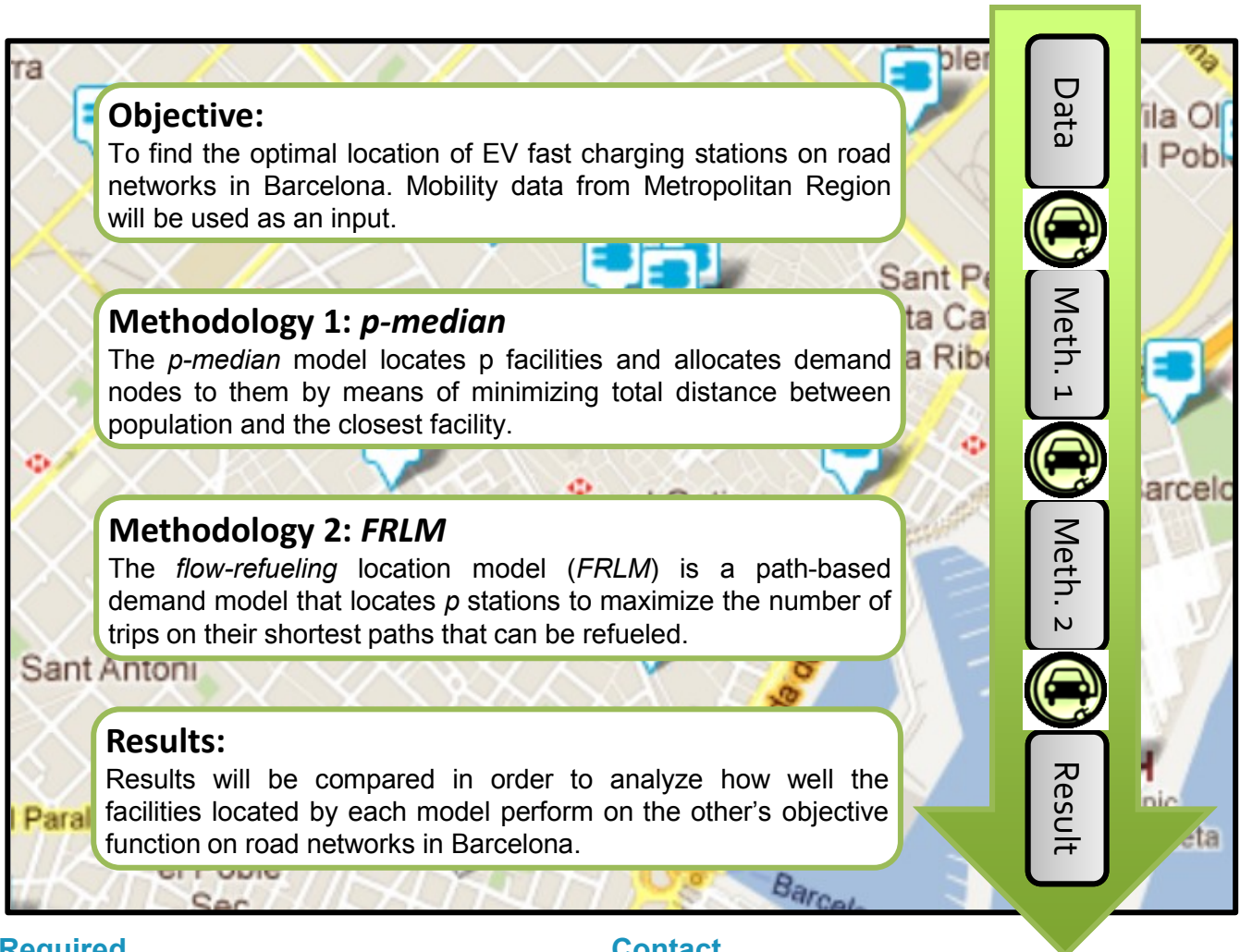


OPTIMAL LOCATION OF FAST CHARGING STATION FOR EVs

Miguel Cruz Zambrano (IREC)
Lucía Iguualada González (IREC)
IREC Institut de Recerca en Energia de Catalunya – Jardins de les Dones de Negre, 1, 2^a pl. 08930 Sant Adrià del Besòs, Barcelona

The optimal location of fuelling stations applied to the electric vehicle (EV) case

Market penetration scenarios for EVs put expectations between 1% and 4% for BEV and 2% to 35% for PHEV in the European market by 2020. One thing is clear however: initially EVs will have limited autonomy compared with conventional vehicles. The availability of the public recharging infrastructure plays an important role in the deployment of EVs, and fast charging is the best option for the mobility needs of the users. The aim of this project is to find the optimal location of EV fast charging stations by means of two methodologies: the *p*-median and the *flow-refueling* models. Results will be compared in order to analyze how well the facilities located by each model perform on the other's objective function on road networks in Barcelona.



Required

Personal Skills: Team worker; initiative in research and innovation; flexibility; results-oriented ; analytical and synthesis capabilities.

Technical knowledge: Optimization and simulation techniques and software; programming skills.

Contact

Miguel Cruz (mcruz@irec.cat) Tel: +34 93 356 26 15

Location: Jardins de les Dones de Negre, 1, 2^a pl.
08930 Sant Adrià del Besòs, Barcelona.

UPC Advisor: F. Javier Heredia (GNOM-UPC).