

# Optima: When flexible transport is able to meet a dispersed demand through the whole territory

A Transportation Center Project

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Author Antonin Danalet 1

Team Prof. M. Bierlaire <sup>1</sup>, V. Kaufmann <sup>2</sup> & M. Schuler <sup>3</sup>, Anne Curchod <sup>1</sup>, Prisca Faure <sup>3</sup>, and many more...



<sup>1</sup> Transport and Mobility Laboratory, <sup>2</sup> Urban Sociology Laboratory, <sup>3</sup> Communauté d'études pour l'aménagement du territoire

### **MOTIVATION**

Car is by far the most used transport mode in rural and peri-urban areas. CarPostal, a bus company, wants to win new segments of demand with new concepts of offer in these challenging areas for public transportation.

### **GOAL**

Find alternatives to car outside of cities, compatible with lifestyles and needs of targeted people



### RESEARCH

In order to understand mobility behavior of individuals in outskirts, with a focus on multimodal travelling loops: 17 researchers,

-year project, labs (sociology, geography and mathematical modeling), steps.

# Lieu d'activité Mode de transport Voiture (conducteur) Voiture (passager) Autres TIM Train Train Train Train Train Odo, scooter Vélo Marche Avion Sport Sport

Map of a public transport user for commuting with 2 clusters (in yellow), and using car for more complex purposes (in blue)

### 1st STEP: QUALITATIVE SURVEY

GPS tracking and interviews of 20 persons to identify factors influencing mobility (attitudes, motivations, past experiences).

### **Contributions:**

- Transport mode choice is deeply ingrained in lifestyle
- Mode choice takes place in major changes in life story
- Car users have network patterns, when public transport users are drawing clusters (see picture)

## 2<sup>nd</sup> STEP: REVEALED PREFERENCE SURVEY

20'000 persons targeted in 57 peri-urban and rural communes, 2000 surveys filled in (10% response rate). About practice and image of mobility, in particular factors of mode choice.

### Contributions:

- CarPostal users have routine trips (mostly home-work)
- Other activities (leisure, shopping) are more complex
- CarPostal usage is favored by frequency higher than 1 pair of trips per hour (at least) (otherwise, CarPostal is not considered as a daily transport mode)
- Very strong regional differences (offer, image, practice)
- Growth potential on lines to cities and railway stations
- Weak knowledge of networks and schedules
- Strong impact of the interpersonal relation

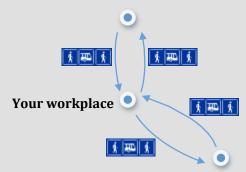
### 3rd STEP: STATED PREFERENCE SURVEY

Survey about new services (information services, season ticket, loops –see below- and about abandoning their 2<sup>nd</sup> car for a new mobility service) to study their demand. Personalized survey: choice between their current mode and a new service on a real loop described in the revealed preference survey.

## **Contributions:**

- Market shares for new services (mobility, information)
- Optimal pricing of season tickets, information services
- Customer profile

Y	our	home	



Your favourite restaurant

	Current trip		New alternative
Main Mode	Public Transport		New Service
In-vehicle Time	1h21	۸	1h13
Waiting Time	9'	^	7'
Walking Time	26'	>	21'
Cost	12.50 CHF	<	15.00 CHF

Would you choose the new alternative? Yes

No 🔲