Location study
New brand Kruisem

Adress : Gentsesteenweg 56-56B 9750 Kruisem

Simulation for :

2 ultrafast charging points (150 kW)

Brand : New brand

ChargePlanner
a solution by RetailSonar

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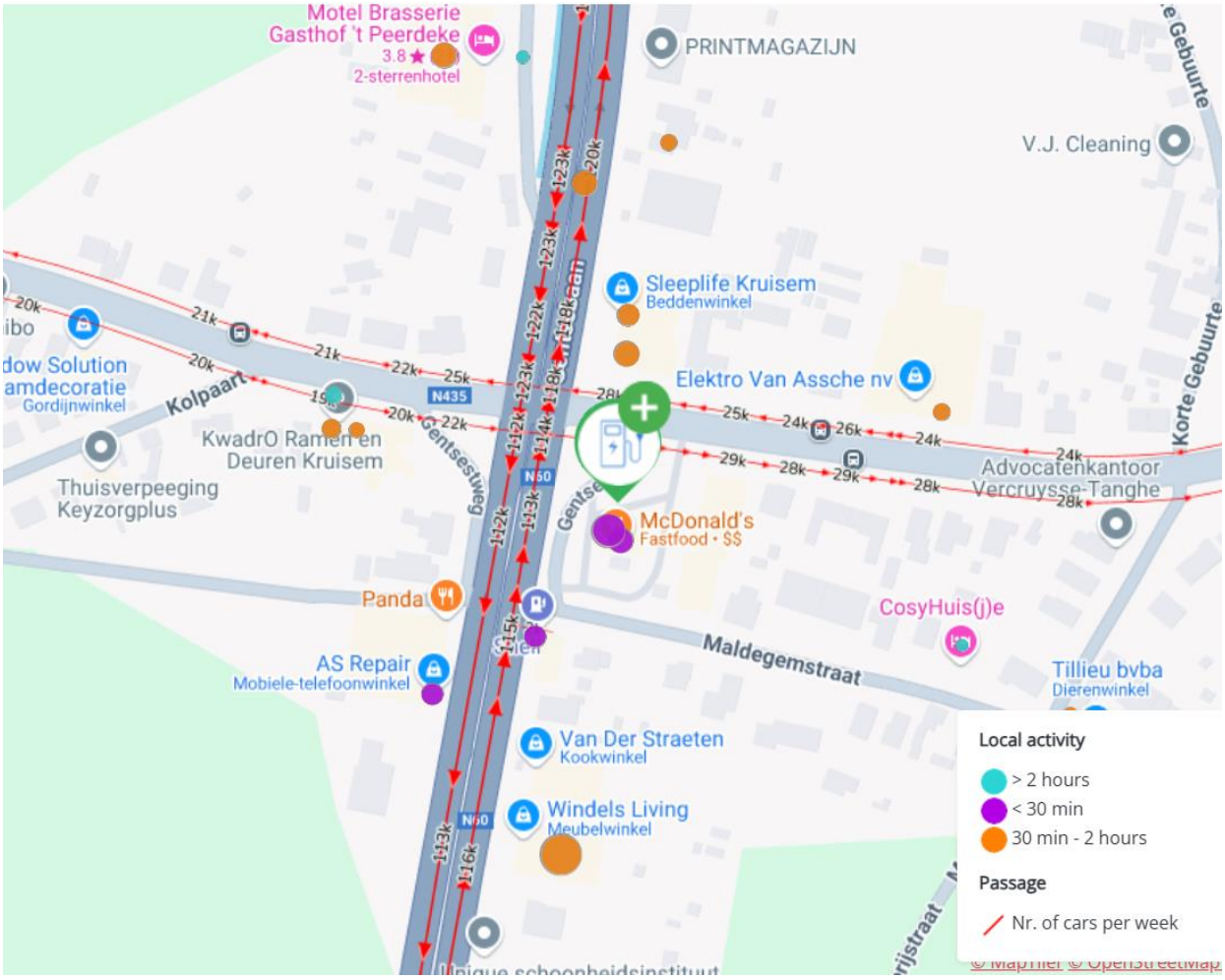
1. Description of the simulation

In this report we show the result of a simulation with 2 ultrafast charging points (>150kW) of a charging station located at : Gentsesteenweg 56-56B, 9750, Kruisem, BE

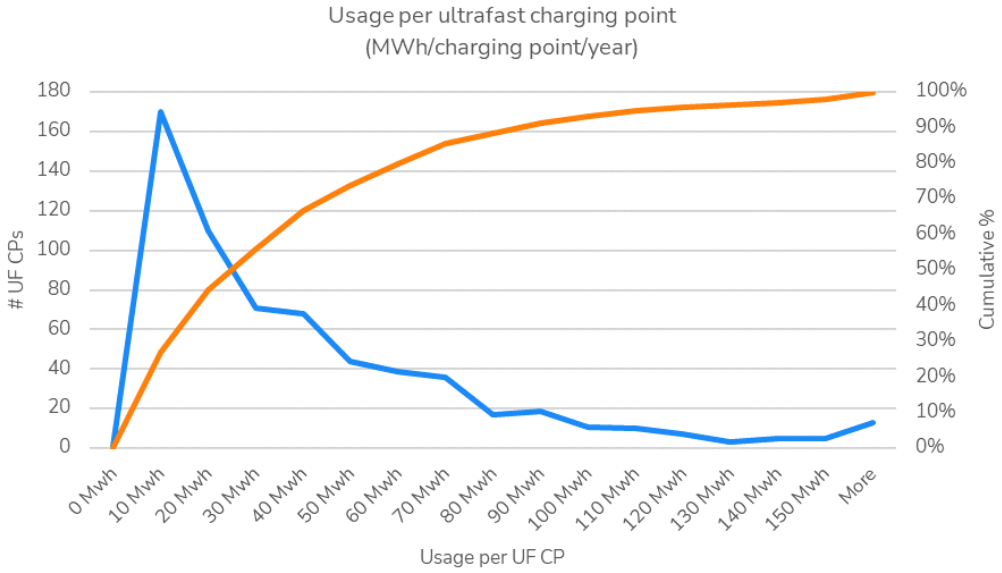


2. Predicted yearly consumption

Based on the market data, the model predicts a theoretical potential of **122.141 kWh/year (being 61.071 kWh/year per ultrafast charging point)** for this location.

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

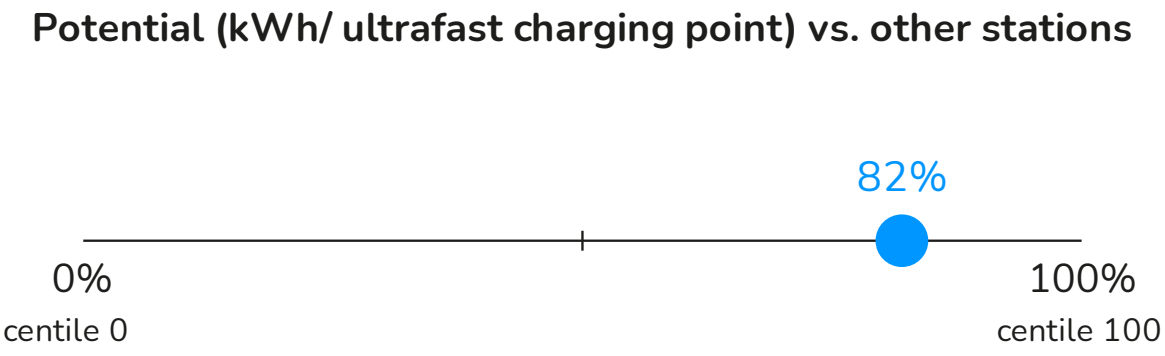
For the 527 existing sites with only ultra-fast charging points, the predictive model gives a median consumption of 25.4 MWh per year and per ultra-fast charging point.



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 :

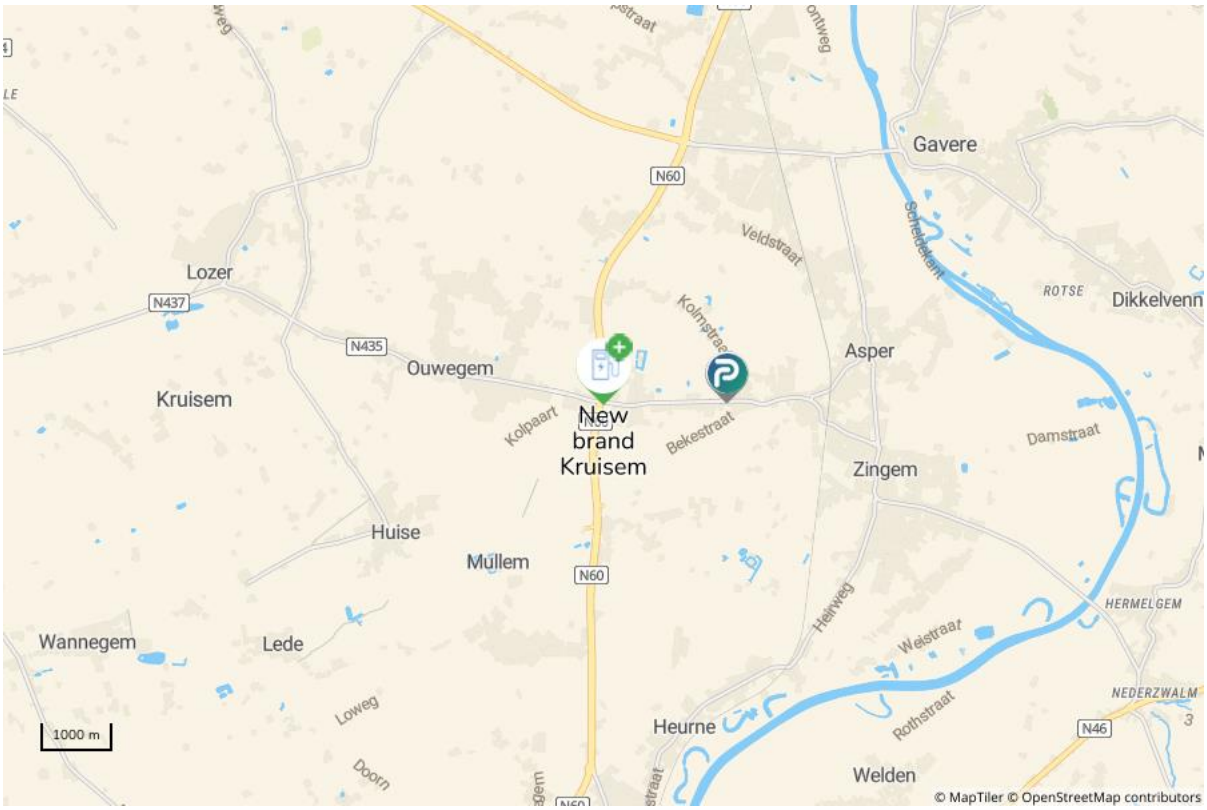
This result shows that the studied site is classed within the 18 % best sites of the country in terms of potential.



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	Street + housenumber	# Ultrafast charging points (>150kW)	Ultrafast power (kW)	# Fast charging points (49-150kW)	Fast power (kW)	Price (€/kWh)	Drivetime (min)
Powerland Kruisem	Kruishoutemsesteenweg 167	0	N/A	2	50 kW	0,56 €/kWh	1
Powerstop Oudenaarde	Ambachtsstraat 2	2	170 kW	0	N/A	0,62 €/kWh	7
Deconinck Mobility Oudenaarde	Pruimelstraat 1A	0	N/A	2	92 kW	0,62 €/kWh	8
Powerland Nazareth	Steenweg Deinze 33	0	N/A	1	60 kW	0,55 €/kWh	9

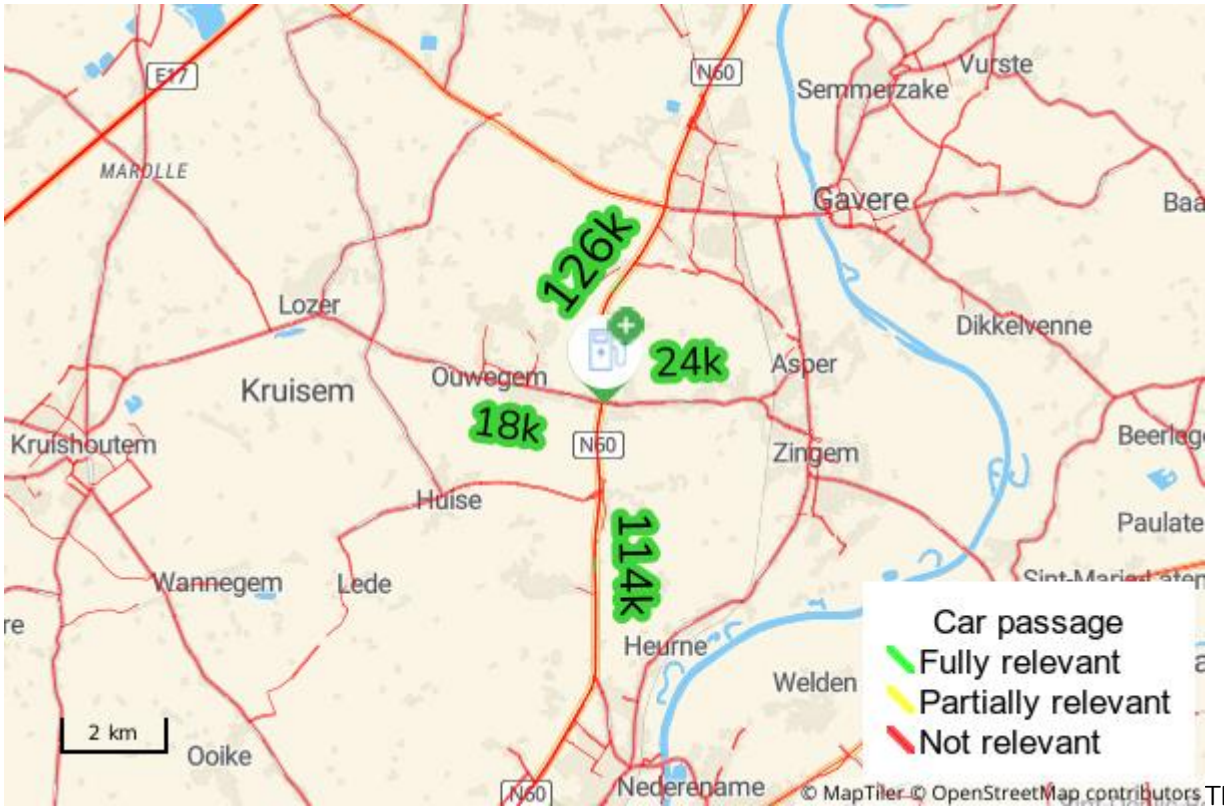


The calculation of the potential is based on the following indicators (ranked in function of importance) :

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.

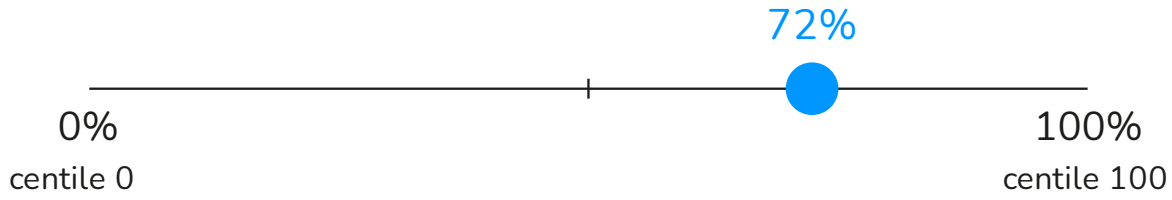
On this map, passage of each road segment is visualized. This gives an indication of the market potential related to passage in the proximity of the charging location.



The charging location has an estimation of **281.450** cars passing by per week.

With this result, the site is classed within the 28 % best sites in the country.

Cars passing by per week compared to other stations



2.2. Potential of local activity in a 300m radius

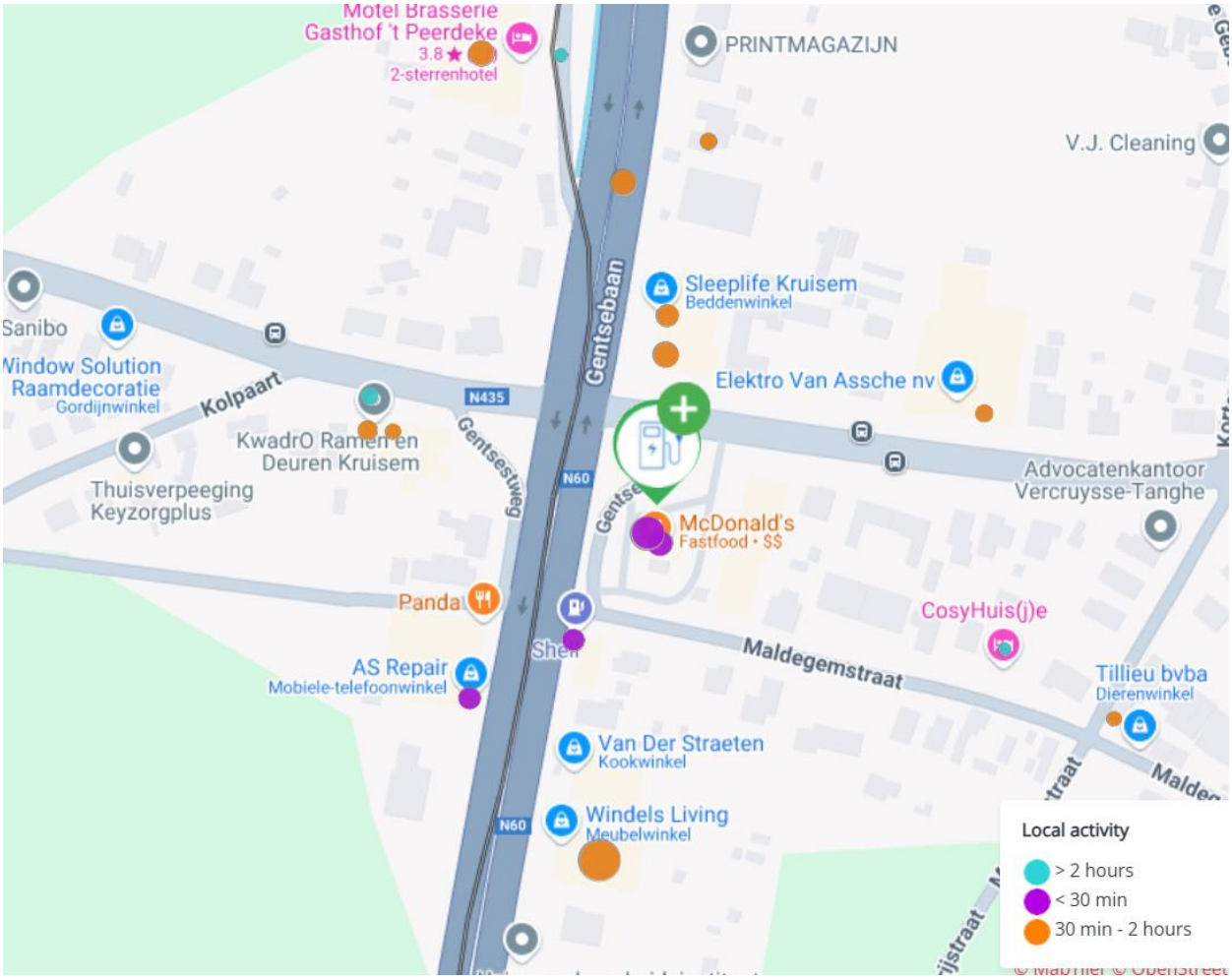
The presence of relevant local activity is very important for ultrafast charging points. Mainly activity with a short visit duration (<30min) is important. Also activity with a medium long duration (30min – 2h) is partly relevant. In this study we took into account the following activity:

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

30min - 2h : non-destination retails, 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.



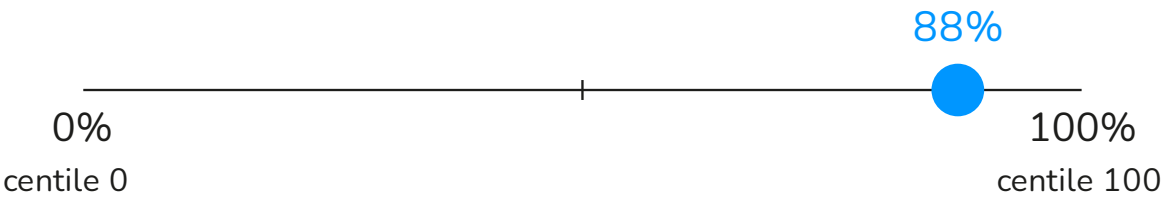
Less than 30min	Street + housenumber	Number of visitors per year	Distance (m)
McDonald's Zingem	Kruishoutemsesteenweg 269	50.000	27 m
Other fastfood restaurants* Kruisem	Kruishoutemsesteenweg 269	20.000	33 m
Gas station Kruisem	Gentsesteenweg, 50	10.000	82 m

Less than 30min	Street + housenumber	Number of visitors per year	Distance (m)
Other bakers Kruisem	Gentsesteenweg 23	10.000	131 m
Gas station Kruisem	Gentsesteenweg, 70	10.000	269 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 12 % 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

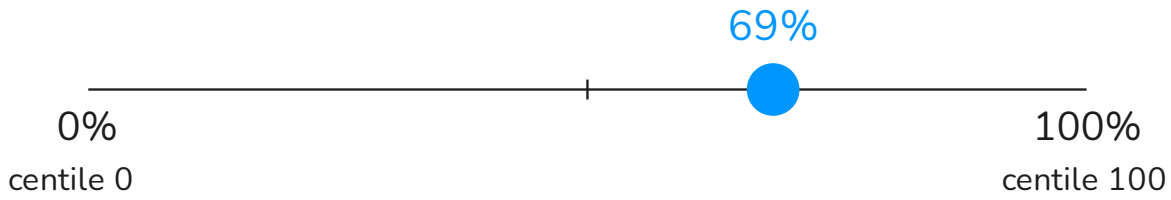


30min - 2h	Street + housenumber	Number of visitors per year	Distance (m)
Restaurants	Kruishoutemsesteenweg 254	20.000	61 m
Sleeplife Zingem	Gentsesteenweg 56	10.000	79 m
Hoorcentrum Aerts Kruisem	Ouwegemsesteenweg 7	1.000	117 m
Kwadro Kruisem	Ouwegemsesteenweg 7	5.000	129 m
Chalet Center Kruisem	Genstesteenweg 58	20.000	141 m
Child Care Kruisem	Gentsesteenweg 60	1.865	164 m
Independent Resellers Mobile Providers Kruisem	Kruishoutemsesteenweg 242-244	2.500	169 m
Independent Furniture POS Kruisem Gentsesteenweg 42	Gentsesteenweg 42	100.000	182 m
Restaurant Zingem	Gentsesteenweg 45K	20.000	215 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 31 % 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

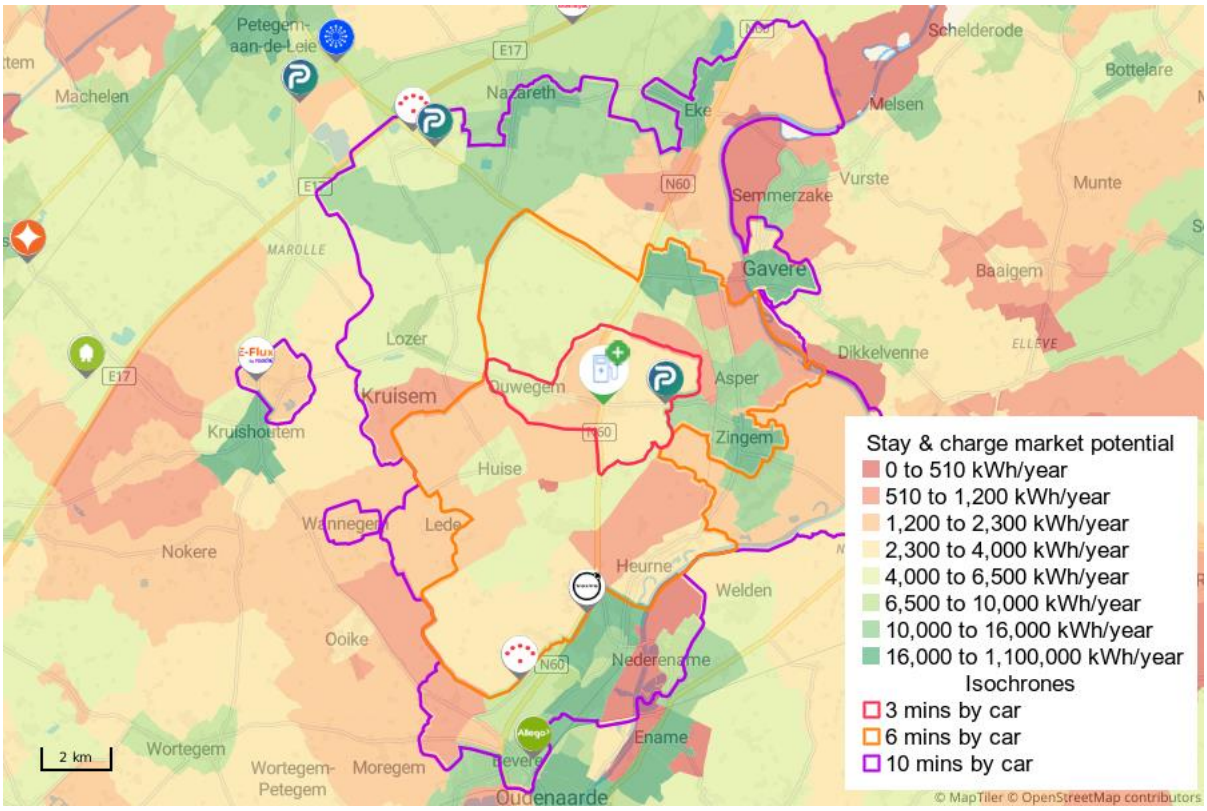


2.3. Residential and local visitor's potential

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	1.487 inhabitants	12.048 inhabitants	33.026 inhabitants
Households	657 families	5.078 families	13.933 families
Wealth index	112 %	114 %	112 %
Population density	707	780	851
Cars	1.053 cars	8.251 cars	21.959 cars
Light commercial vehicles	168 vehicles	1.317 vehicles	3.506 vehicles
Electric vehicles	41 vehicles	321 vehicles	850 vehicles
Number of visits > 2 hours in the zone	16.519 visits	424.765 visits	1.046.250 visits
Employees	266 FTE	2.065 FTE	11.503 FTE
Residential potential	74 kWh/year	609 kWh/year	1.636 kWh/year
Market space 'stay & charge'			
Stay & charge market potential	12.812 kWh/year	122.542 kWh/year	352.976 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-accesssibility	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).

3. Electrical grid information

The connection cost for a capacity of 1000kVA – 2000kVA is estimated by Fluvius to be less then 60k€.

Figure: Connection cost for 1000kVa – 2000kVa (source: Capaciteitswijzer Fluvius)

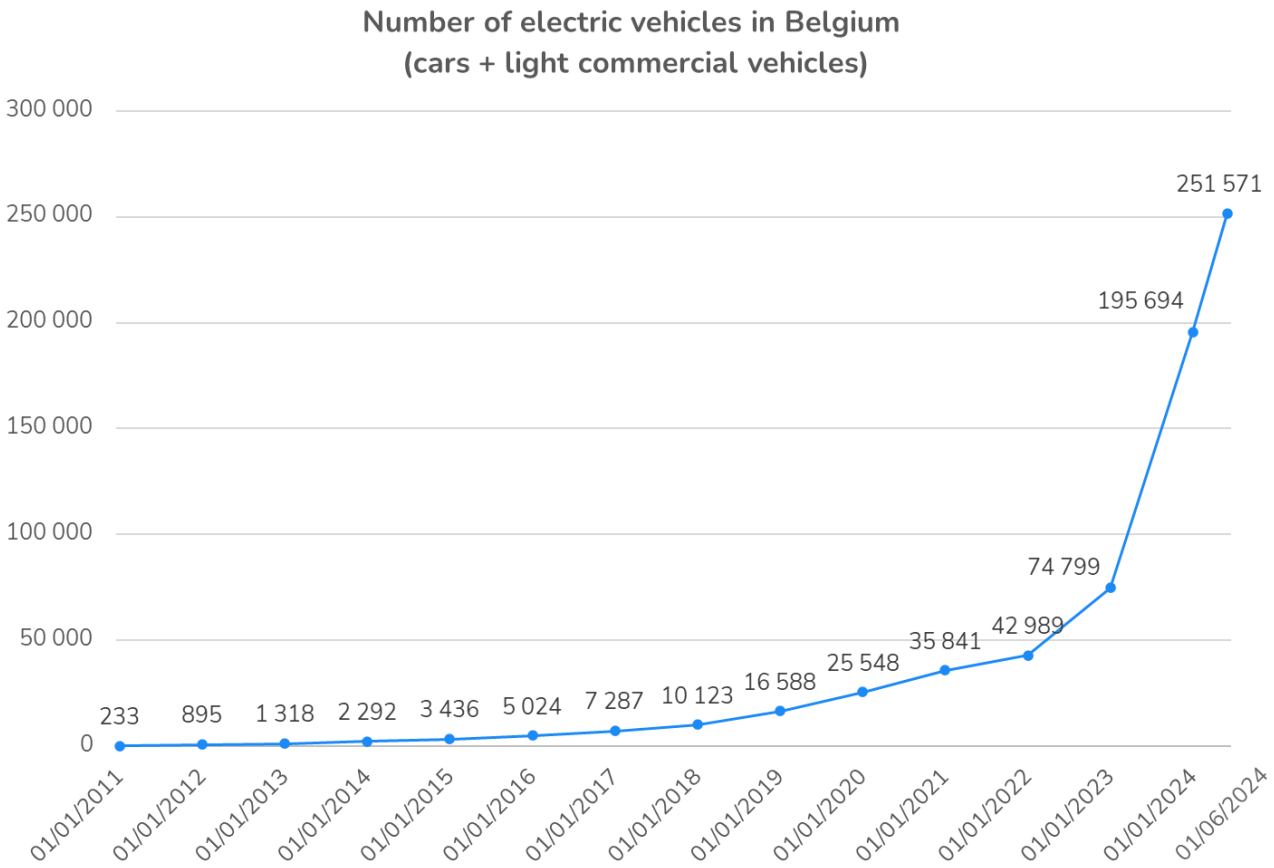
4. Interpretation of the results and market tendencies

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 Belgium is fixed to 251 571 in ChargePlanner. This corresponds to an estimation of reality at the start of June 2024 and contains the cars as well as the light commercial vehicles. Since January 2024, the number of electrical vehicles rose by 29%, which means that the strong growth of the last years continues.



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

In Belgium, there are 1 234 sites with at least one fast or ultrafast charging point .

Brand	June 2024								
	Number of locations (at least 1 (ultra)fast CP)	Ultrafast		Fast		Slow		Price of the kWh (€)	
		# charging points	Average power (kW)	# charging points	Average power (kW)	# charging points	Average power (kW)	(Ultra)fast	Slow
Lidl	162	6	180	321	53	173	22	0.58	0.41
Optiload	102	22	249	183	78	130	14	0.62	0.45
Allego	99	260	248	90	50	105	29	0.60	0.52
Optimile	69	99	202	52	60	511	21	0.63	0.42
E-Flux	68	165	277	31	77	152	18	0.61	0.45
Powerland	54	123	238	21	58	162	22	0.63	0.45
Sparki	52	230	378					0.65	
Electra	46	267	251	4	50	27	22	0.57	0.57
Smappee	41	45	251	19	88	210	22	0.70	0.48
Electric by D'ieteren	36			56	56	86	21	0.61	0.42
Mobiflow	33	46	239	29	87	118	18	0.62	0.45
TotalEnergies	33	94	228	77	97	19	23	0.62	0.45
Fastned	31	181	319	72	50			0.57	
CenEnergy	30			36	94	75	17	0.66	0.48
Powerstop	30	48	177	16	52	2	22	0.63	0.43
Luminus	21	5	180	36	76	35	20	0.58	0.37
Shell Recharge	20	80	169	5	107	196	22	0.79	0.79
Tesla Supercharger	20	431	184					0.62	
Other brands	287	510	227	311	82	1114	22	0.61	0.46
Total	**1234**	**2612**	**235**	**1359**	**71**	**3115**	**21**	**0.63**	**0.48**

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 governments & cities

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