



Location study New brand Lisbon

Address : Rua de João Saraiva 1700-331 Lisbon

Simulation for :

4 ultrafast charging points (maxpower :160 kW)

Brand : New brand



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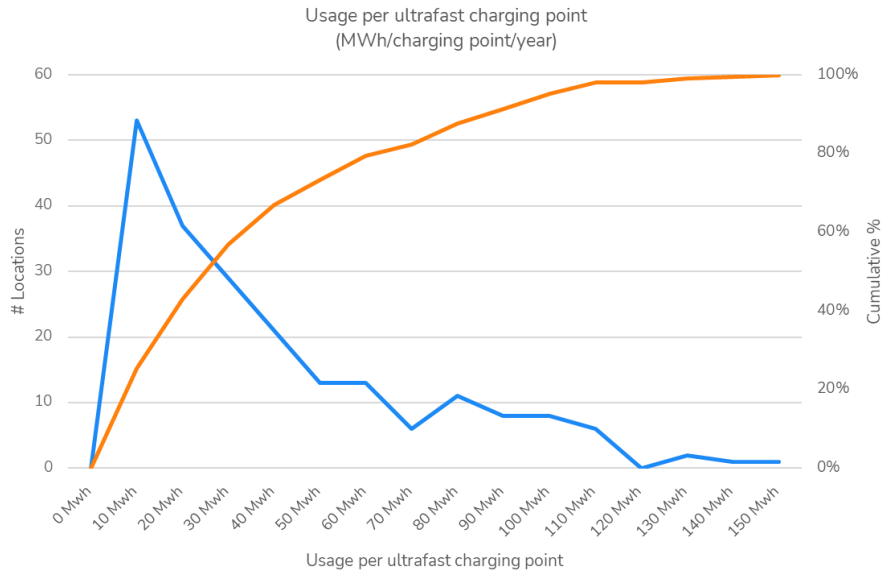
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2. Predicted yearly consumption

Based on the market data, the model predicts a theoretical potential of **287.849 kWh/year (being 71.962 kWh/year per ultrafast charging point)** for this location.

In the following graphs, we compare this result with all other sites in the country.

For the 72 existing sites with only ultra-fast charging points, the predictive model gives a median consumption of 20.8 MWh per year and per ultra-fast charging point.

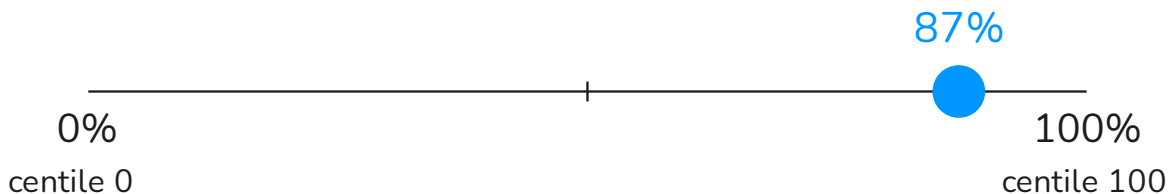


The following graph compares the expected performance (per ultra-fast charging point and per year) of the site under investigation with all existing sites in the country.

The percentile “0” corresponds to the existing site with the lowest usage, and the percentile “100” to the site with the highest usage. The blue dot corresponds to the performance of the location studied in this report :

This result shows that the studied site is classed within the 13 % best sites of the country in terms of potential.

Potential (kWh/ ultrafast charging point) vs. other stations



The opening of this new location will partially cannibalize surrounding charging locations. In this table you can find an overview of the most cannibalized locations.

Name of the concurrent station	Address	# Ultrafast charging points (>150kW)	Ultrafast power (kW)	# Fast charging points (49-150kW)	Fast power (kW)	Price (€/kWh)	Drivetime (min)
Atlante	Rua João Saraiva, 1 - 1A, Lisboa	0	N/A	2	55 kW	0,21 €/kWh	1
EDP Comercial	Avenida Marechal Craveiro Lopes, Lisboa	0	N/A	2	50 kW	0,21 €/kWh	2
Galpgeste	Avenida Almirante Gago Coutinho, Lisboa	0	N/A	2	50 kW	0,21 €/kWh	4
Galp Power	AV. MAL. CRAVEIRO LOPES 2A, Lisboa	0	N/A	6	73 kW	0,21 €/kWh	4
Mobiletric	Rua Ernesto de Vasconcelos, Lisboa	0	N/A	2	100 kW	0,21 €/kWh	4
Repsol	Praça Aeroporto, Av. Marechal Gomes da Costa, Lisboa	0	N/A	2	50 kW	0,21 €/kWh	4
EMEL	Campo Grande 23, Lisboa	0	N/A	14	50 kW	0,21 €/kWh	6
Atlante	Rua Cidade de Bolama, Lisboa	0	N/A	2	50 kW	0,21 €/kWh	7
EDP Comercial	Rua Professor Fernando da Fonseca B3, Lisboa	0	N/A	4	50 kW	0,21 €/kWh	7
Galp Power	Rua Francisco Stromp Lote 1, Lisboa	0	N/A	2	90 kW	0,21 €/kWh	7
UCharge	Azinhaga Galhardas, Lisboa	0	N/A	4	50 kW	0,21 €/kWh	7
Atlante	Avenida Santo Condestável, Lisboa	0	N/A	2	50 kW	0,21 €/kWh	8
Continente Plug&Charge	Avenida Marechal Gomes da Costa 33, Lisboa	0	N/A	3	50 kW	0,21 €/kWh	8
EDP Comercial – McDonalds	McDonalds, Avª Drª, Av. Dr. Augusto de Castro, Lisboa	0	N/A	2	75 kW	0,21 €/kWh	8
PowerDot	Av. República, Lisboa	0	N/A	2	90 kW	0,21 €/kWh	8
Atlante	Avenida Infante Dom Henrique, Lotes 17 e 18, Lisboa	0	N/A	2	50 kW	0,21 €/kWh	9
Atlante	Av. Infante Dom Henrique 345, Lisboa	0	N/A	2	60 kW	0,21 €/kWh	9
Continente	Avenida David Mourão-Ferreira 62, Lisboa	0	N/A	2	50 kW	0,21 €/kWh	9
Galpgeste	Avenida Cidade Do Porto, Lisboa	0	N/A	2	50 kW	0,21 €/kWh	9
Galpgeste	Avenida de Pádua, Lisboa	0	N/A	2	50 kW	0,21 €/kWh	9
Galpgeste	Avenida Marechal Craveiro Lopes, Lisboa	0	N/A	2	50 kW	0,21 €/kWh	9
Galpgeste	Avenida Padre Cruz, Lisboa	0	N/A	2	50 kW	0,21 €/kWh	9
Galp Power	Aeroporto de Lisboa, Parque P1, Lisboa	0	N/A	2	50 kW	0,21 €/kWh	9
Galp Power	Avenida Marechal Gomes da Costa N9, Lisboa	0	N/A	2	120 kW	0,21 €/kWh	9

Name of the concurrent station	Address	# Ultrafast charging points (>150kW)	Ultrafast power (kW)	# Fast charging points (49-150kW)	Fast power (kW)	Price (€/kWh)	Drivetime (min)
Galp Power	Rua C- Aeroporto Humberto Delgado, Lisboa	8	180 kW	2	60 kW	0,21 €/kWh	9
Moon Power	AVENIDA MARECHAL GOMES DA COSTA, 15, Lisboa	1	180 kW	0	N/A	0,21 €/kWh	9
Moon Power	AVENIDA MARECHAL GOMES DA COSTA, 15, Lisboa	0	N/A	2	69 kW	0,21 €/kWh	9
Repsol	Área Serviço Repsol 2a Circular Sentido N/S, Lisboa	0	N/A	2	50 kW	0,21 €/kWh	9
Repsol	Avenida Dr. Carlos Pinhao, Lisboa	0	N/A	2	50 kW	0,21 €/kWh	9
Atlante	Azinhaga das Galhardas, Lt 19, Lisboa	0	N/A	2	55 kW	0,21 €/kWh	10





The calculation of the potential is based on the following indicators (ranked in function of importance) :

2.1. On the road potential within 3 minutes

This potential consists of the car passage (expressed in the average number of vehicles passing by per week). This potential is very important for ultrafast charging points.

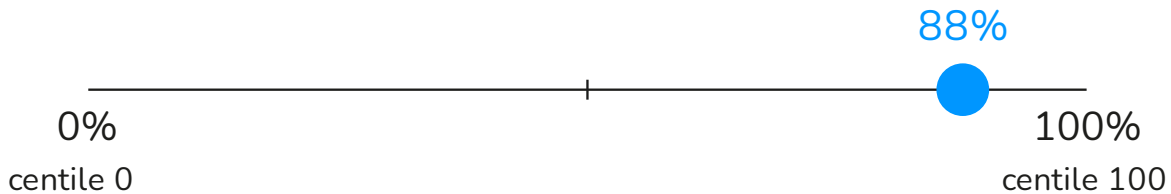
On this map, passage of each road segment is visualized. This gives an indication of the market potential related to passage in the proximity of the charging location.



The charging location has an estimation of **385.989** cars passing by per week. This is based on the 4 incoming roads with the highest passage score at 3 minutes drivetime.

With this result, the site is classed within the 13 % best sites in the country.

Cars passing by per week compared to other stations



2.2. Potential of local activity in a 300m radius

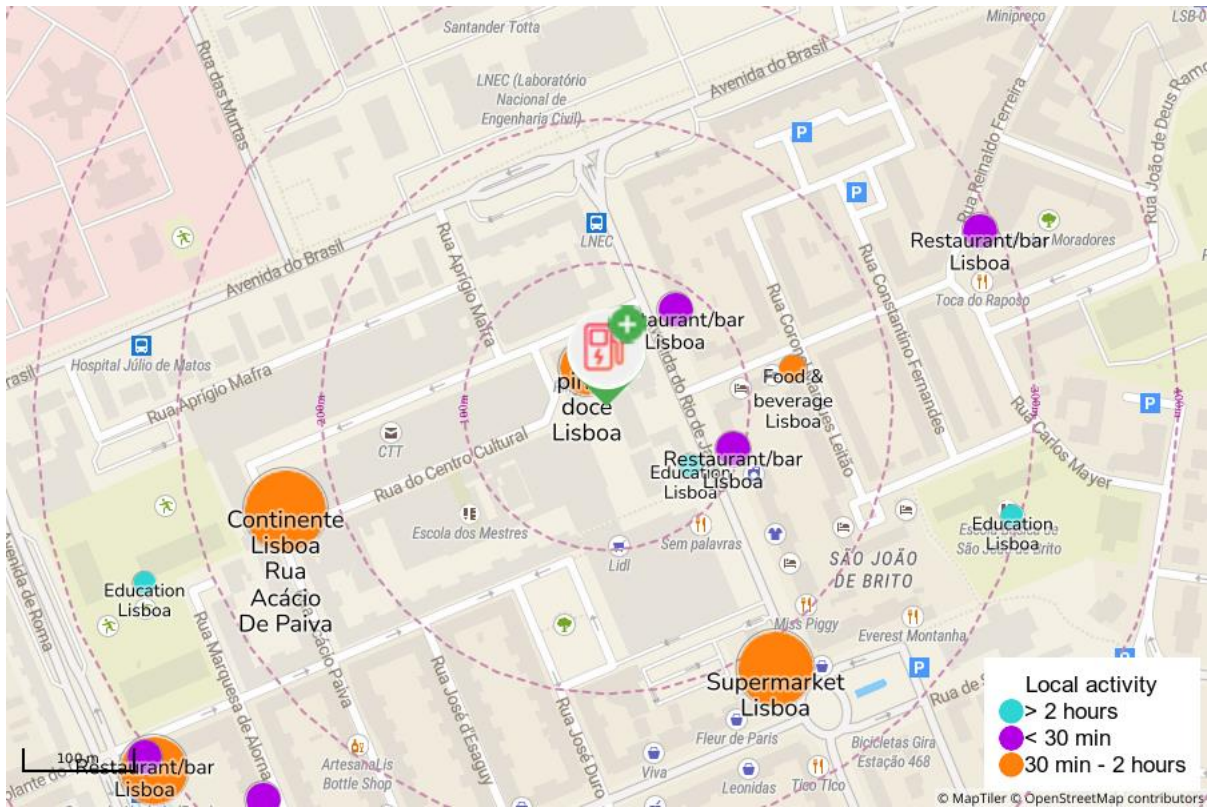
The presence of relevant local activity is important for ultrafast charging points. Mainly activity with a short visit duration (<30min) is important. Also activity with a medium long duration (30min – 2h) is partly relevant. In this study we took into account the following activity:

< **30min** : fast food restaurants, shops, destination retail...

30min - 2h : non-destination retail, restaurants, bars, cinemas, sport & cultural spaces.

> **2h** : work, schools, touristic places, hotels.

The figure below shows the local environment and the presence of perfect neighbours surrounding the charging location.

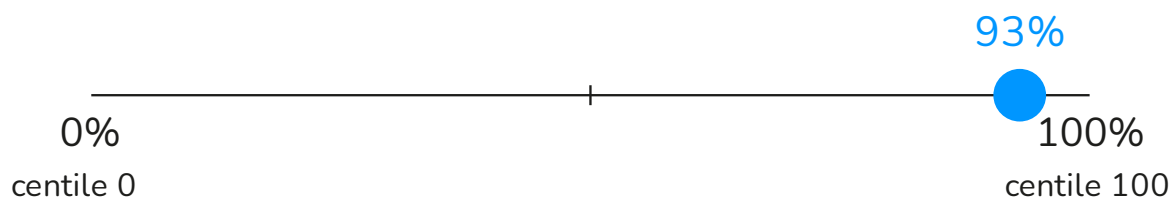


Less than 30min	Address	Number of visitors per year	Distance (m)
Bar RCA Club	R. João Saraiva 18, 1700-249 Lisboa	20.000	39 m
Bar Zeitnot	R. João Saraiva 13 2, 1700-249 Lisboa	20.000	51 m
Restaurant Adego Solar Minhoto	Av Rio De Janeiro 29, Lisboa	10.000	66 m
Restaurant Atalho de Alvalade	Av Rio De Janeiro 52, Lisboa	10.000	83 m
Restaurant Mercado de Alvalade	Alvalade Norte Market, Av. Rio de Janeiro 26, 1700-331 Lisboa	10.000	84 m
Restaurant Alma com Amor & Sabor	R. do Centro Cultural 39, 1700-051 Lisboa	10.000	90 m

In this overview, we compare this result with those observed at other sites in the country.

With this result, the site is classed in the 7 % best sites of the country in terms of local activity potential with a short visit duration (<30min) in a 300m radius.

Local activity potential less than 30min in a 300m radius

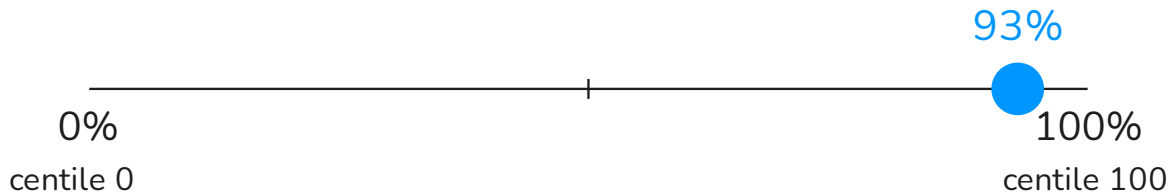


30min - 2h	Address	Number of visitors per year	Distance (m)
Supermarket Pingo Doce Rua	Av Rio De Janeiro 33, Lisboa	50.000	30 m
Lawn and Garden store Lisboa	Av Rio De Janeiro 54, Lisboa	100.000	81 m
Lidl	R Luis Augusto Palmeirim 2, Lisboa	125.000	93 m
Fashion store	Av Rio De Janeiro 48, Lisboa	25.000	148 m
Floor covering store	R Jose Duro 29, Lisboa	30.000	173 m
Public transport hub	Av Rio De Janeiro 25, Lisboa	50.000	206 m
Supermarket Mercado De Alvalade Norte	Av Rio De Janeiro 25, Lisboa	250.000	217 m
Continente	Rua Acácio De Paiva 22, Lisboa	300.000	236 m

In this overview, we compare this result with those observed at other sites in the country.

With this result, the site is classed in the 7 % best sites of the country in terms of local activity potential with a medium long duration (30min-2h) in a 300m radius.

Local activity potential for visit in 30min-2h in a 300m radius

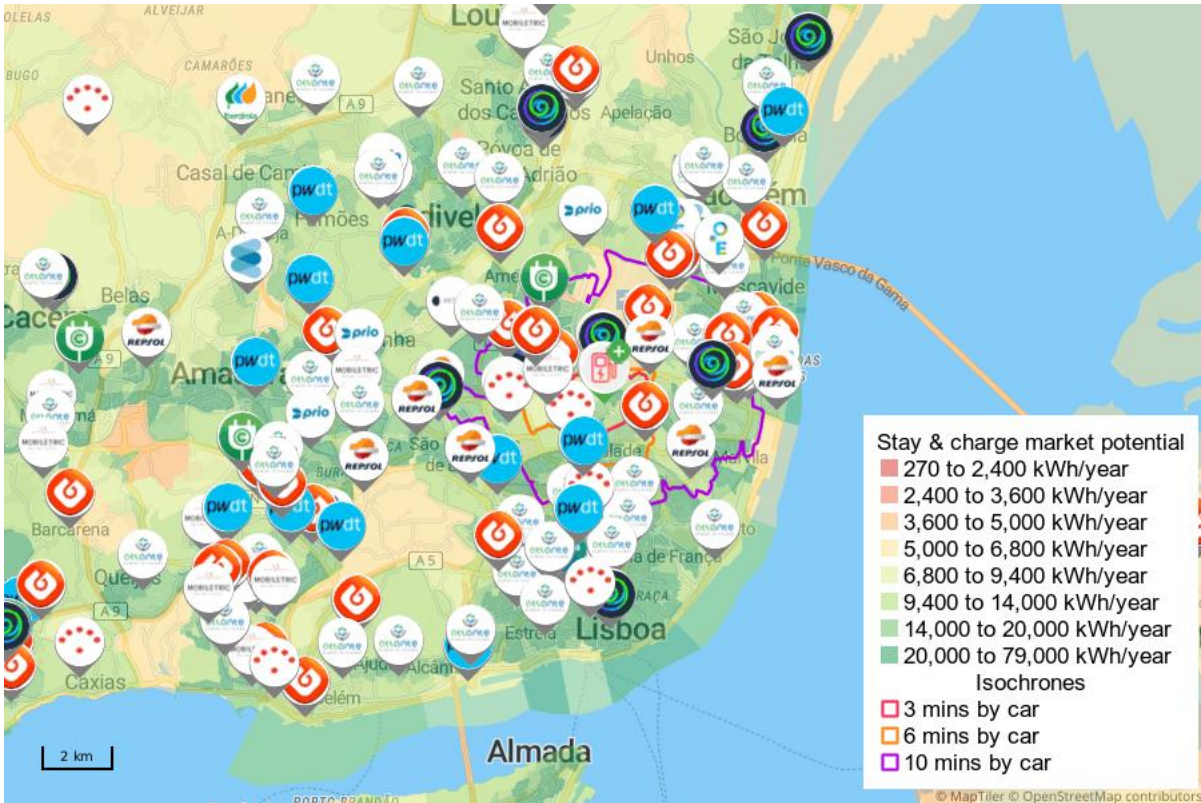


2.3. Residential and local visitor's potential

This is the destination potential that is part of the potential of consumption of residents that charge their vehicles close to their homes, their work and their activities. This is a less important potential for ultrafast charging points.

To calculate the potential per zone, we take into account the number of electrical vehicles, the wealth index, the estimated workers and the commercial activity (number of visits/year) for every zone.

On this map, you can see the potential residential and activity per zone around the charging location.



The table below shows an overview of the potential indicators, within each environment of the site :

Environment analysis	0~3 min by car	0~6 min by car	0~10 min by car
Market potential 'stay & charge'			
Inhabitants	8.196 inhabitants	28.647 inhabitants	147.247 inhabitants
Households	4.003 families	13.285 families	70.734 families
Wealth index	160 %	160 %	160 %
Population density	11.400	12.459	12.437
Cars	4.497 cars	15.718 cars	80.789 cars
Light commercial vehicles	920 vehicles	3.214 vehicles	16.520 vehicles
Electric vehicles	119 vehicles	416 vehicles	2.141 vehicles
Employees	4.733 FTE	16.670 FTE	137.692 FTE
Number of visits > 2 hours in the zone	139.000 visits	534.000 visits	2.644.000 visits
Residential potential	315 kWh/year	1.131 kWh/year	5.766 kWh/year
Market space 'stay & charge'			
Stay & charge market potential	143.897 kWh/year	546.860 kWh/year	3.155.146 kWh/year

2.4. Location quality

Visibility, accessibility & price have a significant impact on the success of a charging location.

2.4.1. Visibility : Normal

Each location in the platform can get a visibility score going from very bad to very good. This is not an automatically calculated parameter, but a manual scoring. By default, for all competitors and tested locations, the value is set to neutral unless you explicitly change it. It's useful to fill out this parameter when you are testing a specific case :

Visibility	Definition
Very good	Your location stands out & gets noticed by everyone
Good	Some positive elements, but not the best
Normal	Both positive as negative aspects, location doesn't stand out
Bad	Large part of passing traffic doesn't notice your location
Very bad	Almost nobody notices your location

For this location, the estimation of the visibility is actually set on : "Normal".

2.4.2. Micro-Accessibility : No issues

Each location in the platform can get a micro-accessibility score going from no issues to major issues. This is not an automatically calculated parameter, but a manual scoring. By default for all competitors and tested locations, the value is set to no issues unless you explicitly change it. It's useful to fill out this parameter when you are testing a specific case :

Micro-accessibility	Definition
No issues	Able to smoothly access the location site
Minor issues	Lose time to access the location site
Major issues	Lose lots of time to access the location site

For this location, the estimation of the micro-accessibility is actually set on : "No issues".

2.4.3. Recharge price : 0,45 €/kWh

Each location present in the platform has a charging price. Which is the average price relating to the station excluding taxes and any additional parking costs (€/connected hour). The indicated price also doesn't take into account flat-rate prices (fixed price per charging session) or the price of time spent (cost per connected hour).

For this location, the ad hoc price is actually set on : 0,45 €/kWh

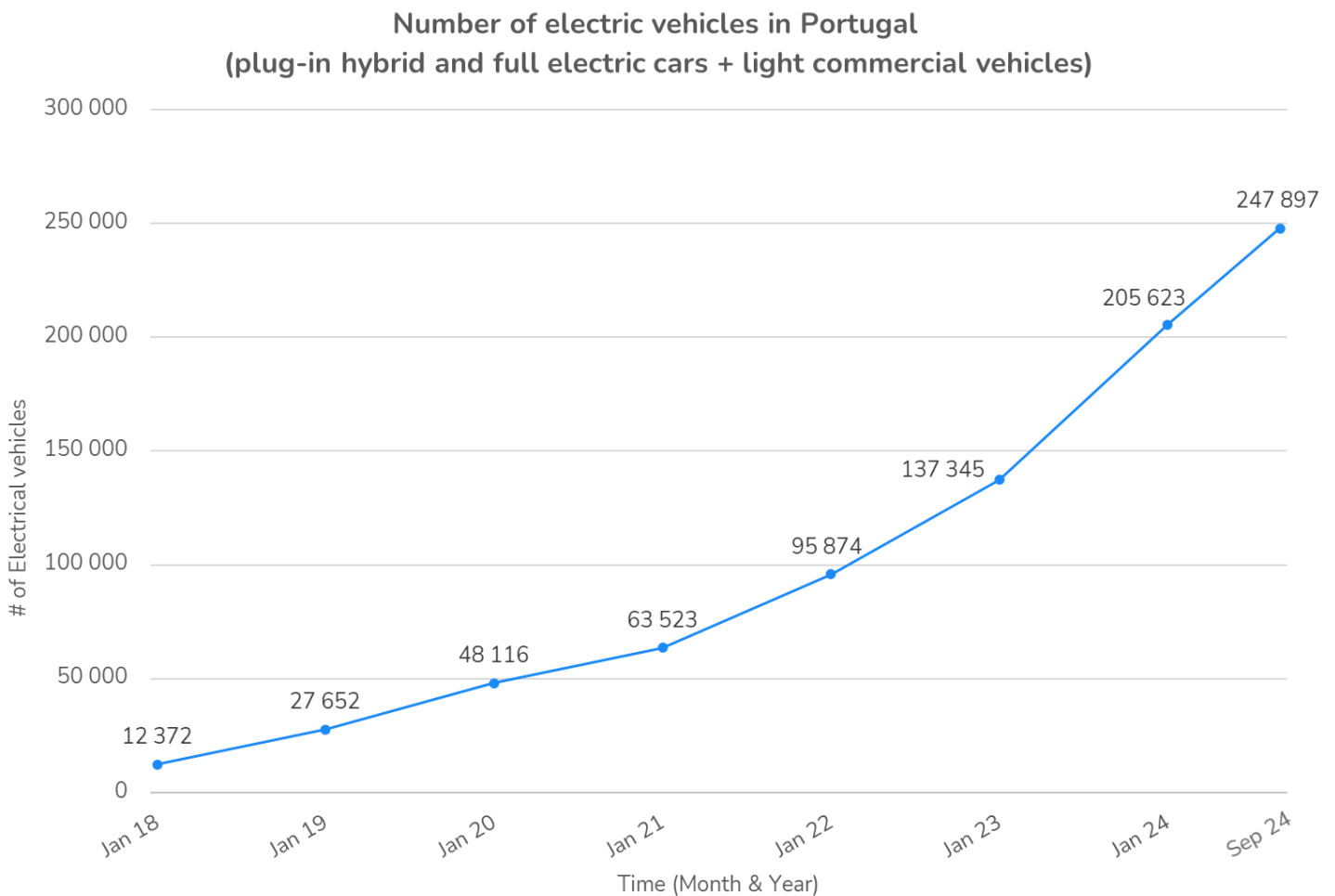
3. Interpretation of the results and market tendencies

This report of the investigation of potential is based on the most recent market data.

In this section, we give a brief overview of the different data sources used and the observed evolutions in the charging electrical vehicles market.

3.1. Number of electric vehicles in the country

The number of electrical vehicles in France is fixed to 52 946 in ChargePlanner. This corresponds to an estimation of reality at the start of September 2024 and contains the cars as well as the light commercial vehicles. Of these, 56% (139 907) are fully electric vehicles, while 44% (107 990) are plug-in hybrid electric vehicles. Since January 2024, the number of electrical vehicles rose by 21%, which means that the strong growth of the last years continues.



3.2. Competitive pressure of fast and ultra-fast charging points

In Portugal, there are 1 663 sites with at least one fast or ultrafast charging point.

Brand	September 2024						
	Number of locations (at least 1 F or UF)	Ultrafast		Fast		Slow	
		# Charging points	Average power (kW)	# Charging points	Average power (kW)	# Charging points	Average power (kW)
Atlante	418	12	150	918	50	423	
PowerDot	215	113	180	533	50	292	
EDP Comercial	214	32	160	452	75	242	
Galp Power	155	71	180	303	60	254	43
Galpgeste	132	11	170	265	50	103	43
Repsol	79	1	160	158	55	85	
Continente Plug&Charge	61			164	50	162	
Prio	53	6	150	108	50	26	
Mobiletric	52	6	160	113	50	36	43
Mobi.E	37	2	150	90	50	40	
ETECNIC	36	4	150	95	50	33	
Iberdrola	35	50	150	51	100	17	
Helexia	29	0	0	67	50	80	
Other brands	147	257	188	255	58	166	24
Total	1 663	565	150	3 572	57	1 959	38

4. About RetailSonar

From location planning to location performance. RetailSonar is **Europe's leading geomarketing company**. We optimize the location strategy for over 200 retailers in more than 15 countries.

We make the difference thanks to :



The most complete, innovative & up-to-date **retail database** in Europe



Accurate sales forecasts thanks to state of the art of **Artificial Intelligence**



An international **geomarketing platform** for real estate, sales & marketing

RetailSonar offers an unrivalled expertise in providing the right location strategy for all stakeholders in the fast changing EV sector.

The right location strategy for installers and distributors



- Determine the optimal locations for each type of charger
- Simulate business cases in your own data platform
- A professional market report to share with stakeholder

The right location strategy for retailers & real estate



- Determine the profitability of all your available locations
- Simulate business cases in your own data platform
- Clear guidelines to bring your strategy into practice

The right location strategy for retailers & real estate



The right location strategy for governments & cities

- Determine the optimal regional coverage of chargers
- Simulate business case & optimize your strategy
- Realize your policy goals