

AI-Powered Network Expansion Planning

Site Selection and Location Scoring for Parcel Locker Rollout

INDUSTRY: Retail / Parcel Delivery / Energy & Convenience

CLIENT TYPE: Large enterprise with national retail and logistics network

GEOGRAPHY: Poland (national coverage)

TECHNOLOGIES: Spatial Analytics · GIS · Gravity Modeling · Predictive Scoring · Location Scoring Model

THE CHALLENGE

A major national operator with an existing network of parcel lockers and fuel stations wanted to accelerate the expansion of its parcel machine (PM) and EV charging infrastructure across Poland. The challenge: with over 1,000 existing locations and a highly competitive market dominated by InPost (25,000+ units), the client needed a data-driven method to identify where new locations would generate the highest incremental value – without cannibalizing the existing network.

Manual site selection based on operational judgment could not scale to the complexity required: national sociodemographic analysis, competitor mapping, catchment modeling, and prospective investment analysis across Poland's largest cities.

THE SOLUTION

Placematic designed and delivered a multi-phase AI platform for location intelligence, combining spatial data layers, predictive models, and scoring algorithms across three milestones:

- **Location attractiveness model** – weighted scoring across 15 variables including retail density, public services, transport accessibility, demographics, and competition intensity. Weights calibrated using correlation analysis of the existing network performance
- **Gravity model (Huff model)** – probabilistic catchment analysis using Manhattan distance metric to calculate realistic customer reach for each PM location, accounting for walking time and competitive alternatives in the area
- **Cannibalization analysis** – spatial modeling to identify overlap between existing and candidate locations.
- **Multi-variable location scoring** – final scoring model combining population, location attractiveness, salary levels, competition, population dynamics, density, and age structure
- **Prospective investment analysis** – spatial mapping of 640 planned development projects across Warsaw, Krakow, Wroclaw, Lodz, Poznan, Gdansk, and Gdynia to identify future high-potential zones before they become competitive

THE RESULT

The model identified 181 priority locations for new PM placements across Poland, ranked by location score. The top locations were concentrated in Warsaw, Poznan, Swidnica, Wroclaw, Tarnow, and Elblag – cities where coverage gap relative to demand was largest.



+ 1.9M

additional population reached
by opening 181 new locations

+ 5 174

km2 additional coverage
geographic expansion

+ 5.6%

population coverage gain
in municipalities over 50K

181

priority locations identified
ranked by location score

The platform also delivered a prospective analysis layer – mapping 640 planned infrastructure and real estate investments across 7 cities to give the client advance visibility into future high-potential zones before competitors could establish presence.

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