Project Reference Sheet | **Urban** | **Mobility**

Calculating the demand for public charging stations, locating in the city of Paris and developing a business model

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Client: RATP - Head Office
Country: France
Date/Period: 2019 - 2020
Contract Value: 50 kEUR

PROJECT DESCRIPTION

The city of Paris wants to renew the concession contract for its charging points in the 20 arrondissements of the capital until 2020. Engie responded to this call for tenders for the study of charging points as well as for energy supply. In this context, Tractebel is a subcontractor to Engie for the following missions;

- Calculate demand for charging stations for public use
- Localize and spatially analyze the charging stations
- Set an installation hierarchy and how many charging stations to install
- Calculating energy consumption
- Feed the business model developed by Engie and analyze costs (OPEX/CAPEX/fee)
- Develop a deployment schedule

COMPETENCES INVOLVED

- Mobility planning
- Traffic studies
- GIS
- Modeling
- Green mobility
- Fleet management

SERVICES PROVIDED

The mission is divided in several phases;

- The first phase consists in analyzing the demand for charging stations for public use across all 20 arrondissements for the 2030 time horizon. An Excel modeling tool is developed to calculate this demand for several types of use (taxis, tourists, citizens, workers, ...) and for several types of terminals (slow, fast and accelerated). Several scenarios are established in this model based on changes in population, car fleet, technological evolution of vehicles, mobility behaviours and environmental objectives of the city of Paris.
- The second phase involves using a GIS-weighted multilayer analysis to establish the potential charging station application cards. Socio-economic spatial statistical data and points of interest are the layers of analysis. Combined with the first model, an installation hierarchy and schedule are established.
- In a third phase, the energy demand is calculated per year and then applied on an average day.
- Finally, a cost analysis is conducted, taking into account OPEX, CAPEX and project-related fee. This cost analysis is accompanied by the development and study of business model.

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