

Study extract (full report: approx. 110 pages)

Private Charging Study 2024

Charging at home from the user's perspective

USCALE GmbH uscale.digital



Private Charging Study 2024 **Objective**

Initial situation:

- While charging at home is and is likely to remain the most important charging location for EV drivers, the number of providers on the market is increasing.
- This increases the pressure on manufacturers and importers to stand out from the competition with attractive and customised quotations and to withstand the pressure to consolidate.
- For private charging, there is a lot of potential for providers to offer new products and services beyond a wall charger.

Question:

- How do EV drivers charge today?
- What information are buyers of private charging solutions looking for? Where do they buy or want to buy?
- Are there differences between the target groups?





Private Charging Study 2024 Target group

Survey and sample:

- Target Group (chapter 2): EV driver
 - Sample size:
- Target Group (chapter 3): EV driver who charge at home Sample size: N = 1.223 (subgroup of the total sample)

Germany

15 - 20 min

- Target Group (chapter 4):
- EV driver with company car Sample size: N = 497

Social Media, Access Panel *

July - September 2024

- Survey: Online-Survey (CAWI)
 - Market:
- Recruting:
 - Length of Inverview:
- Field period:

(subgroup of the total sample)

N = 2.986*

* The majority of participants in the social media panel are early EV adopters and tech-savvy individuals. The report refers to this group as INNOVATORS.

The participants in the Access Panel are generally less tech-savvy and only decided in favour of an electric vehicle at a later stage. The report describes this group as the Next SEGMENT.



The selection of survey participants

The eMobility market is in the ramp-up phase, i.e. the majority of current EV drivers belong to the group of so-called **innovators** and **early adopters** in the early phase. Only a small proportion of EV drivers come from the **early majority** group. *

Recruitment is based on the assumption that it is mainly innovators who can be reached in specialist forums and on **social media**, whereas the early majority can be reached in **access panels**. In recent years, we have implicitly assumed this connection. We now have very strong confirmation of this assumption from the USCALE persona study: the majority of participants from the social media panel are "eco-enthusiastic techies", while the majority of access panel participants are spread across the other segments.

In order to achieve as **representative a distribution** as possible, a ratio of social media to access panel study participants of around **50 to 50** was selected.

In the report, the two groups are representative of different adopter groups (social media panel = innovators and early early adopters, access panel = later early adopters and early majority. If the results differ for both groups, they indicate a trend.



* This classification is based on Rogers' diffusion model (<u>LINK</u>).

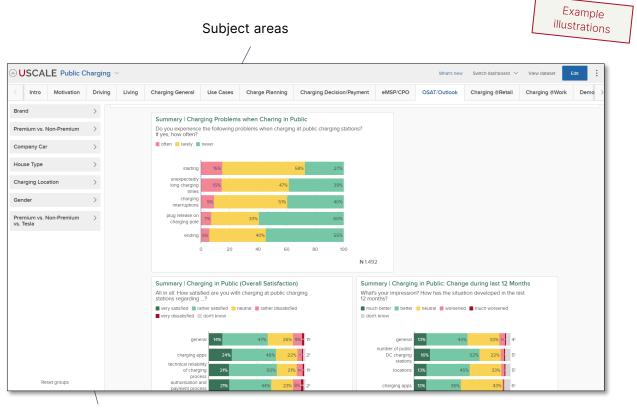


Study dashboard for your own analyses

Deep dives and brand splits.

The breadth and depth of information in the focus studies is considerable.

The private charging study therefore also includes a dashboard for further splits. For example, differences between certain sub-target groups and certain brands can be displayed separately.



Filter options



Study dashboard for your own analyses

Analysis options in 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 subtarget groups:

Introduction	Information Phase	Acquisition	Finance-On-Demand	Ins	urance	Da	nta Secu	rity	Outlool
Engine Type > Focus Brands >									
		Acque	ition Type						
Company Car > Acquisiton type relevant									
Acq Cluster Cash vs. Financing vs. Leasing			Which of the following op on your shortlist? (Multipl	otions	for purc wers po	:hasing ssible)	this car v	vere	
Cash				0	10	20	30	40	50
Financing									
Leasing			cash purchase	•					49%
Age Cluster	>		financing (full or partly				34%		
Registration year >			inteneng (ten or party	-			5476		
			private leasing	9			32%		
er optio stomis			business leasing	9	11%				
								N 2	2.442
			Acquisiton type reaso	one					

Correlations and statistical analyses:

My Variables	>	Filters None			
Meta data	>	Filters None			
Vehicle information	>		Engine Type		
Purchase process	>		What kind of en	gine does your ca	r have?
Acquisition	\sim	Acquisiton type chosen			
Acquisiton type relevant		How did you ultimately acquire	2010/07		000040
Acquisiton type chosen		this car?	BEV	Hybrid	ICE
Acq Cluster Cash vs. Financing vs.		cash purchase	44	31	39
Leasing Acquisiton type reasons		financing (full or partly)	20	29	23
Reasons against cash purchase		private leasing	23	25	21
Reasons against financing		business leasing	9	11	11
Reasons against leasing		car subscription	1	1	0
Reasons against car subscription		car rental	1	0	1
Financing & Leasing	>	carrental	1	0	- A.
Data sharing	>	other	2	3	5
Finance on demand	>	N	1.699	324	419
Insurance	>		Set		
Next purchase	>		comparison		
Demographics	>				
Engine type w/ RY					
Engine type w/ AT	1				
Engine Type	1				
Acquisition Type					

Download all data as xls and ppt:



1	EV Finance & Insura	nee J	LUUY 20.	23 (0)	City		
2							
3							
4	List of Tables						
5	Engine type						
-							
6	Brand all						
7	Brand BEV						
8	Model BEV						
9	Brand rest						
10	Vehicle new or used					_	
11	Registration ye	В	C D	E	F G	н	1
11 12	611	В	C D	E	F G	н	I
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12 13	Registration m 612 Company Car How did you ultimately	В	C D	E	F G	н	I
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12 13 14 15	Registration %11 Company Car \$13 Acquisiton type chosen How did you ultimately acquire this car? Mileage year \$14 Other means op16 Acquisiton type chosen	All	Engine Type BEV	Hybrid	ICE	Company Car private car	company car
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12 13 14 15 16 17 18 19	Registration %11 Company Car %13 Acquisiton type chosen %20 di you ultimately Car acquisiton %20 di you ultimately Mileage year %14 Other means of 16 Acquisiton type chosen %17 EV Purchase In %19 private leasing %16 EV Purchase In %19 private leasing %21 car subscription EV Purchase In %22 car ental %22	All 42% 22% 23% 10% 1%	Engine Type BEV 44% 20% 23% 9% 1%	Hybrid 31% 29% 25% 11% 0%	ICE 39% 23% 21% 11% 0% 1%	Company Car private car 45% 24% 27% 0% 1% 1%	17% 6% 0% 64% 4%
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- 1. Management Summary
- 2. Living, driving and charging behaviour of the target group
 - Demography
 - Living
 - Driving
 - Charging locations and habits
 - Motivation and general concerns
- 3. Charging at home
 - Purchase process charging technology at home
 - Private charging technology
 - User story for charging use case at home
 - Problems and satisfaction
 - Outlook: New decision
 - Charging contracts
- 4. Employer Benefits

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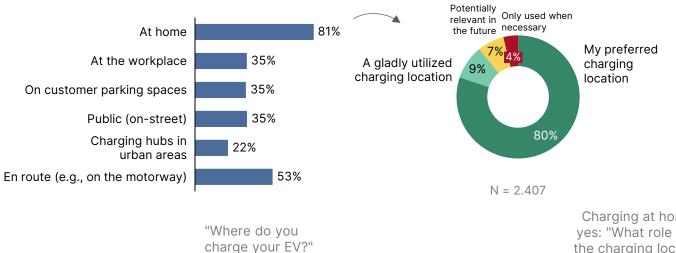
Private Charging Study 2024 Management Summary



Charging at home highly relevant and attractive.

Furthermore, over 80% of EV drivers charge their car at home.

For 80% of those who can charge at home, the "home" charging location is also the central charging location. Charging locations and the meaning of the charging location "at home":



Charging at home = yes: "What role does the charging location play in your charging behaviour?"



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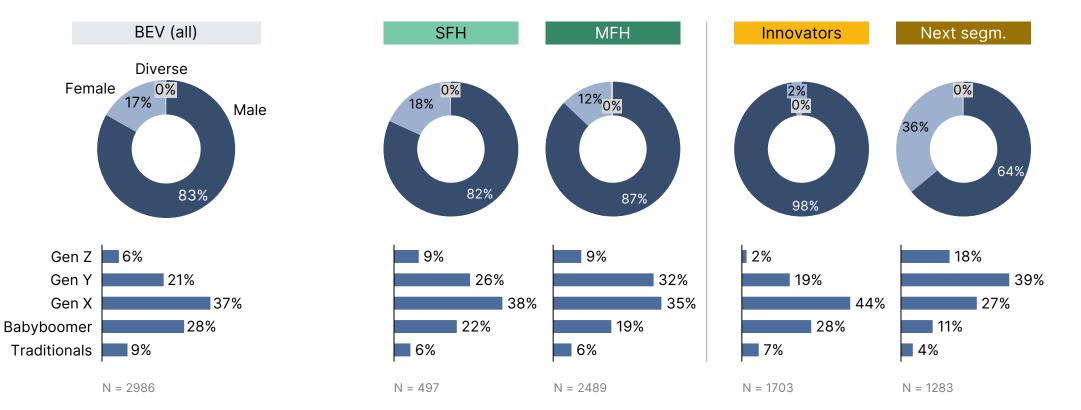


Demography Gender and age

The innovators are predominantly male. The proportion of women in the Next segment corresponds to the proportion of women among new combustion car buyers.

"You are ...?"

"How old are you?"

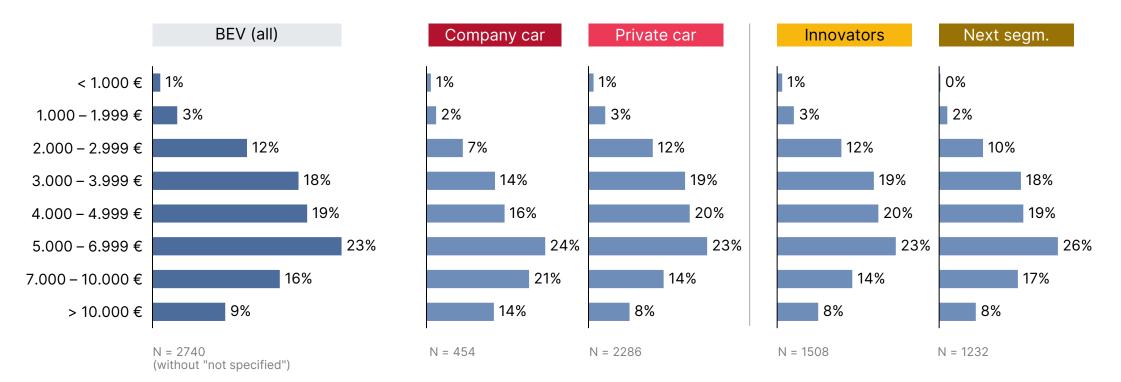




Demography **Income**

59% of those surveyed have a net household income of \leq 5,000 or more. As expected, the income of company car drivers is higher than that of private car drivers.

"What is your net monthly household income?"





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Living House type

Die große Mehrheit der EV-Fahrenden wohnt im EFH. Auch unter den MFH-Bewohner innen wohnen die meisten in eher kleinen Einheiten.

> "What kind of house do you live in?"





Living **Parking situation**

9 von 10 EFH-Bewohner:innen parken auf dem eigenen Grundstück, können also sehr wahrscheinlich zuhause laden. Unter MFH-Bewohner:innen können theoretisch 80% zuhause laden.

"Do you have your own car park at home?"





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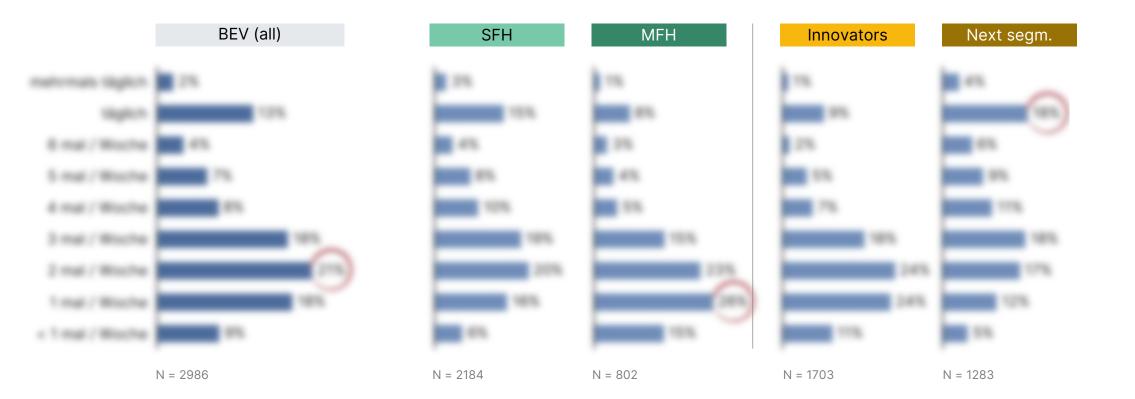
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Charging locations and habits **Charging routine**

Das Gros lädt zweimal pro Woche. 15% laden (mehrmals) täglich MFH-Bewohner laden seltener, das nächste Segment häufiger.

"How often do you usually charge your [EV] per week?"





Charging locations and habits **Charging time**

"If you are charging [charging location]: How long is your [EV] usually plugged in at this charging location?" Customer car BEV (all) Place of work At home Roadside Charging hubs On the road park N = 2986 N = 460 N = 506 N = 664 N = 225 N = 668 N = 463

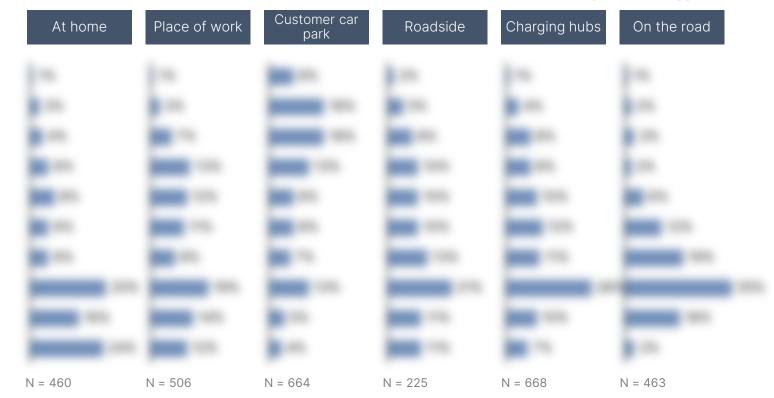


Charging locations and habits Charged energy quantities

"If you are charging [charging location]:

What % SoC (battery capacity) do you usually charge when plugged in?"







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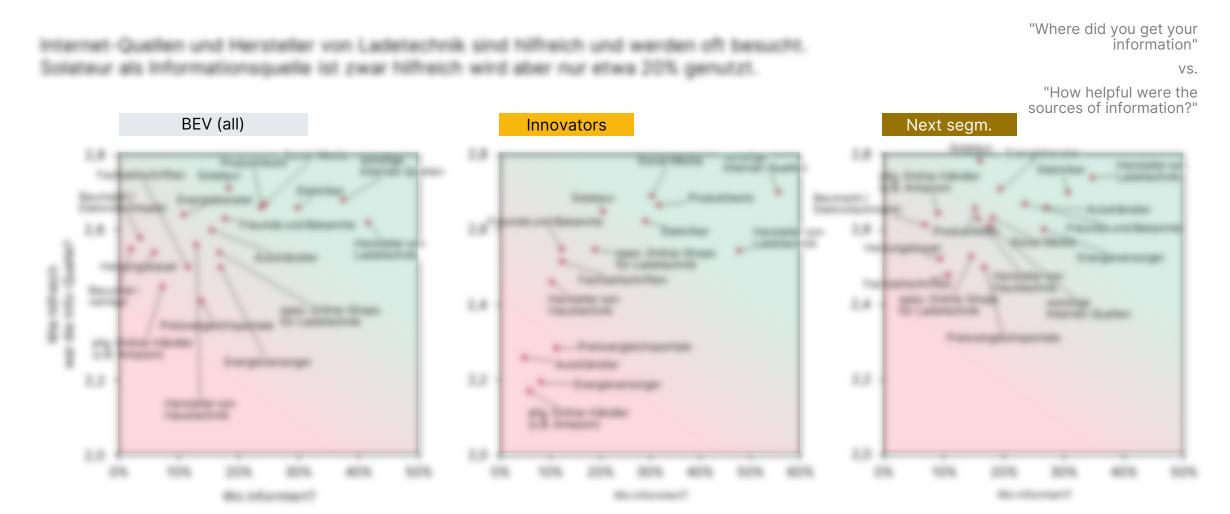
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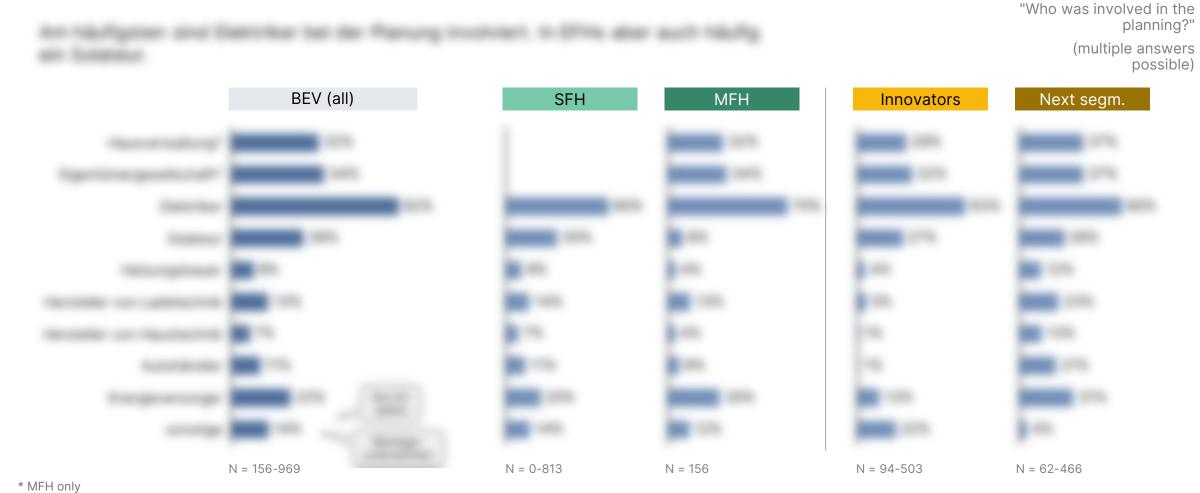


Charging technology purchase process Sources of information helpful?





Charging technology purchase process Parties to the proceedings



SCALE YOUR USER SCALE YOUR BUSINESS



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USCALE eMobility focus studies Focus studies on all touchpoints

