



Location study New brand Gdańsk

Address : Aleja Grunwaldzka 505 80-320 Gdańsk

Simulation for :

4 ultrafast charging points (maxpower :175 kW)

Brand : New brand



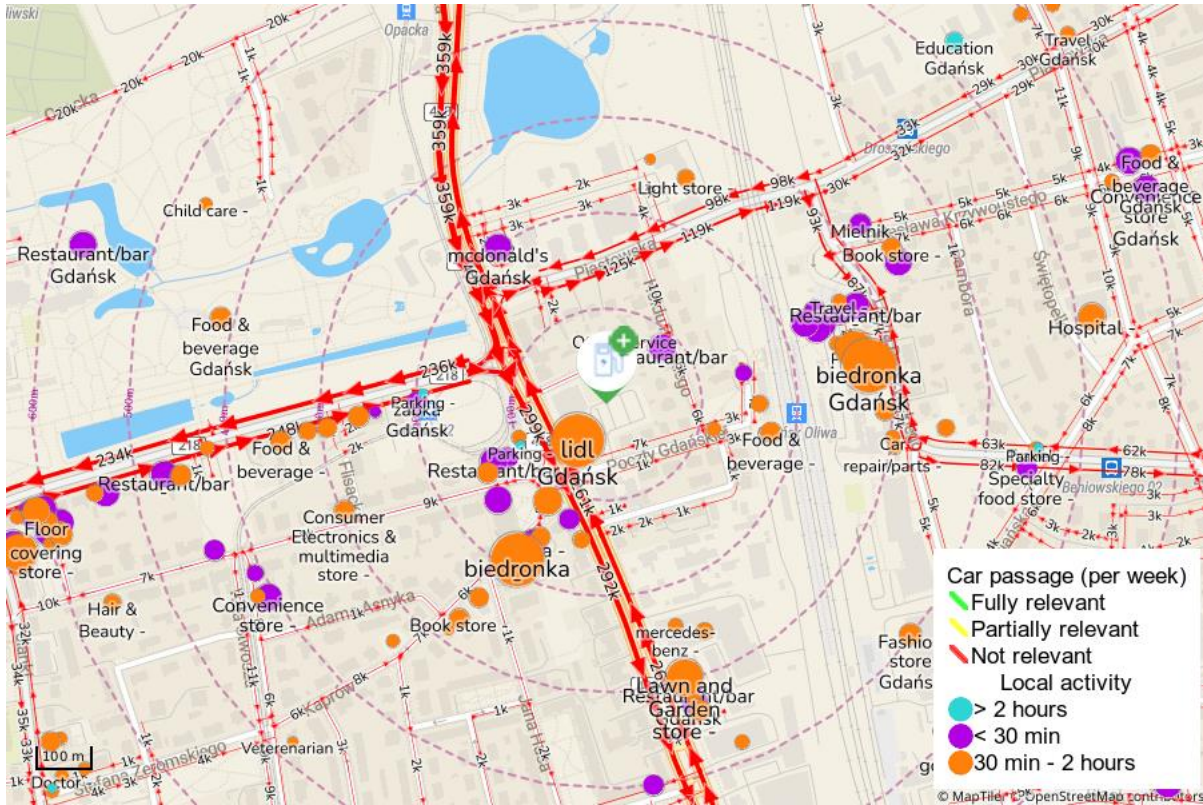
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1. Description of the simulation

In this report we show the result of a simulation with 4 ultrafast charging points (>150kW) of a charging station located at : Aleja Grunwaldzka 505, 80-320, Gdańsk, PL

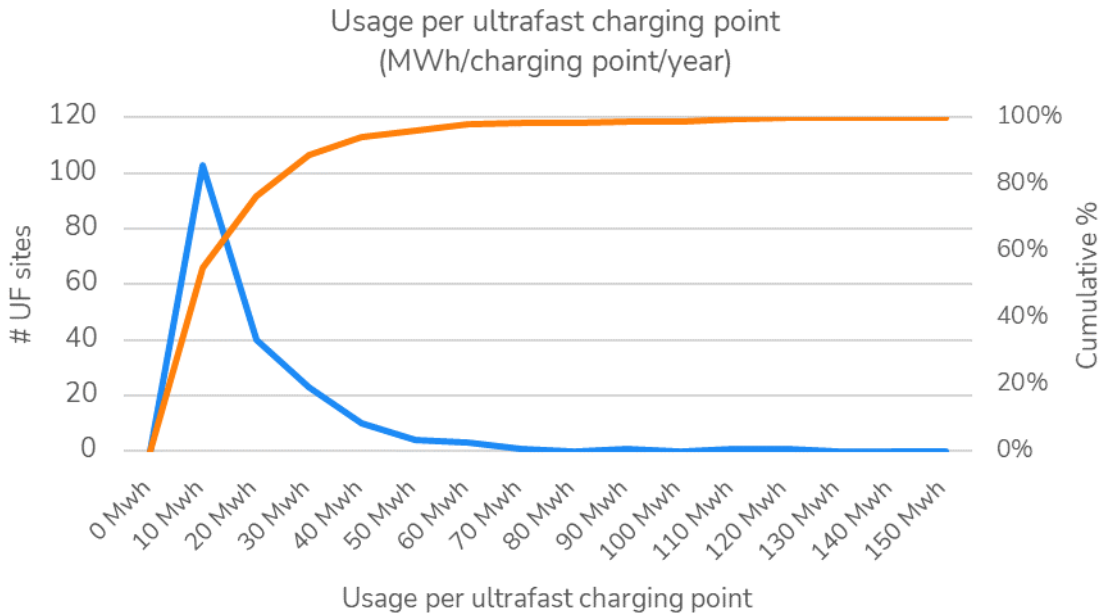


2. Predicted yearly consumption

Based on the market data, the model predicts a theoretical potential of **223.897 kWh/year (being 55.974 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 144 existing sites with only ultra-fast charging points, the predictive model gives a median consumption of 8.4 MWh per year and per ultra-fast charging point.

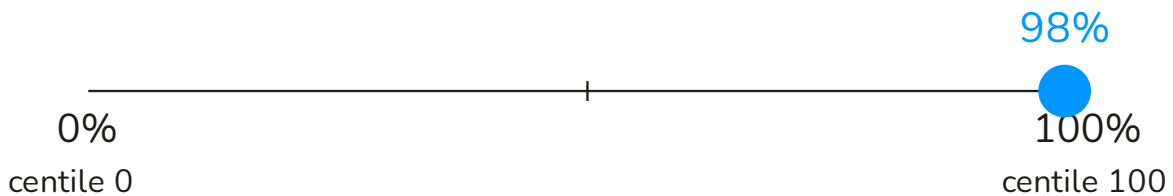


The following graph compares the expected performance (per ultra-fast charging point and per year) of the site under investigation with all existing sites in the country.

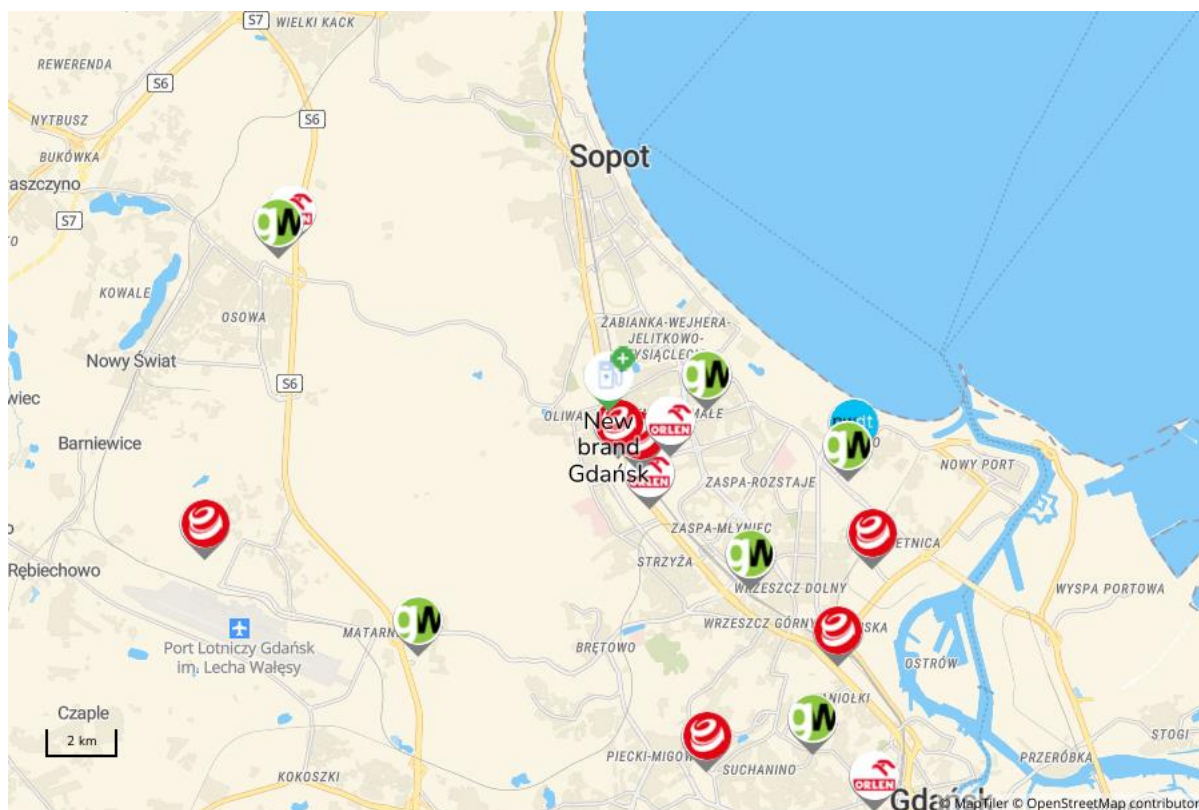
The percentile “0” corresponds to the existing site with the lowest usage, and the percentile “100” to the site with the highest usage. The blue dot corresponds to the performance of the location studied in this report :

This result shows that the studied site is classed within the 2 % 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)
Energa Gdańsk	Grunwaldzka 415	0	N/A	2	50 kW	2,28 PLN/kWh	1
Energa Gdańsk	Aleja Grunwaldzka	0	N/A	2	50 kW	2,28 PLN/kWh	4
ORLEN Gdańsk	Aleja Grunwaldzka 258	0	N/A	2	50 kW	2,28 PLN/kWh	4
ORLEN Gdańsk	Kołobrzaska 28A	0	N/A	2	50 kW	2,28 PLN/kWh	5
GreenWay Gdańsk	Obrońców Wybrzeża 1	0	N/A	2	67 kW	2,28 PLN/kWh	7
Energa Gdańsk	Grunwaldzka 415, 80-309, Gdańsk, PL	0	N/A	2	50 kW	2,28 PLN/kWh	11
GreenWay Gdańsk	Jana Kilińskiego 4, 80-452, Gdańsk, PL	0	N/A	2	60 kW	2,28 PLN/kWh	12
GreenWay Gdańsk	Uczniowska 40, 80-530, Gdańsk, PL	6	170	2	101 kW	2,28 PLN/kWh	14
PowerDot Gdańsk	Gdańska 21. 80-518 Gdańsk. Poland, 80-518, Gdańsk, PL	0	N/A	2	85 kW	2,28 PLN/kWh	15

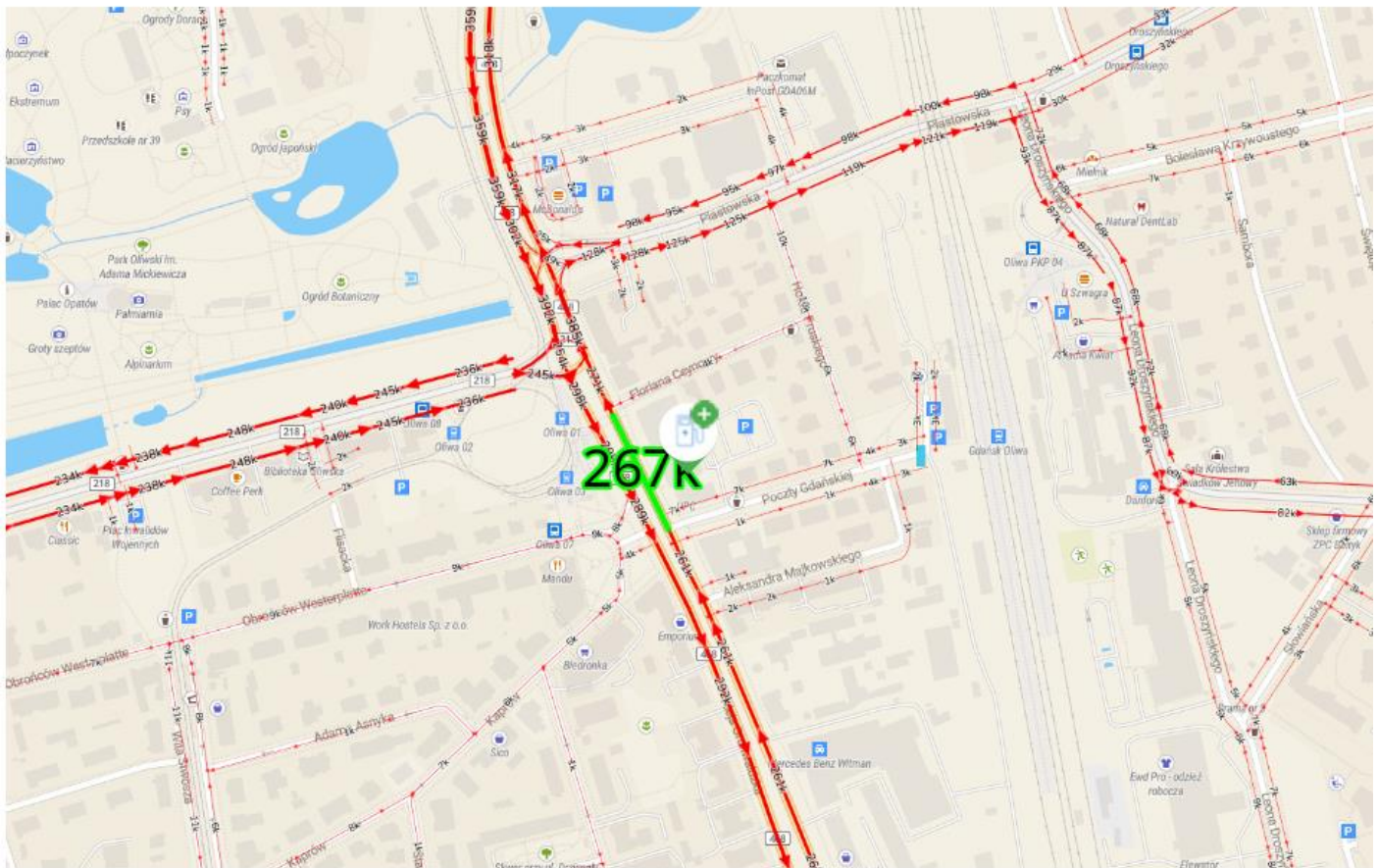
The calculation of the potential is based on the following indicators (ranked in function of importance) :

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.

Total relevant car passage for **New brand Gdańsk**: 266.839 cars/week

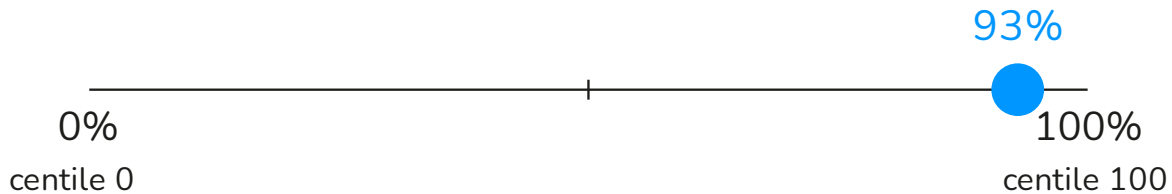


 Fully relevant for location  Partially relevant for location  Not relevant for location

The charging location has an estimation of **267k** cars passing by per week. This is based on the incoming roads nearby.

With this result, the site is classed within the 7 % best sites in the country.

Cars passing by per week compared to other stations



2.2. Potential of local activity in a 300m radius

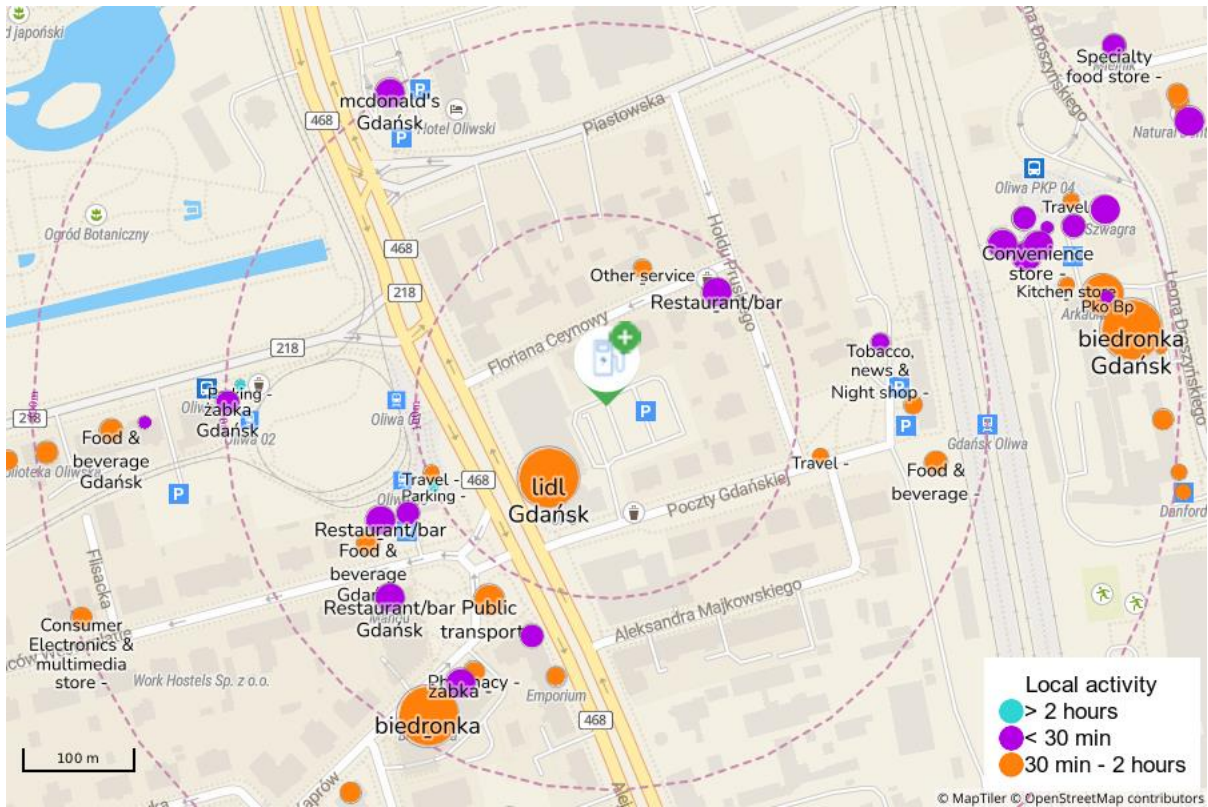
The presence of relevant local activity is important for ultrafast charging points. Mainly activity with a short visit duration (<30min) is important. Also activity with a medium long duration (30min – 2h) is partly relevant. In this study we took into account the following activity:

< **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.

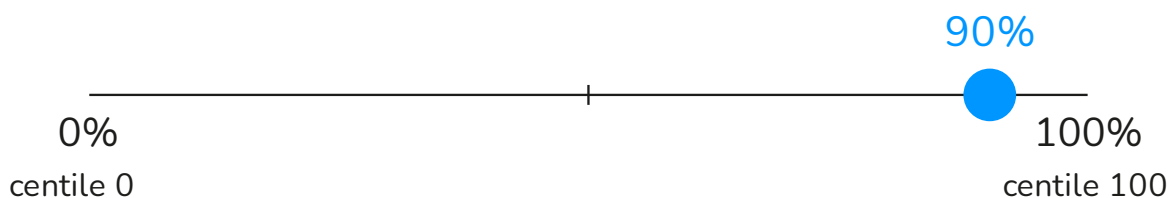


Less than 30min	Address	Number of visitors per year	Distance (m)
Specialty food store	-	10.000	66 m
Convenience store	-	10.000	79 m
Restaurant/bar	-	20.000	93 m
Restaurant/bar Gdańsk	Kaprów 19D	20.000	99 m
Atm	Kaprów 3	1.000	101 m
Zabka	-	20.000	103 m
Restaurant/bar	-	20.000	140 m
zabka Gdańsk	Opata Jacka Rybińskiego 5	10.000	182 m
Tobacco, news & Night shop	-	5.000	190 m
McDonald's Gdańsk	Aleja Grunwaldzka 527	20.000	235 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 10 % 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



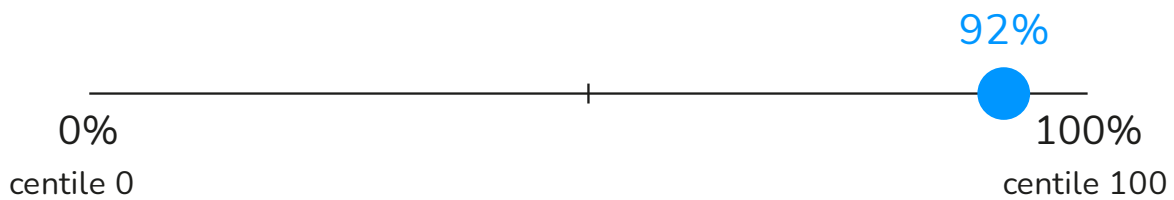
30min - 2h	Address	Number of visitors per year	Distance (m)
Lidl Gdańsk	Aleja Grunwaldzka 507/9	250.000	18 m
Public transport hub	-	50.000	59 m
Personal care store	-	10.000	86 m
Pharmacy	-	15.000	94 m
Food & beverage Gdańsk	Obrońców Westerplatte 40	20.000	101 m

30min - 2h	Address	Number of visitors per year	Distance (m)
Biedronka	-	250.000	127 m
Pharmacy	-	15.000	182 m
Fashion accessories store	-	10.000	193 m
Food & beverage	-	20.000	199 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 8 % 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

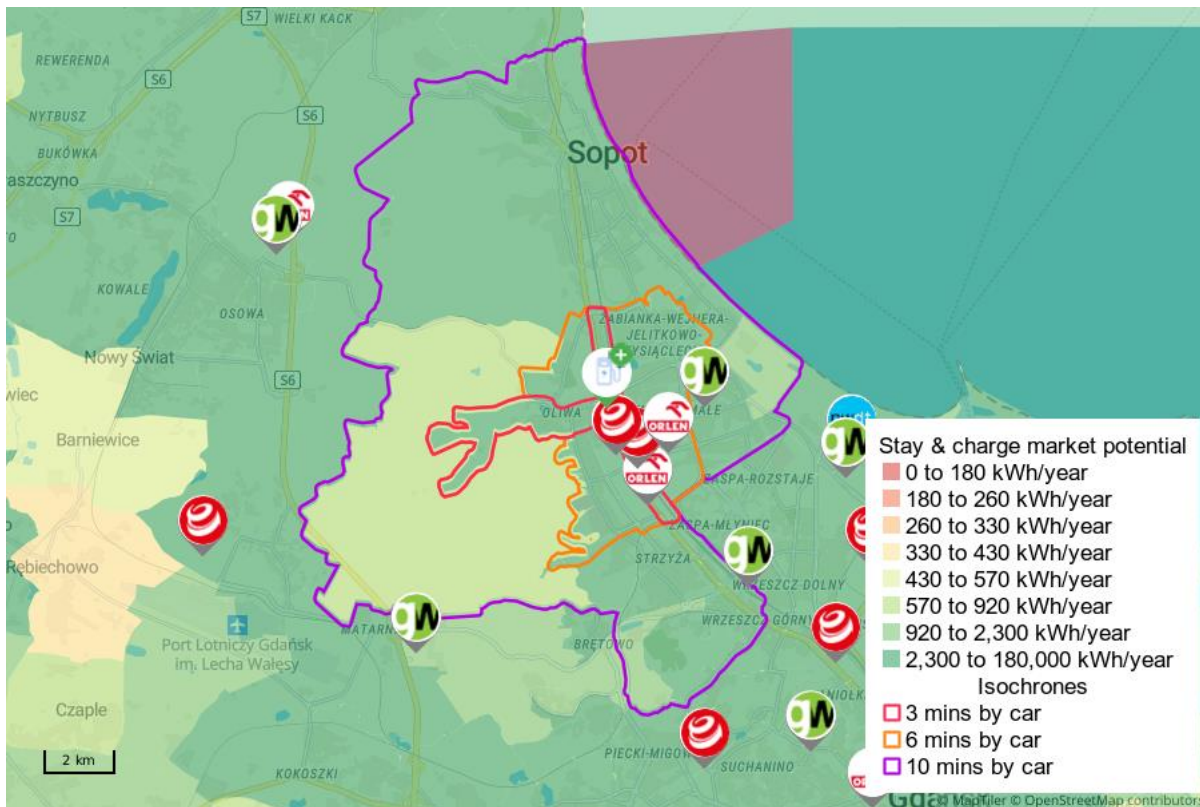


2.3. Residential and local visitor's potential

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	6.416 inhabitants	41.763 inhabitants	123.132 inhabitants
Households	2.551 families	16.606 families	50.089 families
Wealth index	125 %	125 %	131 %
Population density	3.280	5.185	4.404
Cars	4.710 cars	30.525 cars	90.070 cars
Light commercial vehicles	537 vehicles	3.480 vehicles	10.269 vehicles
Electric vehicles	11 vehicles	73 vehicles	218 vehicles
Employees	7.400 FTE	33.800 FTE	95.700 FTE
Number of visits > 2 hours in the zone	66.000 visits	853.000 visits	3.384.000 visits
Residential potential	25 kWh/year	172 kWh/year	498 kWh/year
Market space 'stay & charge'			
Stay & charge market potential	29.037 kWh/year	180.010 kWh/year	496.295 kWh/year
Available slow charging power	79 kW	290 kW	1.059 kW
Needed slow charging power by 2030	890 kW	5.515 kW	15.205 kW
Developable slow charging power by 2030	810 kW	5.225 kW	14.146 kW

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 : 2,00 PLN/kWh

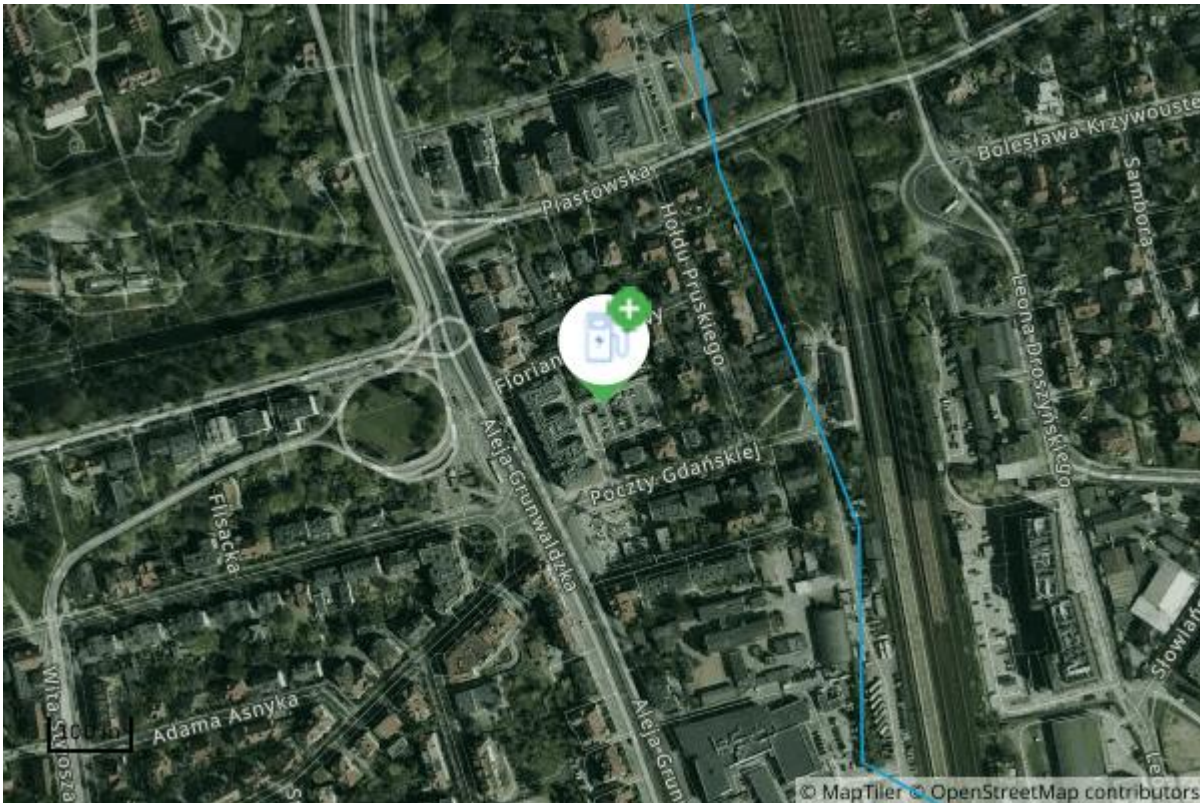
Each location present in the platform has a charging price. Which is the average price relating to the station excluding taxes and any additional parking costs (€/connected hour). The indicated price also doesn't take into account flat-rate prices (fixed price per charging session) or the price of time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

For this location, the ad hoc price is actually set on : 2,00 PLN/kWh



3. Electrical grid information

The high tension network is located at 134 m from the location.



- <1 kV: low voltage grid
- 1-50 kV: medium voltage grid
- 51-150 kV: high voltage grid
- ≥150kV: extra high voltage grid
- undefined

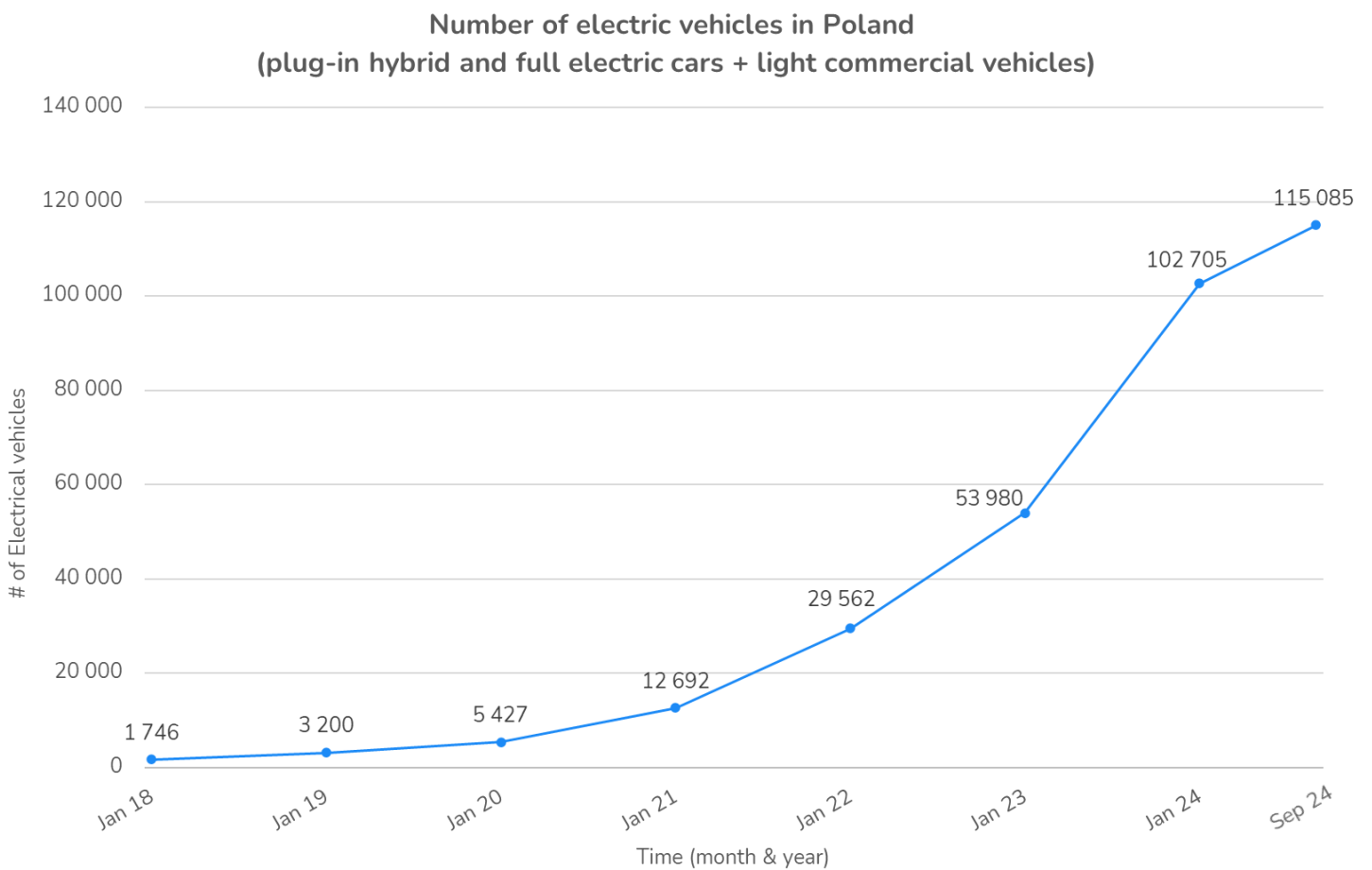
4. Interpretation of the results and market tendencies

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 Poland is fixed to 115 085 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, 55% (63 023) are fully electric vehicles, while 45% (52 062) 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 Poland, there are 1 433 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)
GreenWay	349	141	170	683	101	262	21
PowerDot	289	47	200	591	85	301	22
Elocity	158	59	150	256	50	200	22
ORLEN	158	2	160	314	50	161	22
Lidl	80	2	180	153	50	83	22
Kaufland	58			116	60	58	22
Magenta Grupa TAURON	40	1	150	81	50	62	22
GO+ EAuto	29			59	50	28	22
Energa	25			43	50	29	22
Ekoen	20	42	180	17	56	18	22
EQUAY	19	3	190	31	60	20	22
Arinea	17	2	150	26	60	15	22
IONITY	14	64	350				
EV Plus	13	8	150	22	50	13	22
Tesla Supercharger	13	116	150				
Budimex Mobility	11	1	180	23	50	12	22
Other brands	140	70	203	224	69	122	23
Total	1 433	558	183	2 639	59	1 384	22

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