SHARED STREETS FOR A LOW CARBON DISTRICT

May-November 2016
Santiago

FINAL REPORT SYNOPSIS

CIUDAD EMERGENTE
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SUMMARY OF THE REPORT
The Shared Streets Project for a Low Carbon District aims to analyze and promote the predisposition of people towards a change of habit in urban mobility to confront Climate Change, through the use of shared streets.

In order to carry out this study, Ciudad Emergente (CEM) Foundation worked in collaboration with international consultants to replicate British experiences on the field, due to the support of the Bilateral Fund provided by the Foreign & Commonwealth Office of the United Kingdom.

The selected area to carry out this experiment was determined into the boundaries of fourteen blocks of Lastarria and Forestal Park neighborhoods in the downtown of Santiago de Chile. This area was called “Low Carbon District”, and there were implemented three urban tactics: the first one was an “Experimental Bike Lane”, the second was a prototype of a “Shared Street” and the third, a “Malón Urbano”. Different measuring tools such as “Tree of Ideas”, “Smart Citizen” sensors, bicycle traffic counters, and an ex-ante and ex-post survey of tactical application complemented the implementation of the mentioned urban tactics.

CEM applies the methodology of Lean Startup to urbanism. This methodology consists of a cycle of three stages: implementation, measuring, and learning. The challenge is to minimize the execution time of this cycle. CEM’s methodology combines tactical urbanism actions with indicator survey tools. CEM called these LQC tactics or actions (light, quick and cheap), and tools 2.0, due to the collaborative logic of web 2.0.
Awareness about Climate Change: From passive actors to active agents of change

1. The shared streets have demonstrated to be effective strategies to generate low carbon districts. A shared street is one that invites different modes of transportation and users to make use of it, shifting the focus of streets intended only for cars to one focused on people. In this way, a shared street reduces the number of cars, giving way to other no fossil fuel modes of transport like the walk and the bicycle. Due the installation of four CO2 concentration sensors, it is possible to conclude that the experiment of Shared Streets allowed to reduce nine times the usual level of CO2 in the neighborhood. This drop is directly associated with the car use reduction, consequently there is an important field of action curbing CO2 concentrations in cities encouraging large-scale Shared Streets models.

2. Fuel-based transport is perceived as one of the largest contributor to Climate Change as it pollutes our air. When surveying participants in the Shared Streets experiment on Climate Change issues, more than 70% of people identify transport as the main source of pollution in cities. In the same vein, for 49% of people, the main environmental problem is air pollution, followed by 25% of people who point to noise as the second problem that most afflicts them in the city. Once again, these data indicate that modes of motorized transport, emitters of CO2, disturb the quality of life of people and these are identified as one of the major environmental problems in cities.

Smartcitizen Kit. Four sensors were installed in the Low Carbon District to measure the impact of Shared Street in reducing CO2 emissions.
CO2 Graph. Sunday, August 14, 2016, Smartcitizen Kit in José Miguel de la Barra Street.

CO2 Graph. Sunday, August 21, 2016, Smartcitizen Kit in José Miguel de la Barra Street.

CO2 Graph. Sunday, August 28, 2016, Smartcitizen Kit in José Miguel de la Barra Street.

CO2 Graph. Sunday, September 04, 2016, Smartcitizen Kit in José Miguel de la Barra Street (Malón Urbano in Shared Streets)

CO2 Graph. Sunday, September 11, 2016, Smartcitizen Kit in José Miguel de la Barra Street.

CO2 Graph. Sunday, September 18, 2016, Smartcitizen Kit in José Miguel de la Barra Street.
In your opinion, what is the most polluting activity in this neighborhood?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Before Tactic</th>
<th>After Tactic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industries or companies</td>
<td>16.8</td>
<td>12.1</td>
</tr>
<tr>
<td>Transport</td>
<td>75.7</td>
<td>77.1</td>
</tr>
<tr>
<td>Residential heating</td>
<td>2.0</td>
<td>1.6</td>
</tr>
<tr>
<td>Other</td>
<td>3.8</td>
<td>9.2</td>
</tr>
<tr>
<td>DNK/DNA</td>
<td>1.7</td>
<td>0</td>
</tr>
</tbody>
</table>

What are the two main environmental problems that affect you?

<table>
<thead>
<tr>
<th>Problem</th>
<th>Before Tactic</th>
<th>After Tactic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air pollution / smog</td>
<td>49.8</td>
<td>55.9</td>
</tr>
<tr>
<td>Acoustic pollution/noise</td>
<td>25.3</td>
<td>23.1</td>
</tr>
<tr>
<td>Garbage/rolling streets</td>
<td>13.8</td>
<td>16.6</td>
</tr>
<tr>
<td>Stray dogs</td>
<td>4.8</td>
<td>2.6</td>
</tr>
<tr>
<td>Unpleasant odours</td>
<td>4.1</td>
<td>0.7</td>
</tr>
<tr>
<td>Other</td>
<td>1.6</td>
<td>1.1</td>
</tr>
<tr>
<td>DNK/DNA</td>
<td>0.6</td>
<td>0.0</td>
</tr>
</tbody>
</table>
3. The responsibility to solve the problem of environmental pollution is in others and not in me. When asking people about what they would be willing to do to decontaminate Santiago city, 26% of people avoided the question by answering that the solution to the environmental problem is the responsibility of the authorities and not of themselves. This indicates a lack of identification with the problem of environmental contamination, since during the project it was discussed extensively with national and international experts the importance of the people being able to identify themselves as part of the problem. When one person is in the traffic jam due to vehicular congestion, it is important to realize that this person is also part of the problem, because she or he is co-producing the congestion.

4. Tactical Urbanism actions, such as Shared Streets, are powerful methods to change the viewpoint and increase the empowerment of people. The Shared Streets experiment showed an increase in people’s awareness levels about their ability to improve their neighborhoods and cities after the completion of a Shared Streets pilot. Accordingly, there is an enormous opportunity to re-enchant the communities and the general public with the city processes, inviting them to change the role of passive-recipients of benefits into a people-centered one as agents of change through concrete actions and meaningful.
What would you be willing to do to decontaminate Santiago?
Results Trees of Ideas, Question: What are you willing to do to decontaminate Santiago?
Comparative results, ex-ante and ex-post surveys

In general, how much influence do you think you have to make this neighborhood a better place to live?

<table>
<thead>
<tr>
<th>Category</th>
<th>Before Tactic</th>
<th>After Tactic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nothing</td>
<td>33.1%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Scarce</td>
<td>21.4%</td>
<td>10.6%</td>
</tr>
<tr>
<td>Neither too much nor too little</td>
<td>22.4%</td>
<td>14.8%</td>
</tr>
<tr>
<td>Some</td>
<td>36.9%</td>
<td>36.1%</td>
</tr>
<tr>
<td>Considerable</td>
<td>6.9%</td>
<td>13.3%</td>
</tr>
<tr>
<td>DNK/DNA</td>
<td>1.3%</td>
<td>0.7%</td>
</tr>
</tbody>
</table>
Change of habits in the mobility of people: We are willing to share the street but we value speed, comfort and safety.

5. Speed and comfort are the most valuable attributes when deciding the mode of transport. People are pragmatic when making their mobility decisions, therefore, in order to promote a consolidation of sustainable transport modes in the short and medium term, it is essential to build fast and comfortable alternatives. It is suggested to move forward in the construction of safer and more protected cycle paths in the short term, inviting people to use the bicycle daily as a priority mode of transportation. At the same time, it is suggested to improve the conditions of the public transport system to retain the current user and avoid the migration to transport modes such as the automobile.

6. To achieve Shared Streets models it is essential to significantly reduce the use of the car and/or to make it more efficient. If ideas such as Shared Streets thrive, it is necessary to decongest the available space on the streets in favor of people. To do so, it takes the will and political leadership to promote an effective reduction of the use of the automobile. Measures such as congestion charging zones, car parking taxes, low carbon areas or districts with reduced access to the car, and tax benefits to the use of non-polluting cars, are concrete measures suggested to move forward in this direction.
How do you mobilize most days of the week?

**Before Tactic**
- Public Transportation (bus, subway, taxi/share taxi): 48.9%
- Walk: 15.7%
- Bike: 15.8%
- Other: 17.6%

**After Tactic**
- Public Transportation (bus, subway, taxi/share taxi): 48.9%
- Walk: 15.7%
- Bike: 15.8%
- Other: 17.6%

Comparative results, ex-ante and ex-post surveys
In the first place, what is the main reason behind your decision-making when mobilize on a daily basis?

Before Tactic

- Public Transportation (bus, subway, taxi/share taxi)
  - 66% Is Faster
  - 13% Is Cheaper
  - 2% Does not pollute
  - 2% I do sport / health reasons

- Car
  - 29% Is Faster
  - 14% Is more comfortable
  - 2% Other

- Bike
  - 21% Is Faster
  - 13% Is more comfortable
  - 2% Other

- Walk
  - 9% Is Faster
  - 8% Is more comfortable
  - 2% Other

Comparative results, ex-ante
Comparative results, ex-post

In the first place, what is the main reason behind your decision-making when mobilize on a daily basis?

After Tactic

- Is Faster
- Is Cheaper
- Does not pollute
- I do sport / health reasons

Public Transportation (bus, subway, taxi /share taxi)
- 53%

Car
- 65%

Bike
- 26%

Walk
- 15%
7. Shared streets are close to what we want but far from what we have. When people are asked about what their ideal street would look like, the answers revolve around streets that promote cycling, which encourages speed reduction and mutual respect between people. At the same time, nicer streets with children and the elderly, and with pedestrian priority are outstanding attributes in the streets that the people want. Along with this, people highlight the desire to have streets with both, less environmental and noise pollution, all aspects that are now far from the streets we have built.

8. People are willing to bring about a change in their mobility habits to face Climate Change. The Shared Streets experiment made it possible to identify people’s willingness to change their mobility habits, but for this it is essential to have safer streets, and comfortable and fast non-polluting modes of transport. In the specific case of the José Miguel de la Barra Avenue experiment, 54% of people are willing to transform the Avenue into a Shared Street permanently.
Results Trees of Ideas, Question: What would your ideal street look like?
“Where everyone is respected, cars, cyclists and pedestrians.”
Female Saleswoman 56 years old. Lives in Peñaflor.

“Where all the people who live in it will be respected”.
Male 26 years old. Lives in La Reina.

“More parks, more places like Lastarria (street), more neighborhood cooperation, where there are more physical activity streets....where you can park bikes”
Male 32 years old. Lives in Maipú.

“No honks and aggression between people. Where everyone can walk quietly and with space for pedestrians, cars and bikes,...with a real cycle lane, not with one that eat the sidewalk “
Female Student 23 years old. Lives in Las Condes.

“Few honks and more kindness.”
Female Student 18 years old. Lives in Recoleta.

“Concern for the elderly, and seats for all”
Man Musician of 61 years. Lives Santiago Centro.
Under the assumption that the city of Santiago and its authorities, implement immediate measures to discourage automobile use, along with improving public transport effectively, would you support the idea of leaving José Miguel de la Barra as a shared street, or would you keep it in its present condition?

I would leave it permanently as a shared street
I would leave it as it is currently

Using a scale of 1 to 5 where 1 is "very bad" and 5 is "very good", overall, how do you evaluate the Shared Streets project?
9. The urban tendency to confront Climate Change aims to de-motorise cities, focusing on the people prioritization. Thanks to the exchange of knowledge between experts from the UK and CEM, it was possible to confirm that urban trends to tackle the environmental problems we face in the 21st century are, on the one hand, concrete and effective actions to de-motorise cities by encouraging non-polluting modes of transport such as walking and cycling, and on the other, by strategies centered on people and the human scale.
In summary, it is important to note that the main lessons learned from the Shared Streets Project for a Low Carbon District, are possible to group into two complementary dimensions.

On the one hand, with respect to the challenge of raising public awareness about Climate Change, the Shared Streets experiment proves to be an effective strategy for generating low carbon districts. This is due to the real reduction of CO2 concentration in the neighborhood, measured thanks to the installation of instruments such as the Smart Citizen Kit. At the same time, it was possible to identify that Climate Change is caused by transportation and one of the most important problems this produces is that it pollutes our air. Unfortunately, the level of identification with citizen responsibility to address the problem in Santiago still very low. The foregoing, because for an one-fifth of the people the responsibility to solve the problem of environmental contamination is in third hands. In this regard, Tactical Urbanism actions like Shared Streets, are powerful methods to change this viewpoint and to increase the empowerment of people. It is possible to argue that the actions of Tactical Urbanism allow to promote the people shift from passive actors to active agents of change. The majority of people who were exposed to the experiment of living the Shared Streets model, felt more enabled to generate a change in environmental issues such as Climate Change.

On the other hand, in respect of the dimension to generate a change of habit in the mobility of people, it is important to emphasize that as a society, we are willing to share our streets, insofar as there are an effective promotion of modes of transport that do not contaminate, but also, fast, comfortable and safe. Due to the high level of pragmatism in the way to make decisions at the moment of mobilization, speed and comfort are the most valuable attributes when deciding the mode of transport of the Santiaguinos.
Finally, a significantly key issue in order to reach Shared Streets models, it is to reduce dramatically the use of the car in the city and/or to make the use of it more efficient. This is strengthened when this project identifies that, given its characteristics of inclusion, comfort and friendliness, Shared Streets are closer to what the people want but unfortunately still far from what people have available to move and experience the city daily. However, the good news is that people are willing to generate a change in their mobility habits to tackle Climate Change, and the urban trend today to deal Climate Change aims to de-motorise cities by re-focusing on prioritizing people.

For this reason, the Shared Streets experiment seeks to be a precedent not only for the city of Santiago, but for other cities in Chile as well as abroad, in triggering a conversation about the possibilities of transforming the cities that people have in cities that people want. To do so, it is necessary to articulate existing efforts, whether of local, regional and/or central or private governments, with those promoted by international cooperation agencies such as the Cross-Government Prosperity Fund of UK, or others similar, coming from international agencies or local agencies, academia and civil society. All the efforts count, the important thing is to give them meaning through leadership that allows to make viable the changes that the citizens asks for to count on low carbon people-centered cities.
Ciudad Emergente

Shared Streets for Low Carbon Districts

May- November 2016, Santiago

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