MobiMart and the European Cycling Challenge

CIVITAS MIMOSA STUDY TOUR

SRM, Reti e Mobilità

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10/04/2014

Bologna
Introduction

The two pillars of MobiMart

- Incentives works quite well in many areas of life (e.g., Loyalty programs).

- Carbon offset and emission trading mechanisms.

The MobiMart Research

- Main idea of MobiMart is to combine the incentive mechanism towards sustainable travel behaviours to the Carbon offset mechanism.

- MobiMart = Mobility credit Market.
Incentive towards sustainable travel behaviours

Source: smartclassroommanagement.com
Carbon offset

Source: microgrid-solar.com
Standard carbon offsetting program

Carbon Offsets

Offsets represent emission reductions that have been achieved outside of the capped sector.

1. Company A needs to meet its emissions cap

2. Company A invests in an emission reduction project that produces carbon offsets

INVESTMENT

3. Company A receives carbon credits for its investment

CARBON OFFSET

Carbon offsets programs can include:
- Reforestation
- Renewable energy
- Methane capture/combustion

One carbon credit = One tonne of greenhouse gas emission reductions

Source: cloudbridge.org
The MobiMart methodology

Voluntary Emission Reductions (VER)

Action (behaviour) Vs. Incentive

Mobility Manager

CARTESIO (VER standard)

VERs verified by an independent third party

VERs issuing

VERs trading
The MobiMart 4 pilots
MobiMart: Implementation phases

A1 Preliminary phase
A2 Credit System study phase
A3 Project plans drafting
A4 Communication campaign
A5 Recovery Plan

Evaluation

C1 Survey before / after
B1 Car Pooling
B2 Car Sharing
B3 Flexible Transport Services
B4 Citizens by bicycle

D1 Credit identification and validation

Credits trading
MobiMart:

Car-pooling

Over 800 among Regione Emilia-Romagna employees contacted

35 volunteers recruited

21 potential users in 7 crews - 14 in waiting list

3 crews started the pilot
MobiMart: Car-pooling

azregolo® data logger collects data on cars, drivers, passengers, mileages. Data is sent to a server.

MobiMart Car pooling smart card
MobiMart:

- Car use reduction for car sharing users
- Car sharing average emissions lower than average private cars
- The methodology chosen by MobiMart to reduce CO2 quotas through Car Sharing service was to encourage an increase in the number of members

\[ E_p = \sum_{i=1}^{n} (N_i \times P \times F E_{ai}) \]

Bring a Friend!!
colBUS – La navetta del Borgo is an experimental service of urban PT line delivered in a neighbourhood district in Bologna

“Fall in love with colBUS – La navetta del Borgo!” was the title of the pilot initiative

During the Valentine’s week, (14th-19th February 2011), colBUS – La navetta del Borgo was available for free
MobiMart:

Flexible Transport System
MobiMart:

Citizens by Bicycle

First phase: Declare your average weekly overall mileage splitting into different transport modes.

Second phase: Track your trips by filling a daily form or using GPS / Smartphone and take the challenge to increase your cycling mileage.

- Awards were assigned to most virtuous and raffled among participants
MobiMart:

Citizens by Bicycle

\[
\Delta_{\text{emissions}} = \sum_{i=1}^{n} \left[ \frac{\text{Cma}_i \cdot \text{Cs} + \text{Mma}_i \cdot \text{Me}}{\text{Cma}_i + \text{Mma}_i + \text{Ema}_i} - (\text{Cma}_i + \text{Mma}_i + \text{Ema}_i) \right] \sum_{i=1}^{m} \left[ \frac{\text{Cmb}_i \cdot \text{Cs} + \text{Mmb}_i \cdot \text{Me}}{\text{Cmb}_i + \text{Mmb}_i + \text{Emb}_i} - (\text{Cma}_i + \text{Mma}_i + \text{Ema}_i) \right]
\]
MobiMart: The 4 pilot tests

- Car-pooling
  - Emilia Romagna Employees

- Car-sharing
  - Users in Bologna

- Flexible Transport System
  - Inhabitants ColBUS area

- Citizens by Bike
  - GPS tracking of volunteers

MobiMart
virtuous mileage → incentive

Cartesio
## PROGETTI REGISTRATI

Quest'area fornisce informazioni sugli ultimi progetti registrati che hanno generato VER.

Per contattare direttamente il venditore dei VERs, ai fini di un acquisto, cliccare sull'account corrispondente al progetto di interesse.

Per informazioni sugli acquirenti dei crediti dei singoli progetti, clicca sui corrispondenti VER rimasti disponibili.

<table>
<thead>
<tr>
<th>Anno di registrazione</th>
<th>Progetto</th>
<th>Tipo</th>
<th>Paese</th>
<th>Validator</th>
<th>Account</th>
<th>VER registrati*</th>
<th>VER ristr.**</th>
<th>VER opzionali***</th>
<th>VER disponibili</th>
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<tbody>
<tr>
<td>2008</td>
<td>Rambelan Thun Forest</td>
<td>Carbon sequestration</td>
<td>Congo</td>
<td>RINA Spa</td>
<td>IT-0001</td>
<td>100,000</td>
<td>27,000</td>
<td>73,000</td>
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<tr>
<td>2009</td>
<td>Discariche Terrigena, Colleretto, Glaciere, Balco</td>
<td>Trattamento biogas</td>
<td>Italia</td>
<td>RINA Spa</td>
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<td>41,994</td>
<td>4,688</td>
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<td>Car-pooling Progetto Mimosa</td>
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*VERs registrati tra quelli preventivati espresso in tonnellate di CO2 equivalenti all’anno (costi come dichiarato dal proponente di progetto e validato dal RINA)
**VERs annullati dall’acquirente per compensare una paura di emissioni di CO2
***VERs opzionali o trasferiti di titolarità non disponibili alla vendita su questo account.
Nota: il file contenente i dettagli delle operazioni effettuate potrebbe non essere ancora aggiornato.

### Aprile 2013

<table>
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A case of success: European cycling challenge
A case of success: European cycling challenge
A case of success: European cycling challenge

LAUNCHED THE EUROPEAN CYCLING CHALLENGE

BOLOGNA ITALY

1ST-31ST MAY 2014 FOR URBAN CYCLISTS

WWW.ECC2014.EU #ECC2014
# A case of success: European cycling challenge

<table>
<thead>
<tr>
<th>Year</th>
<th>Cities</th>
<th>Participants</th>
<th>Traced (in Bologna)</th>
<th>CO₂ Saved</th>
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</thead>
<tbody>
<tr>
<td>2012</td>
<td>7 Cities</td>
<td>1,200</td>
<td>90,000</td>
<td>20</td>
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<tr>
<td></td>
<td></td>
<td>(270 in Bologna)</td>
<td>(20,000 in Bologna)</td>
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<tr>
<td>2013</td>
<td>12 Cities</td>
<td>3,100</td>
<td>312,000</td>
<td>90</td>
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<tr>
<td></td>
<td></td>
<td>(450 in Bologna)</td>
<td>(55,000 in Bologna)</td>
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<tr>
<td>2014</td>
<td>32 Cities</td>
<td></td>
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A case of success: European cycling challenge
MobiMart: Lessons learnt

- **Communication** is the first key factor.
- Pilot site and local partners choices need a prior **feasibility study** to avoid failures.
- **Complexity** of the problem itself and constant changes in mobility matters could be primary barriers.
- **Evaluation** is a core activity that gives the base to implementation and demonstration allowing successful management.
- **Quality of data** collected is often lower than expected – estimation data different from actual data.
Conclusions

Recommendations

• Pay attention to potential spin-off or start-up (European Cycling Challenge)
• Use Intelligent Transport Systems (ITS)
• Invest in advertising and promotion
• Share your goals with partners (well in advance)
• Deliver carrots but don’t forget sticks
Many Thanks
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