



Consumer Monitor 2023

EUROPEAN ALTERNATIVE FUELS OBSERVATORY



COUNTRY REPORT
FRANCE

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1. The 2023 French EAFO consumer monitor: key findings & conclusions

The European Green Deal aims for a 90% reduction of greenhouse gas emissions for transport by 2050. Different policies are in place to achieve this goal, including standards on CO₂ vehicle emissions, public procurement rules, or the recently adopted Alternative Fuels Infrastructure Regulation (AFIR)^{1, 2, 3}. Nevertheless, in 2019, the transport sector was responsible for around one-quarter of the EU's total CO₂ emissions, 60.6% of which were emitted by passenger cars. The passenger car is still the main transport mode and has continued to increase its share since the year 2000⁴. Replacing existing fleets with zero-emission vehicles is one of the key measures identified for this purpose. Important efforts have been made to promote electric cars, and therefore, identifying the main hurdles and needs of (potential) battery electric drivers can support the design and implementation of tailored strategies, policies and solutions to stimulate the demand for this type of vehicle.

For more than a decade, three main barriers have been identified regarding the mass up-take of passenger battery electric vehicles (BEVs): purchase price, driving range and availability of recharging infrastructure. There have been significant advances: battery costs have dropped by 90%, vehicle range has increased from 100-150 km up to 400+ km, and the recharging infrastructure network is expanding. Nevertheless, BEVs represent only 1.68% of the total passenger cars fleet in the EU, and the recharging infrastructure coverage is still limited in some countries and urban areas^{5,6}.

This report highlights the main findings of the 2023 EAFO Consumer Monitor survey and presents the results for France.

Taking these barriers and developments into account, the key findings of the 2023 EAFO consumer monitor are:

- 33% of the French participants are interested in BEVs, 25% are familiar with these. 33% consider buying a BEV in a time frame of 0-5 years. The most important BEVs advantage is that these are economical to use.

¹ https://eur-lex.europa.eu/resource.html?uri=cellar:5e601657-3b06-11eb-b27b-01aa75ed71a1.0001.02/DOC_1&format=PDF

² <https://eur-lex.europa.eu/eli/dir/2019/1161/oj>

³ <https://eur-lex.europa.eu/eli/reg/2023/1804/oj>

⁴ <https://www.europarl.europa.eu/topics/en/article/20190313STO31218/co2-emissions-from-cars-facts-and-figures-infographics>

⁵ Van Mierlo, J., Bercibar, M., El Baghdadi, M., De Cauwer, C., Messagie, M., Coosemans, T., Jacobs, V. A., & Hegazy, O. (2021). Beyond the State of the Art of Electric Vehicles: A Fact-Based Paper of the Current and Prospective Electric Vehicle Technologies. *World Electric Vehicle Journal*, 12(1),1-26.

⁶ <https://alternative-fuels-observatory.ec.europa.eu/> <https://alternative-fuels-observatory.ec.europa.eu/>

- For French drivers, the BEVs' cost is by far the main disadvantage of driving electric cars. The BEVs' price is also the number one challenge in the twelve surveyed countries. The French participants are willing to pay 20,000 € (median value) for a BEV (used or new), whereas for 54% this was between 20,000 € and 39,999 €. 3% paid less than 10,000 €, 9% paid between 10,000 € and 19,999 €, 34% paid 40,000 € or more.
- BEVs' range is also considered a limitation, even though it is not as important as its price. A minimum desired range between 300 km to 500 km was the choice of 28% of all French drivers surveyed. 500 km and more would be the preference of 59%. On the other hand, 3% of the French BEV drivers indicated a factory range until 200 km, 30% between 201 km and 400 km, and 67% of more than 401 km. For 82% of the French BEV drivers, the factory range of their vehicle was usually or always enough
- 97% of French BEV drivers use their vehicles daily or several times a week. Their BEV is mostly new (77%) and privately owned (62%).
- Limited recharging private and public slow options are also considered a disadvantage. To a lesser extent, survey respondents indicated that having too few public recharging points can also be a problem.
- 69% of French BEV drivers know what vehicle-to-grid (V2G) is and 65% are interested in buying a V2G-capable vehicle.

The EAFO Consumer Monitor 2023 results also provide further insights concerning the three main barriers identified and the measures that could support non-BEV and BEV drivers:

1. French non-BEV drivers are typically characterised as a 55+-year-old female, living in a detached house, with a middle income (2,000-3,999 €) and secondary or university education level. On the other hand, a 35 to 55-year-old male, living in a detached house, with a medium to high income (2,000-5,999 €) and a high education level represents French BEV drivers.
2. 46% of the surveyed non-BEV French drivers would consider buying a BEV in the short, medium, or long term. In contrast, 24% do not know if they would buy a BEV and 29% would not buy such a vehicle.
3. When both non-BEV and BEV French drivers were asked about different governmental incentives to support electric driving, a subsidy to purchase a new BEV was the incentive with the highest perceived impact.
4. For all surveyed French drivers, the most relevant information to have a clear opinion about electric driving is to have information about batteries and/or driving range, and the cost comparison with fossil fuel cars.

5. The second-hand and leasing options at an affordable price need to be further considered. 23% of the French BEV drivers bought a second-hand BEV, while 33% indicated that they lease a car (privately or for business purposes), for which 74% pay less than 500 € per month.
6. When comparing factory range to BEV range satisfaction, 65% of the BEV driver respondents whose a vehicle has a factory range between 201 and 300 km indicated that this was usually or always enough. This was also the case for 66% of the respondents whose vehicle has a factory range between 301 and 400 km.
7. French BEV drivers responded that the most used location to recharge is a recharging station or wallbox at home (used 43% of the time daily or several times a week). On a daily or weekly basis, public slow and fast recharging points are less often used (15% and 8% respectively).
8. When surveyed French BEV drivers were asked about the longest waiting time at a public recharging point, 27% never wait when this is occupied (they leave without recharging), while 42% waited for 15 minutes or less. Still, 26% waited between 15 minutes to 1 hour, and 5% waited for 1 hour or more.
9. For French BEV drivers, important characteristics of a public recharging session are clear and transparent price information and a fully operational recharging station at arrival. The possibility to do something else was considered less important.
10. Most French BEV drivers know which recharging connector or plug is compatible with their car, know how much time it will take to fully recharge their vehicle, and consider that there are sufficient facilities at highway recharging stations.
11. For French BEV drivers, the main problems encountered when travelling abroad was not having enough information about where to recharge while on the road. On the other hand, 60% found their experience when recharging abroad easy or very easy.
12. The most important criteria to eventually buy a V2G compatible BEV are being able to use the battery of the V2G capable BEV to power their home (e.g., for heating, appliances, etc.) and having a similar purchase price as their current BEV car. Solar panels are the most common Renewable Energy Device (RED) among BEV drivers.

The European Alternative Fuels Observatory (EAFO) supports the adoption of alternative fuels in EU transport. It provides key information for the development of relevant strategies and policies, by providing information on the evolution of alternative fuel vehicles and recharging/refuelling infrastructure at the EU level and per country. The EAFO also includes a dedicated section for policymakers and consumers,

addressing a wide range of stakeholders including different government levels, vehicle manufacturers, other e-mobility industry companies, and automobile organisations, etc.

As part of the EAFO consumer section⁷, and for the second year in a row, a survey was launched in October 2023 in twelve EU countries^{8,9} to better understand consumers' intentions to adopt battery electric vehicles (BEVs), their e-mobility and recharging behaviour, and the challenges they perceive or encounter in this sense. The EAFO Consumer Monitor focuses on electric road transport in particular passenger vehicles. It supports policymakers and other key stakeholders by identifying trends, needs and opportunities in the transition towards zero-emission mobility. Detailed information on the survey methodology is available in Annex I.

The EAFO Consumer Monitor survey was performed as follows:

- An online survey was conducted by a closed panel to have a representation of the general population including non-BEV and BEV drivers¹⁰.
- To improve the relevance of the analysis of the BEV drivers alone, an identical online survey was openly disseminated through the EAFO partner AVERE and other external contributors, including FIA members ANWB in the Netherlands and Touring Belgium, the Ministries of Transport from Luxembourg and Lithuania, and the Swedish Energy Agency.

The total number of valid responses in France is 2,286 respondents, of which 1,927 were filled out by non-BEV drivers and 359 by BEV drivers.

Following Section 1 on key findings and conclusions, Section 2 presents the surveyed French participants' attitude, interest, and the information that could support BEV (potential) drivers. Section 3 focuses only on BEV drivers providing an insight into the French BEV drivers' e-mobility and recharging behaviour. Section 4 provides an overview of the results using key indicators for the twelve countries surveyed and the EU aggregated results. Finally, section 5 includes a summary of the 2023 situation in

⁷ <https://alternative-fuels-observatory.ec.europa.eu/consumer-portal>

⁸ The twelve countries surveyed were: Belgium, Denmark, France, Germany, Hungary, Italy, Lithuania, Luxembourg, Netherlands, Slovenia, Spain, and Sweden.

⁹ The results for BEV drivers in Lithuania, Luxembourg and Spain are not representative due to the small sample size (29, 38, and 37 BEV drivers respectively). Nevertheless, these are included to indicate trends in BEV driving, mobility behaviour and the recharging infrastructure.

¹⁰ For this report, non-BEV drivers are identified as those driving a vehicle having an internal combustion engine (diesel, petrol, CNG or LPG, hybrid or plug-in hybrid car). BEV drivers refer to those driving a vehicle with no internal combustion engine and with the battery of the electric motor being recharged by the means.

France in terms of passenger BEVs and recharging infrastructure based on the most recent data from EAFO.

2. Consumer monitoring results: general population views on driving full-electric vehicles

This section presents the results of the merged datasets of the surveyed French non-BEV and BEV drivers: 2,286 valid responses from BEV (359) and non-BEV drivers (1,927). It focuses on their attitude, interests and measures that could support them to further drive BEV cars.

2.1. Socio-demographics

Based on the survey results, the French BEV driver is represented by a 35 to 55-year-old man living in a detached house with a high income and a high education level. The main differences when compared to French non-BEV drivers representation are the percentage of female drivers, the age group, household income, and education level.

Table 1 - Socio-demographic results from the survey

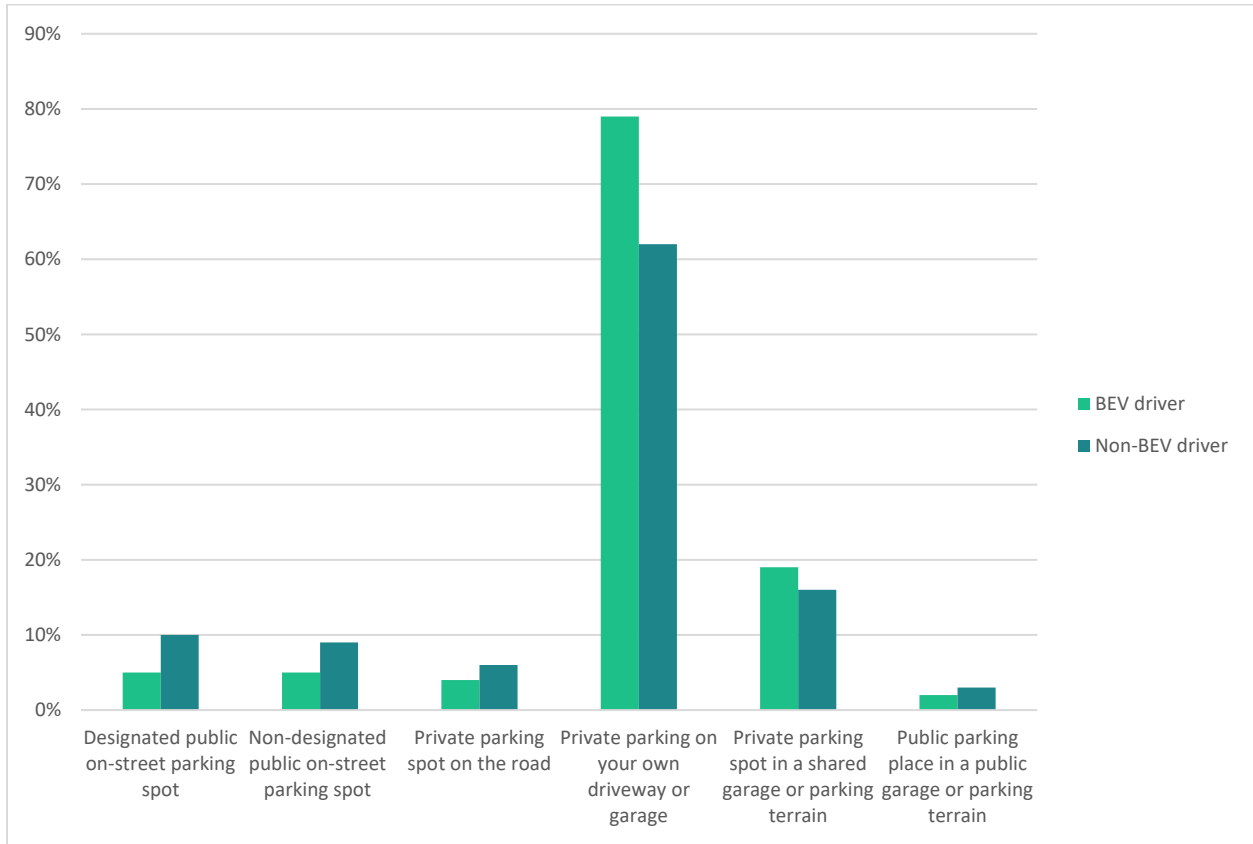
		BEV Driver	Non-BEV driver
Gender	Female	16%	55%
	Male	84%	45%
Age	<35	29%	16%
	35-55	51%	39%
	55+	20%	45%
Income	< 800 €	0%	3%
	800-1,999 €	9%	29%
	2,000-3,999 €	36%	39%
	4,000-5,999 €	36%	21%
	≥ 6,000 €	19%	8%
Education	None	0%	1%
	Primary education	1%	2%
	Secondary education	35%	49%

		BEV Driver	Non-BEV driver
	University or other higher education (e.g., college, polytechnic, academy, etc.)	64%	48%
Housing	Apartment/studio	23%	37%
	Attached house	4%	7%
	Semi-detached house	6%	6%
	Detached house	66%	50%
	Other	1%	0%

Source: EAFO Consumer Monitor and Survey 2023.

Although most BEV drivers surveyed live in a detached house, 23% live in an apartment or studio. Both French BEV and non-BEV drivers indicated that they can park at a private parking on their driveway or garage.

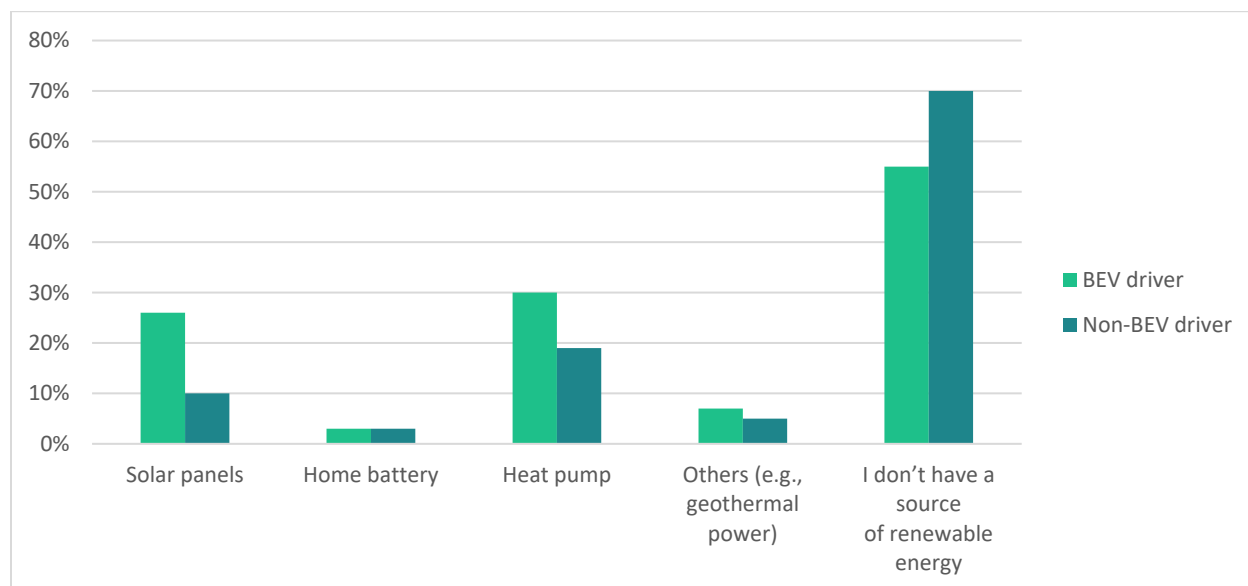
1. French drivers identified parking options (multiple answers were possible).



Source: EAFO Consumer Monitor and Survey 2023.

There are also differences between French surveyed participants when it comes to Renewable Energy Devices (RED), as more BEV drivers reported having a source of renewable energy.

2. Figure: French drivers' Renewable Energy Devices (RED) possession (multiple answers were possible).



Source: EAFO Consumer Monitor and Survey 2023.

2.2. Attitude and motivation towards battery electric vehicles

25% of the respondents in France specified that they are (very) familiar with battery electric driving and 33% are interested in this. The main BEVs' advantage is that these are economical to use.

1. Table: Opinion and views on battery electric vehicles.

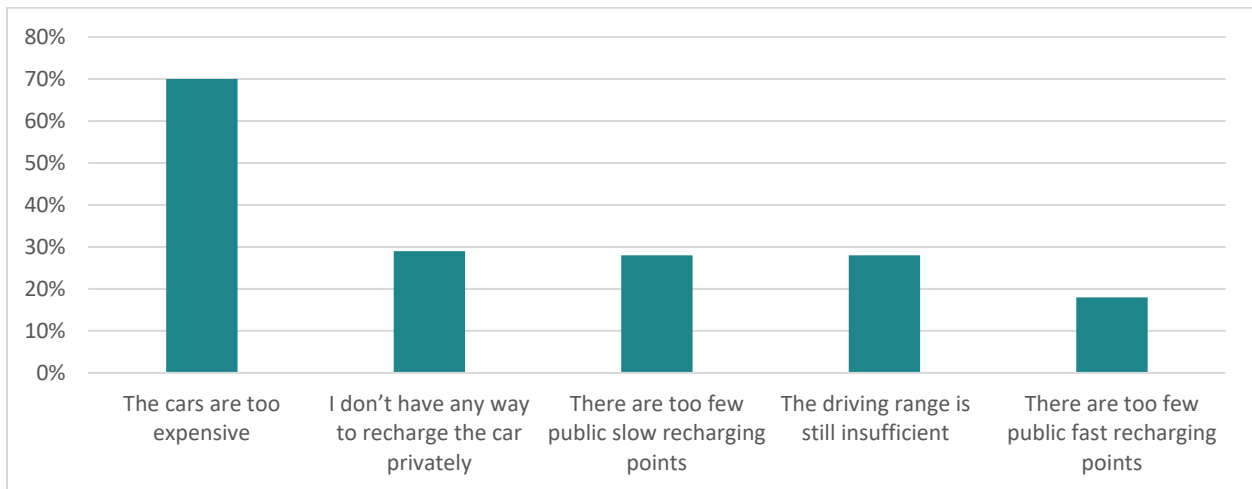
	Results
(Very) familiar with BEV driving (non-BEV drivers)	25%
Interest in BEVs (non-BEV drivers)	33%
Top three advantages BEVs (all surveyed drivers)	Economical to use, better for climate (no tailpipe CO ₂ emissions), driving characteristics (quiet, comfortable, fast, etc.)

Source: EAFO Consumer Monitor and Survey 2023.

2.3. Main barriers and opportunities to adopt battery electric vehicles

French surveyed participants were asked to choose the most relevant disadvantages of driving battery-electric vehicles. As previously reported, these include the price of BEVs, limited recharging options (either private or public), and BEVs' range.

3. Figure: French drivers' top 5 identified disadvantages of battery electric vehicles (multiple answers were possible).

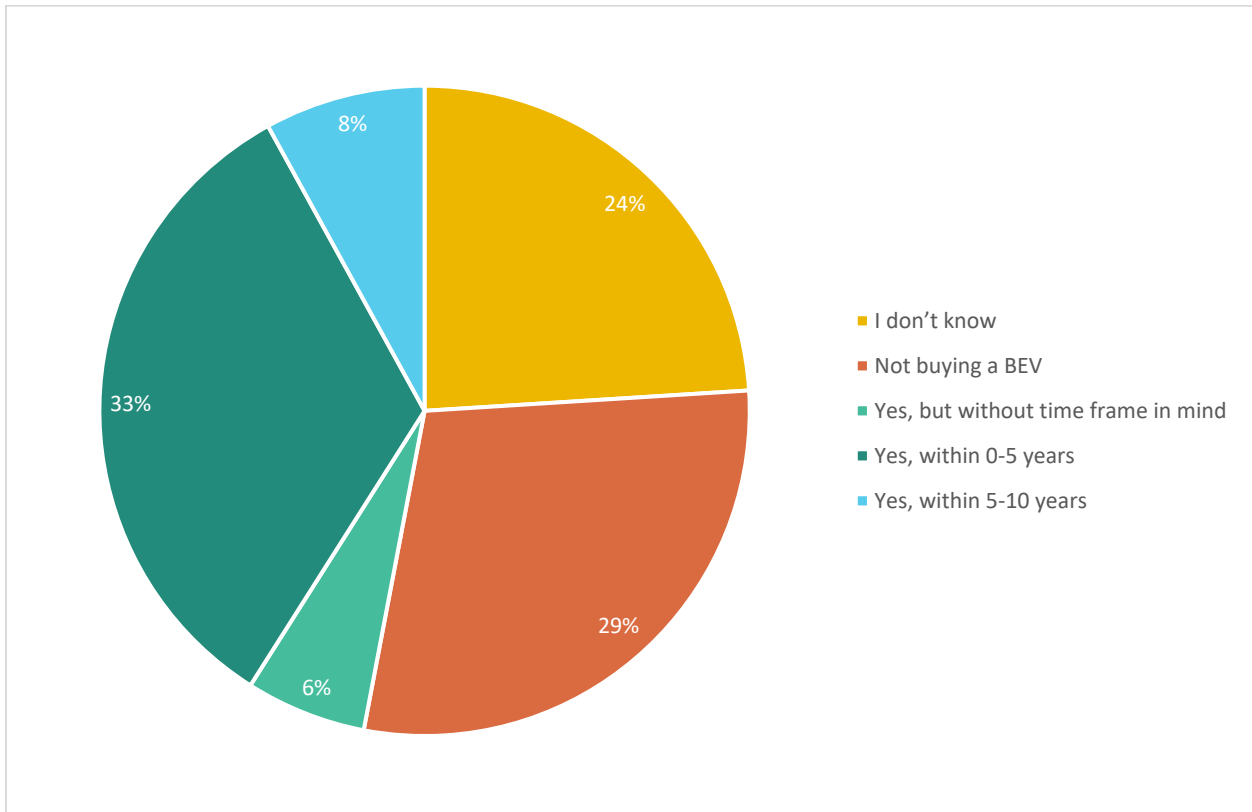


Source: EAFO Consumer Monitor and Survey 2023.

2.4. Time frame to buy a battery electric vehicle

29% of French non-BEV driver respondents do not consider buying a battery electric vehicle. 33% do so in a time frame of 0-5 years.

4. Figure: French non-BEV drivers' time frame to buy a battery electric vehicle.



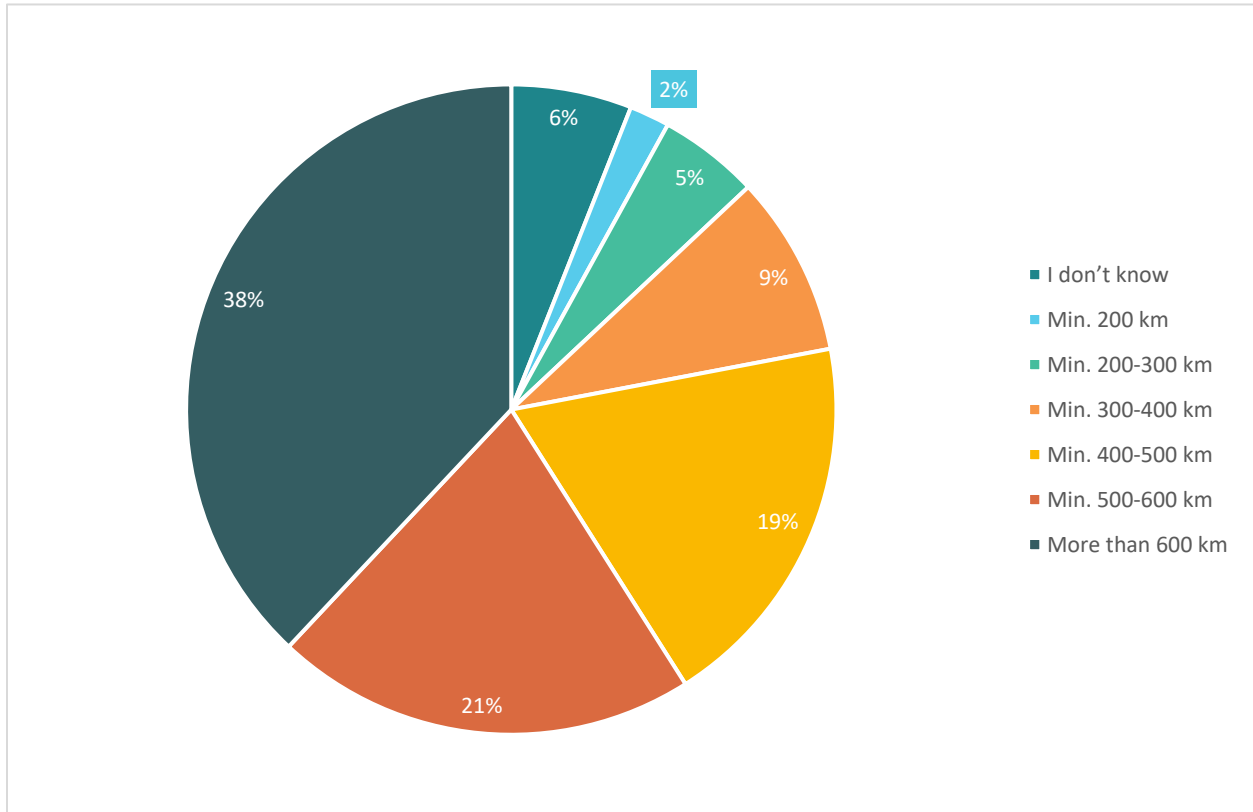
Source: EAFO Consumer Monitor and Survey 2023.

2.5. Willingness to pay and desired range of a battery electric vehicle

The median price that all French respondents are willing to pay for a new or used Internal Combustion Engine Vehicle (ICEV) is 15,000 € while for a new or used BEV is 20,000 €.

In the EAFO consumer monitor survey, desired range was described as the number of kilometres that can be driven with a full battery without recharging. A minimum desired range between 300 km to 500 km was the choice of 28% of all French drivers surveyed. 500 km and more would be the preference of 59%.

5. Figure: French drivers' desired range of a battery electric vehicle.



Source: EAFO Consumer Monitor and Survey 2023.

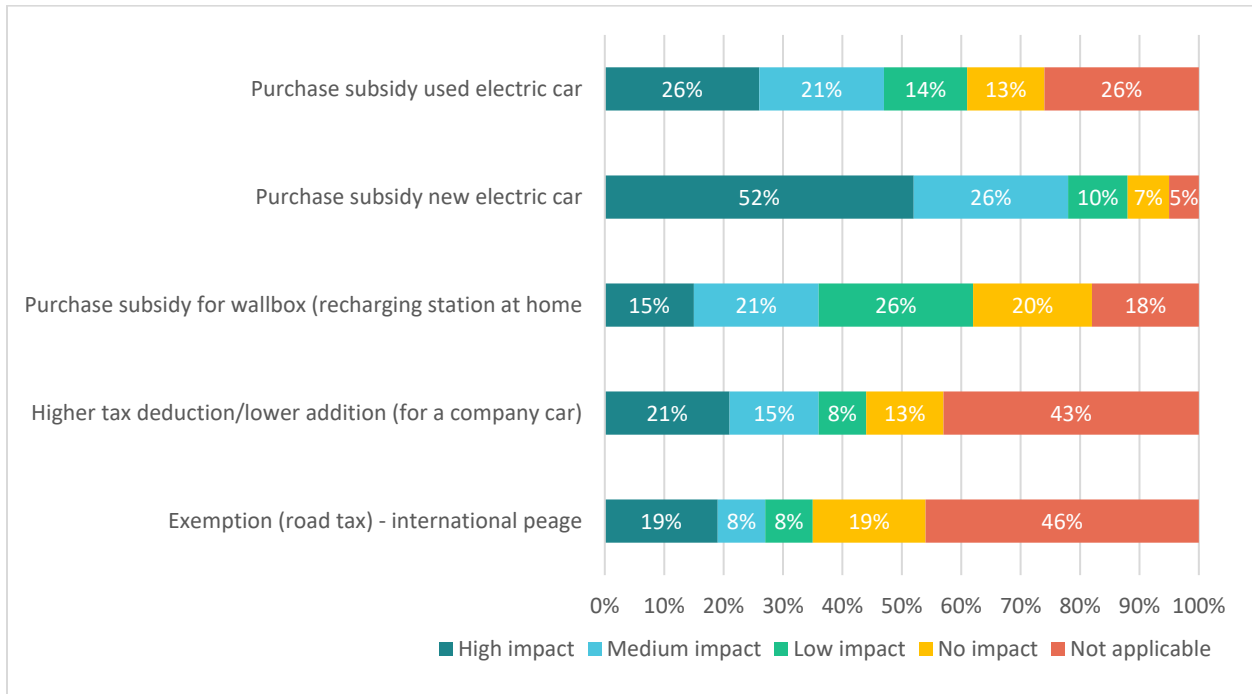
The current BEV market consists of a considerable amount and variety of models (115 individual models, and 286 model variations) with a range between 300 and +600 km (models' variance in March 2024 according to the EAFO). On the other hand, there are only thirteen BEV models available with a purchase price between 20,000 € to 35,000 € (representing 5% of the total BEV models in the market). These have an average range of 217 km (min 135 km, max 300 km), and include mostly cars in the A and B segments (supermini, e.g., city cars), with a couple of models in the C segment (compact, e.g., small family cars).

2.6. Support and governmental incentives to drive a battery electric vehicle

French drivers were asked about what they would value the most to have a clearer opinion about electric driving. More information about batteries and/or driving range and cost comparison with fossil fuel cars were the most relevant support measures.

In addition, they also indicated the impact of different governmental incentives on the decision to drive an electric vehicle. A subsidy to purchase a new BEV is the incentive having the highest perceived impact.

6. Figure: Perceived impact of governmental incentives on French drivers' decision to drive a full-battery electric vehicle.



Source: EAFO Consumer Monitor and Survey 2023.

France offers up to 7,000 € purchase subsidy (ecological bonus) for EVs. Interestingly, in a separate question, 26% of the surveyed French indicated that they are not aware of any subsidies for electric driving.

3. Consumer monitoring results: Mobility and recharging behaviour of battery electric drivers

This section focuses on BEV French drivers (359 valid responses). The results of the EAFO 2023 survey give an insight into the mobility behaviour of French BEV drivers. Results on recharging behaviour are also presented.

3.1. Mobility behaviour and vehicle ownership

97% of the French BEV drivers surveyed use their vehicle several times a week or daily. Most BEVs (when it is the main household vehicle) are new privately owned cars. Most French BEV drivers have less than one to 3 years of experience as a BEV driver.

2. Table: Mobility behaviour and vehicle ownership.

	Results
< 1 year to 3 years as BEV driver	72%
3 years to 5 years or longer as BEV driver	28%
km driven per year (median)	20,000
km driven per day (median)	65
BEV drivers using their vehicle daily to several times a week	97%
Main activity when driving their BEV	For shopping/errands (e.g., bringing and picking up the children, doctor visits, administration)
BEV ownership (BEV as main car)	
Leased BEV (business)	2%
Leased BEV (private)	31%
BEV company car (if employee)	5%
Privately owned BEV	62%
New vs. second-hand BEVs (BEV as main car)	

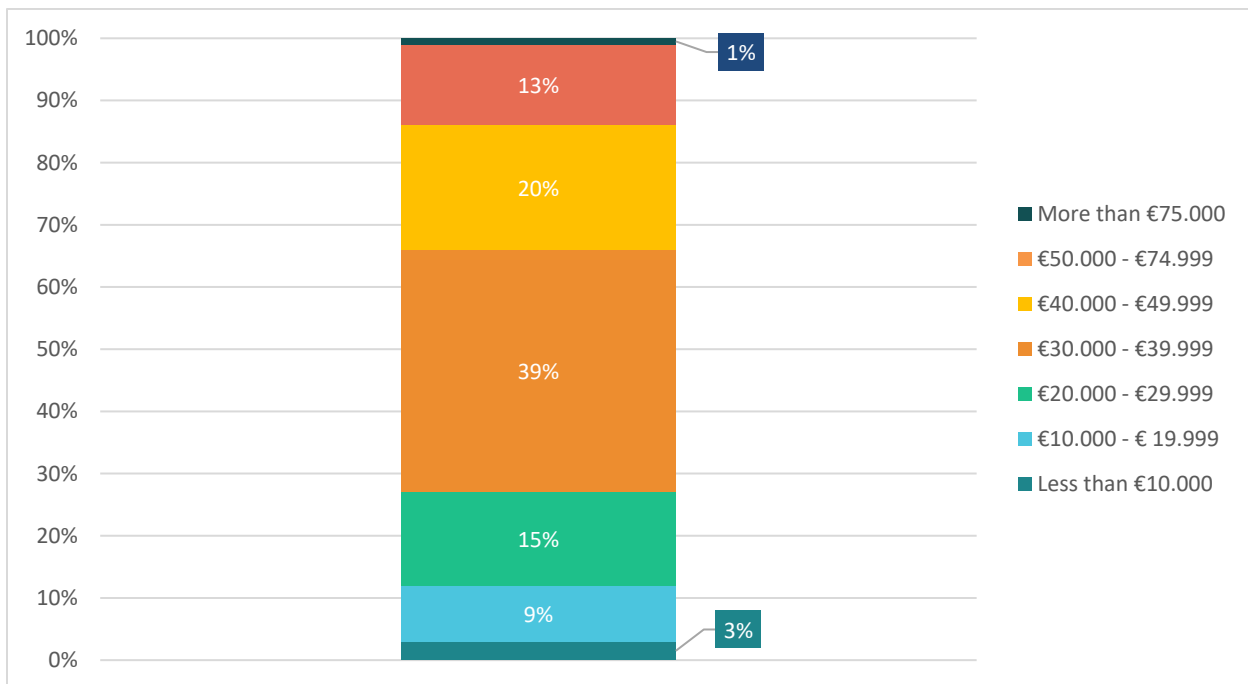
	Results
New BEV	77%
Second-hand BEV	23%

Source: EAFO Consumer Monitor and Survey 2023.

3.2. Purchase and lease price paid by BEV drivers

Surveyed BEV French drivers surveyed indicated the purchase price paid when their BEV is the main vehicle. For 54% this was between 20,000 € and 39,999 €. 3% paid less than 10,000 €, 9% paid between 10,000 € and 19,999 €, 34% paid 40,000 € or more.

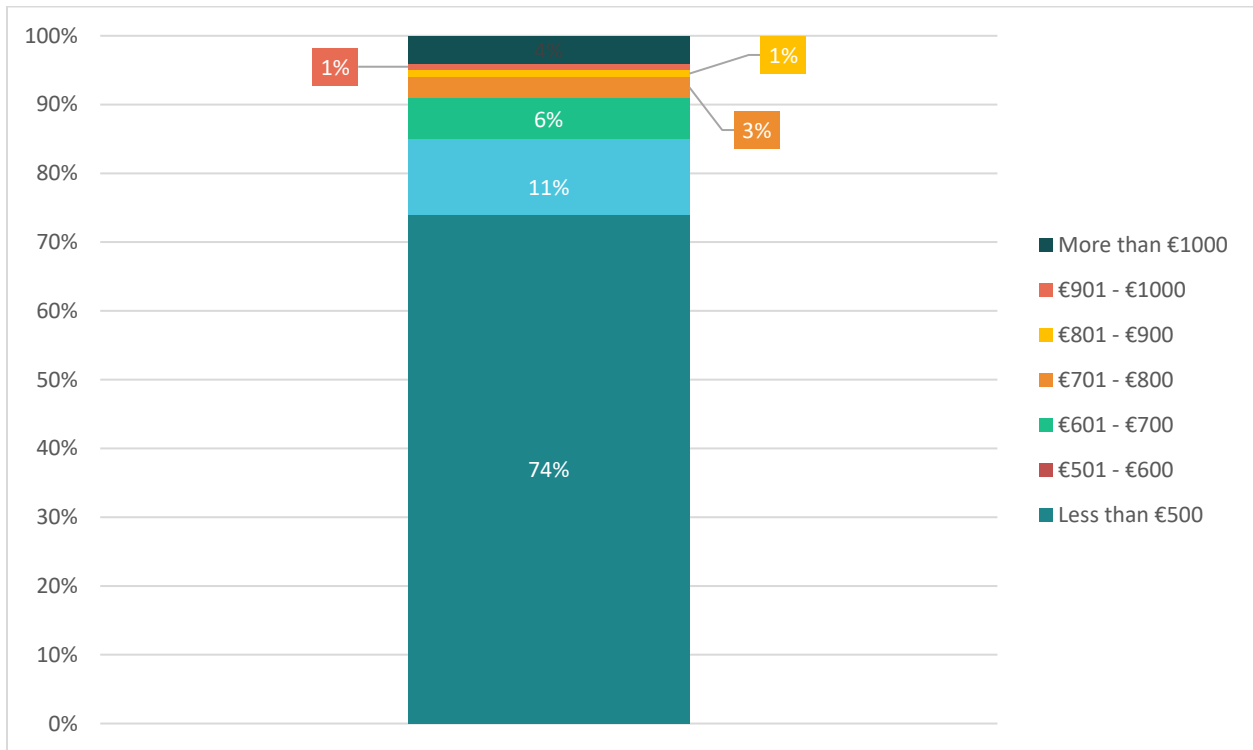
7. Figure: French BEV drivers' purchase price for their battery electric vehicle.



Source: EAFO Consumer Monitor and Survey 2023.

On the other hand, 33% of the French BEV driver participants responded that their first car was leased (privately or for business purposes). 74% pay less than 500 € per month, while 26% pay more than 501 €.

8. Figure: French BEV drivers' lease price for their battery electric vehicle.

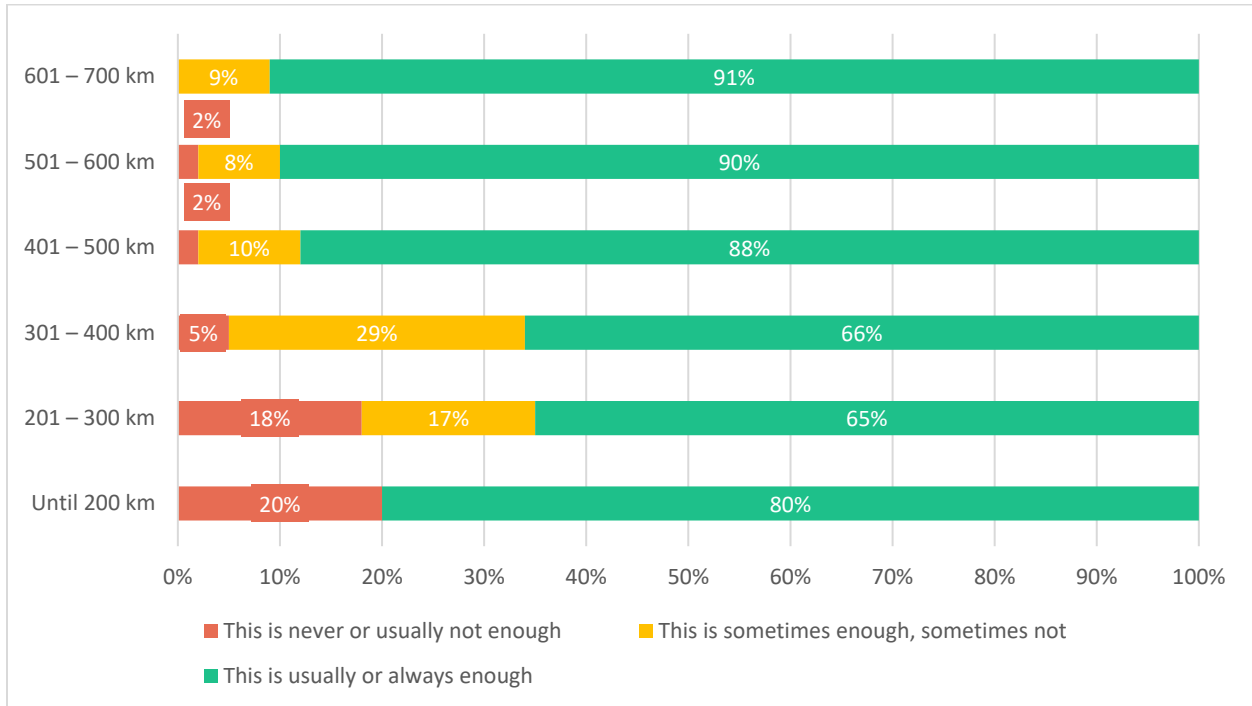


Source: EAFO Consumer Monitor and Survey 2023.

3.3. Factory range and range satisfaction of full-electric cars used by BEV drivers

Factory range refers to the kilometres a new BEV can drive with the available vehicle battery after running a World Harmonised Light Vehicle Test Procedure (WLTP) test cycle. 3% of the French BEV drivers indicated a factory range until 200 km, 30% between 201 km and 400 km, and 67% of more than 401 km. The factory range of the first car was usually or always enough for 82% of the surveyed French BEV drivers. When comparing factory range to BEV range satisfaction, 65% of the BEV driver respondents stated that a factory range between 201 and 300 km was usually or always enough. This was also the case for 66% of the respondents of a car with a factory range between 301 and 400 km.

9. Figure: Factory range and range satisfaction according to French BEV drivers.

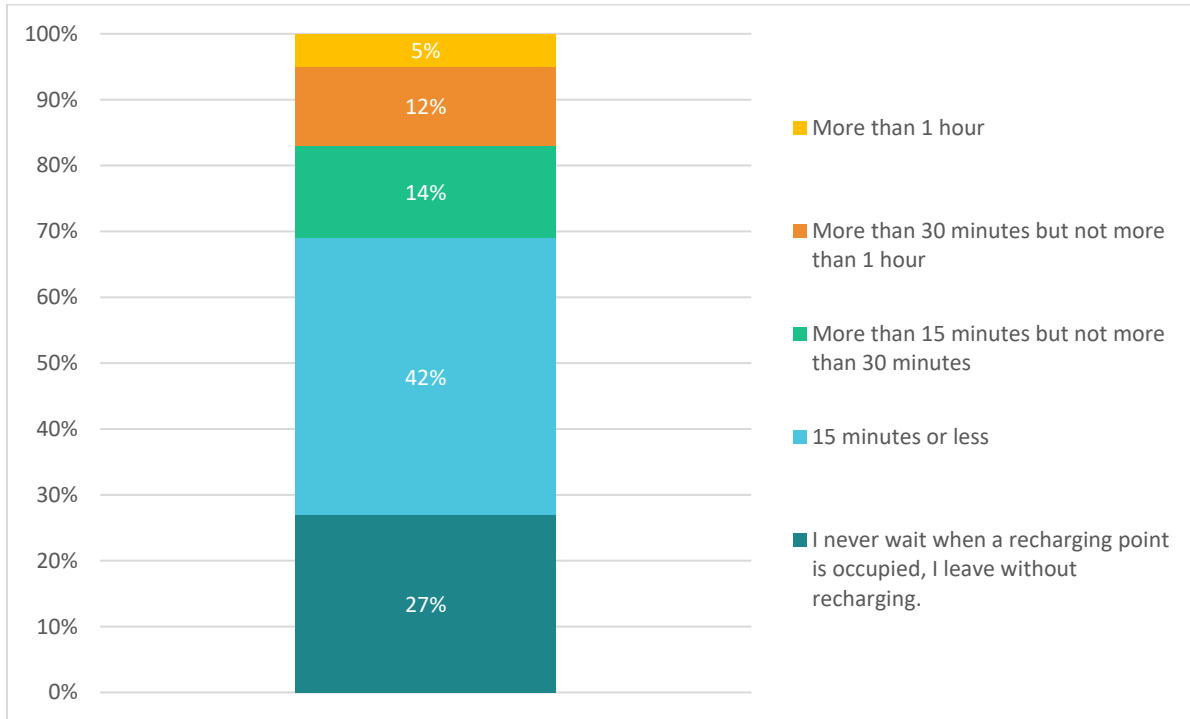


Source: EAFO Consumer Monitor and Survey 2023.

3.4 Recharging according to battery level and waiting time at public recharging points

Surveyed BEV French drivers were asked what the longest waiting time was to use a public recharging point. 27% never wait when this is occupied (they leave without recharging), while 42% waited for 15 minutes or less. Still, 26% waited between 15 minutes to 1 hour. Furthermore, 44% responded that they recharge their BEV when the battery level reaches a certain threshold.

10. Figure: French BEV drivers' waiting times when using a public recharging point.

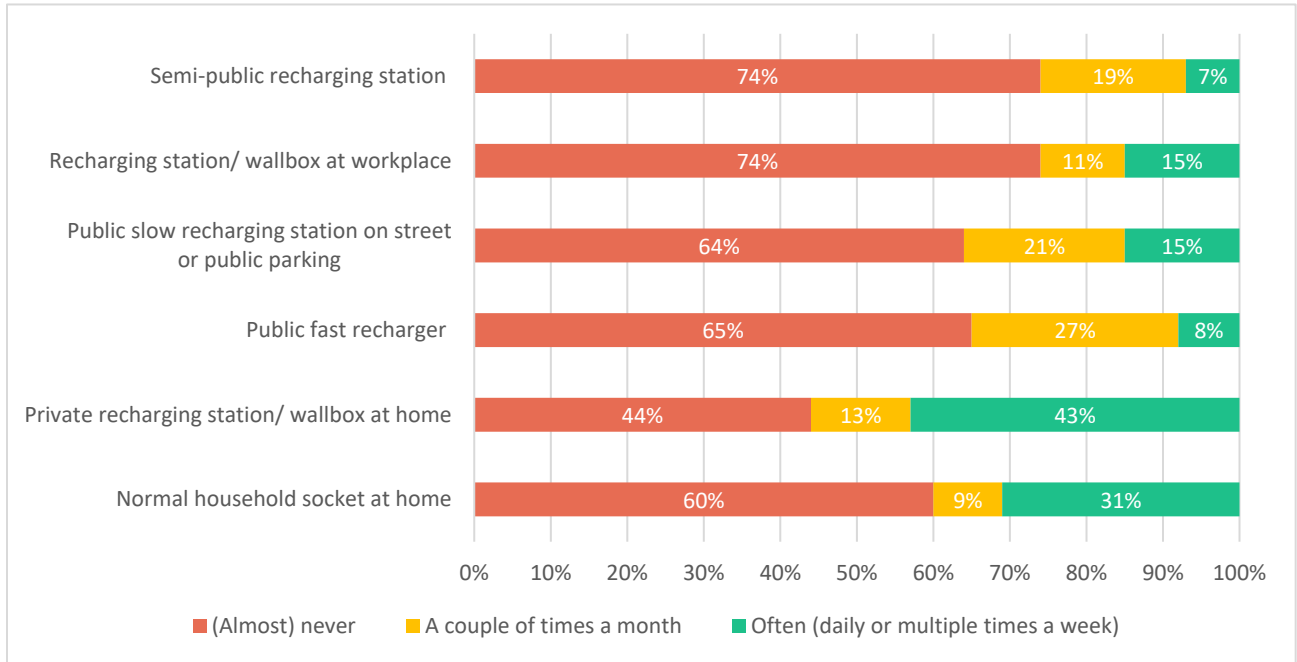


Source: EAFO Consumer Monitor and Survey 2023.

3.5 Recharging location and frequency of use by BEV drivers

For BEV French drivers a private recharging station or wallbox at home is the most frequently used location. Public slow recharging stations on the street or public parking and public fast recharging stations are not that often used (15% and 8% respectively).

11. Figure: Recharging location and frequency use by French BEV drivers.

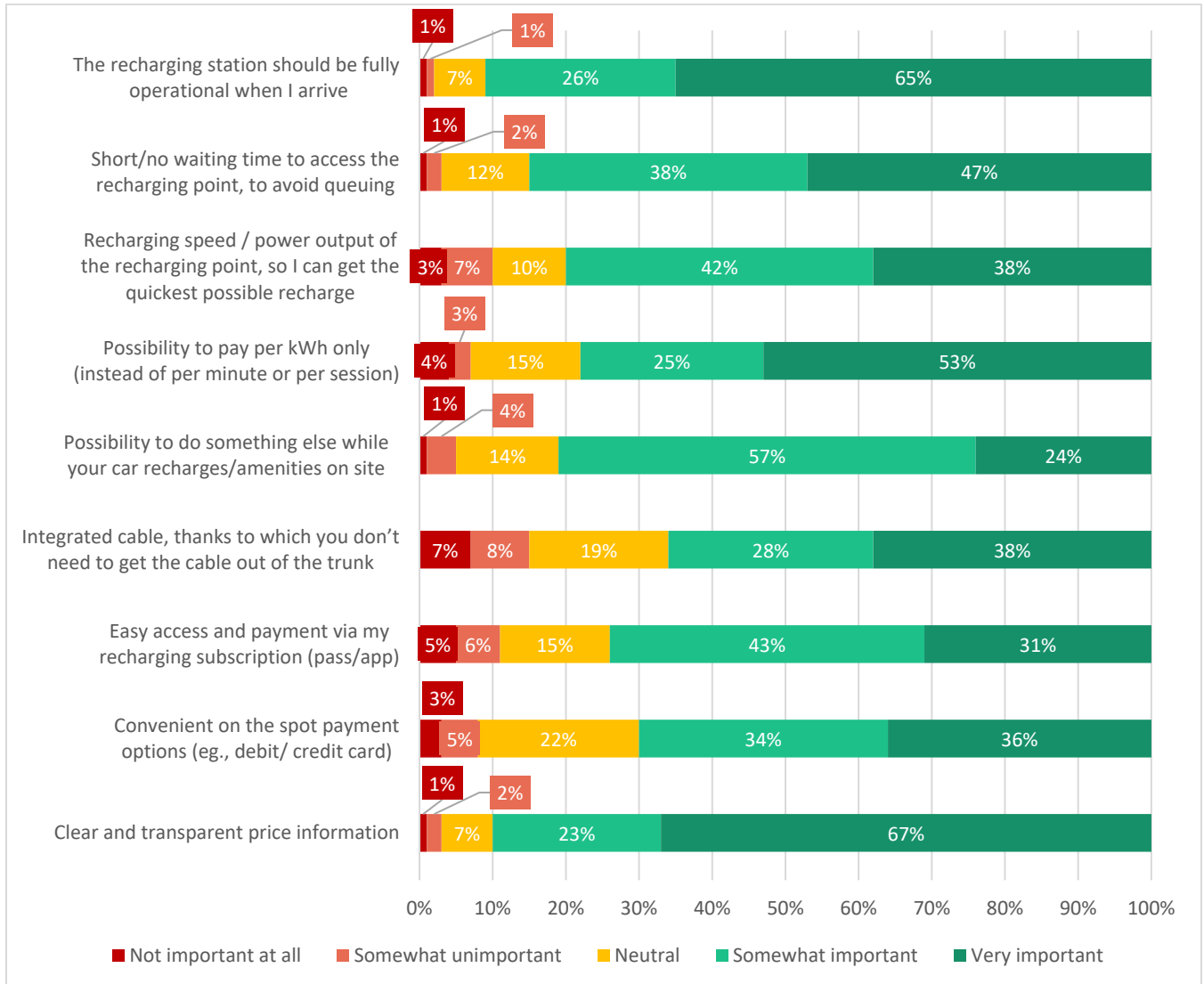


Source: EAFO Consumer Monitor and Survey 2023.

3.6 Important characteristics of a public recharging session

French BEV driver respondents were asked to indicate the most important characteristics of a public recharging session. Clear and transparent price information and a fully operational recharging station when arriving were considered the most important ones. The possibility to do something else was considered less important.

12. Figure: Important characteristics for French BEV drivers of a public recharging session.

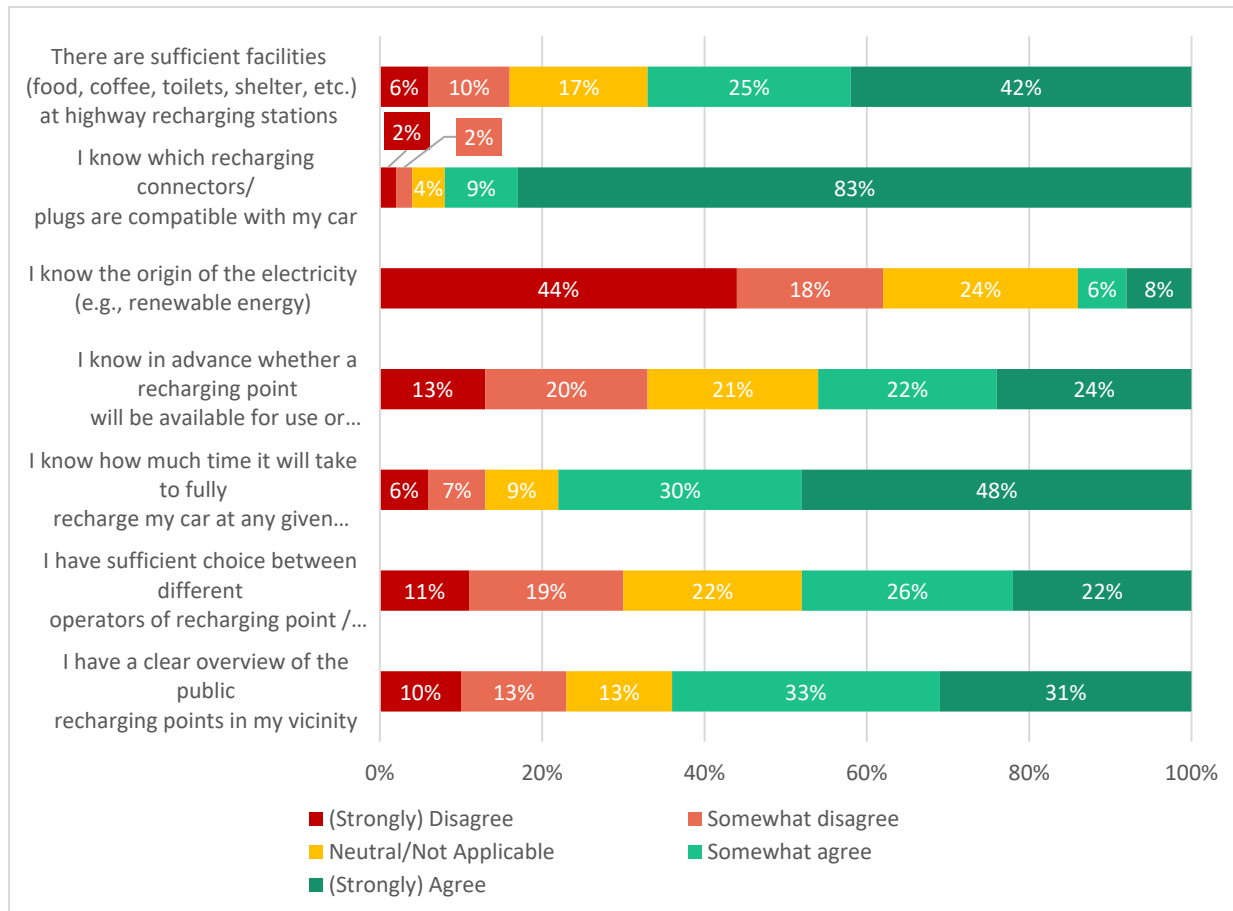


Source: EAFO Consumer Monitor and Survey 2023.

3.7 BEV drivers' opinion and payment options at public recharging points

Most French BEV drivers know which recharging connector or plug is compatible with their car, know how much time it will take to fully recharge their vehicle, and consider that there are sufficient facilities at highway recharging stations. On the other hand, they mostly do not know the origin of the electricity at public recharging points.

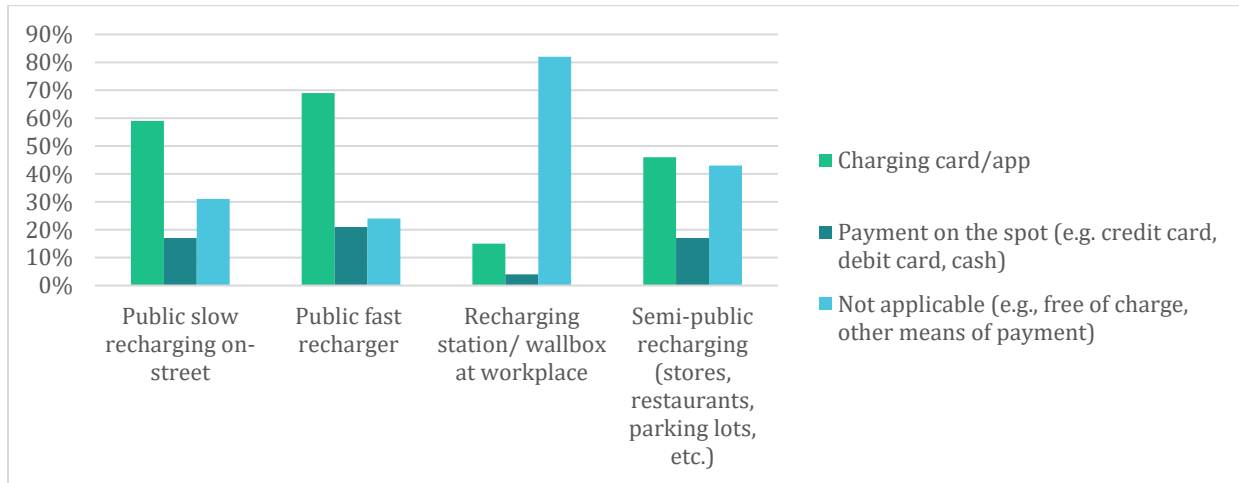
13. Figure: Public recharging points opinions of French BEV drivers.



Source: EAFO Consumer Monitor and Survey 2023.

In all public recharging stations, a charging card or app is the most used payment option. For semi-public recharging, a charging card is used the most, although other payment means are also frequently used -if needed.

14. Figure: Payment options used at recharging station by French BEV drivers.

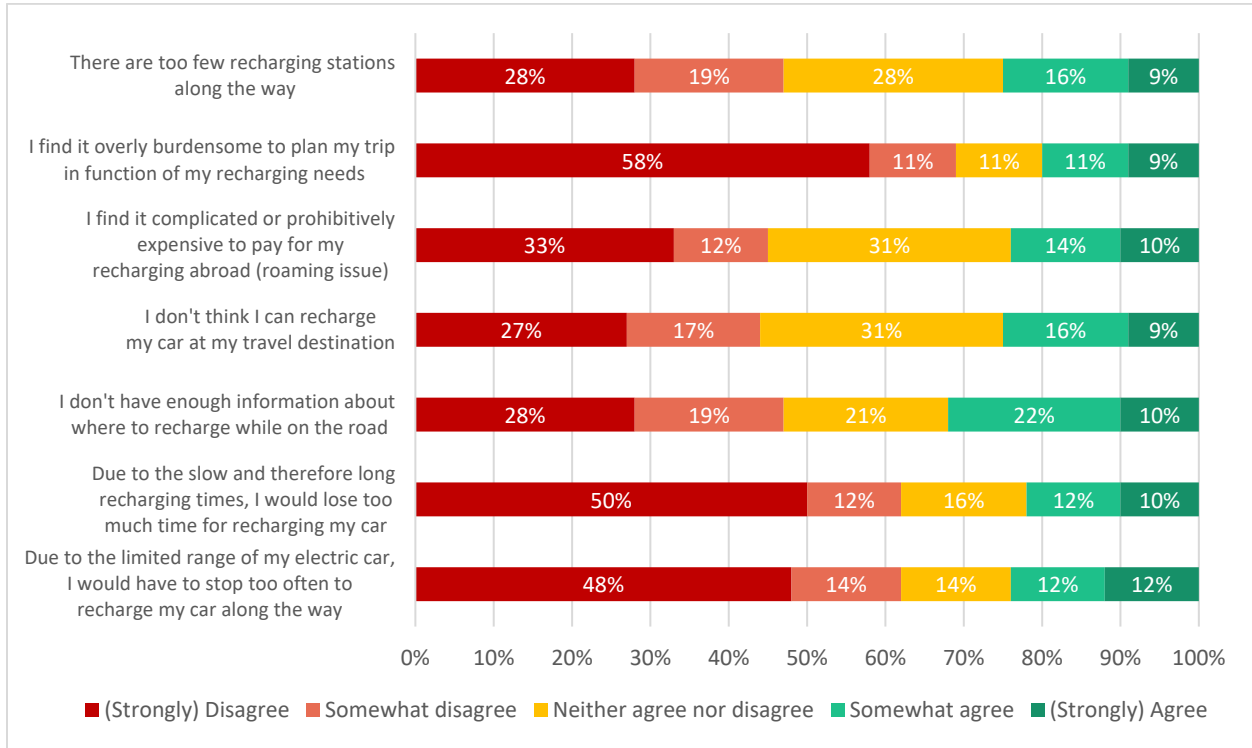


Source: EAFO Consumer Monitor and Survey 2023.

3.8 Main problems encountered by BEV drivers when travelling abroad

26% of the French BEV drivers responded that they have travelled multiple times abroad with their BEV, 16% have travelled once, and 58% have never used their BEV to travel abroad. When they were asked to indicate the main problems encountered when travelling abroad, not having enough information about where to recharge while on the road was the main issue identified.

15. Figure: French BEV drivers' opinions regarding travelling abroad with a BEV.



Source: EAFO Consumer Monitor and Survey 2023.

Nevertheless, when looking at their recharging experience when travelling abroad, 60% specified that it was (very) easy, while 9% considered it as (very) difficult.

4. Table: BEV drivers experience when recharging abroad

	Results
Very easy	35%
Easy	25%
Not easy, but not difficult either	23%
Difficult	8%
Very difficult	1%
Not applicable (did not recharge my car abroad)	8%

Source: EAFO Consumer Monitor and Survey 2023.

3.9 Future trends: BEV drivers' awareness and interest in vehicle-to-grid capable vehicles

Vehicle-to-grid (V2G) refers to the interaction between Electric Vehicles and the power grid. The basic idea of V2G is to use EV batteries as intermediate storage facilities for providing services to the electric power system when BEVs are parked. For example, giving energy back to the grid when the car is not in use. French BEV drivers were asked if they were aware of this technology. 22% had never heard of it, while 69% indicated being aware and having knowledge about this.

3. Table: BEV drivers V2G awareness

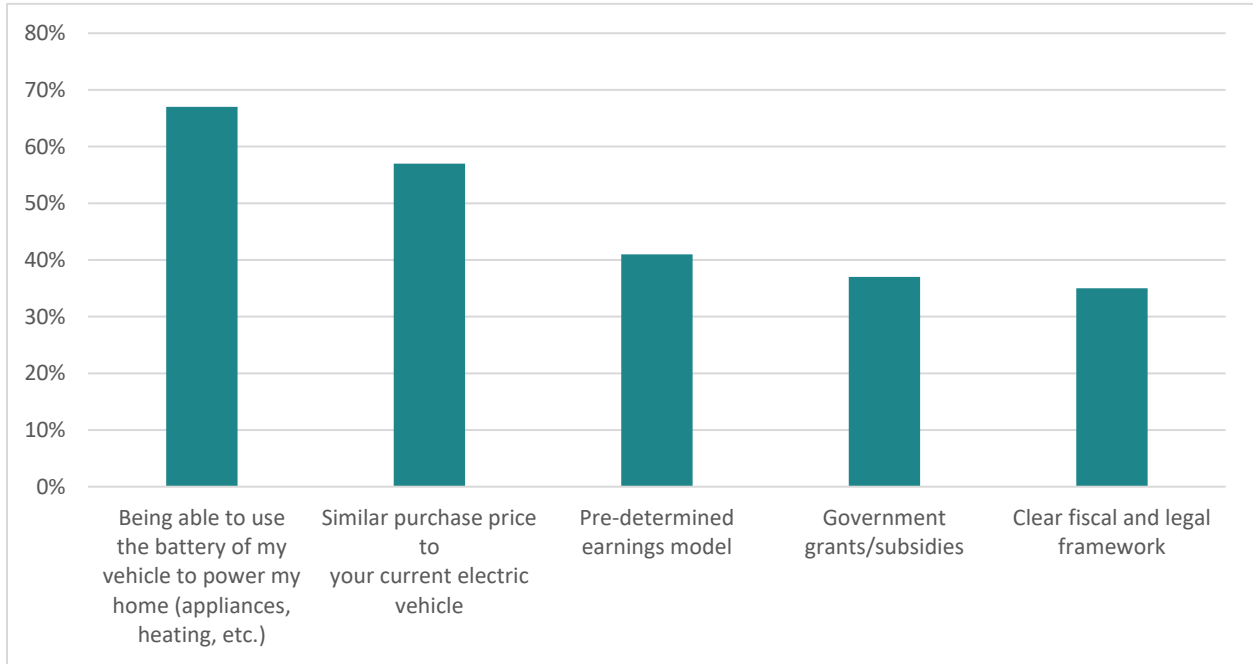
	Results
No, never heard of it	22%
Yes, heard of it, but know nothing/just a little bit about it	9%
Yes, heard of it and know quite a bit/a lot about it	69%

Source: EAFO Consumer Monitor and Survey 2023.

Moreover, 65% of French BEV drivers stated that they are interested in buying a vehicle car with the V2G functionality. The most important criteria to eventually buy such a vehicle are being able to use the battery of the V2G capable BEV to power their home

(e.g., for heating, appliances, etc.) and having a similar purchase price to their current BEV car.

16. Figure: French BEV drivers' willingness to buy a V2G-capable BEV (multiple answers were possible).



Source: EAFO Consumer Monitor and Survey 2023. [\[link\]](#)

4. Surveyed countries and EU aggregated results & incentives overview¹¹

The number one BEV driving disadvantage identified in all cases is the purchase price of the vehicle.

The proportion of BEVs as leased private cars is the highest in France. In terms of recharging infrastructure, 42% of French BEV drivers indicated a waiting time of 15 minutes or less when using a recharging point, the highest percentage among the surveyed BEV drivers. Moreover, for French BEV drivers having clear and transparent price information was the most important characteristic of a public recharging session.

¹¹ The results for BEV drivers in Lithuania, Luxembourg and Spain are not representative due to the small sample size (29, 38, and 37 BEV drivers respectively). Nevertheless, these are included to indicate trends in BEV driving, mobility behaviour and the recharging infrastructure.

4. Table: Barriers and opportunities BEV driving

Country	Main disadvantage	% BEV potential drivers (time frame considering buying a BEV)	High impact government incentive to drive BEV	Existing financial incentive (end 2023) 9
Belgium	BEVs are too expensive	44%	Subsidy buying a new EV	Flanders to offer 5,000 € EV grants in 2024 (no subsidies in 2023), reduced annually till 2027. Zero-emission vehicles get tax exemptions, with BEVs 100% company tax deductible till 2026. BIK (benefit-in-kind) rates are CO2-based, and Brussels offers LEZ replacement subsidies for commercial vehicles and plans to ban diesel by 2030.
Denmark		62%		Denmark offers no direct purchase subsidies for EVs but provides significant tax incentives (more than 10k € in contrast to ICE cars). BEVs enjoy a full exemption from registration taxes, and PHEVs benefit from reduced rates. The country supports public and private EV recharging infrastructure through financial subsidies, tax exemptions, and mandatory installation regulations in new buildings.
France		46%		France offers up to 7,000 € ecological bonus for EVs and 6,000 € for trade-ins, with tax benefits like 50% registration fee exemption for EVs and BIK (benefit-in-kind) reductions for company EVs until December 2024.
Germany		55%		Germany ended its EV subsidies in December 2023, with manufacturer discounts until Mar 2024. Tax benefits for EV company cars continue, and EVs remain exempt from the annual circulation tax until 2025. The focus has shifted to vehicles with proven climate benefits, with a 130 € billion investments in sustainable mobility.
Hungary		67%		Hungary offers a 79 € million subsidies for company BEVs from February 2024 (no subsidy in 2023), with grants up to 10,500 € based on vehicle price and battery capacity. Green plate vehicles enjoy numerous tax exemptions including registration, vehicle, and transfer taxes. Additional benefits include corporate tax credits for energy efficiency, deductible costs for electric charging stations, and free municipal parking for green plate vehicles.

Country	Main disadvantage	% BEV potential drivers (time frame considering buying a BEV)	High impact government incentive to drive BEV	Existing financial incentive (end 2023) 9
Italy		65%		Current incentives go up to a maximum of 5,000 € with respect to emission class and if you scrap an old polluting car. New incentives (from mid-2024) will go up to a maximum of 13,750 € with respect to income (<30k €) and for BEVs: however, incentives are active, even if lower, for other emission classes, including ICE. Benefits include a five-year tax exemption, reduced VAT for people with disabilities, and incentives for charging installation. Lombardy provides regional subsidies, enhancing support for a cleaner vehicle transition.
Lithuania		55%	<i>Subsidy buying a used EV</i>	In 2024, Lithuania offers up to 4,000 € for new BEVs, 2,500 € for used EVs, and tax incentives, since the 1st of January 2023, VAT deductions apply on EV purchases up to 50,000 €.
Luxembourg		51%	<i>Subsidy buying a new EV</i>	Purchase subsidy of 8,000 € for new BEVs and FCEVs (Fuel Cell Electric Vehicle) with less than 7 seats and under 18 kWh/100 km consumption; 3,000 € if above this threshold. Up to 1,000 € for electric motorcycles and quadricycles, covering up to 50% of the cost, extended until March 2024. The government halved administrative tax for BEVs, and applied CO2-based tax incentives, aiming for 49% new EVs by 2030.
Netherlands		52%	Road tax exemptions	Dutch EV incentives include purchase subsidies (2,950 € new, 2,000 € used), and tax exemptions until 2024 on BPM (Belasting van personenauto's en motorrijwielen or tax on private motor vehicle and motorcycle charged once for each car registered) and MRB (Motorrijtuigenbelasting, a vehicle tax based on fuel, emissions and weight, paid monthly or quarterly from the date of car registration on the name of the owner). Entrepreneurs enjoy additional tax benefits, although the MIA/Vamil scheme is being phased out. Energy tax for recharging stations is reduced, indirectly lowering costs.
Slovenia		43%	Subsidy buying a new EV	Slovenia offers up to 6,500 € subsidy for new EVs under 35,000 € retail price, for individuals, and various subsidies for legal entities on new EVs up to 65,000 € retail price. Zero benefit-in-kind for company cars, VAT deductions on EV purchases up to 80,000 €, and subsidized Eco Fund loans promote EV adoption.

Country	Main disadvantage	% BEV potential drivers (time frame considering buying a BEV)	High impact government incentive to drive BEV	Existing financial incentive (end 2023) 9
Spain		70%		Spain's MOVES programs offer significant EV subsidies, with up to 7,000 € for new BEVs under conditions like vehicle scrappage. MOVES III extends till July 2024 with a 400-800 € million budgets. Incentives include major tax reductions, VAT exemptions, and enhanced recharging point installation aids, promoting broader EV adoption across the nation. These benefits are complemented by local exemptions from road taxes and special privileges like toll and parking exemptions for electric vehicles.
Sweden		62%		No purchase subsidies for personal EVs post-November 2022, but a new 'climate premium' for light electric trucks from February 2024 (30% of cost difference, capped at 4,300 €. Ongoing support includes minimal road tax (SEK 360 or 31 €), tax benefits for electric company cars, and funding for electric vehicle supply equipment projects.
EU 12 countries		57%		Financial support through grants and loans.

5. Table: BEV cars' ownership model & new/second-hand market

Ownership model & new/used BEV	Belgium	Denmark	France	Germany	Hungary	Italy	Luxembourg	Lithuania	Netherlands	Slovenia	Spain	Sweden	EU-12 countries
Leased BEV (business)	7%	0%	2%	5%	13%	4%	0%	0%	4%	1%	0%	6%	4%
Leased BEV (private)	5%	4%	31%	22%	6%	10%	16%	7%	14%	15%	14%	25%	16%

Consumer Monitor 2023
Country Report: France

Ownership model & new/used BEV	Belgium	Denmark	France	Germany	Hungary	Italy	Luxembourg	Lithuania	Netherlands	Slovenia	Spain	Sweden	EU-12 countries
BEV company car (if employee)	39%	1%	5%	12%	11%	2%	6%	7%	16%	13%	3%	16%	11%
Privately owned BEV	49%	95%	62%	61%	70%	84%	78%	86%	66%	71%	83%	53%	69%
New BEV	79%	73%	77%	86%	51%	89%	84%	26%	76%	75%	92%	67%	74%
Second-hand BEV	21%	27%	23%	14%	49%	11%	16%	74%	24%	25%	8%	33%	26%

6. Table: Recharging behaviour of BEV drivers

Country	Waiting time 15 min or less	BEV drivers recharging considering battery level	% time using slow public recharging point daily/per week	% time using fast public recharging point daily/per week	Most important characteristic public recharging session	Most used payment option at slow recharging points	Most used payment option fast public recharging points
Belgium	31%	46%	23%	16%	Short or no waiting time to access a recharging point	Charging card or app	Charging card or app
Denmark	26%	47%	42%	32%	Fully operational recharging station at arrival		Payment on the spot
France	42%	44%	15%	8%	Clear and transparent price information		Charging card or app
Germany	26%	64%	12%	7%	Fully operational recharging station at arrival		
Hungary	28%	67%	9%	6%	Fully operational recharging station at arrival		
Italy	15%	51%	33%	18%	Fully operational recharging station at arrival		
Lithuania	10%	45%	17%	10%	<i>Fully operational recharging station at arrival</i>		
Luxembourg	24%	42%	11%	8%	<i>Fully operational recharging station at arrival</i>		

Consumer Monitor 2023
Country Report: France

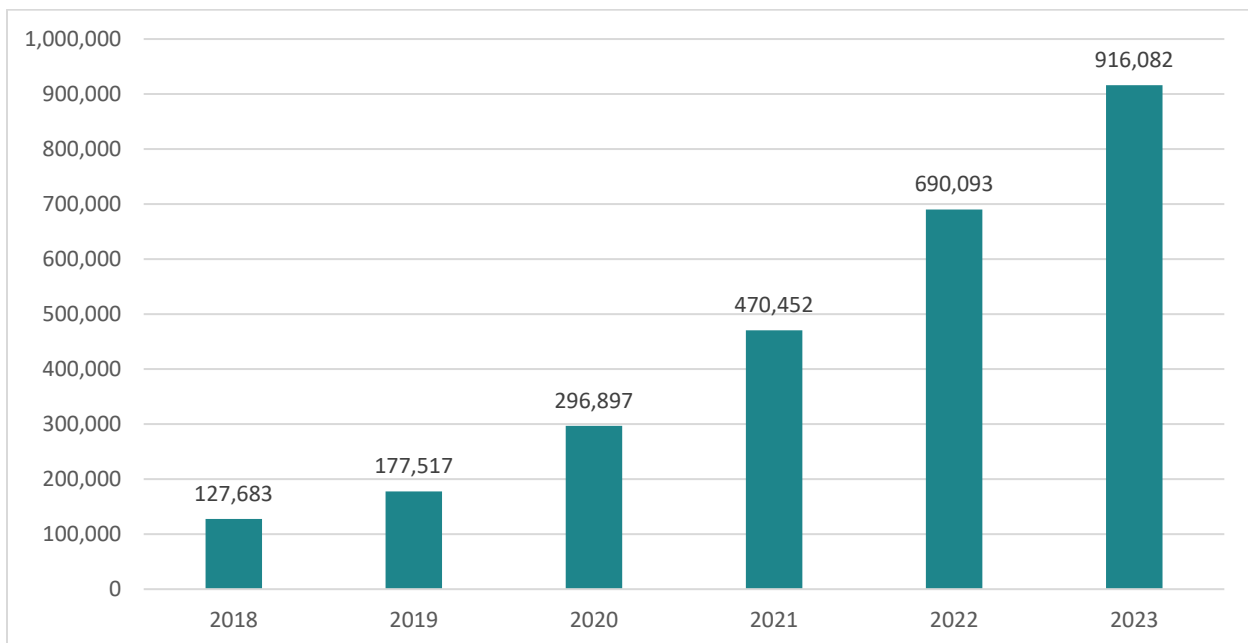
Country	Waiting time 15 min or less	BEV drivers recharging considering battery level	% time using slow public recharging point daily/per week	% time using fast public recharging point daily/per week	Most important characteristic public recharging session	Most used payment option at slow recharging points	Most used payment option fast public recharging points
Netherlands	38%	54%	20%	8%	Short or no waiting time to access a recharging point		
Slovenia	31%	52%	11%	5%	Fully operational recharging station at arrival		
Spain	16%	70%	57%	46%	<i>Short or no waiting time to access a recharging point</i>		
Sweden	40%	38%	15%	9%	Fully operational recharging station at arrival		
EU 12 countries	32%	51%	18%	10%	Fully operational recharging station at arrival		

5. BEVs and charging infrastructure in France

The French government has implemented different incentives, including tax benefits, VAT exemptions and subsidies to support the uptake of electric vehicles and recharging infrastructure (an overview of these can be found in [EAFO incentives & legislation France](#)).

France supports low-emission vehicle purchases with the “ecological bonus.” Private individuals buying EVs ($\leq 20\text{g CO}_2/\text{km}$ & 47,000 €) receive a 3,000 € grant, or 4,000 € for LCVs (Light Commercial Vehicle), capped at 27% of the price, while companies get the same 3,000 € for EVs. Low-income individuals (earning $< 14,100$ €) can receive up to 7,000 €. Additionally, an extra 1,000 € to 3,000 € is available for vehicles in Low Emission Zones. Used EVs are subsidised by 1,000 €. EVs and plug-in hybrids enjoy a 50% registration fee exemption and are entirely exempt from license plate registration in most regions. A 50% Benefit-In-Kind (BIK) assessment reduction is applied to company-provided EVs and recharging station use until the 31st of December 2024, capped at 1,800 € per year. Green cardholders can get up to two hours of free parking in certain areas. Cumulatively, ecological and conversion bonuses can amount to 13,000 € for new electric passenger cars, with the conversion premium up to 6,000 € for replacing older, polluting cars.

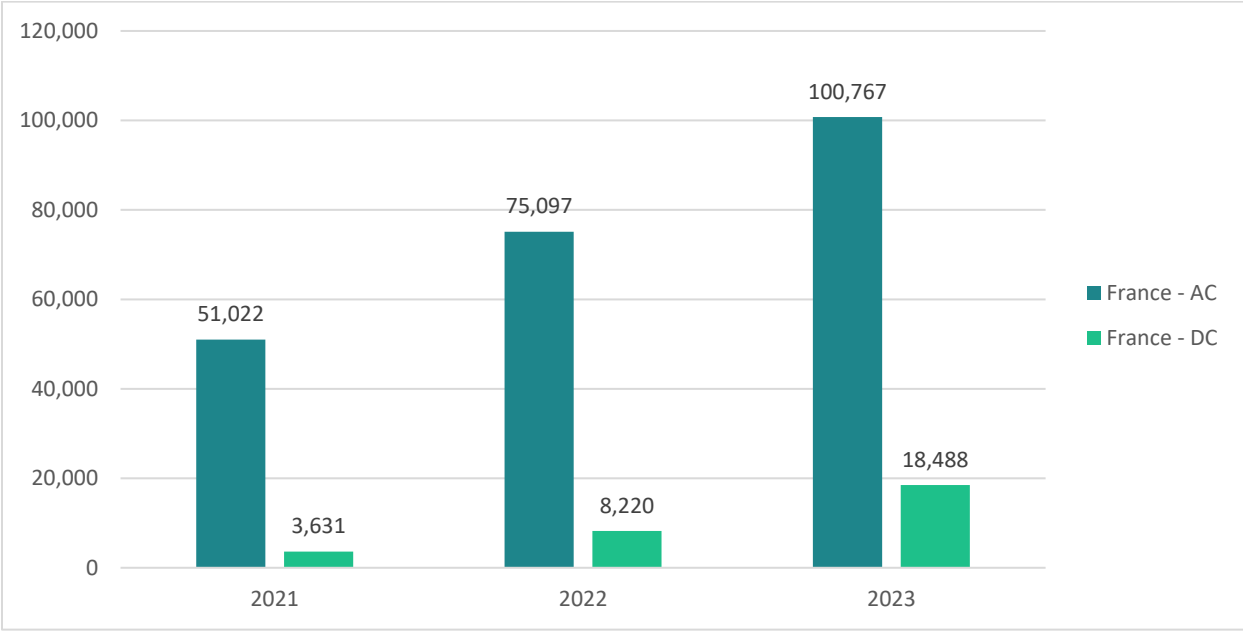
17. Figure: Evolution of the total BEV passenger vehicles in France



Source: EAFO portal.

For the year 2023, there were 916,082 BEVs, representing 2.32% of the total passenger vehicles fleet in France.

18. Figure: Evolution of alternating and direct current (AC or slow and DC or fast) recharging points in France



Source: EAFO portal.

Moreover, the public recharging infrastructure network has considerably grown in the last few years. According to the EAFO portal, by the end of 2023, there were 100,767 (AC) slow public recharging points, and 18,488 (DC) fast public ones.

6. Annex I: Consumer monitoring methodology & approach

For the 2023 launch of the EAFO consumer monitor survey, twelve countries¹² were selected. The survey was conducted using a panel on the general population of each of the surveyed countries. To improve the analysis of BEV drivers, a purposeful sample was collected through AVERE and external contributors, including FIA members ANWB in the Netherlands, Touring Belgium, the Ministries of Transport from Luxembourg and Lithuania, and the Swedish Energy Agency. The same survey was used for both the panel and the BEV sample.

The survey campaign was launched at the end of October 2023. For the panel in France, the aim was to reach 2,000 responses. The survey was open for one month. As BEV drivers are difficult to reach, their survey campaign was closed at the beginning of February 2024 in all surveyed countries.

The datasets were subjected to validation tests, including:

- Respondents should have completed the survey by the end and should have agreed to the terms and conditions of the survey.
- Respondents who specified not owning a driver's license were excluded.
- Respondents who filled out the survey in one-third (or less) of the time median for all respondents were excluded from the survey, as it was deemed impossible to fill out the survey thoroughly and in its entirety in such a short time.
- Respondents who indicated unusually high values to open questions with continuous variables (kilometres driven in a day, kilometres driven in a year, purchase price of a BEV and purchase price of an Internal Combustion Engine Vehicle) were excluded from the results.
- Respondents who came up with nonsensical patterns of answers to open questions were excluded.

The validation of all the datasets was finalised in mid-February 2024. To improve the relevance of the analysis of the BEV drivers alone, the survey conducted on BEV drivers (from AVERE and other external contributors) was combined with the survey conducted on the general population. The respondents were considered BEV drivers when their first, second or third car was a BEV. A total of 2,286 responses were considered valid for both the panel and the AVERE and external contributors' datasets. Out of these, there were 1,927 non-BEV and 359 BEV drivers.

¹² The twelve countries surveyed were: Belgium, Denmark, France, Germany, Hungary, Italy, Lithuania, Luxembourg, Netherlands, Slovenia, Spain, and Sweden.

The validated and combined datasets of all surveyed countries were used for a EU aggregated report.

