EXAMPLE SLIDES

EV Satisfaction Study 2025

EVs from the Users' Perspective

USCALE GmbH
www.uscale.digital

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Objective

Initial Situation:

- Compared to combustion engines, which have been optimised for over 100 years, battery electric vehicles are still at the beginning of their technical development.
- In order to compete successfully, manufacturers need detailed and systematic customer feedback as early as possible.

Objectives:

- What new use cases are resulting from the electric drive? What are the resulting requirements?
- Which e-specific features are particularly relevant and how do they need to be designed to improve satisfaction?
- How do EV drivers evaluate the concepts? What are the strengths and weaknesses of the various brands?
- What recommendations do users have for their EVs manufacturers?

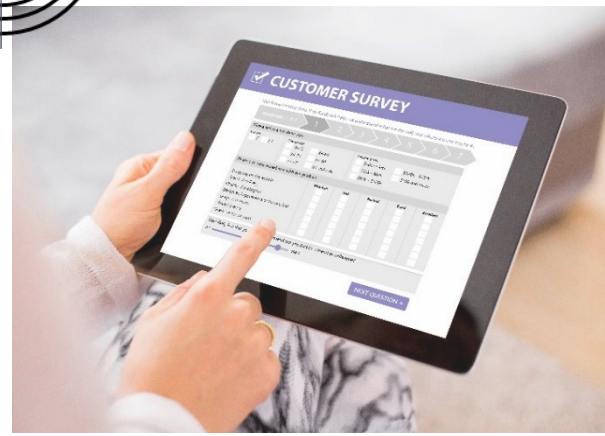
Target Group

Survey:

- Target Group: Owners of fully battery-electric vehicles (no Plug-in Hybrids)
- Survey: Online-Survey (CAWI)
- Market: DACH
- Recruiting: Social Media
- Lenth of Interview: 15 - 20 min
- Field phase: May - June 2025

Sample size:

- Total sample size: N = 5.004

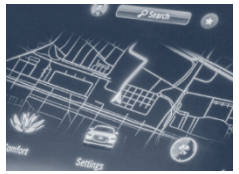


EV-specific Use Cases and Features

Driving

- Range
- Eco-modes
- Regenerative braking
- Driving and functional noises

Navigation System



- Functions used
- Usage habits
- Problems
- Recommendations

Charge management

- Route Planning, thermal mgmt.
- Charging settings, charging capacity
- Charge mgmt., charging problems
- Accommodation of charging cable, position of charging port

Display and operating concept

- Range indicator
- Charging indicator
- Energy Monitor
- Other displays in the cockpit

Connect app

- Functions used
- Usage habits
- Problems
- Recommendations

Heating and air conditioning

- Pre-conditioning, heating, air conditioning
- Usage behaviour
- Problems
- Recommendations

Survey Structure

EV Owners were asked about EV-specific features according to...

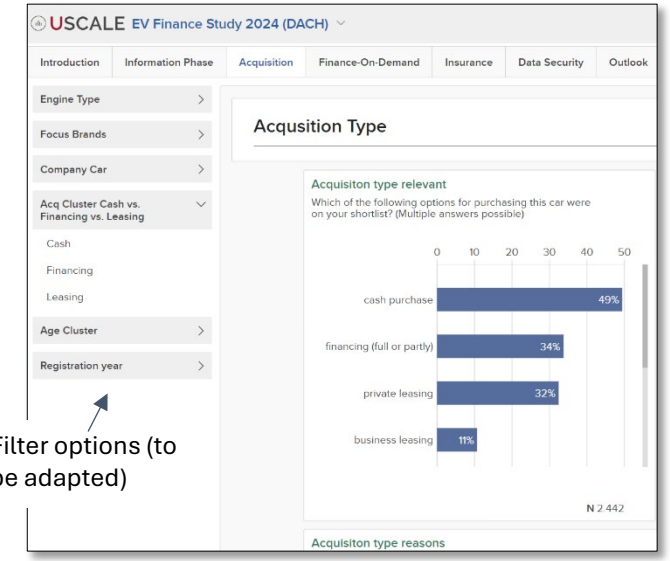
Usage habits	"How often do you use ...?" "Which of the following functions do you use...?"
Problems	"Have you already had problems with ...?" "What kind of problems have you had?"
Concept maturity	"How mature are the technical concepts of your [brand] regarding ...?"
Recommendations to manufacturers	"Do you have any recommendations to [your brand] on ...?"

Dashboard for Individual Analyses

Working with the dashboard

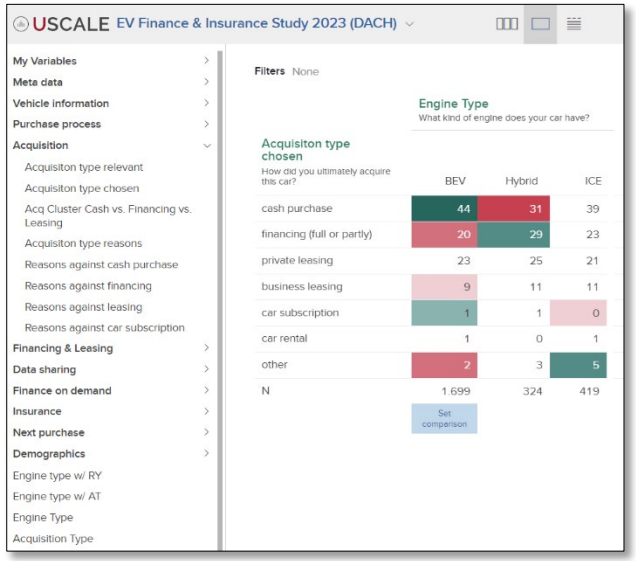
The dashboard provides access to all detailed data. It allows you to carry out your own analyses and download any data splits.

Split of all results by sub-target groups:



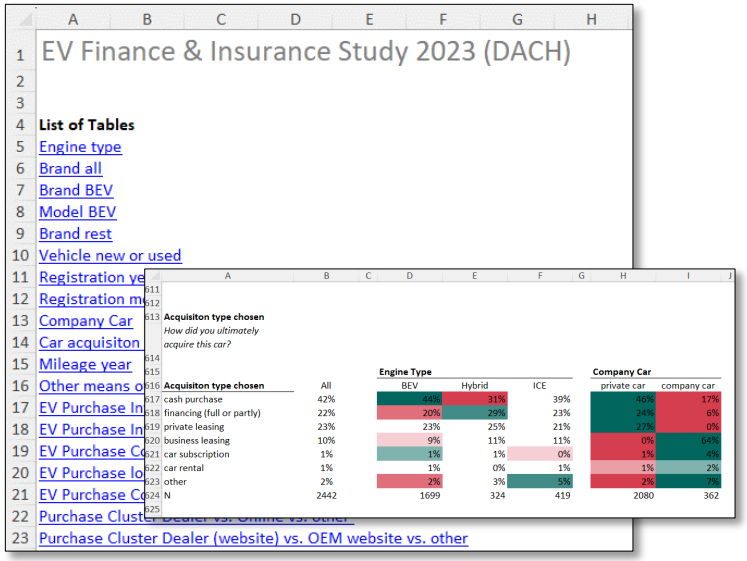
Filter options (to be adapted)

Correlations and statistical analyses:



Download all data as xls and ppt:

Example



Content

Management Summary

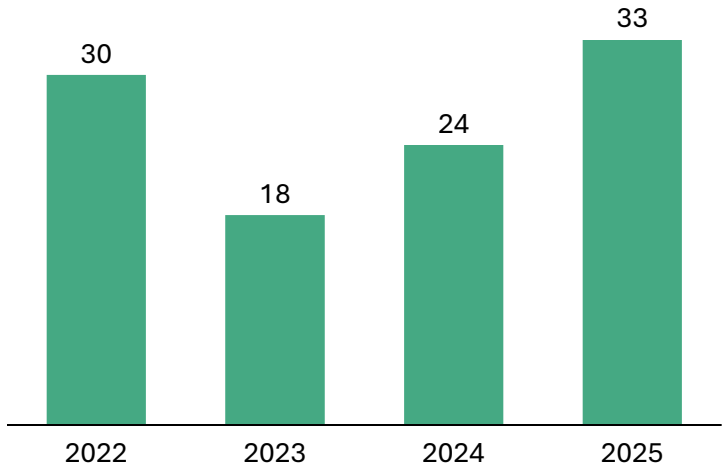
1

Increasing readiness to recommend their EVs

After a decline in 2023, drivers are becoming increasingly satisfied with the overall performance of all vehicles.

Compared to 2024, the so-called Net Promoter Scores, an indicator for the owners' willingness to recommend their EV to a friend, has increased by 9 points.

Net Promoter Scores (NPS values):



NPS-values calculated from responses to "In summary: How likely is it that you would recommend your [brand] to a friend or colleague?"

Management Summary

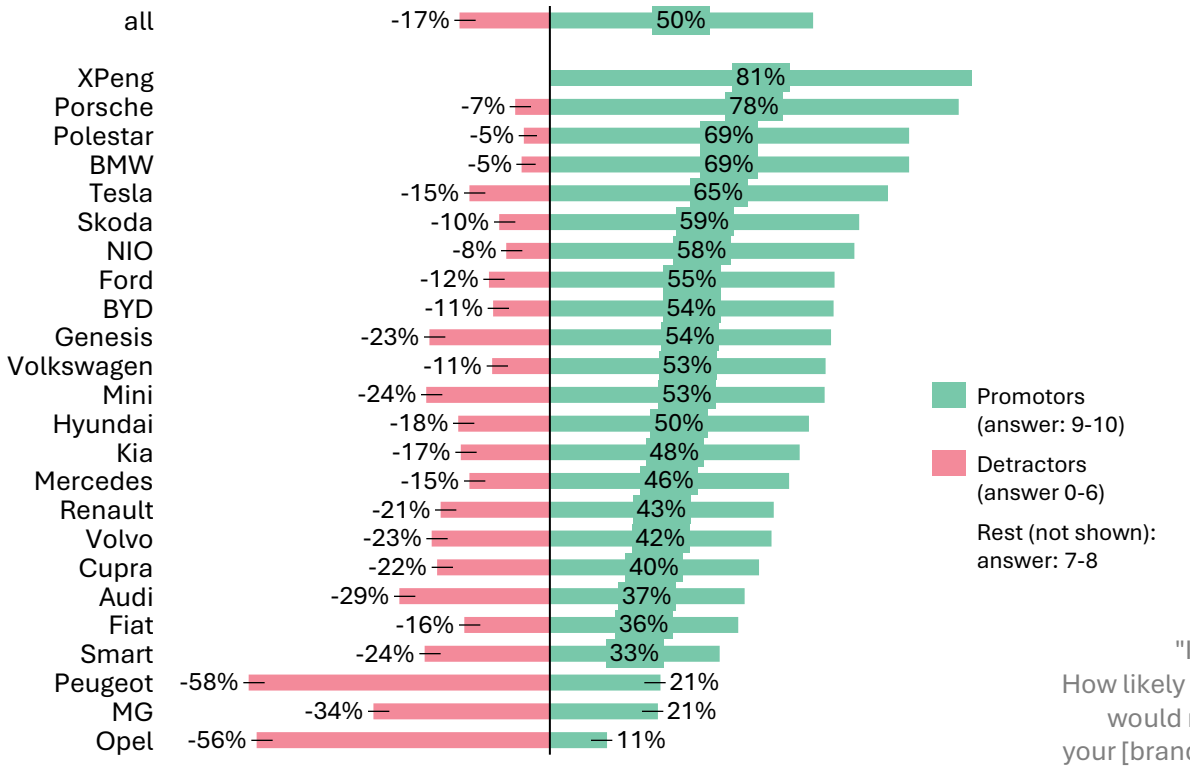
2

Hugh spread between recommendation of the brands

However, the performance of the brands varies considerably. Tesla is no longer the number one, with the XPeng taking over followed by Porsche and Polestar. Peugeot, MG and Opel are carrying the red lantern.

Overall, Chinese show high performance spread with Xpeng, Polestar and NIO in top ranks, while Smart and MG disappoint.

Promotors and Detractors according to the Net Promoter Score logic:



"In summary: How likely is it that you would recommend your [brand] to a friend or colleague?"

Management Summary

3

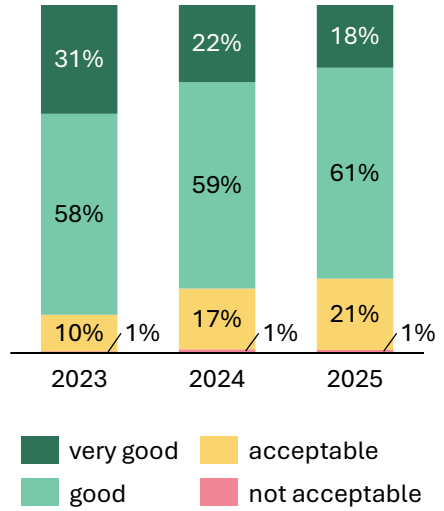
Range follows expectation

Expectations are rising: 79% rate a ‘real’ summer range of 400 km as (very) good. In recent years, this figure was significantly higher.

At the same time, actual ranges have improved significantly: Today, 50% of respondents state that they drive an EV with a real summer range of more than 400 km.

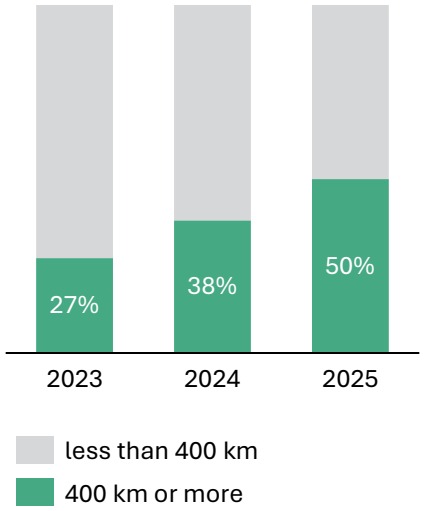
‘Real’ summer range of 400 km:

Expected range



„Independent of the charging capacity of your [brand]: How do you rate a ‘real’ summer range of 400 km?”

Actual range



„What is the actual ‘real’ summer range of your [brand]?”

Management Summary

4

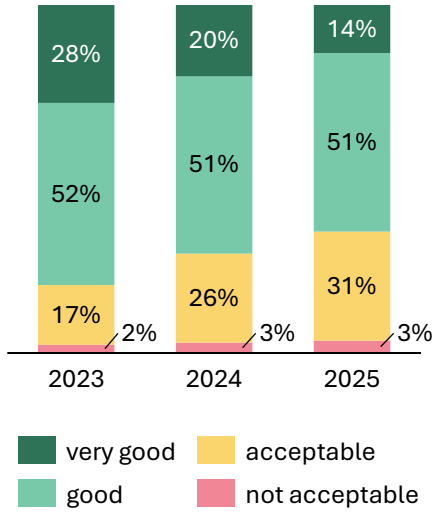
DC charging capacity outperforms expectation

While last year 71% of EV drivers rated a charging capacity of 150 kW as (very) good, this year the figure is only 65%.

Reality is keeping pace: as charging capacity requirements increase, so do the actual values of EVs: 75% of all respondents say that their EV has a maximum charging capacity of 150 kW or more.

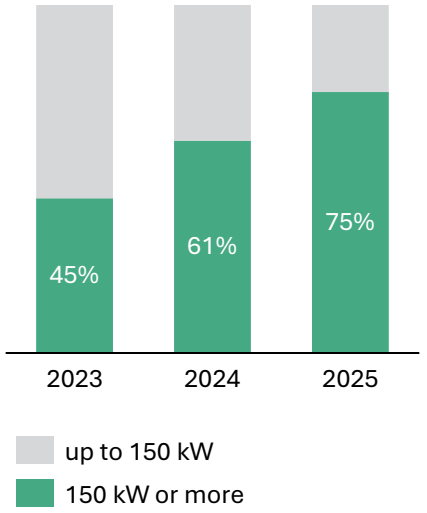
Maximum DC Charging Capacity of 150kW:

Expected charging capacity



„Independent of the charging capacity of your [brand]: How do you rate a DC charging capacity of 150kW?"

Actual capacity



„What is the actual maximum DC charging capacity of your [brand]?"

Management Summary

5

Many recommendations to the brands

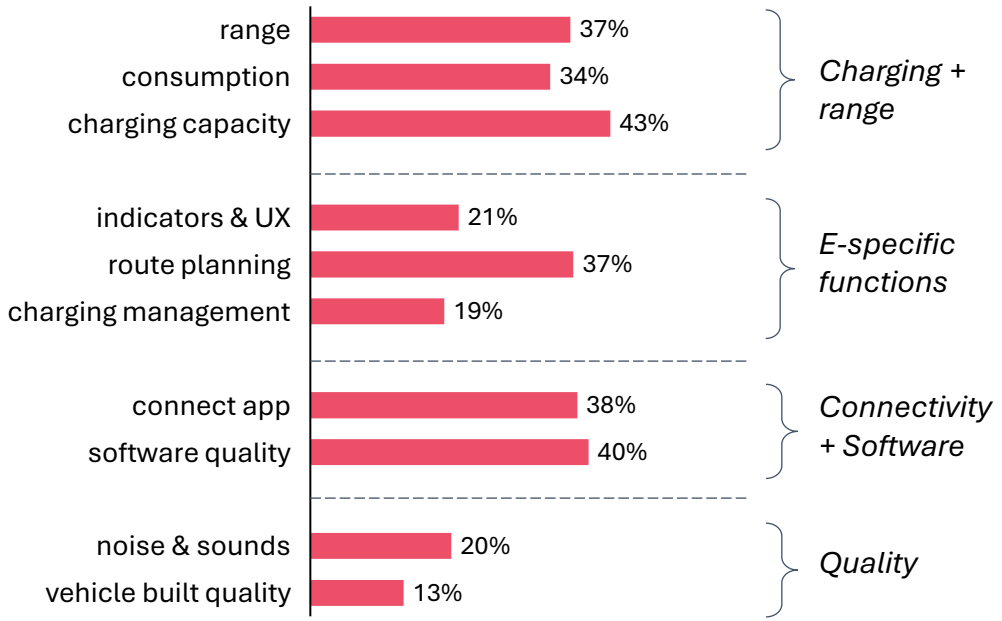
Despite the improvements, there is still much to be done.

In addition to the much-discussed topics of range, consumption and charging speed, there are three areas of focus:

1. EV-specific functions and operation
2. Connectivity and Connect app
3. Quality and acoustics

The actual needs for action vary strongly between brands.

Topics with a particular need for action:



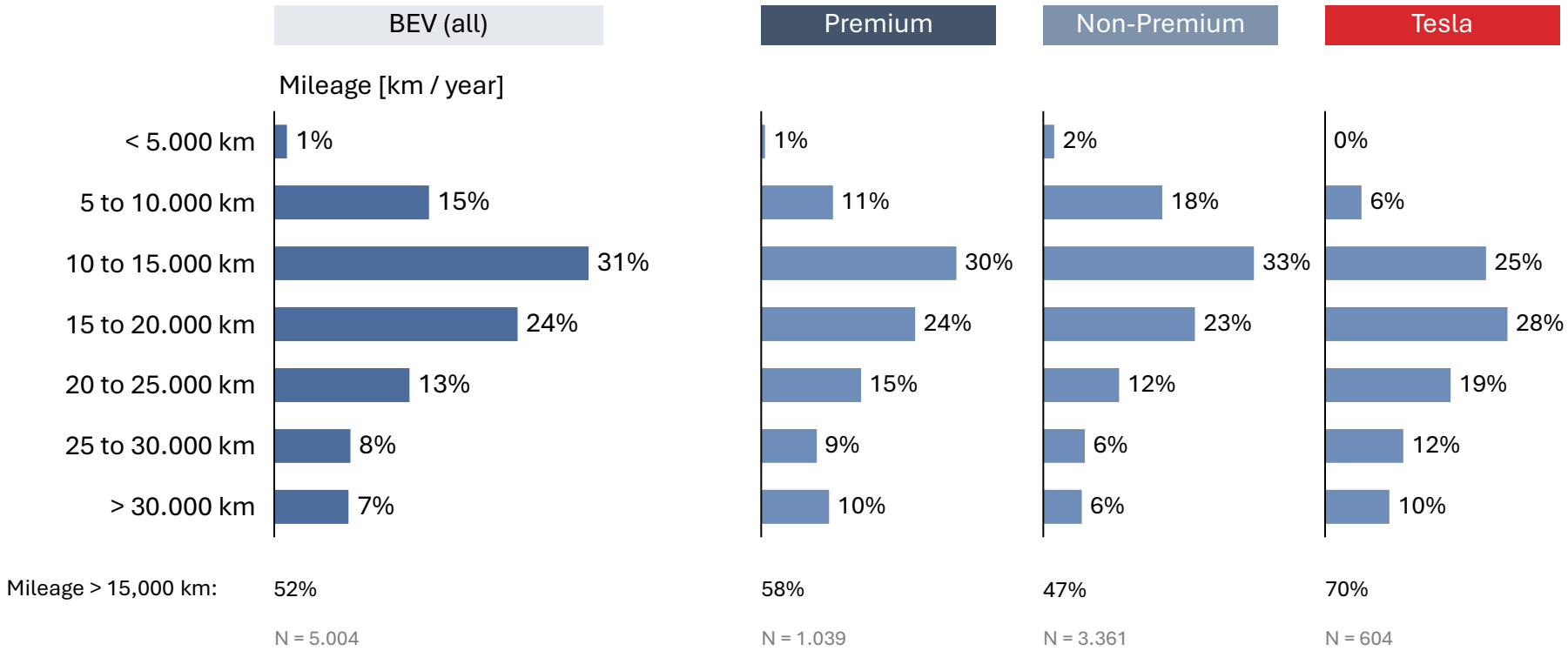
"In summary, what areas do you believe [brand] should prioritise for improvement?

Content

Mileage / Year

The average annual mileage is still higher than that of combustion engines (which is less than 15,000 kilometres according to DAT reports).

"Approximately how many kilometers do you drive with your [brand] per year?"



Content

Range Assessment

However, only 18% think a real summer range of 400 km is very good. Expectation of premium car drivers is higher than the expectation of non-premium brands drivers. Note: Tesla drivers have lower expectations than drivers of premium brands.

"Regardless of the range of your [brand]:

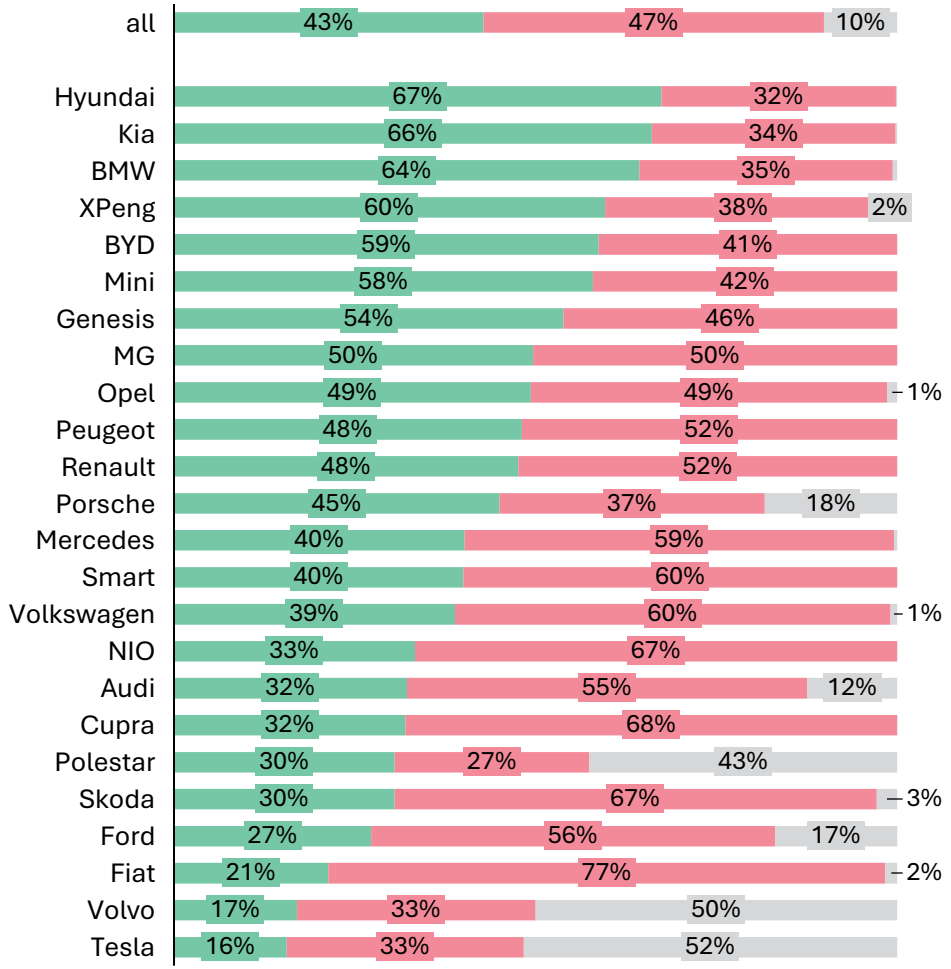
How would you rate the following 'real' summer ranges for an all-electric vehicle?"

N = 5.004 N = 1.039 N = 3.361 N = 604

Content

ECO Mode Usage

Almost half of EV drivers whose vehicle has an ECO mode use it. The figure has not changed significantly compared to 2024.



"Do you use the ECO mode in your [brand] to maximise range?

(Other designations or names may be used for your [brand])."

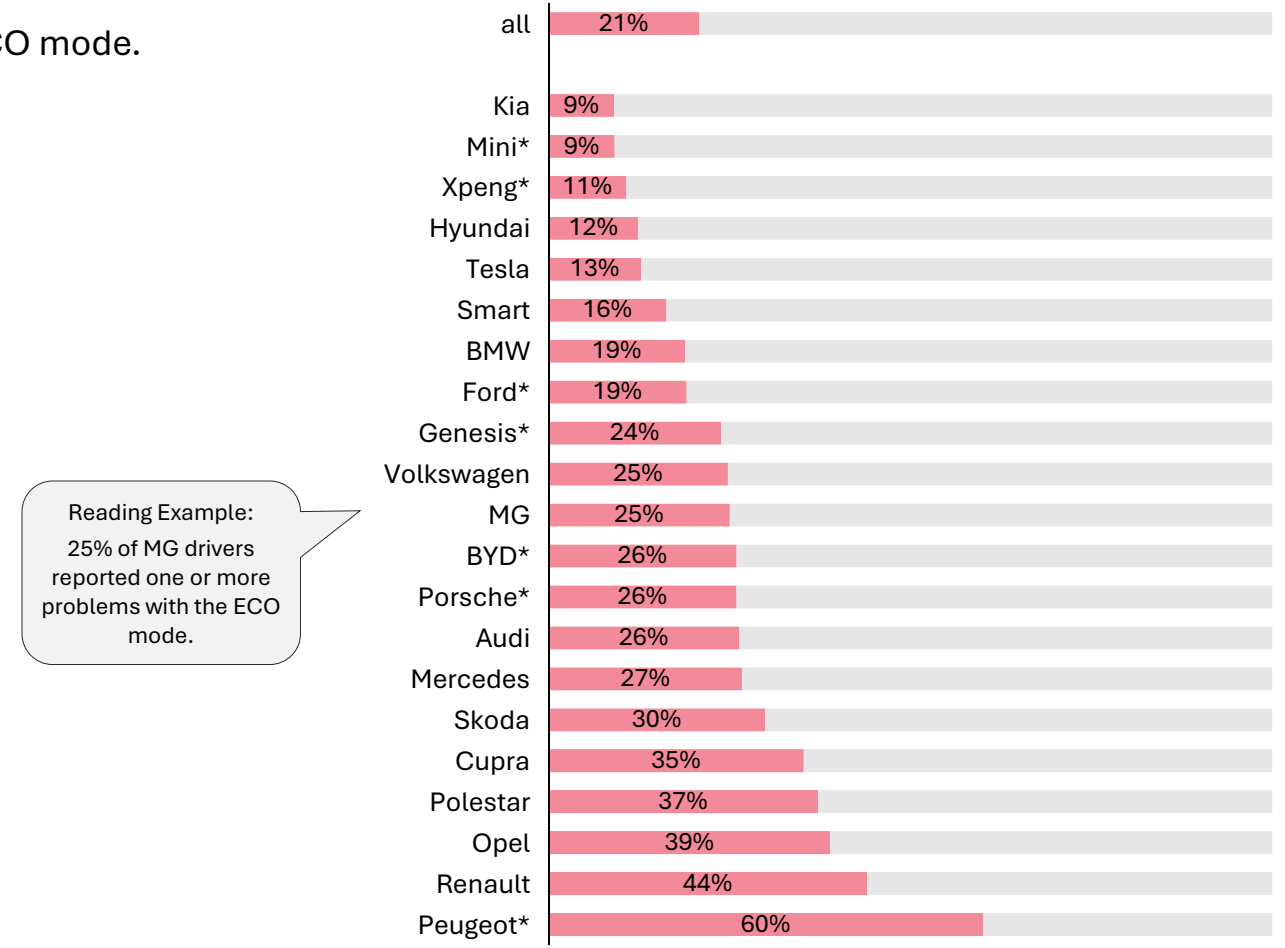
Reading Example:

33% of all NIO drivers use the ECO mode.

N = 36 - 804

Problems

One in five cite problems when using ECO mode.
In 2024, the figure was 25%.



Reading Example:
25% of MG drivers reported one or more problems with the ECO mode.

N = 21 - 514

ECO mode usage = yes:

"Have you encountered any issues or difficulties while using the ECO mode?"

(any problem marked)

* N < 30

Problem Type

The main complaint is that the heat output in ECO mode is too low.

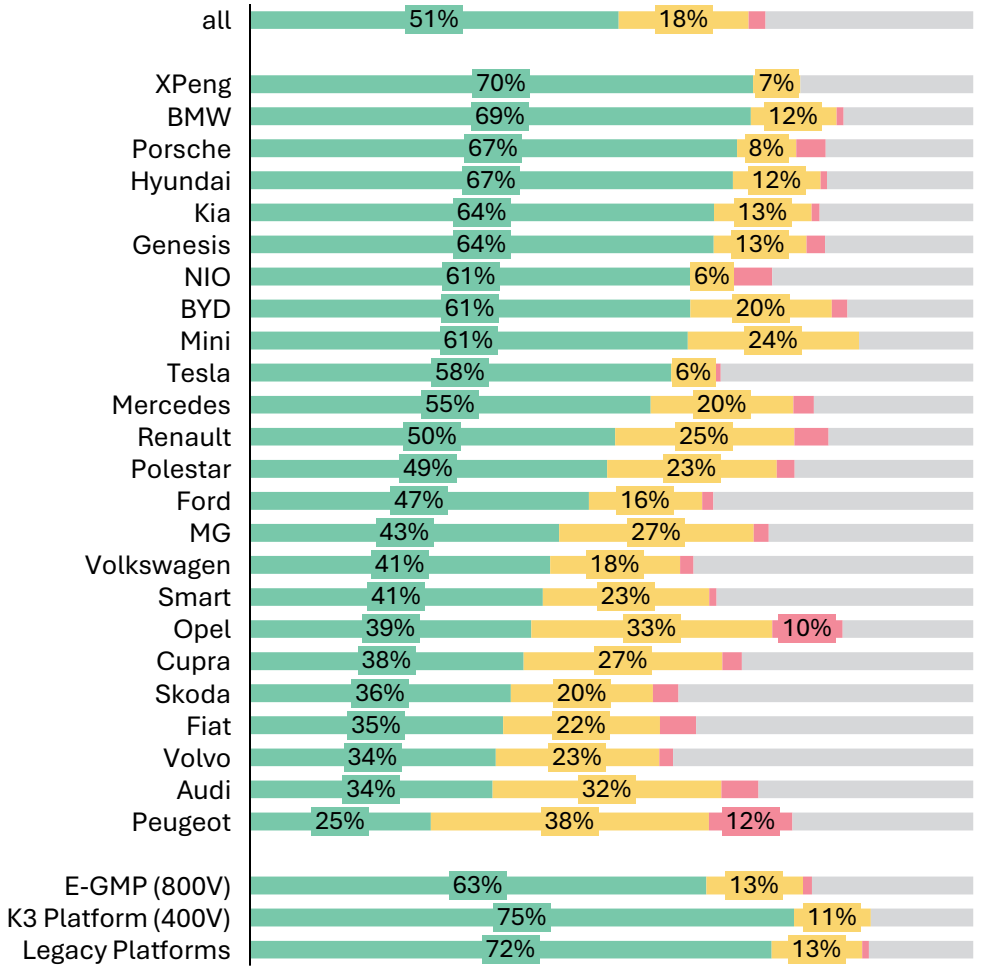
ECO mode usage = yes:

"Have you encountered any issues or difficulties while using the ECO mode?"

(multiple answers possible)

Concept Maturity

Of the 27 concepts assessed, the ECO mode concept ranks 9th. The weighted average value has slightly increased compared to 2024*.



N = 36 - 802

ECO mode = available:

"What is your opinion on the maturity of the technical concepts implemented in the ECO mode of your [brand]?"

* The weighted average of all responses for

1 = poorly developed
2 = need for improvement
3 = well developed

is a value of 2.68 points.

For comparison:

- 2024: 2.60 points
- 2023: 2.59 points.
- 2022: 2.55 points.

ECO Mode

Accepted Restrictions

Restrictions on driving performance are accepted by most respondents.
Limitation of the charging capacity or comfort are not acceptable.

ECO mode = available:

"ECO modes save energy. Unfortunately, this usually comes at a cost.

Which restriction terms of range, do you find the most acceptable?"

ECO Mode

Recommendations

Most of the recommendations relate to the general concept of the ECO mode. More people want a last mode than last year, with an increase from 8% to 18%.

ECO mode usage = available:

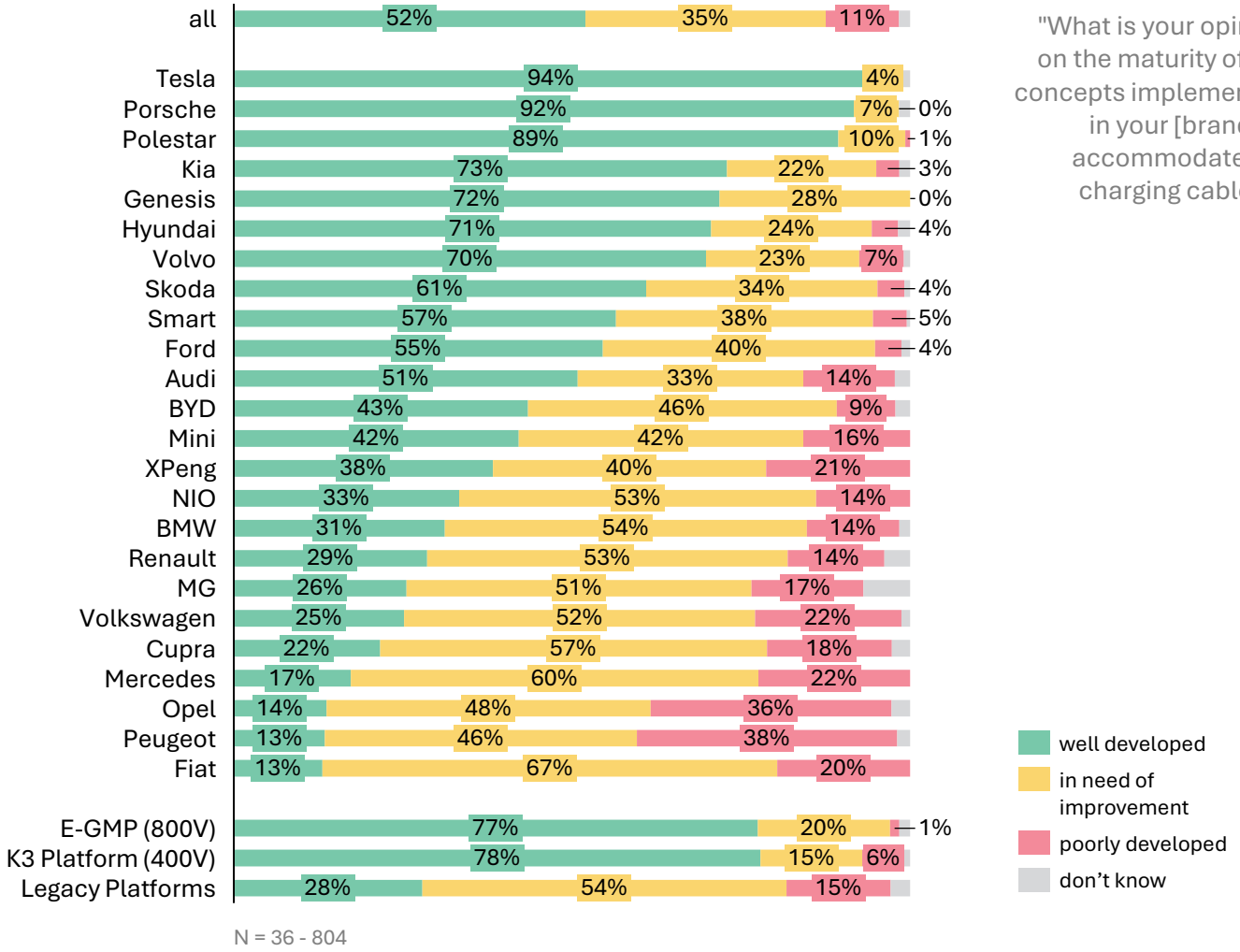
"Do you have any recommendations to [your brand] for ECO modes?"

For all AI clustered verbatims see study dashboard

Content

Concept Maturity (Stowage of Charging Cable)

Of the 27 concepts assessed, the cable stowage concept ranks 22nd. The weighted average value has slightly increased compared to 2024*. The differences between the brands are significant.



N = 36 - 804

"What is your opinion on the maturity of the concepts implemented in your [brand] to accommodate the charging cables?"

* The weighted average of all responses for

1 = poorly developed
2 = need for improvement
3 = well developed

is a value of 2.42 points.

For comparison:

- 2024: 2.38 points
- 2023: 2.39 points.
- 2022: 2.14 points.

Content

Problems with Battery Management

The problems with the thermal battery management have strongly decreased by 8 percentage points compared to 2024. The differences between brands are significant.

Thermal battery mgmt. usage = yes, manually or yes, automatically:

"Have you encountered any issues with the battery thermal management?"

(any problem marked)

N = 32 - 698

** N < 20

Thermal Battery Management and Charging Curve

Concept Maturity Battery Management

Of the 27 concepts assessed, the thermal battery management ranks only 24th. The weighted average value has significantly increased compared to 2024*.

"What is your opinion on the maturity of the technical concepts implemented in your [brand] regarding thermal battery management?"

N = 36 - 804

* The weighted average of all responses for

1 = poorly developed
2 = need for improvement
3 = well developed

is a value of 2.35 points.

For comparison:

- 2024: 2.12 points.
- 2023: 2.07 points.
- 2022: (no data available)

Recommendations

Most recommendations relate to the ability to manually control the thermal battery management and its effectiveness.

Thermal battery mgmt. usage ≠ not possible:

"Do you have any recommendations to [your brand] on thermal battery management?"

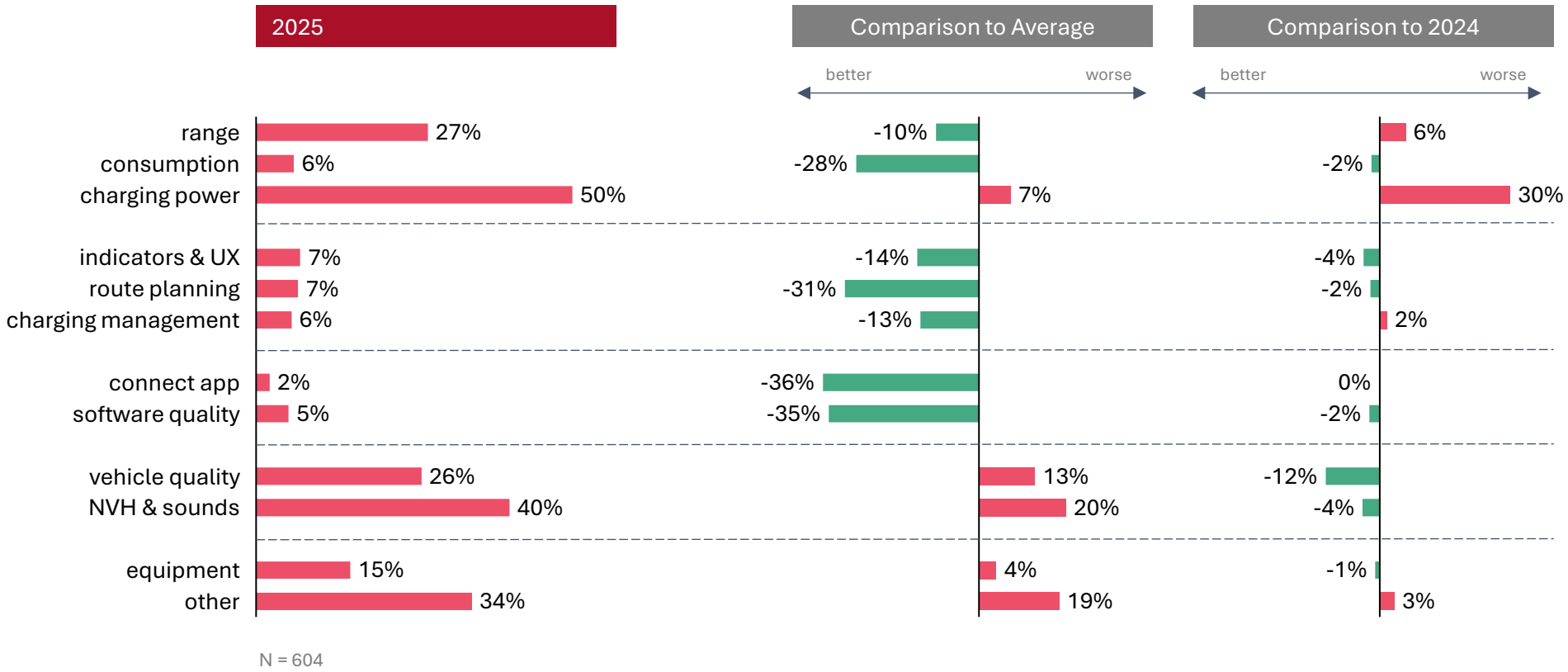
For all AI clustered verbatims see study dashboard

Content

Prioritized Needs for Improvement: Tesla

"In summary, what areas do you believe [your brand] should prioritise for improvement?"
(multiple answers possible)

Impressive performance in most EV related areas. Strong need for improvement in quality and NVH.
Owners report a high peak capacity, but charging curve is no longer state of the art.



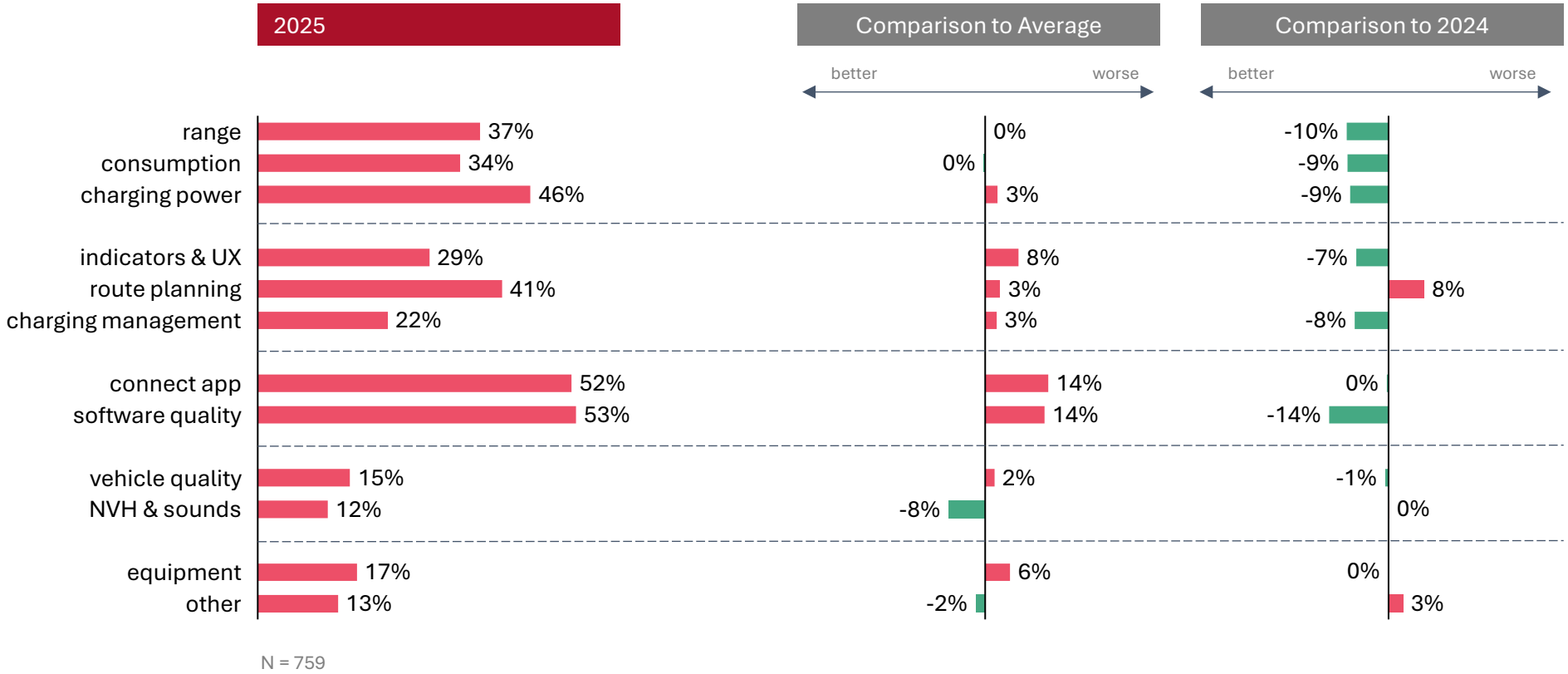
N = 604

Prioritized Needs for Improvement: VW

"In summary, what areas do you believe [your brand] should prioritise for improvement?"
(multiple answers possible)

Overall, below average performance with need for improvement in many areas.
Thanks to the ID.7 improvements are visible compared to 2024.

(only ID.x)

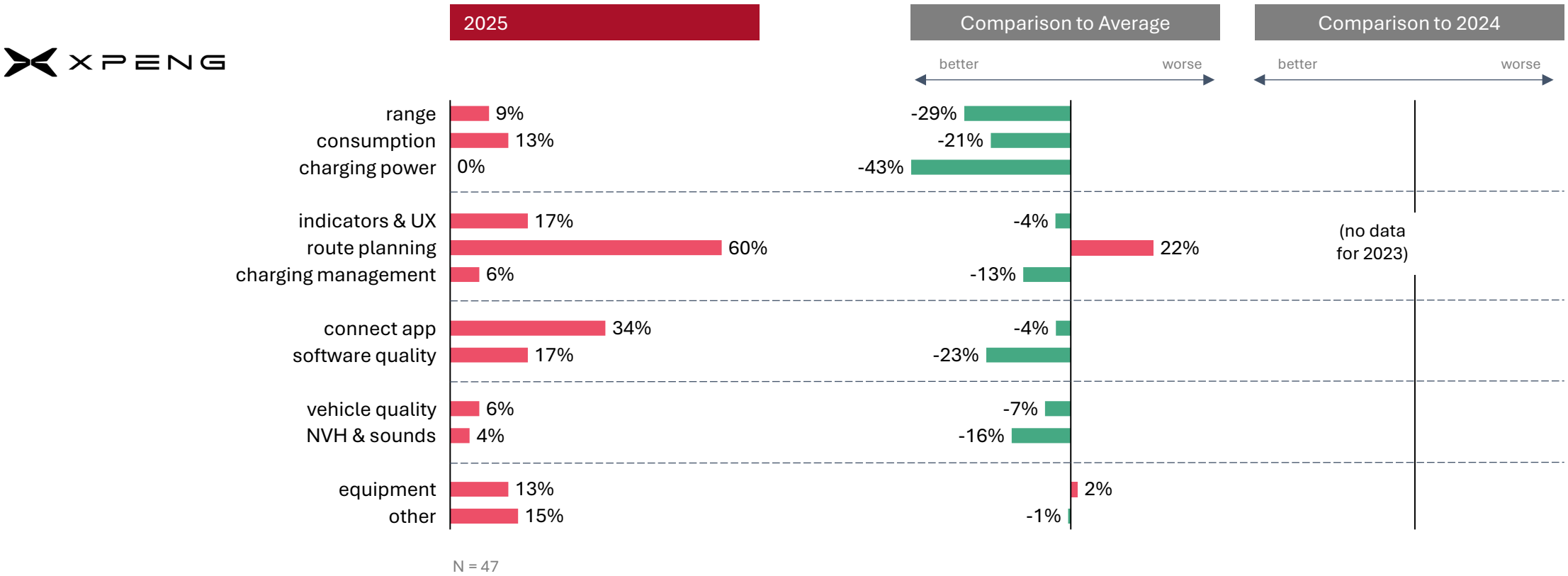


N = 759

Prioritized Needs for Improvement: XPeng

Strong above average performance, but need for improvement regarding route planning.

"In summary, what areas do you believe [your brand] should prioritise for improvement?"
(multiple answers possible)



N = 47

SCALE YOUR USER
SCALE YOUR BUSINESS

Axel Sprenger

Managing Director
USCALE GmbH

mail	axel.sprenger@uscale.digital
phone	+49 172 - 1551 820
web	www.uscale.digital
postal	Silberburgstrasse 112
	D - 70176 Stuttgart