

## ENAC/EDCE 2011

# Modeling and predicting demand for electric vehicles

Author Aurélie Glerum <sup>1</sup>

Supervision Prof. Michel Bierlaire 1 / Dr. Michaël Thémans 2

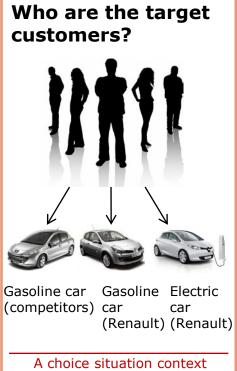


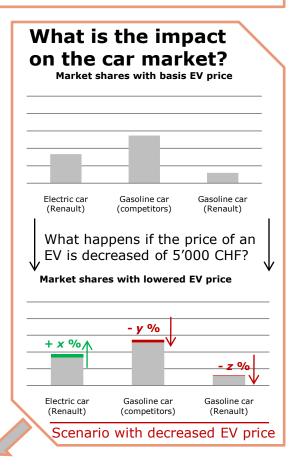
<sup>1</sup> Transport and Mobility Laboratory (TRANSP-OR) / <sup>2</sup> Transportation Center (TRACE)

#### Objectives

- Identification of the ideal pricing of an electric vehicle (EV)
- Identification of the **potential customers** of electric vehicles
- Assessment of the impact of the release of electric vehicles on the current market shares
  of vehicles with other fuel types







### Analyses and predictions performed via a discrete choice model

#### Research steps in the analysis of demand for electric vehicles:

- Design of a **stated preference survey** with **choice situation contexts** involving gasoline cars (Renault and competitors) and electric vehicles.
- Specification and estimation of a discrete choice model:
  - Evaluation of the effect of purchase price, governmental incentive, battery lease and recharging costs of the battery on vehicle preferences.
  - Identification of population segments with a strong interest for electric cars.
- Forecasting of market shares of different vehicle types:
  - Correction of the sample shares using real market data.



