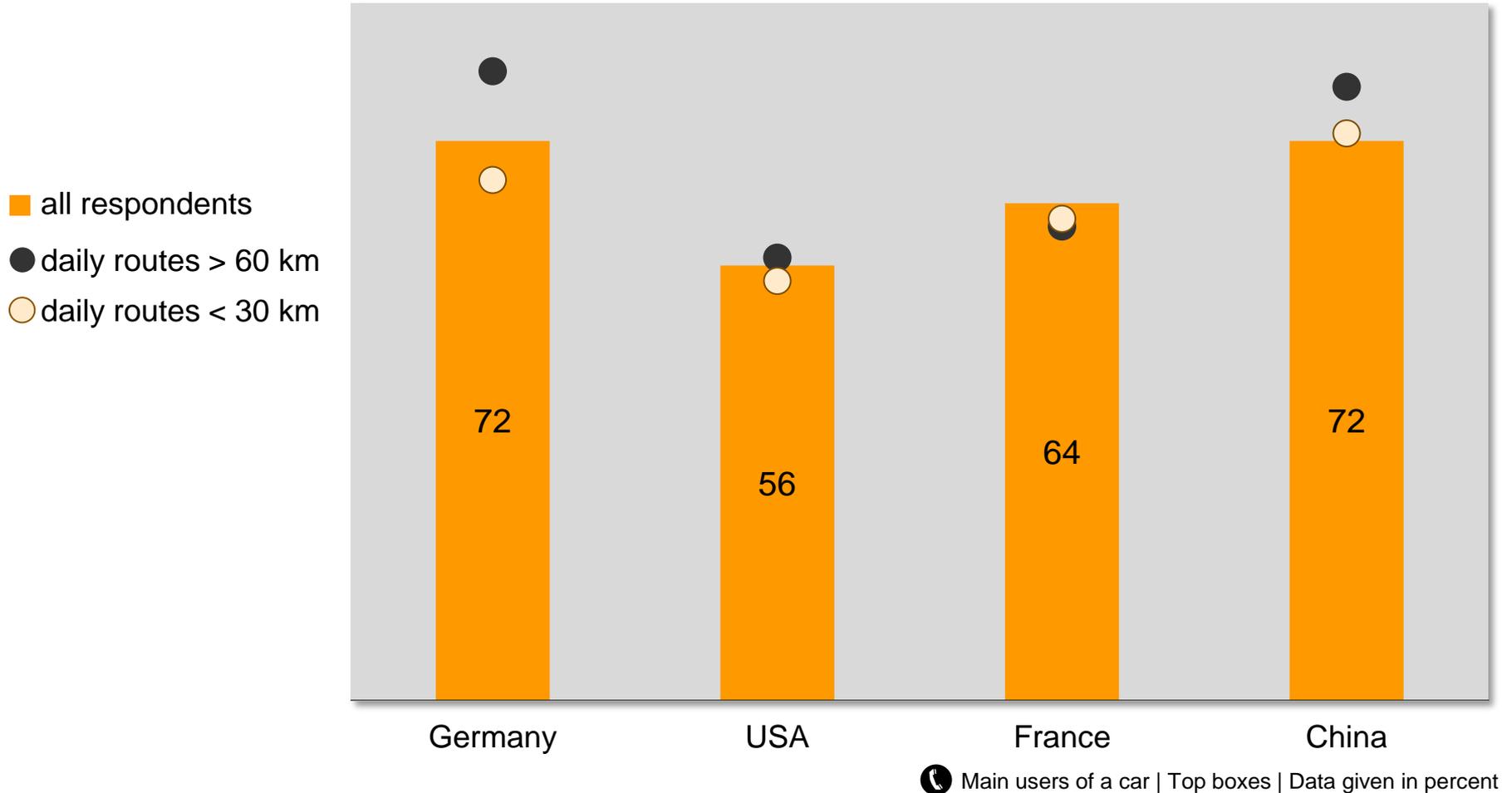


☎ Main users of a car | Top boxes | Data given in percent

Correlation Between Daily Routes and Range Anxiety

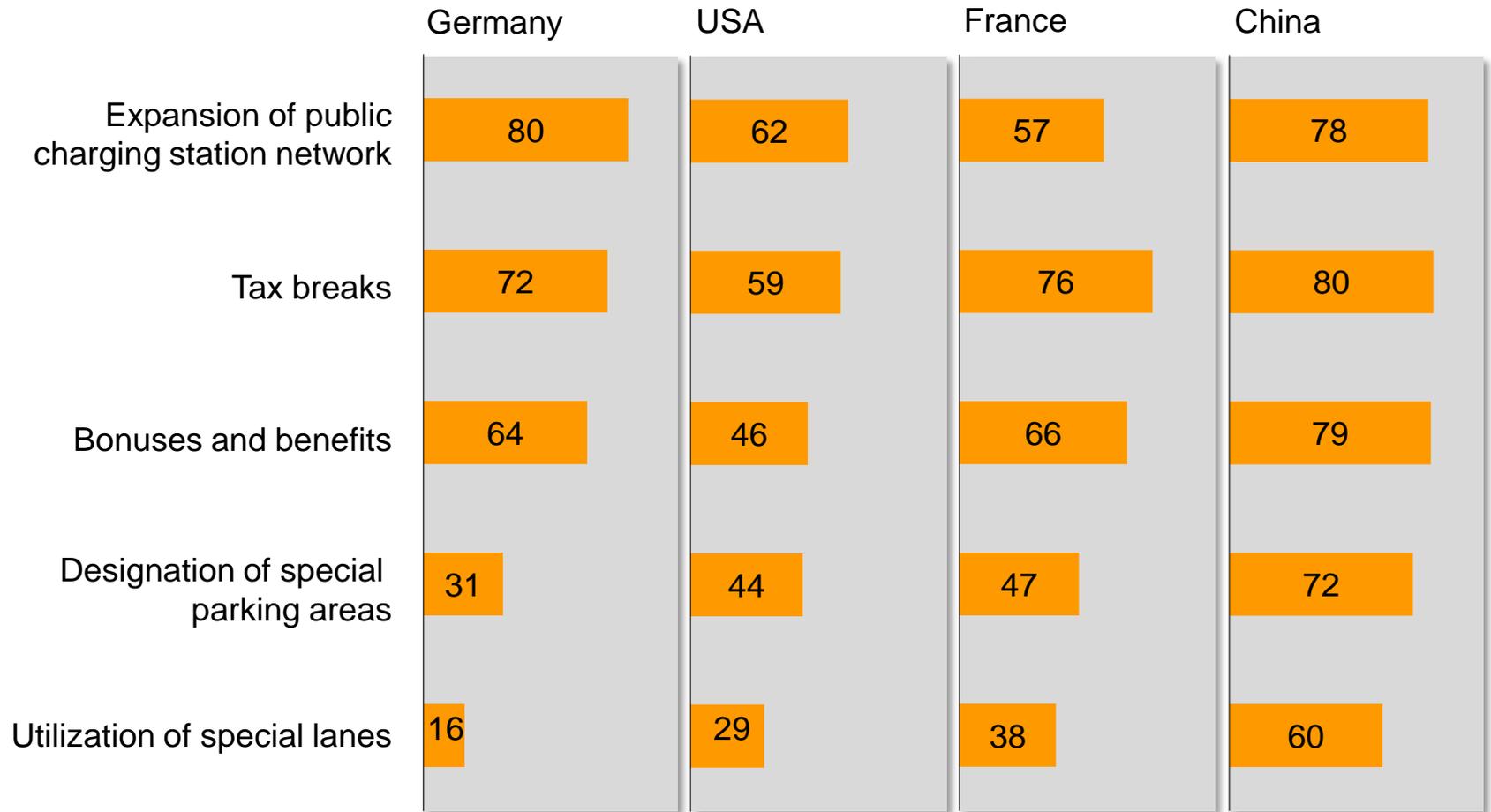
Even those who drive only short distances have doubts

“It would bother me a lot if I had to charge or fuel my car every 150 km.”



Importance of Government Support Measures

Expansion of infrastructure and financial incentives most important



 Main users of a car; only survey participants familiar with a hybrid or electric drive | Top boxes | Data given in percent

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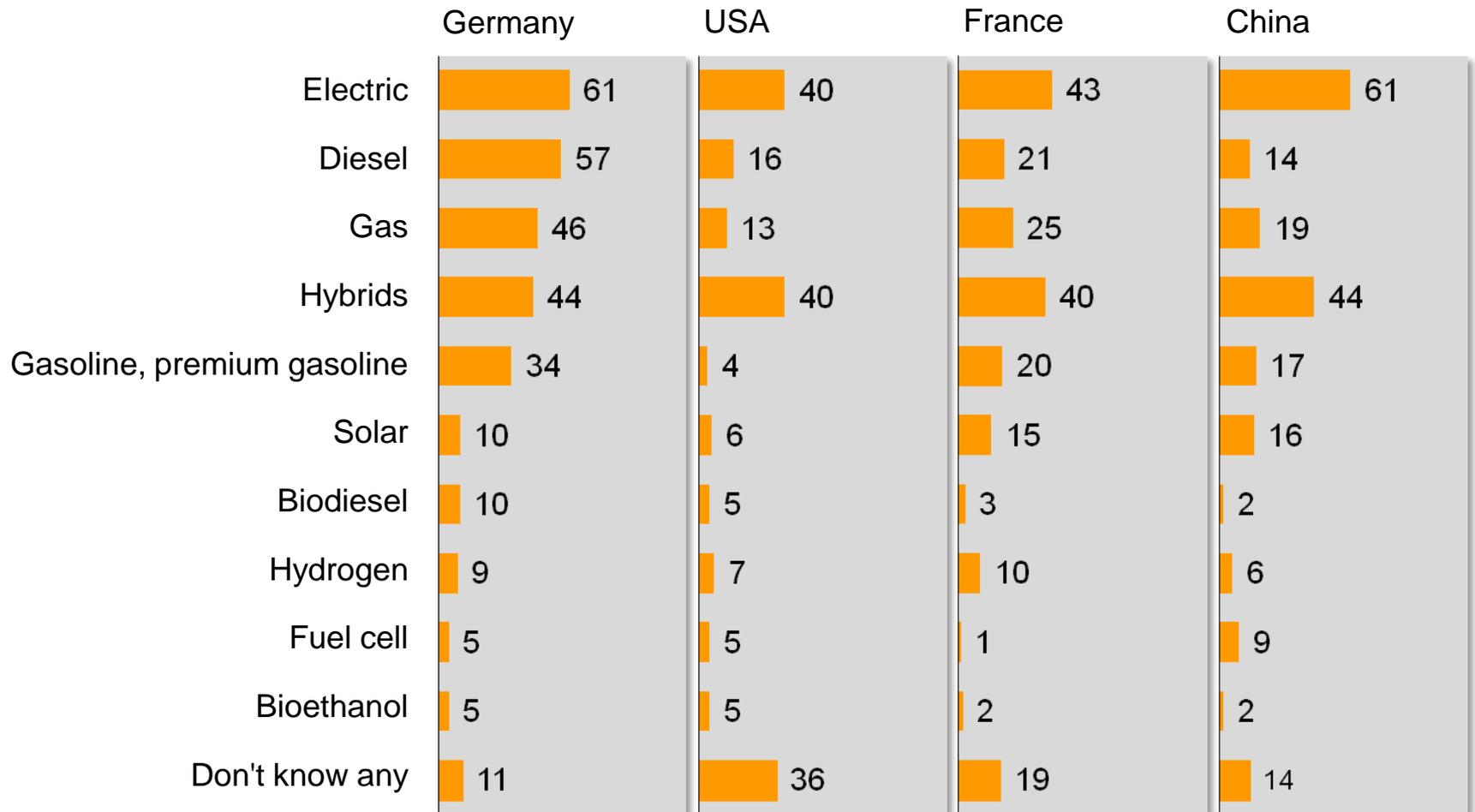
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Spontaneous awareness of fuel-efficient drive types

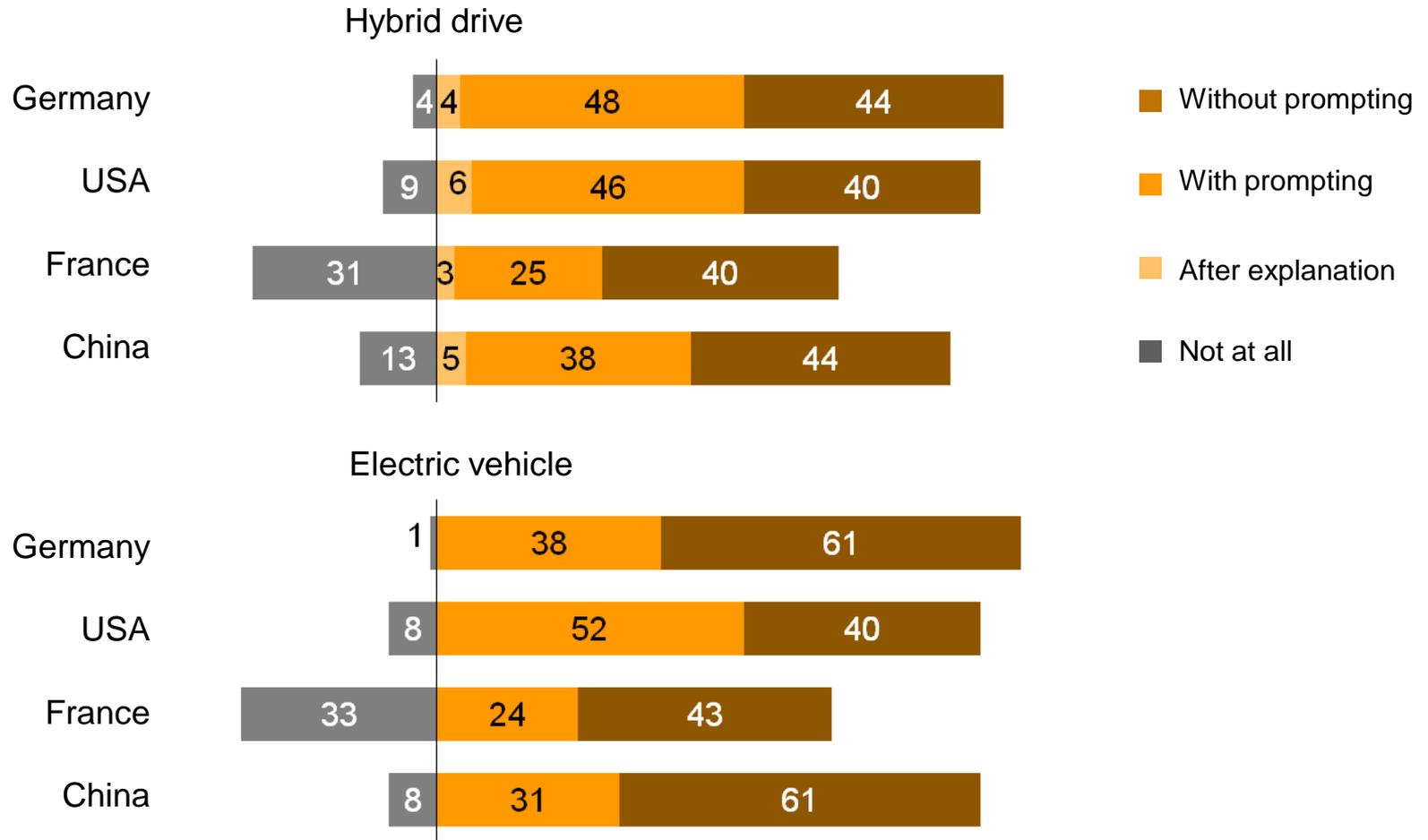
Chinese and Germans specify electric and hybrid more frequently



☎ Main users of a car | Data given in percent | Multiple answers possible

Awareness of hybrid and electric cars - comparison between countries

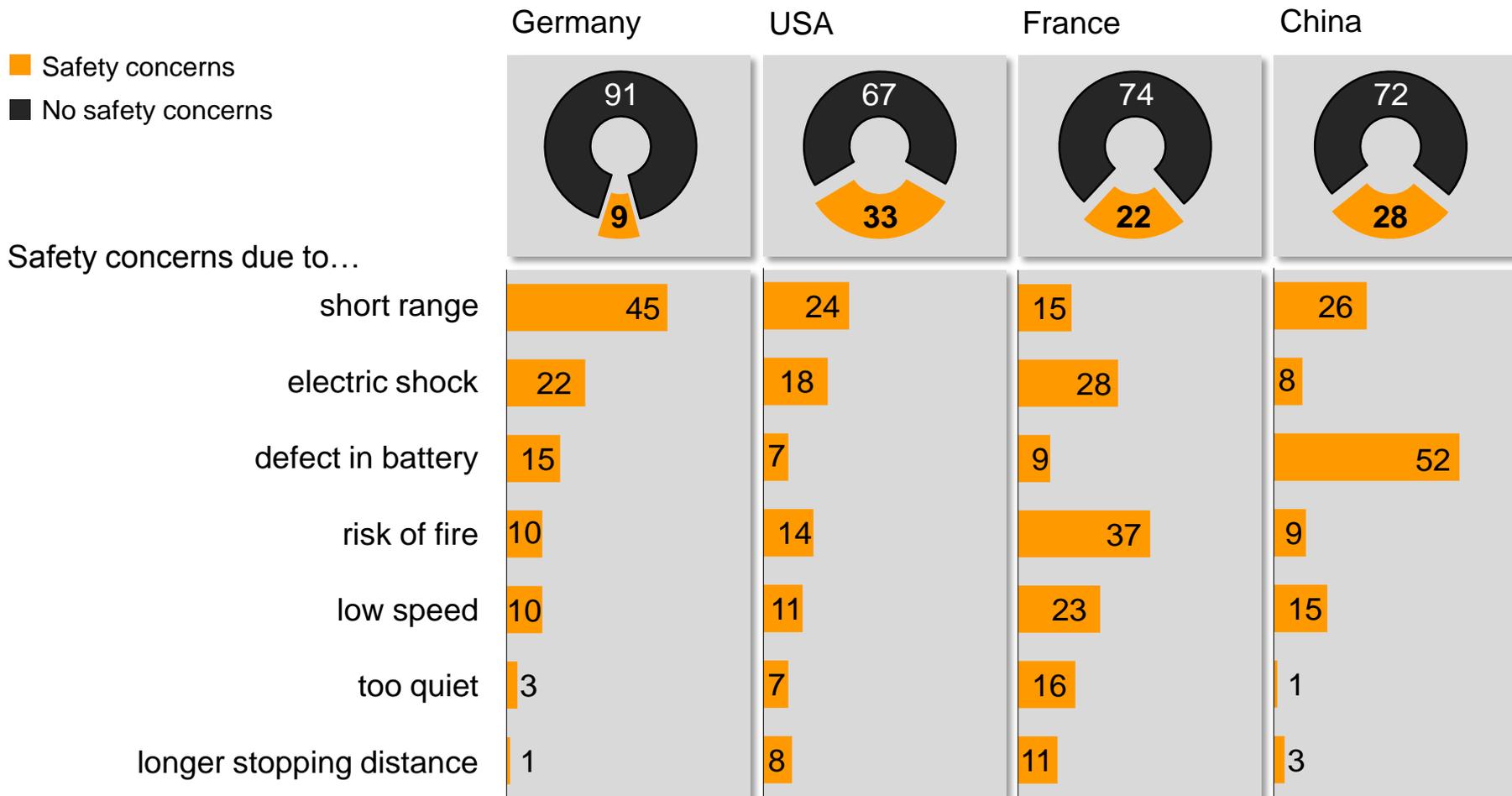
French drivers less well informed?



☎ Main users of a car | Data given in percent | Several answers can be given

Safety Concerns Regarding Electric Cars

High confidence in Germany especially

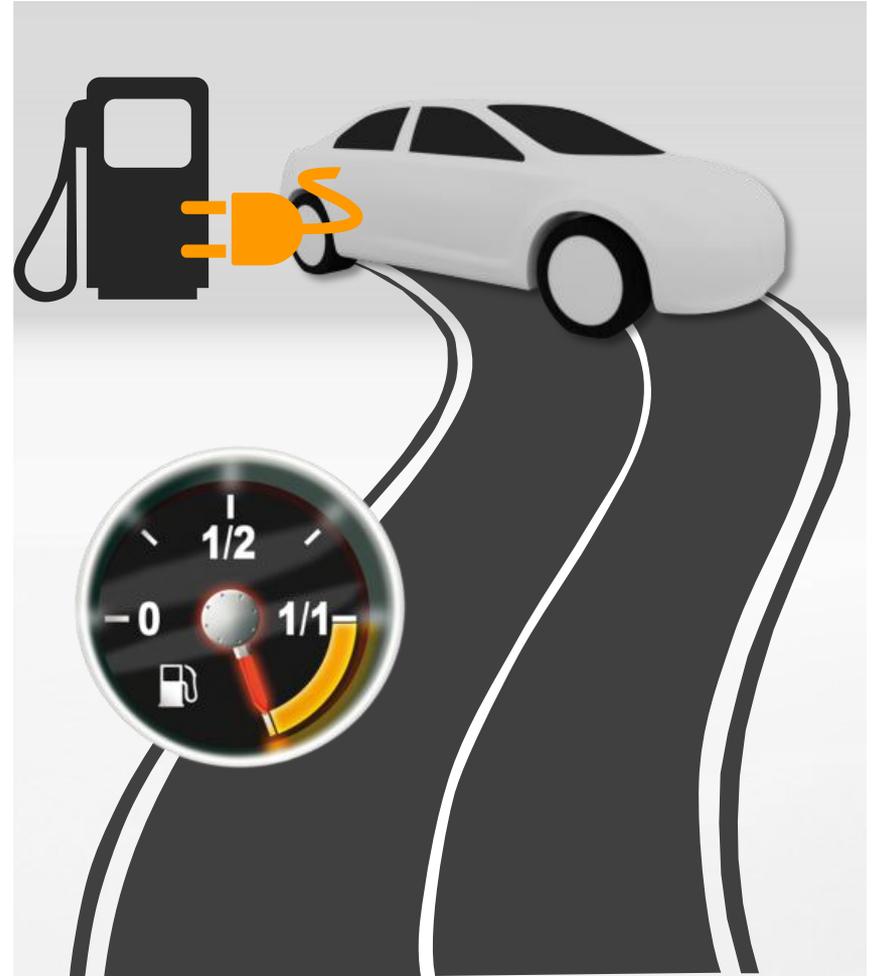


Main users of a car; only survey participants familiar with a hybrid or electric drive | Data given in percent | Multiple answers possible

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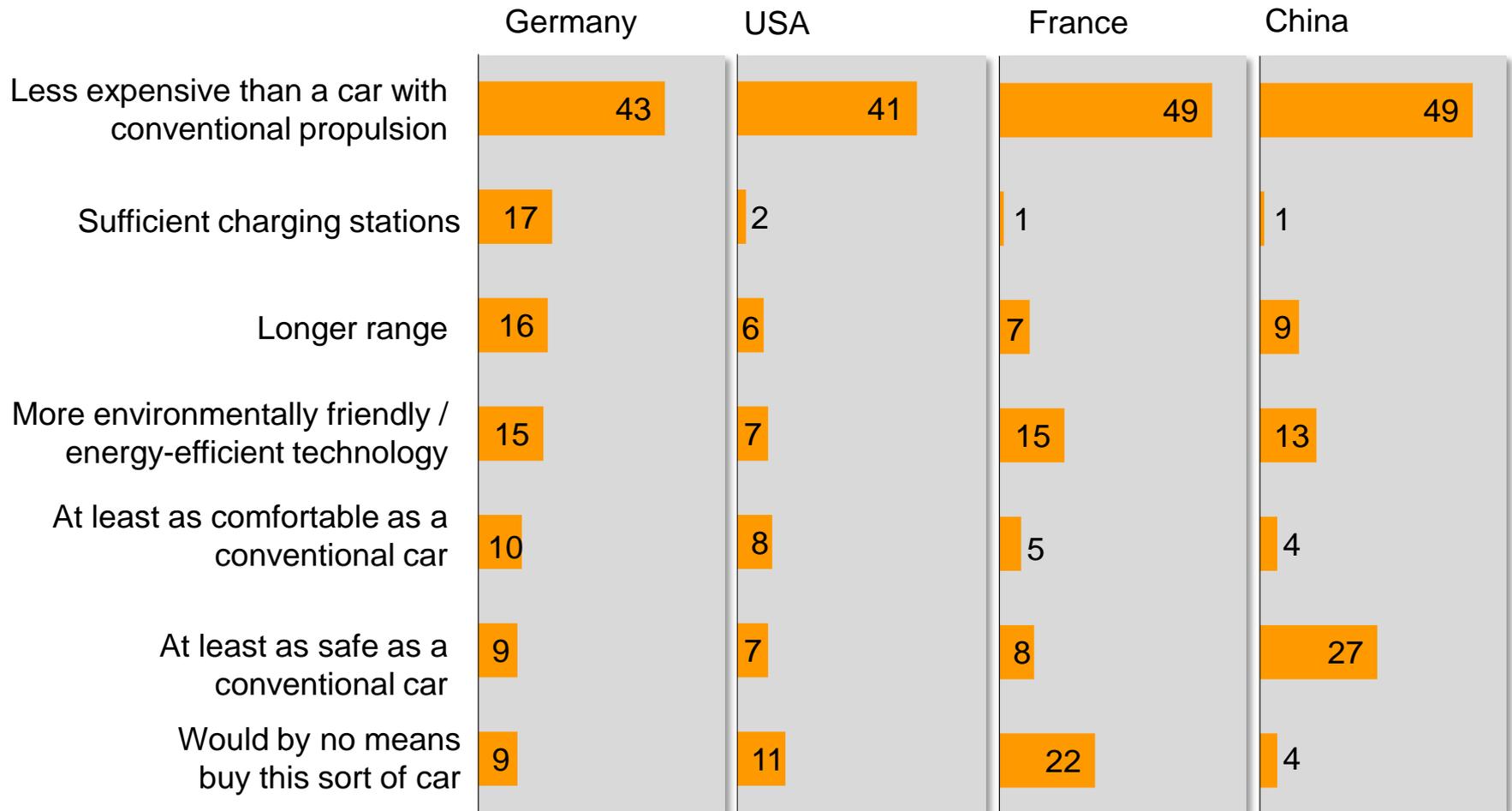
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Prerequisites for Purchasing a Hybrid or Electric Car

Primarily price aspects

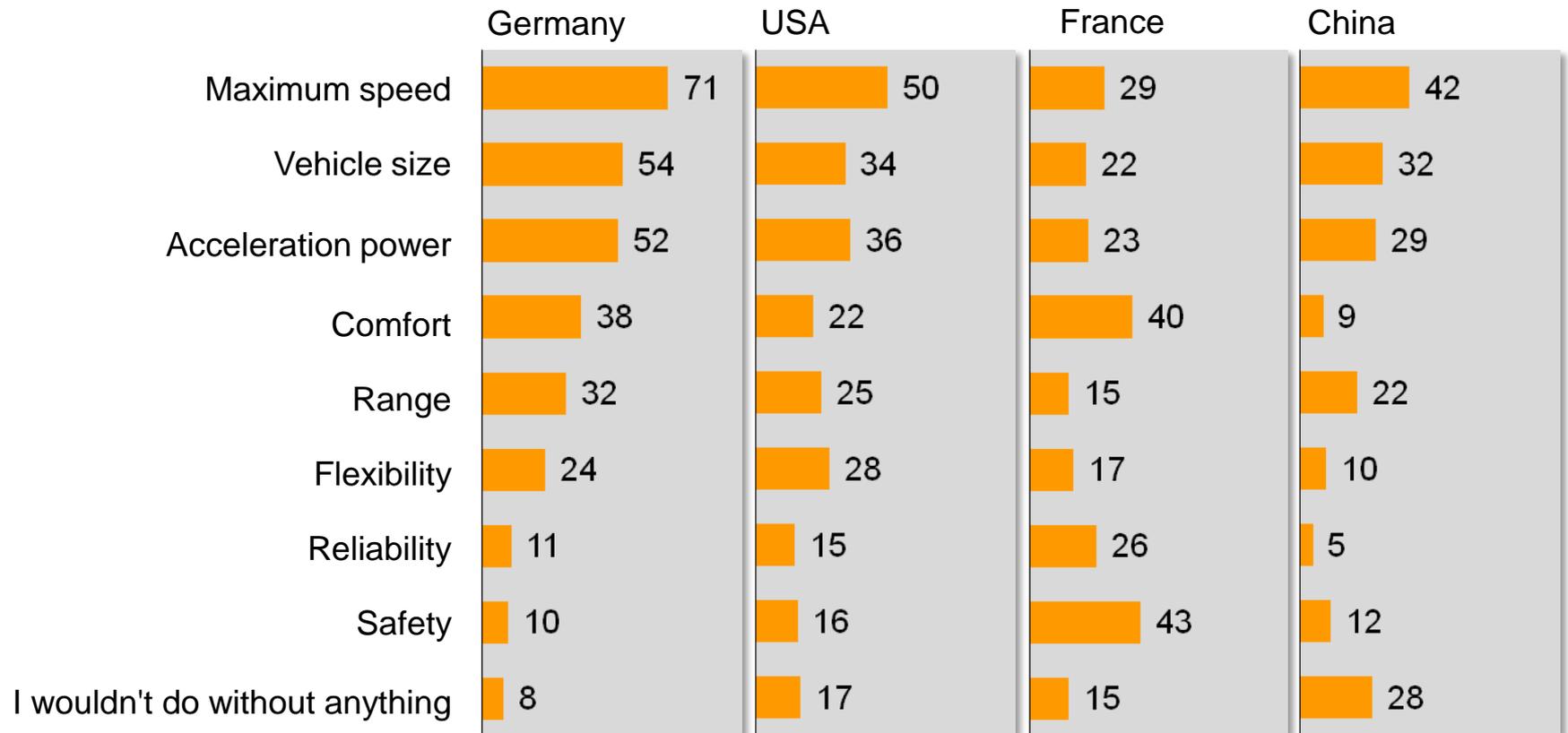


 Main users of a car; only survey participants familiar with a hybrid or electric drive | Data given in percent | Multiple answers possible

Willingness to Accept Limitations in Favor of e-mobility

Compromises possible but real cars wanted

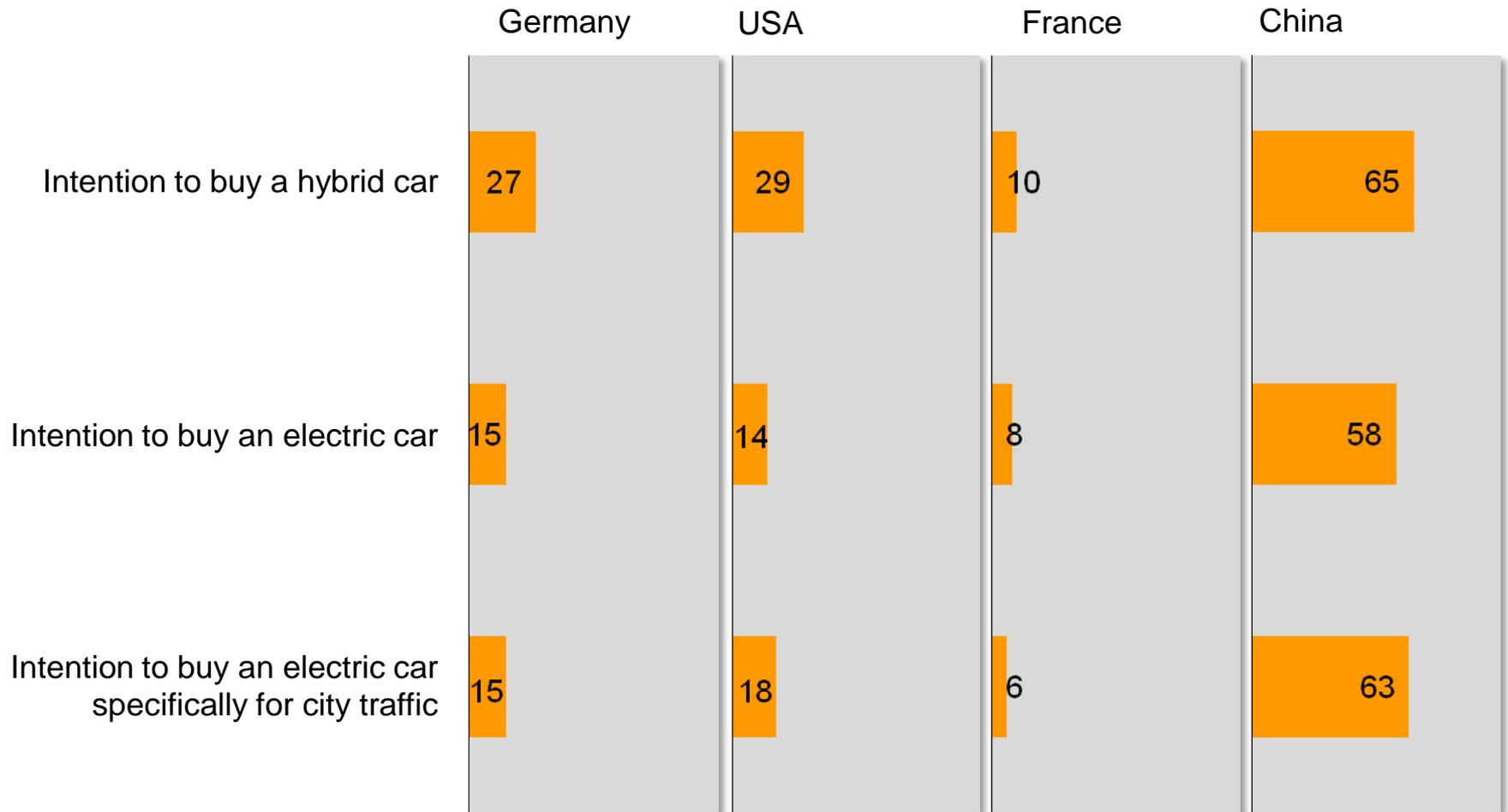
When choosing a car with an alternative drive, are you in principle prepared to do without the following factors?



 Main users of a car; only survey participants familiar with a hybrid or electric engines | Data given in percent | Multiple answers possible

Willingness to Buy a Car with an Alternative Drive

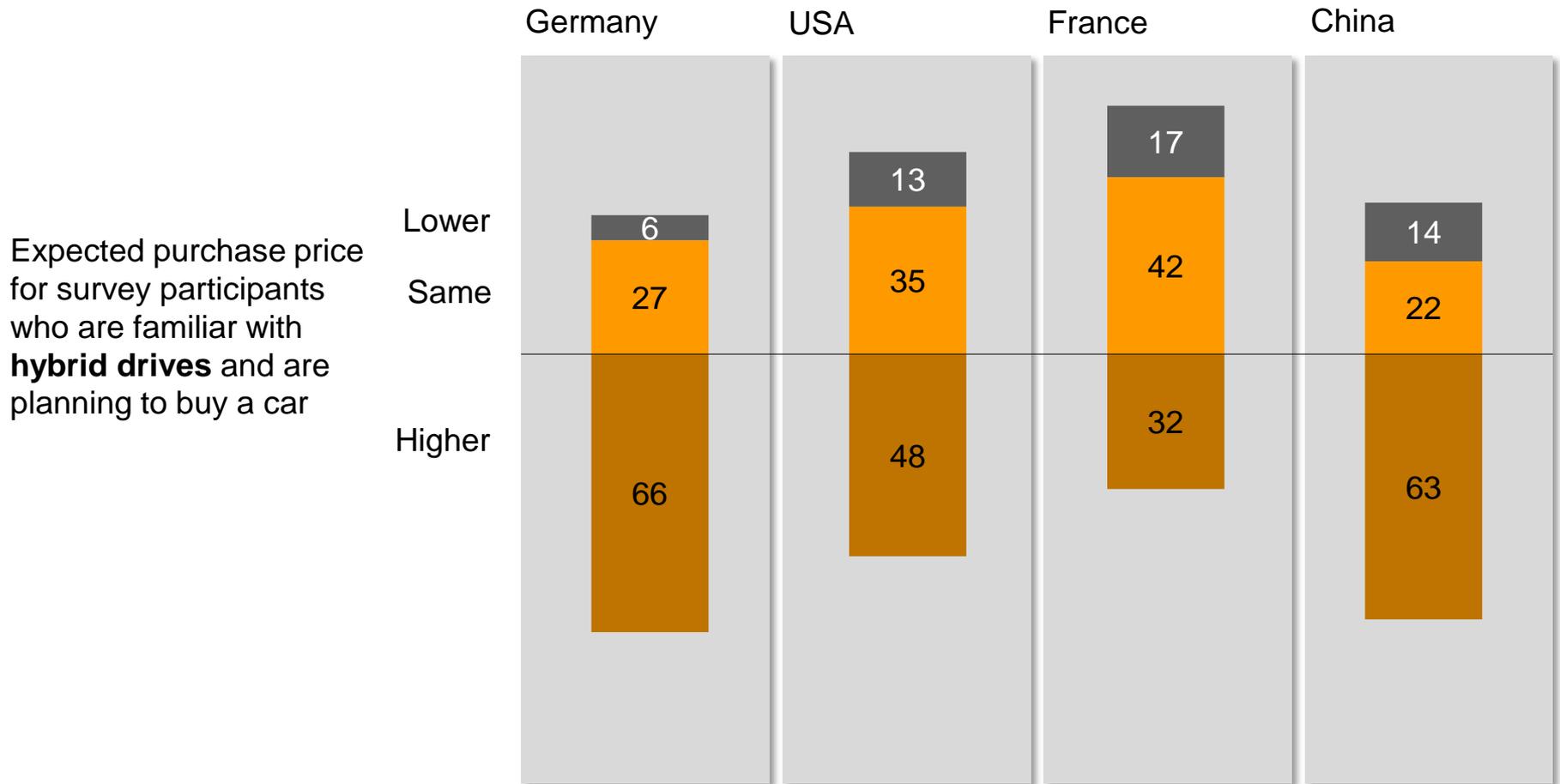
Majority of Chinese drivers are open-minded



 Main users of a car | Data given in percent | Figures for "probably" and "definitely" responses

Expected Purchase Price and Costs for Hybrid Cars

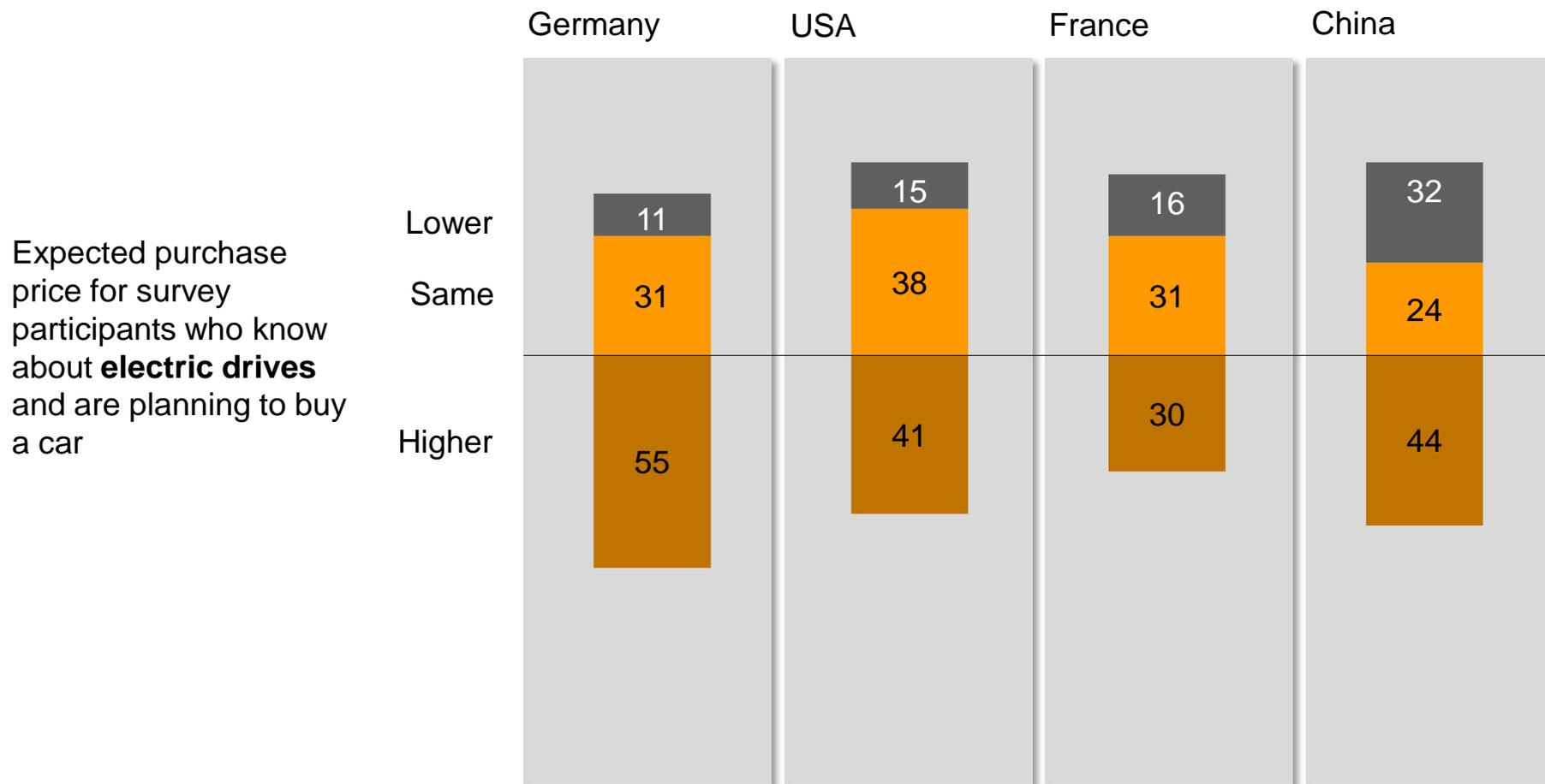
Majority of Germans and Chinese expect higher costs



Main users of a car; only survey participants familiar with a hybrid car and planning to buy a car | Data given in percent

Expected cost prices for electric cars

Customers prepared for higher costs?



☎ Main users of a car; only survey participants who expect lower costs for purchasing a hybrid car | Data given in percent

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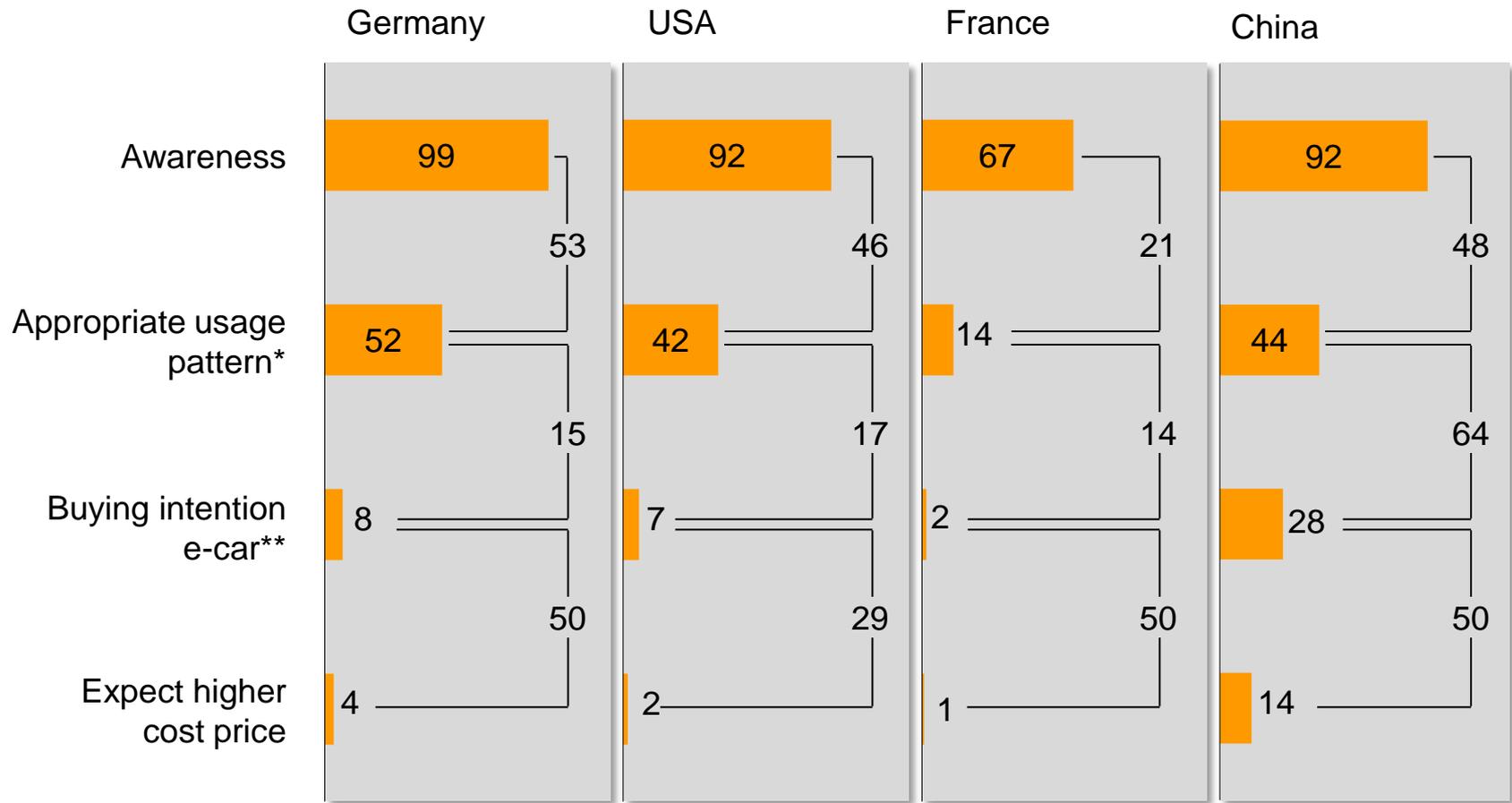
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Awareness and Consumer Acceptance of Electric Cars

Potential for e-cars with a range of 150 km



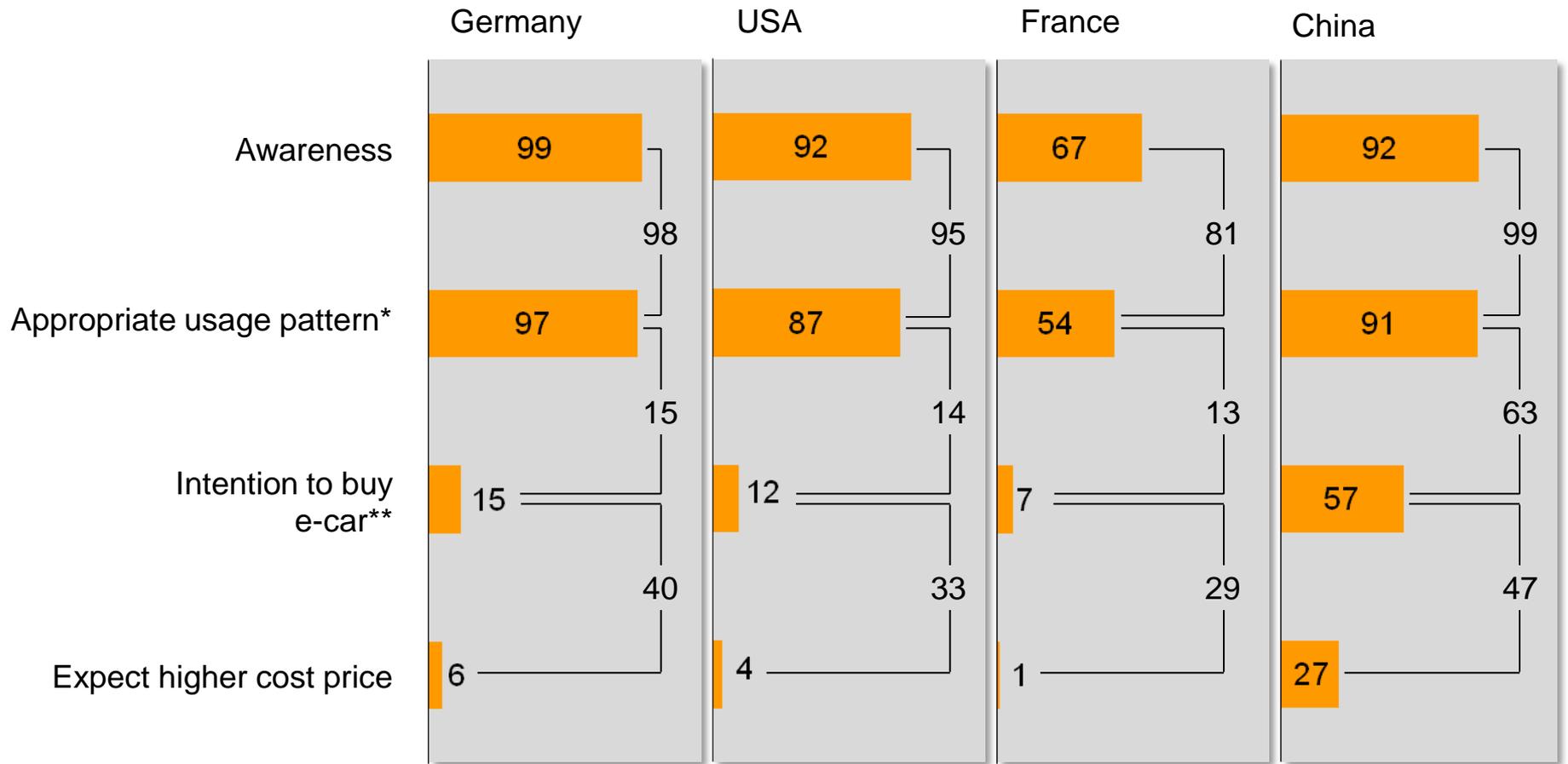
* At least 70% short range; max. 150 km a day; max. 4 routes >100 km/month

** Figures reflect “probably” and “for sure” responses

☎ Main users of a car; only survey participants familiar with electric engines | Data given in percent

Awareness and Consumer Acceptance of Electric Cars

Potential for e-cars with a range of 300 km



*max. 300 km a day

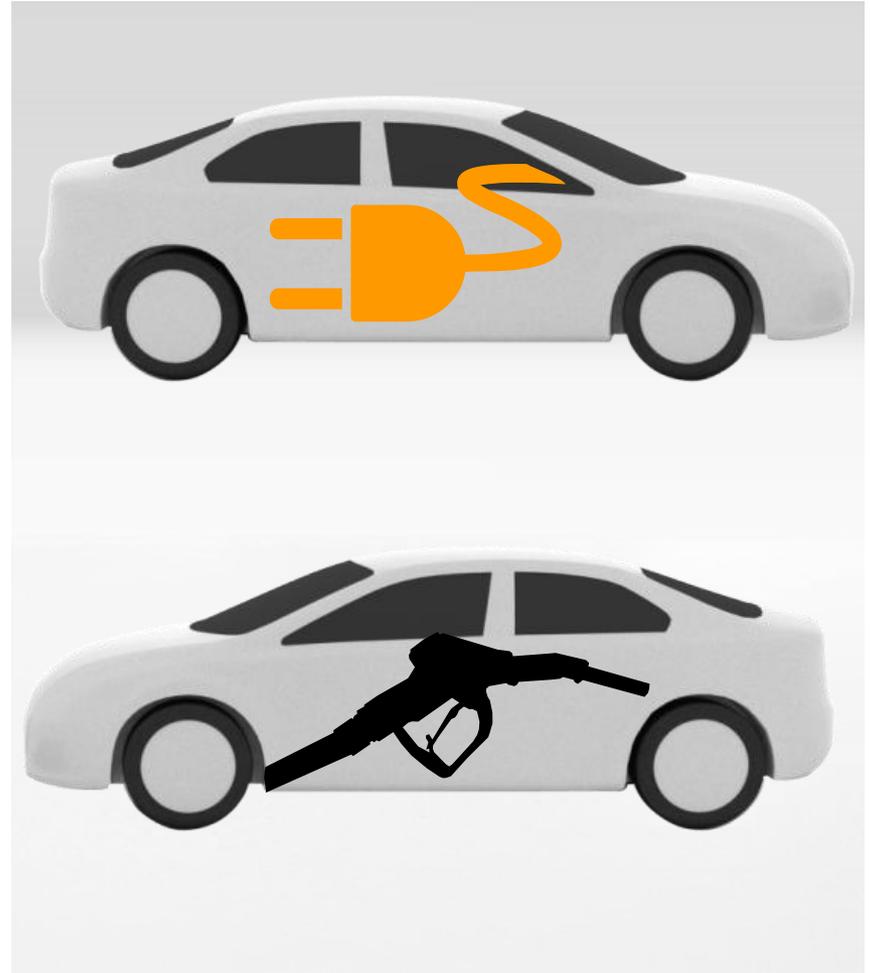
** Figures reflect “probably” and “for sure” responses

📞 Main users of a car; only survey participants familiar electric engines | Data given in percent

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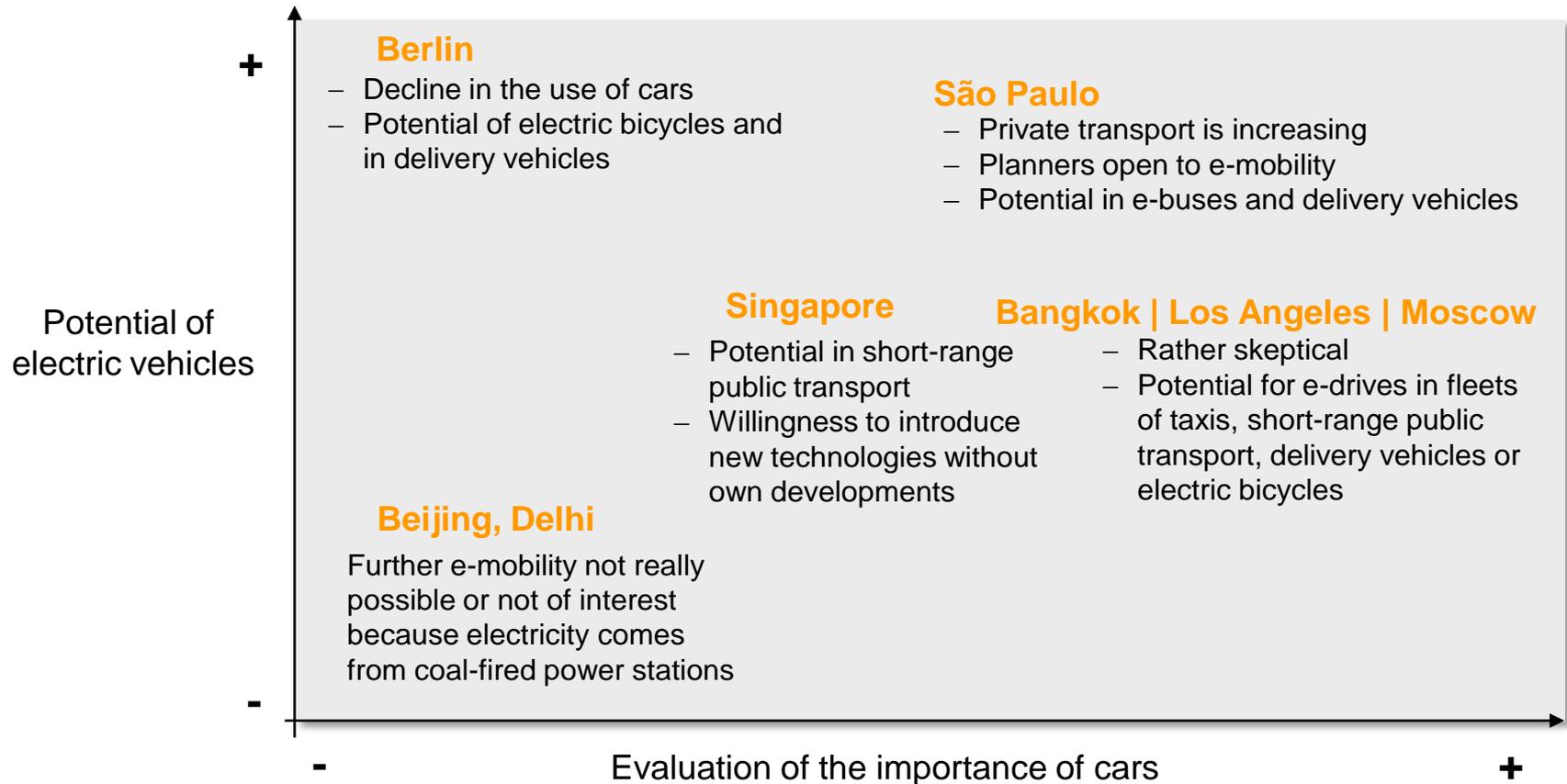
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What Do City Planners and Transport Operators Say?

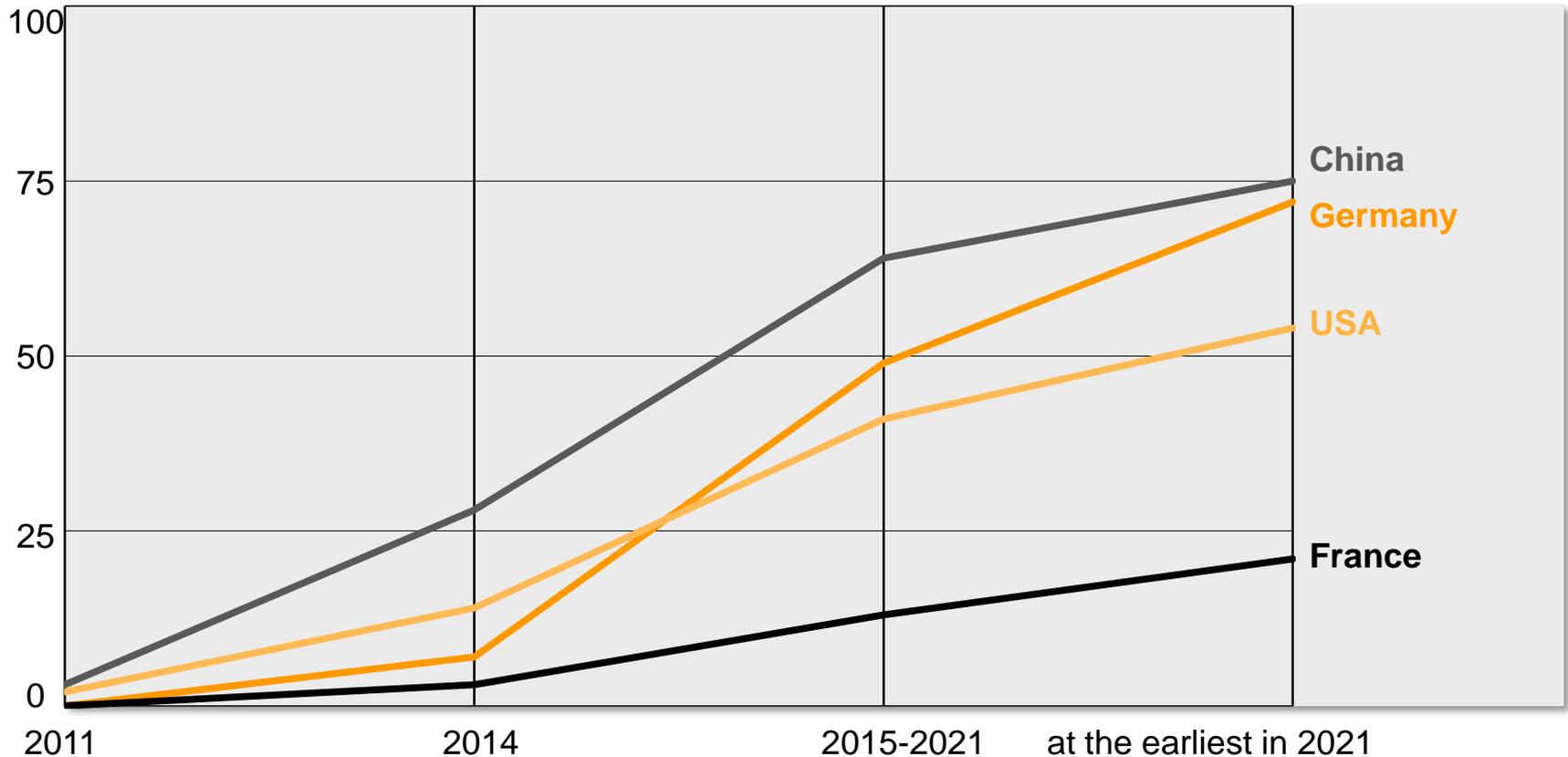
Importance of (electric) cars



Interviews with experts | Berlin, Hamburg, Paris, Moscow, Los Angeles, São Paulo, Delhi, Beijing, Bangkok

Expectations Towards Suitability for Daily Use of Electric Cars: Chinese are most optimistic

“What do you think: when will you be driving an electric car on a daily basis?”



☎ Main users of a car; only survey participants familiar with electric engines and who would drive an electric car | Data given in percent

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Main Results in a Telegram

E-Mobility as an opportunity – Technical innovation mandatory

Customers with high expectations

- ▶ Open mindedness prevails over skepticism towards electric vehicles.
- ▶ End customers expect mid-size cars to be suitable for daily use.
- ▶ Even today, larger market potential exist.

New mobility concepts

- ▶ Crucial for this is also the awareness of lots of consumers that mobility resources should be better used – this is valid to a different extent worldwide.
- ▶ Authorities at the transport branch see it like this and expect **innovative solutions for acute problems**. It applies not only to the car, but also to the public transport and the bicycle – and **better networking**.
- ▶ Especially young adults in megacities do not depend uniquely on their own cars but are open-minded towards **car sharing** and other means of transportation.



Thank you very much for your attention!

Klaus Sommer
Hanover, December 15, 2011