



## Location study New brand Luxembourg

**Address :** Rue Louvigny 2340 Luxembourg

**Simulation for :**

4 ultrafast charging points (maxpower :150 kW)

**Brand :** New brand



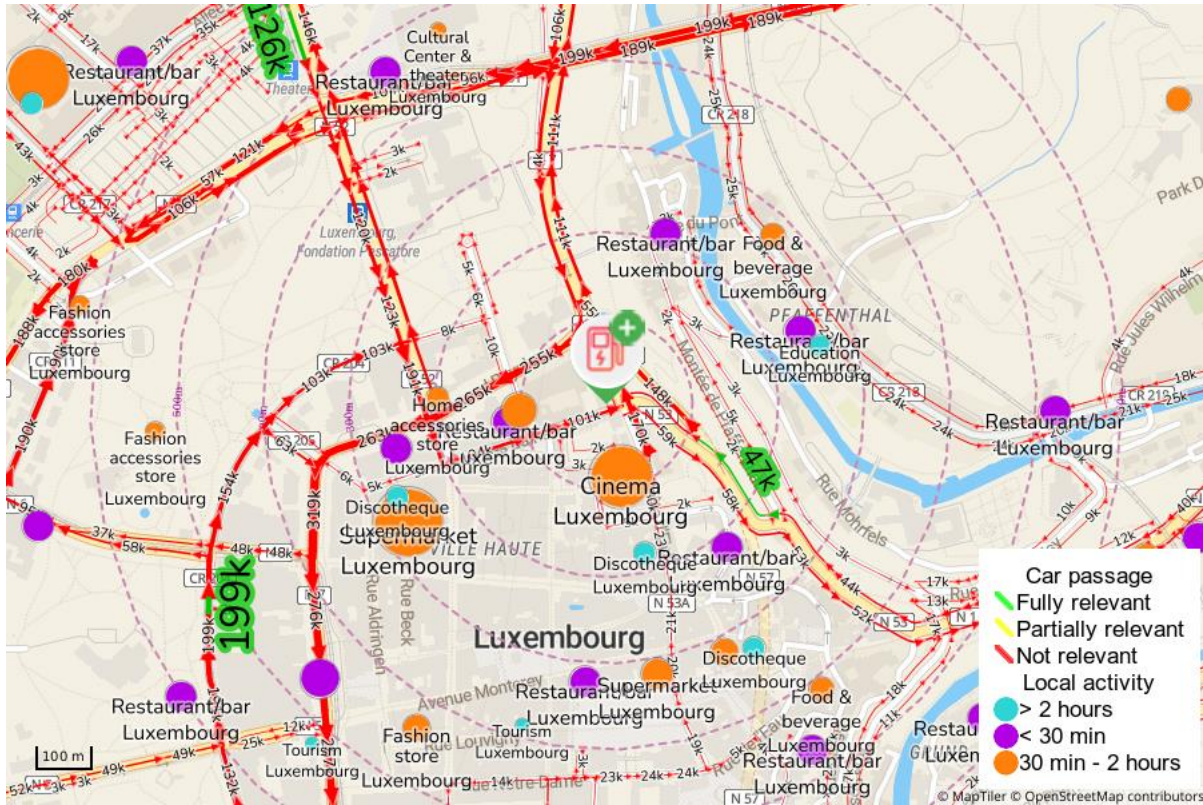
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## 1. Description of the simulation

In this report we show the result of a simulation with 4 ultrafast charging points (>150kW) of a charging station located at : Rue Louvigny, 2340, Luxembourg, LU

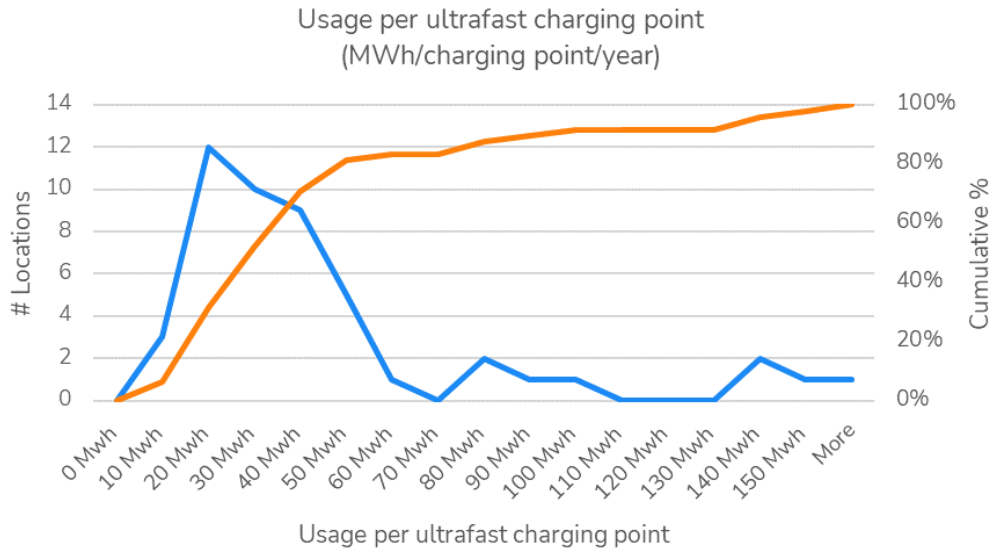


## 2. Predicted yearly consumption

Based on the market data, the model predicts a theoretical potential of **476.787 kWh/year (being 119.197 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 25 existing sites with only ultra-fast charging points, the predictive model gives a median consumption of 27.8 MWh per year and per ultra-fast charging point.

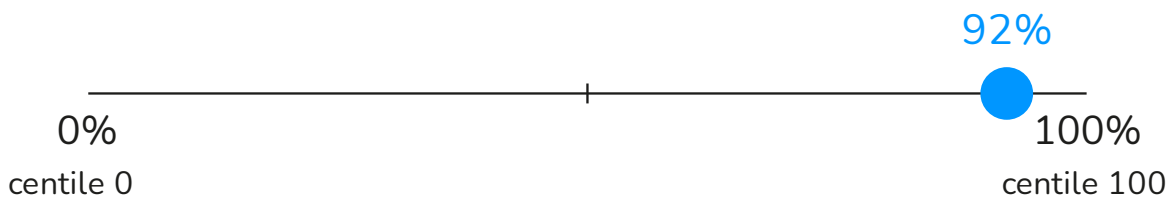


The following graph compares the expected performance (per ultra-fast charging point and per year) of the site under investigation with all existing sites in the country.

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 8 % 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)
Chargy Luxembourg	Rue Richard Coudenhove-Kalergi	4	208 kW	0	N/A	0.37 €/kWh	11
Losch Import S.à.r.l Luxembourg	90, route de Thionville, 2610	0	N/A	1	50 kW	0.44 €/kWh	13



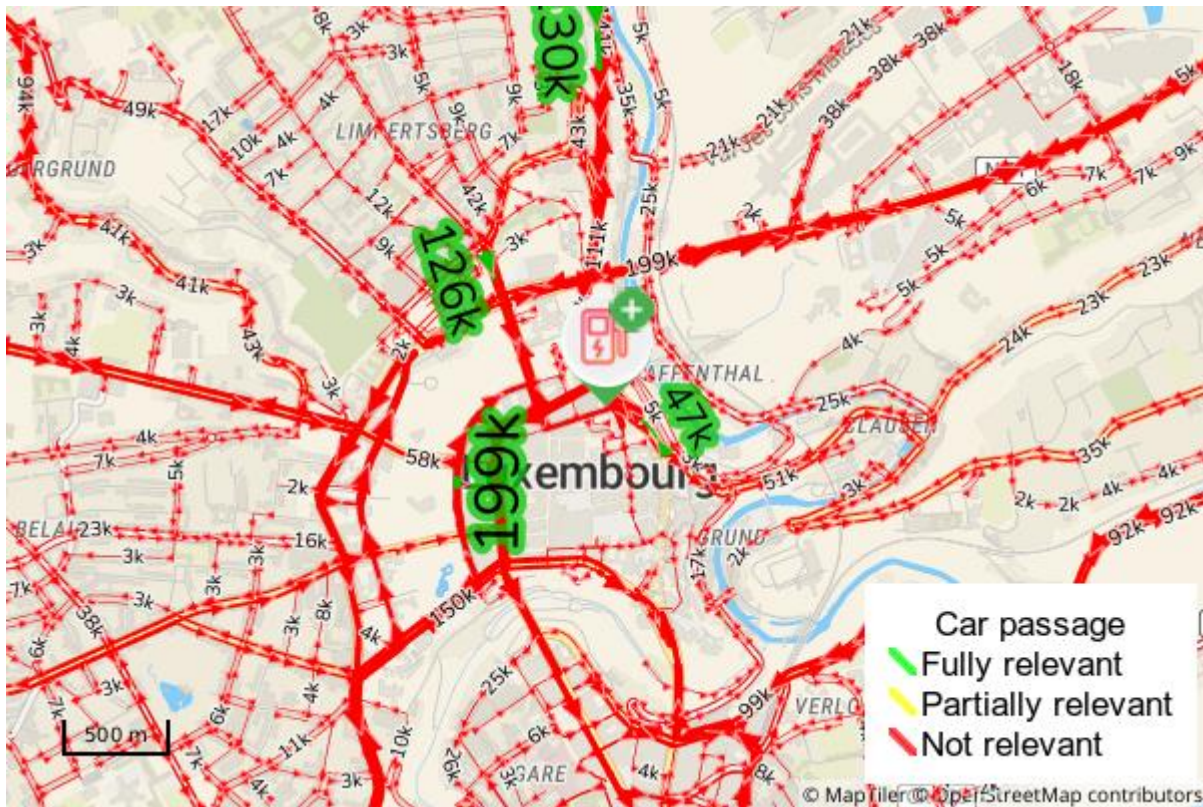


The calculation of the potential is based on the following indicators (ranked in function of importance) :

## 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.

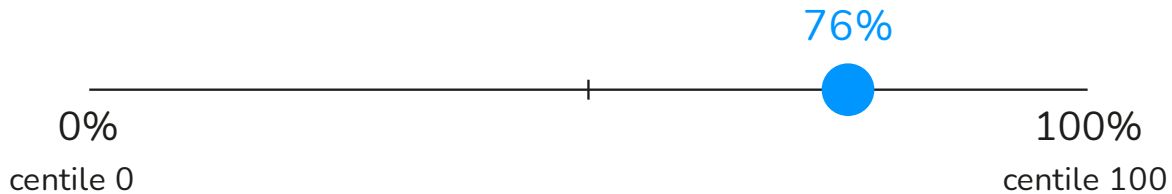
On this map, passage of each road segment is visualized. This gives an indication of the market potential related to passage in the proximity of the charging location.



The charging location has an estimation of **501.539** 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 24 % 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.



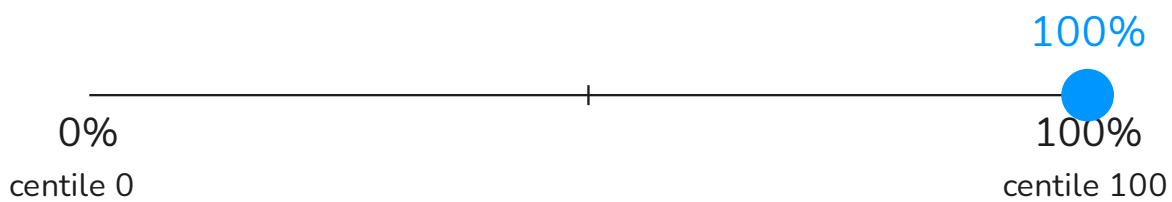


Less than 30min	Address	Number of visitors per year	Distance (m)
Restaurant/bar Luxembourg	Place du Théâtre 17	20.000	113 m
Restaurant/bar Luxembourg	Avenue Jean-Pierre Pescatore 1	20.000	117 m
Restaurant/bar Luxembourg	Rue Beaumont 6	20.000	120 m
Restaurant/bar Luxembourg	Rue Beaumont 1A	20.000	123 m
Restaurant/bar Luxembourg	Rue des Bains 3	20.000	125 m
Restaurant/bar Luxembourg	Rue des Bains 7	20.000	135 m
Restaurant/bar Luxembourg	Rue des Bains 9	20.000	141 m
Restaurant/bar Luxembourg	Rue Beaumont 7	20.000	150 m
Restaurant/bar Luxembourg	Rue des Bains 15	20.000	162 m
Restaurant/bar Luxembourg	Passage Roger Manderscheid 5	20.000	166 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 0 % 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



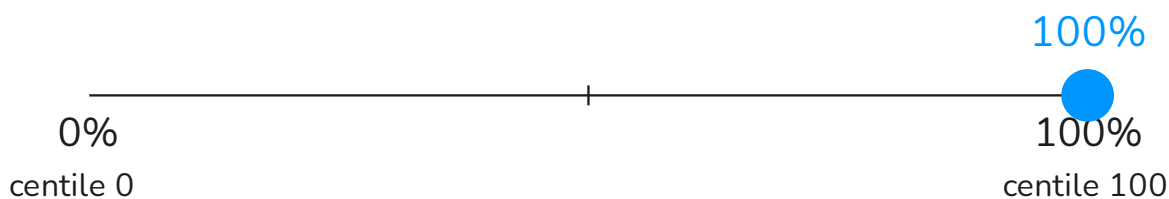
30min - 2h	Address	Number of visitors per year	Distance (m)
Cinema Luxembourg	Place du Théâtre 17	200.000	85 m
Public transport Luxembourg	Avenue Jean-Pierre Pescatore 4	50.000	102 m

30min - 2h	Address	Number of visitors per year	Distance (m)
Food & beverage Luxembourg	Rue des Bains 5	20.000	129 m
Baby goods store Luxembourg	Rue Beaumont 5A	30.000	149 m
Fashion store Luxembourg	Rue Beaumont 17	25.000	156 m
Fashion store Luxembourg	Rue des Capucins 25	25.000	159 m
Fashion store Luxembourg	Place du Théâtre 7	25.000	164 m
Sporting good store Luxembourg	Grand-Rue 50	30.000	168 m
Fashion store Luxembourg	Rue des Bains 15	25.000	168 m
Lawn and Garden store Luxembourg	Avenue de la Porte-Neuve 22	100.000	183 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 0 % 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

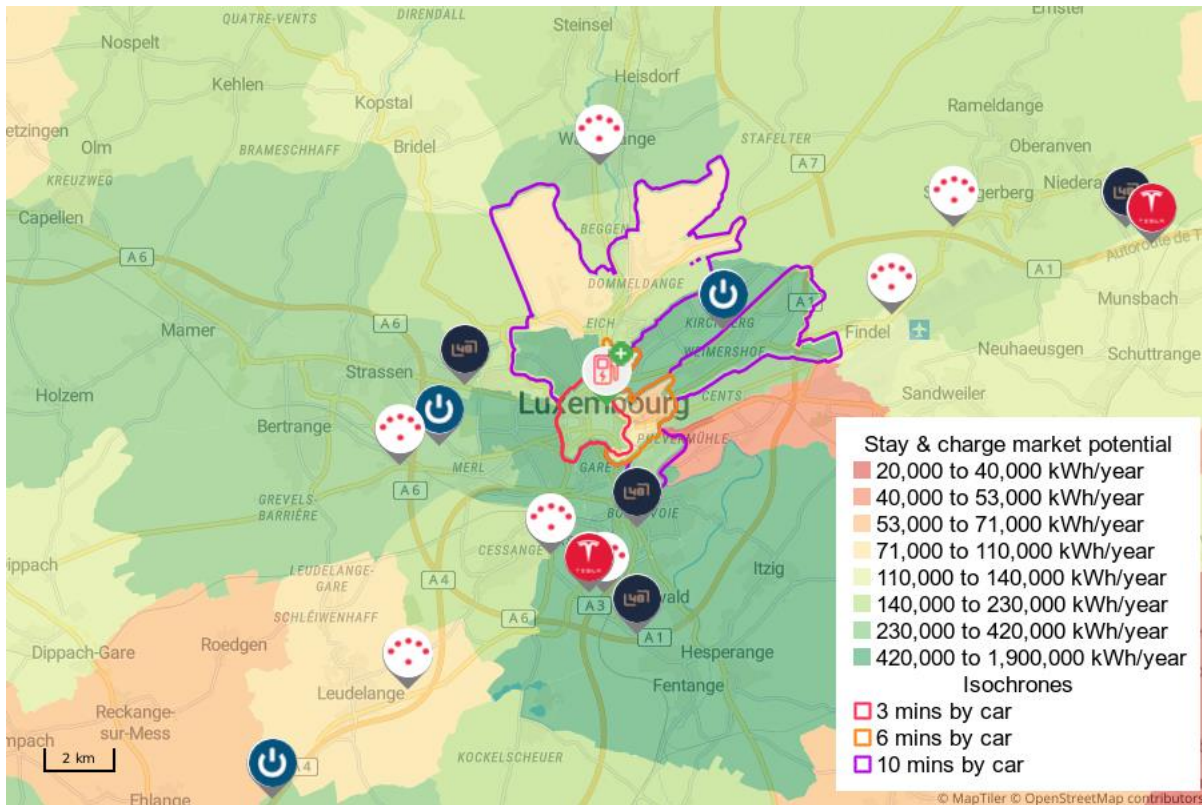


### 2.3. Residential and local visitor's potential

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
<b>Market potential 'stay &amp; charge'</b>			
Inhabitants	3.430 inhabitants	6.714 inhabitants	39.073 inhabitants
Households	1.720 families	3.221 families	17.702 families
Wealth index	113 %	110 %	111 %
Population density	3.203 inhabitants / km <sup>2</sup>	3.179 inhabitants / km <sup>2</sup>	3.414 inhabitants / km <sup>2</sup>
Cars	2.458 cars	4.812 cars	28.005 cars
Light commercial vehicles	229 vehicles	448 vehicles	2.599 vehicles
Electric vehicles	183 vehicles	356 vehicles	2.066 vehicles
Employees	18.297 FTE	27.610 FTE	62.201 FTE
Number of visits > 2 hours in the zone	288.000 visits	418.000 visits	1.187.000 visits
Residential potential	392 kWh/year	760 kWh/year	4.529 kWh/year
<b>Market space 'stay &amp; charge'</b>			
Stay & charge market potential	351.077 kWh/year	607.370 kWh/year	2.862.625 kWh/year
Number of slow charging points needed in 2 years	44 charging points	76 charging points	357 charging points

## 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
<b>Very good</b>	Your location stands out & gets noticed by everyone
<b>Good</b>	Some positive elements, but not the best
<b>Normal</b>	Both positive as negative aspects, location doesn't stand out
<b>Bad</b>	Large part of passing traffic doesn't notice your location
<b>Very bad</b>	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
<b>No issues</b>	Able to smoothly access the location site
<b>Minor issues</b>	Lose time to access the location site
<b>Major issues</b>	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 : 0,50 €/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 : 0,50 €/kWh

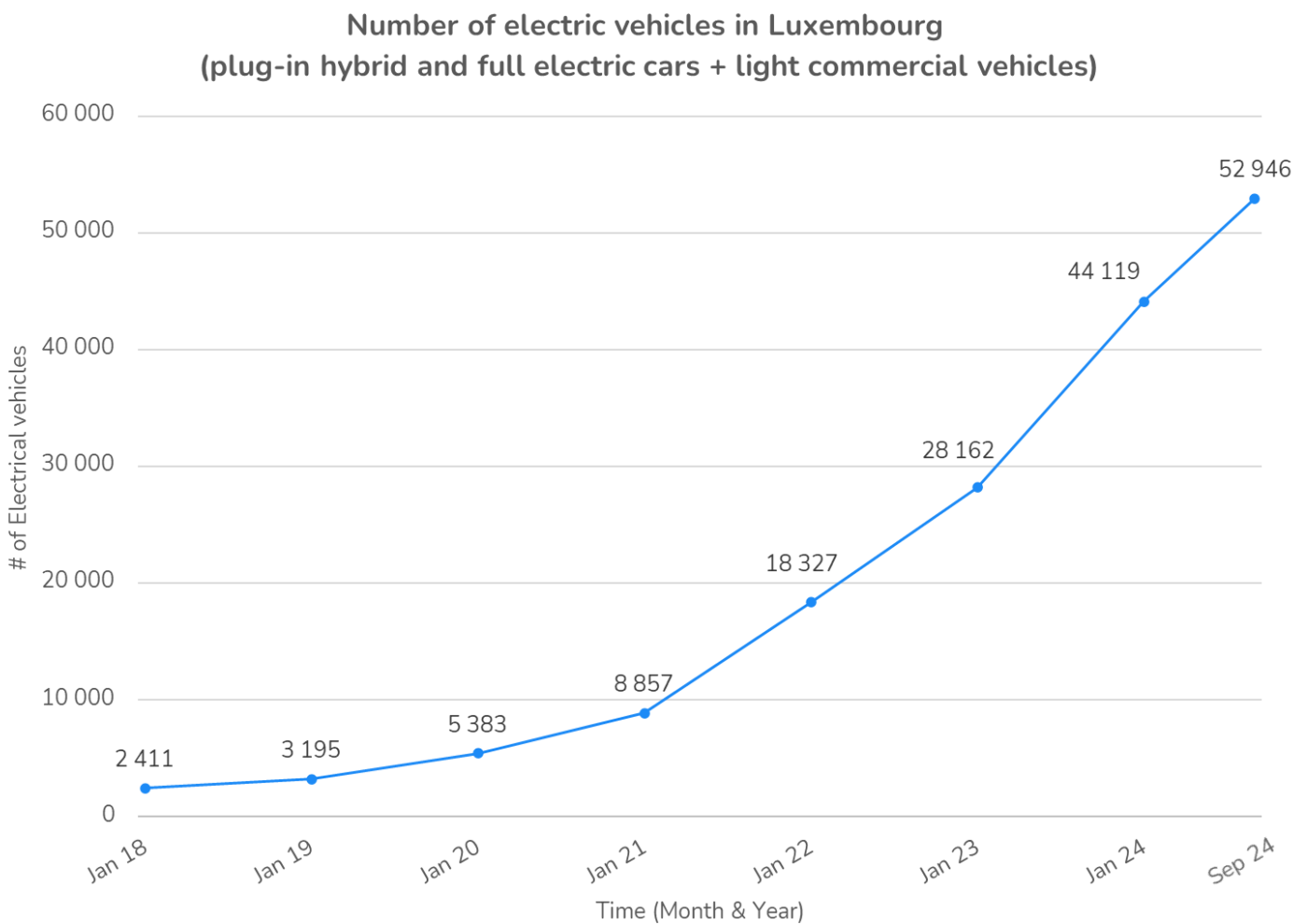
## 4. Interpretation of the results and market tendencies

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.

### 4.1. 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, 63% (33 485) are fully electric vehicles, while 37% (19 461) are plug-in hybrid electric vehicles. Since January 2024, the number of electrical vehicles rose by 20%, which means that the strong growth of the last years continues.



## 4.2. Competitive pressure of fast and ultra-fast charging points

In Luxembourg, there are 67 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		Price of the kW (€)	
		# Charging points	Average power (kW)	# Charging points	Average power (kW)	# Charging points	Average power (kW)	(Ultra)fast	Slow
Chargy	15	69	208			14	22	0.46	0.07
Losch Import S.à.r.l	13	10	325	11	50	12	22		
PCT	10	50	300	24	120	2	22		
Aral Pulse	8	34	300	14	100				
Lidl	5			10	50	5	22	0.63	0.46
SWIO	4	13	267	2	50	13	22	0.73	0.64
TotalEnergies	4	12	300	10	100	3	22		
Tesla Supercharger	2		200						
Allego	1			2	50	1	43		
EVBox	1	4	335					0.70	
Powerstop	1			2	100	1	22		0.39
Shell Recharge	1	4	300	2	125			0.69	
kuehne_nagel_lux	1	2	300	1	100	20	22		
novoeco   recharge (BayWa)	1	6	150			4	22	0.53	0.40
<b>Total</b>	<b>67</b>	<b>228</b>	<b>213</b>	<b>78</b>	<b>60</b>	<b>75</b>	<b>24</b>	<b>0.27</b>	<b>0.14</b>

## 5. 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