

Consumer trend analysis on the worldwide shift to EV

- Rapid expansion in Europe and North America and sluggishness in Japan -

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Summary of consumer trend analysis

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- **Intention to buy EV grew significantly in the U.S. and Germany** from 2017 to 2021. **In 2021, more than 40 percent of the respondents answered, “want to buy”, while no change was observed in Japan, standing at 27 percent, which is lower than in other countries.** In China, EV are in high demand continuing from 2017, as more than 80 percent of the respondents answered, “want to buy”.
- As to the reasons for intention to buy EV or not, there was no marked change on the overall trend; however, in the U.S. and Germany, it is assumed that **growing demand for environmental performances, helped by other factors such as price reduction of vehicle increased the intention to buy.**
- As to the expected range of EVs, it is assumed that relatively **short range for the convenience to get around is expected in Japan, whereas mid-to-long distance travel range is expected in the U.S. and Germany.**
- Overall trend by age group shows the **younger generation has higher intention to use EV, and tend to be more positive about the use of EV-sharing services.** The shift to EV is expected to advance in the future as generations change.
- Also, with respect to the EV models by emerging, unconventional non-automotive players, such as Apple Car, younger generation shows more positive attitude. While about 40 percent of the respondents aged 40 and above in Japan, the U.S. and Germany answered “Do not want to try”, **more than 80 percent of the respondents in their 20s and 30s in the U.S. and Germany replied “Want to test-drive it” or “Want to buy it”.** A huge generation gap in attitude towards the shift to EV is clearly addressed.

Overview of questionnaires used in this analysis

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- To obtain data for analysis, questionnaires were conducted by local survey companies.
- Time:
 - First: Oct 2017
 - Second: Mar-Apr 2021
- Areas(nationwide):
 - Japan, China, U.S., Germany
- Method: Web questionnaire
- Targets: Driver's license holders (individuals)
 - (equally allocated by age group [under 30/30-49/50-64/65 and above] and by ownership (own/not own) of vehicle)
- Number of valid respondents:
 - First: 3,200 persons
(800/country X 4 countries)
 - Second: 3,200 persons
(800/country X 4 countries)

EV purchase intention

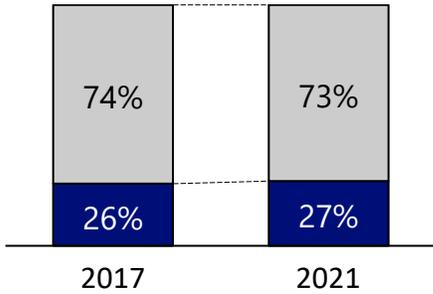
EV purchase intention has grown in regions other than Japan, exceeding 40 percent in the U.S. and Germany



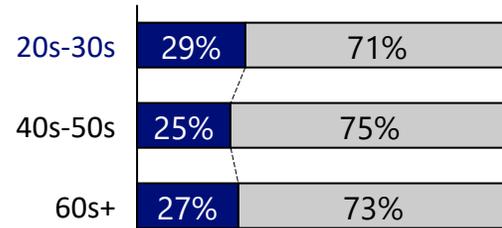
Do you want to buy an EV? (if already have one, want to buy the next time also?)

Japan  ■ Yes, I do. ■ No, I don't.

Change in time (2017→2021)

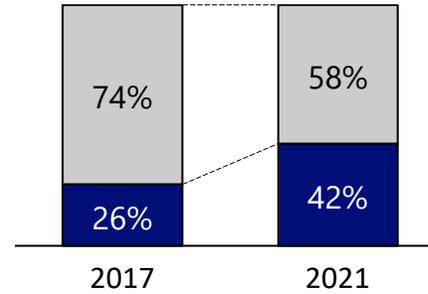


Break-down by age group (2021)

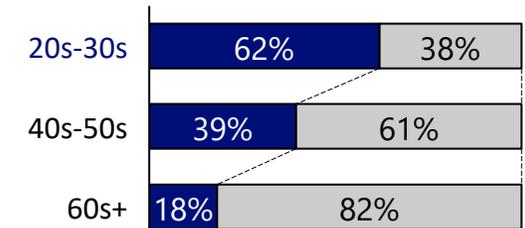


U.S.  ■ Yes, I do. ■ No, I don't.

Change in time (2017→2021)

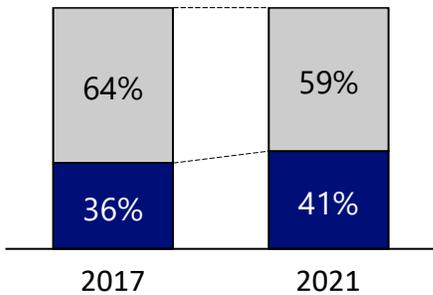


Break-down by age group (2021)

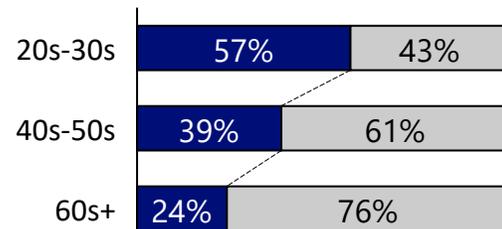


Germany  ■ Yes, I do. ■ No, I don't.

Change in time (2017→2021)

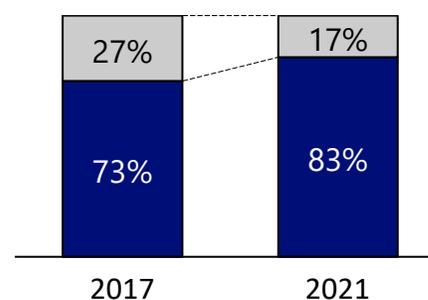


Break-down by age group (2021)

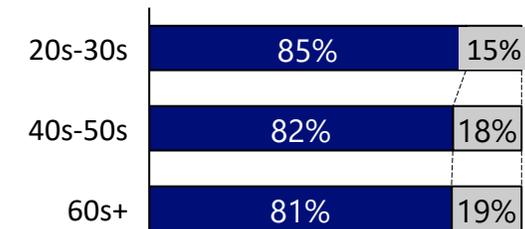


China  ■ Yes, I do. ■ No, I don't.

Change in time (2017→2021)



Break-down by age group (2021)



EV purchase intention

No big change in the perception of EV in Japan and Germany. It is assumed that growing demand for environmental performances helped by other factors such as price reduction of vehicle increased the intention to buy EVs.



What is the reason for wanting/not wanting to buy EV? Please choose the biggest reason.

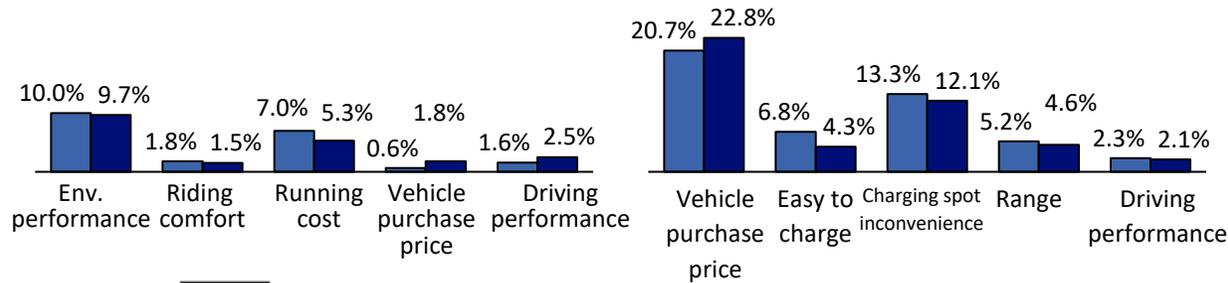
Japan



2017 2021

Reason for wanting to buy EV

Reason for not wanting to buy EV



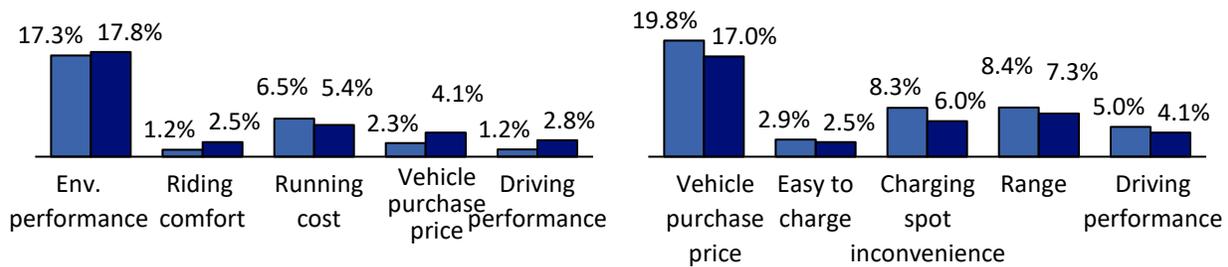
Germany



2017 2021

Reason for wanting to buy EV

Reason for not wanting to buy EV



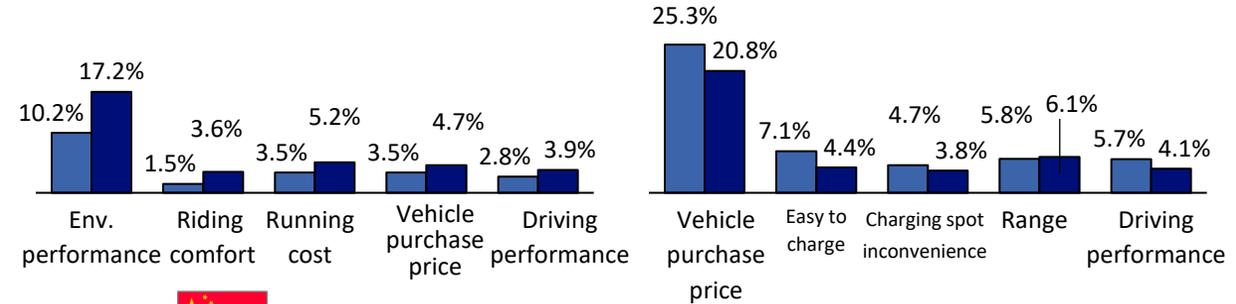
U.S.



2017 2021

Reason for wanting to buy EV

Reason for not wanting to buy EV



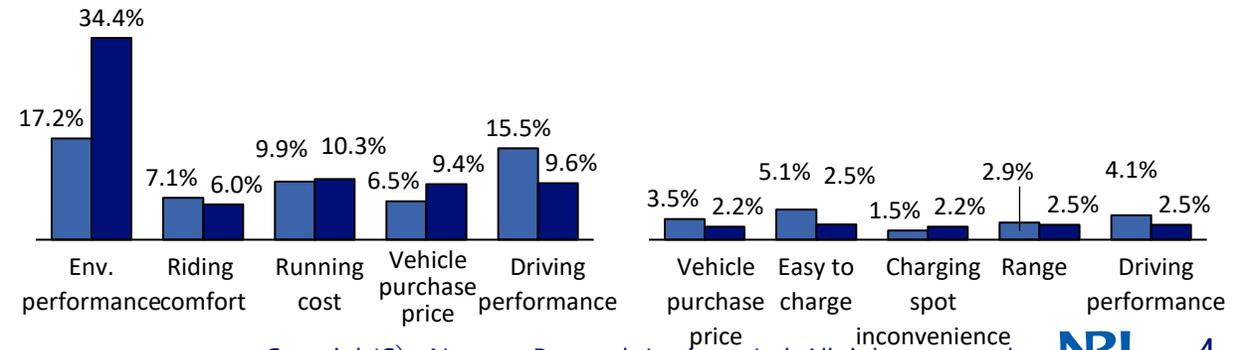
China



2017 2021

Reason for wanting to buy EV

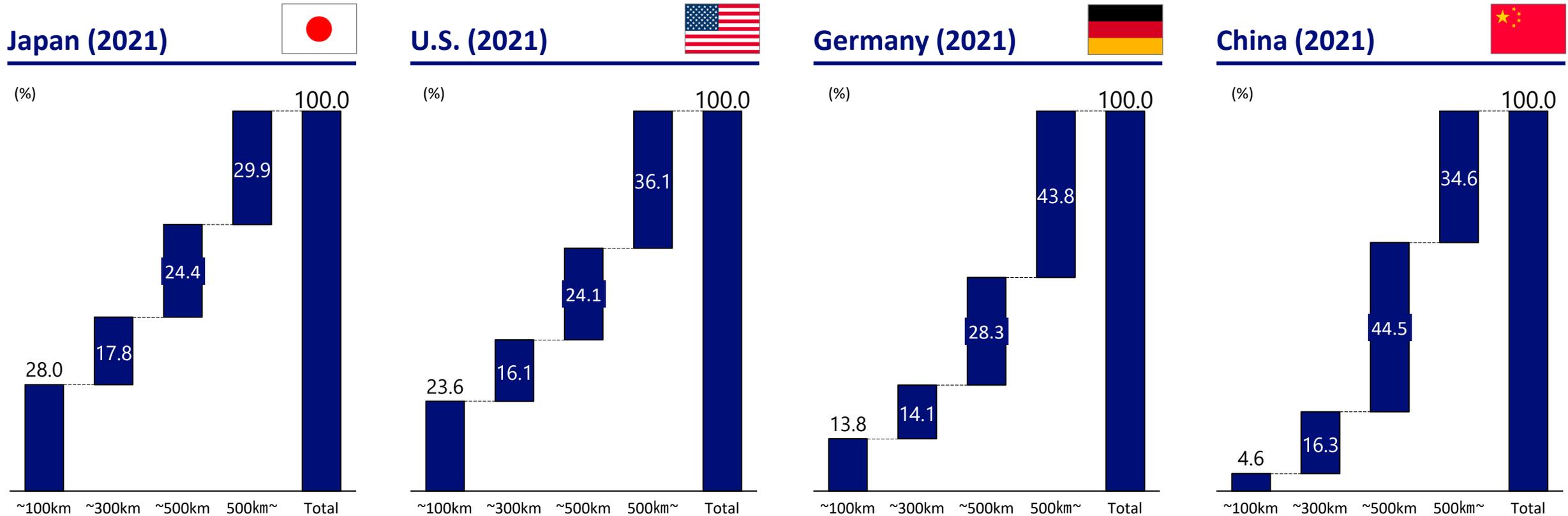
Reason for not wanting to buy EV



Expected EV range

In Japan, more people intends to use EV for short-to-medium range than in the U.S. or Germany, whereas more people want long-range (over 500km) EVs in the U.S. and Germany than in Japan.

✓ With what range per charge, would you use an EV?



Intention to use EV-sharing services

Overall, the younger generation is more positive about EV-sharing services

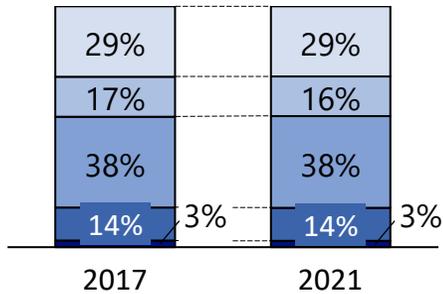


Do you want to use an EV-sharing service, if available?

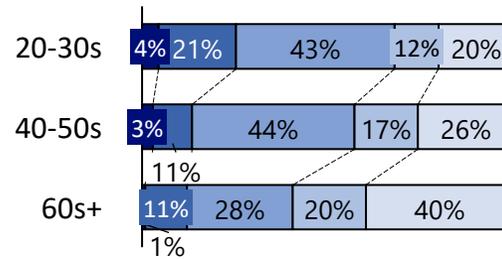
Japan



Change in time: 2017→2021



Break-down by age group (2021)

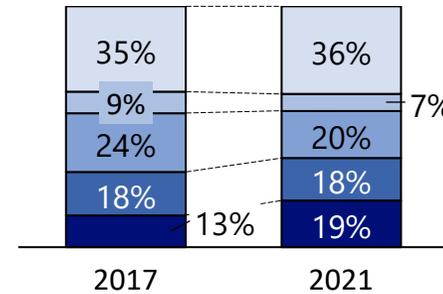


U.S.

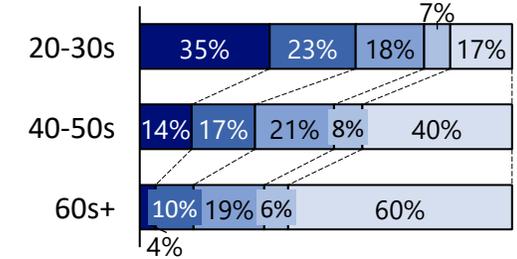


Really want to use it (dark blue), Rather want to use it (medium blue), Neither (light blue), Do not want to use it (white)

Change in time: 2017→2021



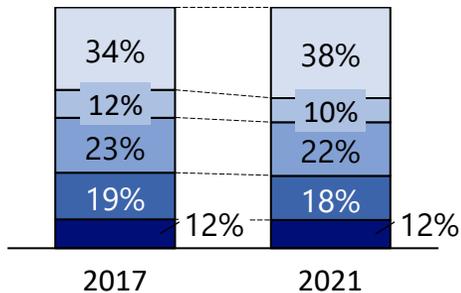
Break-down by age group (2021)



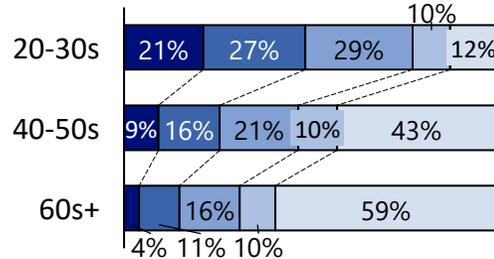
Germany



Change in time: 2017→2021



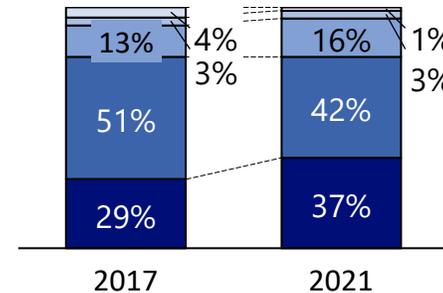
Break-down by age group (2021)



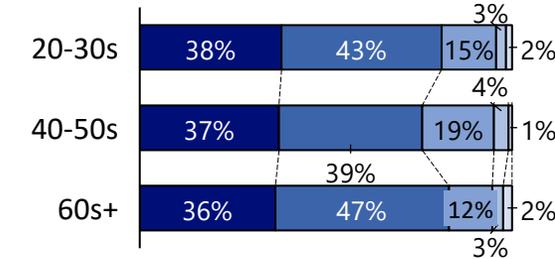
China



Change in time: 2017→2021



Break-down by age group (2021)



Intention to use EV-sharing services

In Japan, price and charging spot inconvenience have become the major obstacles to use EV-sharing, whereas in the U.S. and Germany, price and environmental performance have motivated people to use the services.



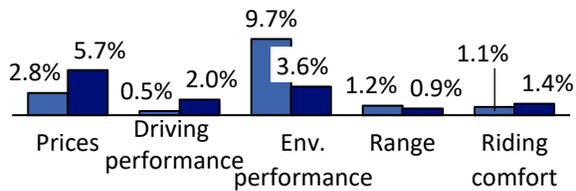
What is the biggest reason for wanting/not wanting to use EV-sharing services?

Japan

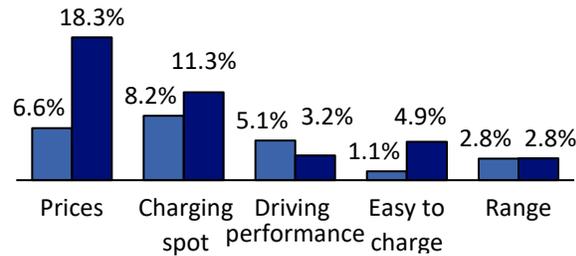


2017 2021

Reason for wanting to use EV-sharing



Reason for not wanting to use EV-sharing

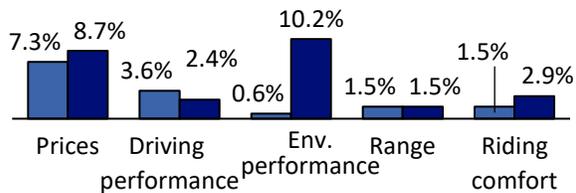


Germany

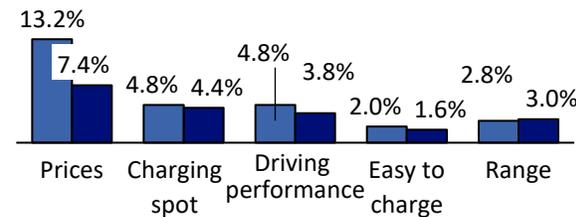


2017 2021

Reason for wanting to use EV-sharing



Reason for not wanting to use EV-sharing

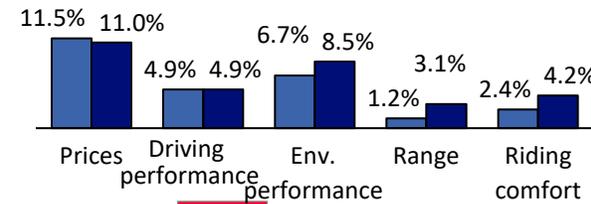


U.S.

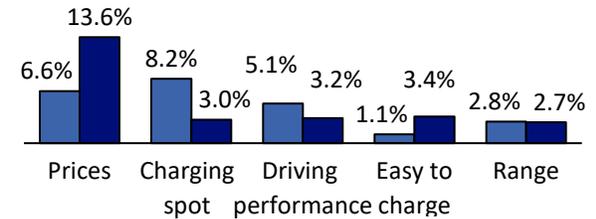


2017 2021

Reason for wanting to use EV-sharing



Reason for not wanting to use EV-sharing

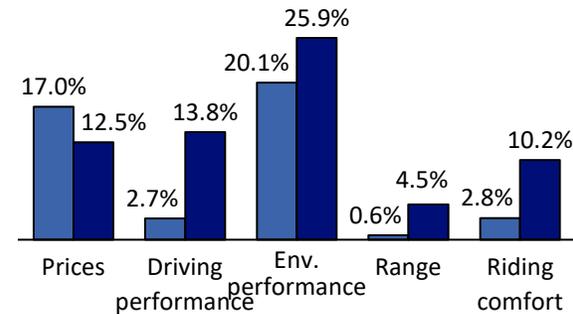


China

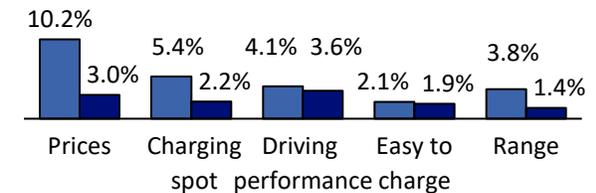


2017 2021

Reason for wanting to use EV-sharing



Reason for not wanting to use EV-sharing



Acceptance of EV models by non-automotive manufacturer, e.g. Apple

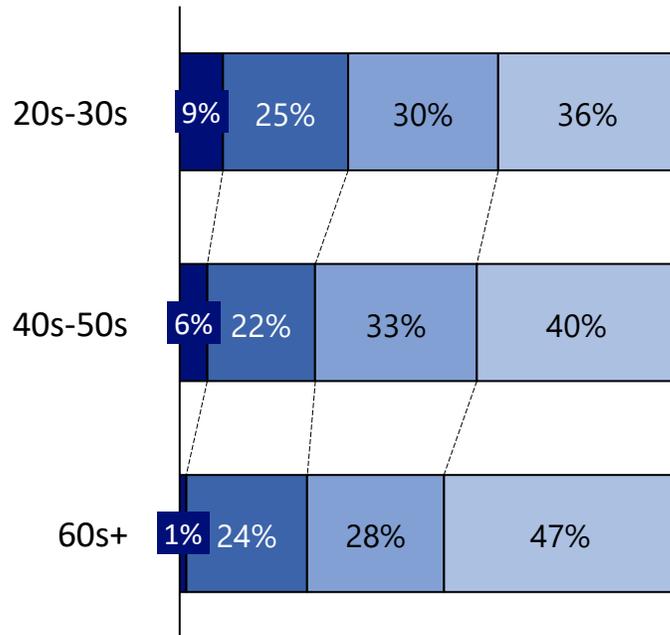
In the U.S. and Germany, young people are positive about emerging EVs, whereas such acceptance is generally low in Japan.



If an unconventional, non-automotive manufacturer, such as Apple, Google or Sony, released an EV model, would you want to own it/ride in it?

- Really want to buy it as a private car
- Carefully consider buying upon test driving it
- Don't want to buy it, but want to ride in it
- Don't want to buy it or ride in it

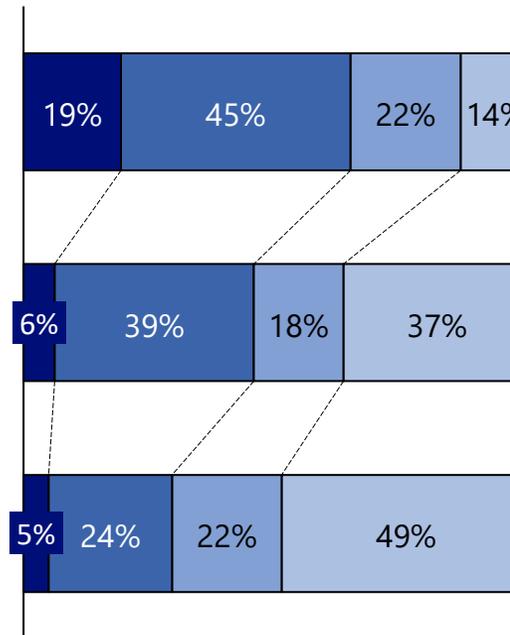
Japan (2021)



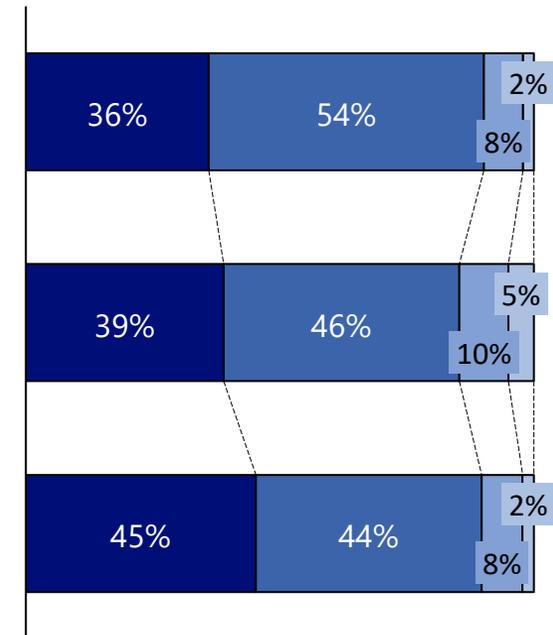
U.S. (2021)



Germany (2021)



China (2021)



Please feel free to contact us for further details.



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Areas of expertise:

Business strategy, business model development and DX promotion service development reform, marketing and collaborative relation development, etc. for manufacturing industry especially in automobile, energy, battery, and chemical.



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The text is framed by two decorative swooshes. The top swoosh is a gradient bar transitioning from blue on the left to red on the right. The bottom swoosh is a solid blue bar.

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