

# **“Carpooling Initiative in Vitoria-Gasteiz’s City Hall”**

**SPAIN**

## **EXECUTIVE SUMMARY**

The Carpooling action aimed to set up a programme for the employees of the Vitoria-Gasteiz City Hall to enable them to share their cars for travelling to and from work.

The results of a mobility questionnaire that had been sent to the employees enabled a group of people potentially interested in participating in such an initiative to be selected. Developers then looked at the carpooling opportunities of this group, with a view to “matching” them.

The communication with participants also served to as an opportunity to present them with information about the Air Quality Management Plan and the environmental and financial advantages of carpooling.

Due to the few people that were involved into the programme, this action should be considered as a pilot initiative, which is hoped could be extended to other businesses and organisations in the City in the future.

## **DEFINITION OF THE PROBLEM**

The City of Vitoria-Gasteiz is a medium -sized town and the administrative capital of the Autonomous Spanish Region of the Basque Country. During the last few decades it has been one of the more pro-active municipalities in terms of environmental protection and urban management. An example is the fact that the City Hall has recently approved the Municipal Air Quality Management Plan and will implement the measures set out in the Plan.

In addition, the Vitoria-Gasteiz City Hall has considerable experience of developing accompanying measures related to information and awareness raising of new policies, programmes and/or other initiatives related to Traffic and Environment Management. But these communication initiatives have never been followed by studies that assess the campaign's impacts and influences on their targeted populations.

Therefore, participation in TAPESTRY required the development of a communication plan for the new environmental policy of the City and the preparation of an assessment plan on the basis of the Common Assessment Framework set out for all the TAPESTRY case studies.

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## **METHOD CHOSEN TO ADDRESS THE PROBLEM**

### **Process and reason for choice**

It was decided to split the TAPESTRY activity in Vitoria-Gasteiz into two actions. In fact there was a real interest in having two different targeted populations involved into the communication plan: the general public and employees. The communication plan aimed to involve the general public in improving knowledge and awareness of air quality issues. But, from the point of view of urban air pollution, it was also important to involve the principal emission producer group: those who use their own cars to travel between home and work.

As a result, the TAPESTRY case study in Vitoria was split into two actions in order to reach both populations: an informative stand in a commercial gallery in the city centre and a carpooling initiative aimed at City Hall workers.

The latter was considered to be a pilot action that, if successful, could be extended to other professional organisations from the public or private sectors in the City.

### **Objectives**

The carpooling initiative shares some of the objectives of the other action (Informative space);

- To inform and make people aware of the impacts of atmospheric pollution on the environment and health;
- To communicate the Air Quality Management Plan and its measures

Table 2.1: Target groups and campaign objectives presentation (in SAP Vitoria-Gasteiz)

TARGET GROUPS	CAMPAIGN OBJECTIVES	Information of the air quality plan	Attitudinal Change (Travel related)	Behavioural Change (Travel related)	Other objectives
Target Group 3: Employees of the City Hall		<i>Inform about measures established by the Plan</i>	<i>Increase awareness of air quality problems (impact of transport, consequences for the Environment, Health)</i>		
Sub Target Group 4 Participants to the carpooling action			<i>Increase awareness of air quality problems (impact of transport, consequences for the Environment, Health)</i>	<i>Reduce the number of trips by private cars between households and work-places.</i>	<i>Develop closer co-operation between employees</i>
Within Campaign Partnership					<i>Develop closer co-operation between Environment Dept, traffic Dept and PT company.</i>

### Leaders and partners

The carpooling initiative that was developed by the City of Vitoria-Gasteiz for the TAPESTRY project was lead jointly by the City Hall of Vitoria (Department of the Environment) and CH2MHILL España S.L.

These two campaign developers prepared, designed and executed the campaign with the collaboration and the help of both technical and administrative TAPESTRY co-ordinators: the University of Westminster and TTR.

Furthermore the campaign developers also counted on the collaboration of other partners for the development of some parts of the work, as well as for assessing relevant aspects of the case studies.

The Transportation Department of the Vitoria-Gasteiz actively participated in the case study definition. The responsible person from this Department advised the campaign developers during the definition and design of the action from the point of view of the urban mobility management in the City.

## Details

### *Urban Air Quality Management Plan*

The City Hall of Vitoria-Gasteiz presented its Urban Air Quality Plan few weeks before the campaign was launched. The Plan and the measures proposed for reducing the air pollution levels in the City were the main issues for the campaign.

**Figure 2.1: Cover-page of the Air Quality Management Plan of the City of Vitoria-Gasteiz**



### *Control and Target Groups Definition*

For the carpooling action in the City Hall, the first step was to find out the group of employees that work in the same centre (or very close) and that live relatively near to one another.

The City Hall has several buildings in the city, but the analysis was limited to the 14 buildings that are located in the city centre where the parking capacity is quite restricted. There was no sense in proposing that people should participate in a carpooling initiative if they usually worked in areas where there is no inconvenience in leaving their car in the street and where it is possible to park for free.

Case study developers asked the Human Resources Department to provide them with a list of the employees working in these buildings that included the following information: name, working place, building, and professional e-mail (only those who have a computer).

<b>Building's name</b>	<b>Address</b>	<b>Civil servants</b>	<b>Temporal workers</b>	<b>Total</b>
Casa Consistorial	Plaza España, 1	90	1	<b>91</b>
Residencia Aurora	Correría, 58	7	0	7
Residencia San prudencio	c/ Francia	18	0	<b>18</b>
Casa de la Música	San Antonio	48	2	<b>50</b>
San Prudencio	San Prudencio, 30	160	25	<b>185</b>
Palacio Etxanobe	Santa María, 11	25	4	<b>29</b>
Centro Cívico Campillo	Campillo s/n	2	0	2
Dato	Dato, 11	104	8	<b>112</b>
Demsac	Cuesta San Vicente	32	2	<b>34</b>
Fray Zacarias	Fray Zacarias	60	3	<b>63</b>
Renovacion urbana	Plaza España, 8	9	9	<b>18</b>
Villa Suso	Plaza del Machete	24	4	<b>28</b>
Edificio Ertza	San Prudencio, 34	42	10	<b>52</b>
Ensanche 21	Dato, 2	0	6	<b>6</b>
<b>TOTAL</b>		<b>621</b>	<b>74</b>	<b>695</b>

So in total 695 people were sent the first questionnaire.

As described above, the population involved in the programme was limited to the employees of the City Hall's buildings located in the City Centre where the parking conditions are restricted. This accounted for a population of 695 people distributed between 14 working centres.

At this step of the study, it was not necessary to distinguish between target and control group since the questionnaire was going to be sent to all the employees at the same moment and without any informative materials.

### *Questionnaires Drafts*

The TAPESTRY technical co-ordinators provided the developers with a set of recommendations for drafting questionnaires and examples of questions that should be used to make the cross site analysis possible.

The questionnaire for this action was very similar to the questionnaire for the informative space. A few adjustments were made to reflect the details of the carpooling programme and to enable the selection of possible participants.

### *Communication Material Design and Production*

All the communication materials used had been originally created for the Information and Awareness Campaign in Vitoria-Gasteiz.

- Dissemination leaflet: developers produced a brochure in three parts on air quality problems: the air quality situation in Vitoria-Gasteiz, the municipal plan to combat atmospheric pollution and the relationship between travel behaviour and air pollution
- Questionnaires on current travel behaviour and environmental awareness (See annexes)
- Presentation: Financial and environmental advantages of carpooling

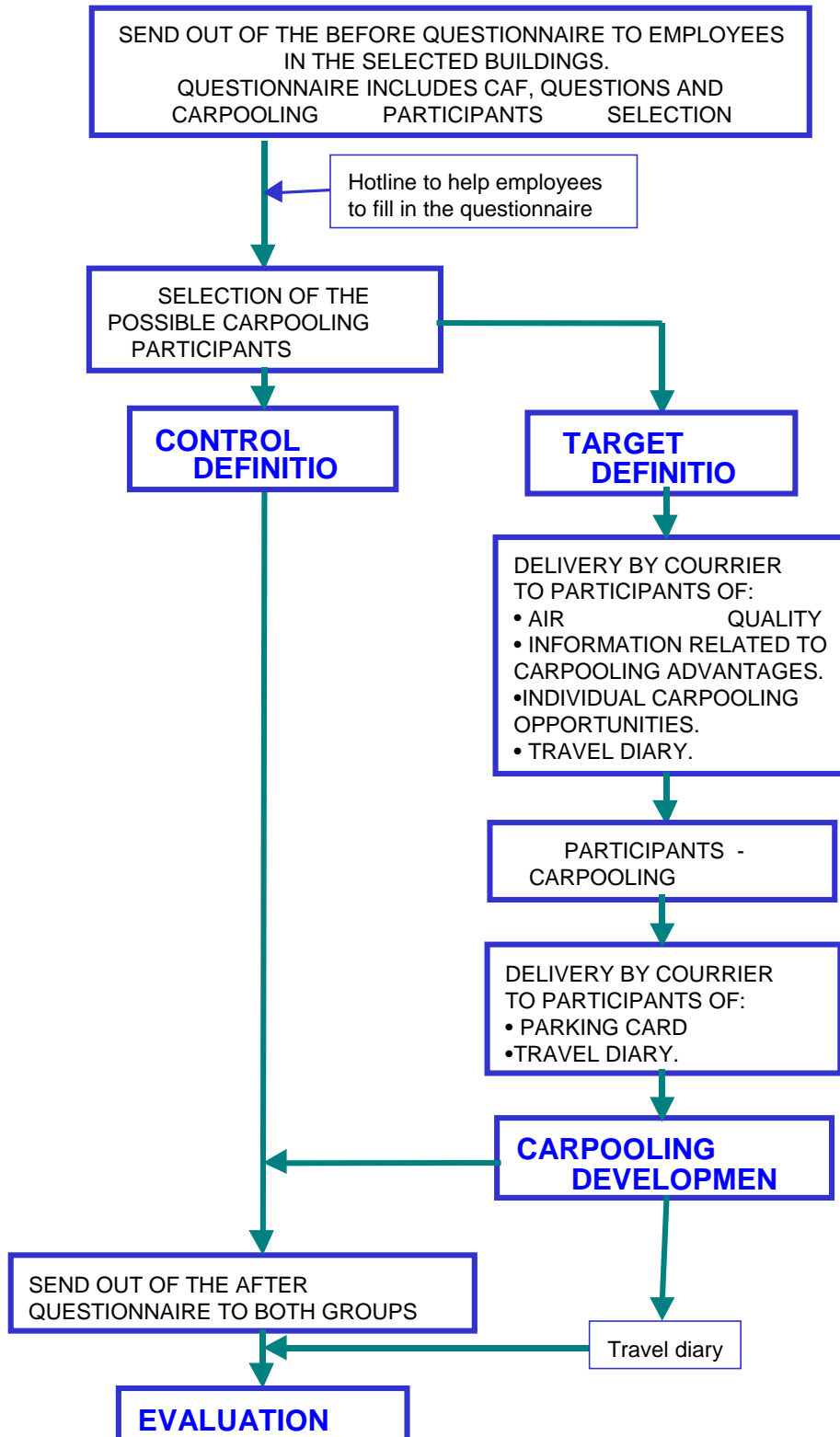
## **IMPLEMENTATION OF CAMPAIGN**

### **Responsibilities**

(See Leaders and partners)

**Process**

*Flowchart of the action development*



*Sending of questionnaires and feed-back*

The carpooling initiative development started by sending the questionnaires to the selected employees via email for those with access to a computer and by internal post mail for the remainder. The following table shows the distribution between the City Hall's buildings of the questionnaires and the communication medium used.

<b>Building</b>	<b>Address</b>	<b>Internal postmail</b>	<b>e-mail</b>	<b>Total Sent</b>
Casa Consistorial	Plaza España, 1	23	32	<b>55</b>
Residencia Aurora	Correría 58	7	0	<b>7</b>
Residencia San Prudencio	c/ Francia	18	0	<b>18</b>
Casa de la Música	San Antonio	50	0	<b>50</b>
San Prudencio	San Prudencio 30	74	111	<b>185</b>
Palacio Etxanobe	Santa María 11	14	23	<b>37</b>
Centro Cívico Campillo	Campillo s/n	2	4	<b>6</b>
Dato	Dato 11	50	53	<b>103</b>
Demsac	Cuesta San Vicente	24	19	<b>43</b>
Fray Zacarias	Fray Zacarias	19	49	<b>68</b>
Renovación Urbana	Plaza España 8	9	4	<b>13</b>
Villa Suso	Plaza del Machete	19	36	<b>55</b>
Edificio Ertza	San Prudencio 34	24	25	<b>49</b>
Ensanche 21	Dato, 2	2	4	<b>6</b>
<b>TOTAL</b>		<b>335</b>	<b>360</b>	<b>695</b>

All the relevant employees were contacted, however only 133 questionnaires were returned, i.e. 20%. There are several reasons for this low response rate:

- Most of the City Hall Employees usually walk to the city centre buildings, so when they read something related to use the car, they assume that it has nothing to do with them.
- Some of the interviewed employees live in the city centre, or close by, so they are not interested in the proposed action.

### *After Measurement Campaign Development*

#### *After Measurement Questionnaire Drafts*

As for the main action of the campaign, the informative space in the city centre, an after questionnaire had been prepared in order to assess the influence of the carpooling initiative on the behaviour and opinion of the participants and the control group. The questionnaire was largely the same as the before questionnaires, apart from a few exceptions.

#### *Questionnaires sending and feedback*

The after questionnaire was distributed in the same way as the before one, i.e. internal email and post of the City Hall. The level of feed back was relatively acceptable considering that people had been asked to fill in the same questionnaire twice in less than 6 months. From the 31 people that made up the target group 25 sent back the questionnaire (including those who had participated into the carpooling initiative) and 56 responded from the 102-people control group.

### **Input and output analysis and management issues / context / external factors / costs**

#### *Input/output Analysis*

As a requirement of the technical co-ordination of the TAPESTRY project and the common assessment framework process, the campaign developers recorded the inputs and outputs of both actions carried out as part of the Vitoria case study.

See Annexes 1 and 2 to review the input and output tables.

#### *External factors*

In order to identify what are the impacts of the campaign, i.e. if the campaign works or not, it is important to consider the external factors that could have influenced the target group. As a result, the campaign developers created a table, where they recorded all the external factors they considered having a certain influence on the target group opinion and behaviour.

The table can be found in Annex 3.

*Costs*

<b>Concepts</b>	<b>Costs</b>
Personnel costs: design, preparation of the campaign and material production.(*)	9.013
Material production costs	185,78
Funding of the carpooling participants parking (OTA)	61,60
<b>Total</b>	<b>9.260,38</b>

\*Estimation on the base of 20% of the calculated costs in concept of human resources to carpooling initiative and 80% to Informative Space action. Indirect costs not included.

## CAMPAIGN ASSESSMENT

### Methodology

#### *Databases Design and Creation*

In order to facilitate the statistical analysis of the information contained in the questionnaires, a database was created.

The database enabled the entry of all the data in tick box form. Although the data entry process was long and arduous, the advantages were considerable since the comparison between the different questions and with the results of the “after questionnaire” became easier.

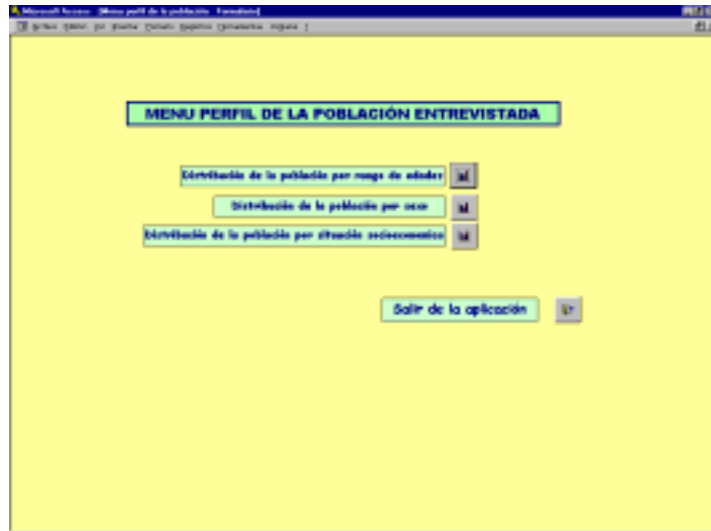
#### *Database functionality*



Apart from the function of introducing results of a new questionnaire, the programme allows the user to create ‘queries’ that associate different elements of the population interviewed and present a graphical representation of the query.

The database was also conceived to give some statistical aspects of the interviewee profile according to age ranges, sex and socio-economic situation.

The following section presents the before questionnaire results for the target and control groups.



## 4.2 Target groups / sampling methodology / sample size / etc

*Note: Some of the results of the following graphs do not total 100%. That is due to the fact that answers from people who have not expressed their opinion have not been taken into consideration.*

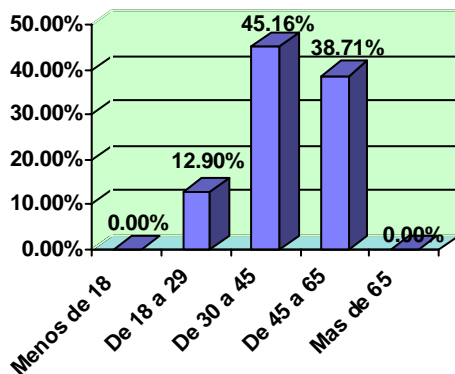
### 4.2.1 Before measurement phase

Before consulting the responses to questionnaires, campaign developers tried to define the profile of people that responded to the questionnaires.

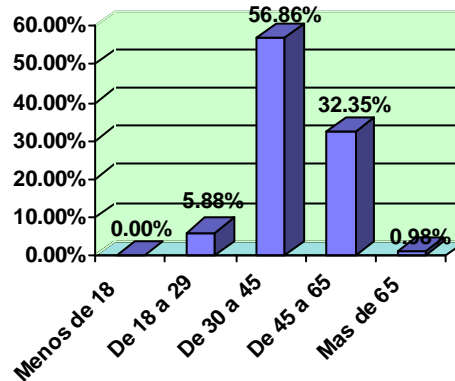
#### 4.2.1.1 Profile of interviewed populations

Three criteria were chosen to define the profiles of the population interviewed: age, gender and socio-economic situation.

**Graph 4.1: Age distribution of target group**

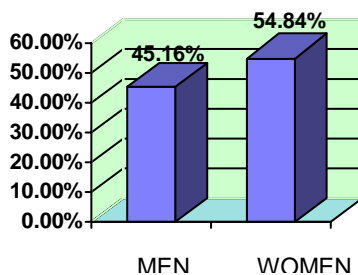


**Graph 4.2: Age distribution of control group**

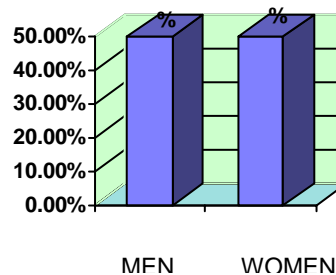


Obviously the results appear as characteristically representative of a professional organisation: nobody (or almost) under 18 years or over 65 and the majority of the people between 30 and 65.

**Graph 4.3: Gender distribution of target group**

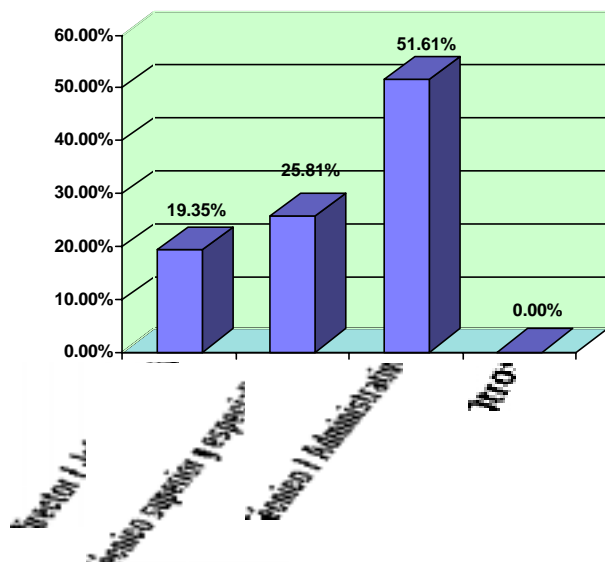


**Graph 4.4: Gender distribution of control group**

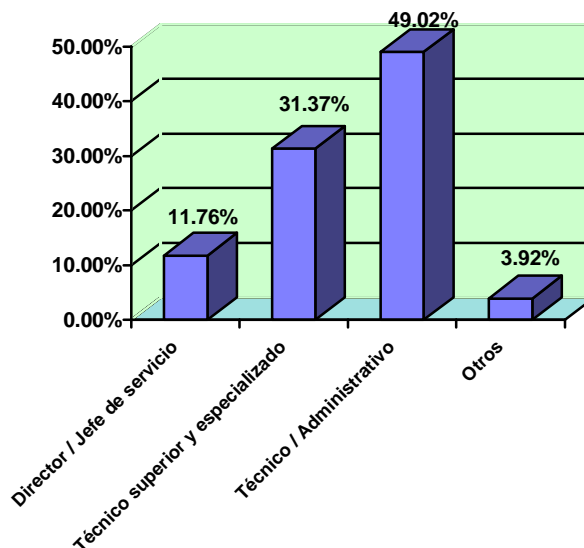


With respect to the distribution by gender, it can be seen that both populations are more or less equal.

**Graph 4.5: Socio-economic distribution of target group.**



**Graph 4.6: Socio-economic distribution of control group.**



All the people that make up the groups are public workers. A relatively high number of Directors (or Heads of Departments.) answered the questionnaire (almost 20% of the target group are from this category).

The differences between both control and target groups are minimal and in conclusion, the standard profile of the before measurement interviewee could be a woman between 30 and 45 years old who works as technician or administrative personnel in a building of the City Hall located at the city centre.

*Environmental awareness and mobility behaviours background*

The questionnaire results informed the campaign developers of the level of environmental awareness of the selected population before the case study began, as well as their travel behaviour and attitudes to different modes.

Modes of transport

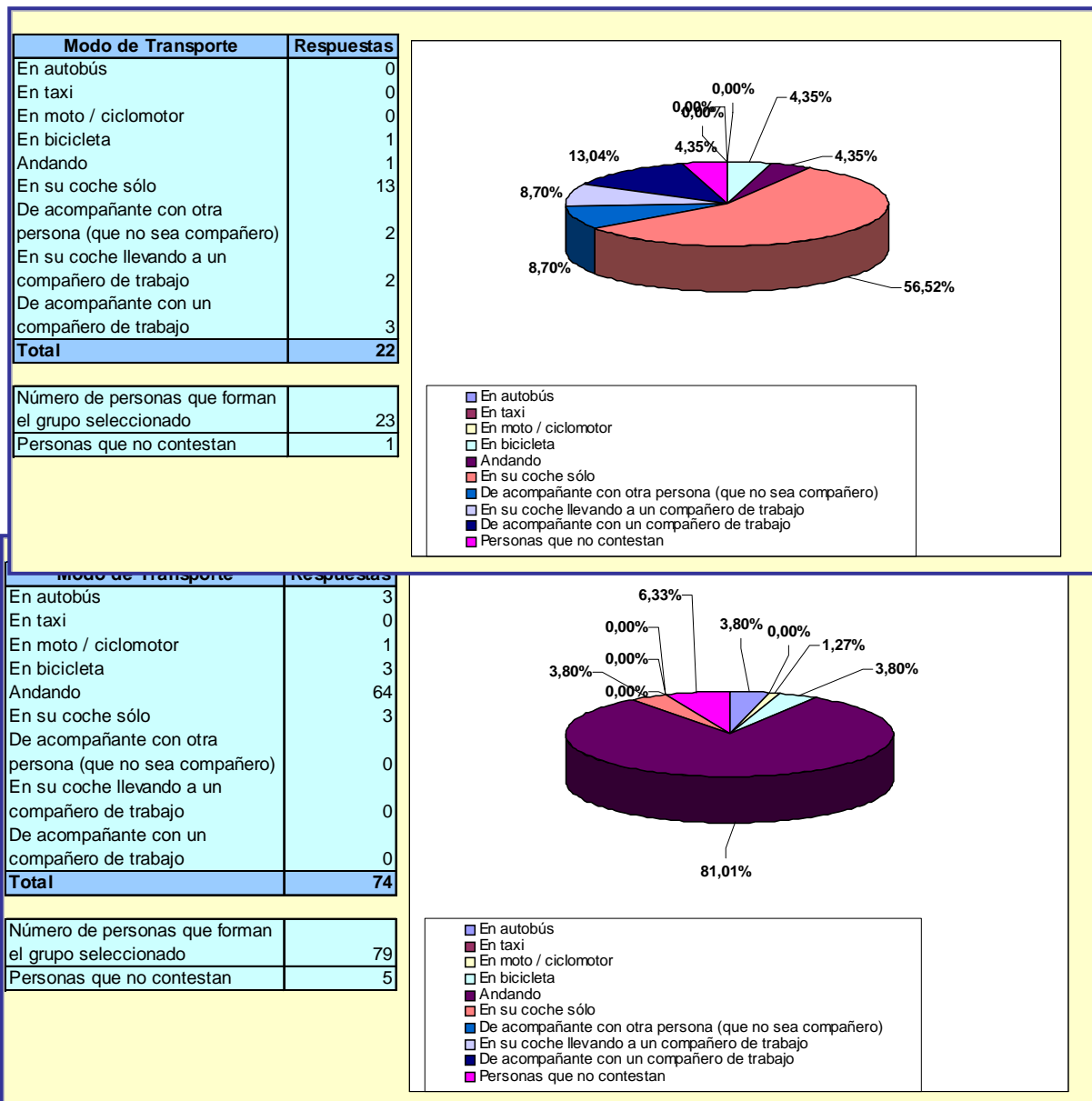
From the question on the frequency of mode used (See question 2, Annex 4) the database calculated the interviewees use of different modes of transport. The database just considered the answers from people that use a mode at least 2 days a week.

Graphs 4.7 and 4.8 show the importance of walking as mode of transport for the target group, which is also found for the control group. This mode of transport is even more

important than for the population as a whole, due to the fact that the control group are working in buildings located at the city centre, where it is easy to go to work on foot.

The target group is not representative of the population as a whole; this is the reason why they were selected to participate in the carpooling initiative. Therefore, more than half of them (56,52%) usually drives alone to work. It is also important to note that 5 of them usually carpool with a colleague, and another two with people from outside the City Hall.

The rest of the modes of transport obtain insignificant results.



“How serious do you think the air pollution is in Vitoria-Gasteiz?” The interviewee has to select between a 4-point scale:

“extremely serious”, “fairly serious”, “slight problem”, “no problem”

Depending on the answer given, the database attributes a decreasing score, “extremely serious” being the highest with 4 points and “no problem” the lowest with 1 point. Questions with a 5-point response scale were scored from 5 to 1.

The general awareness level is calculated by adding the total sum of the scores from questions 5, 6 and 7, divided by the maximum score possible. In this case the maximum total score possible would be:

Question 5:  $(4 \times 964) = 3856$

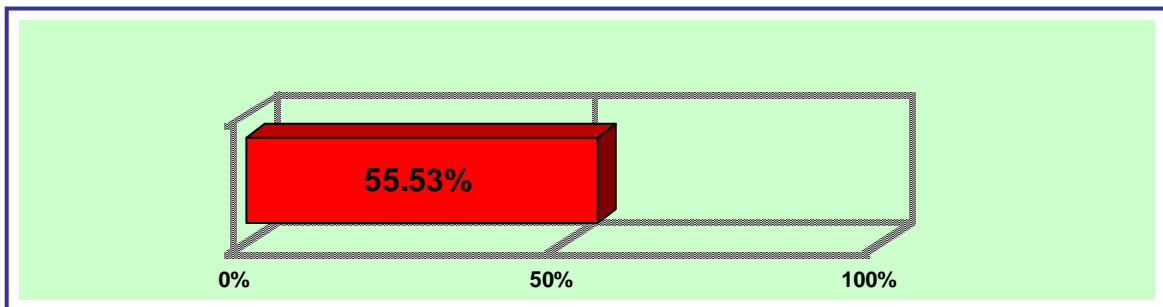
Question 6:  $+ (5 \times 964) = 4820$

Question 7:  $+ (6 \times 964) = 4820$

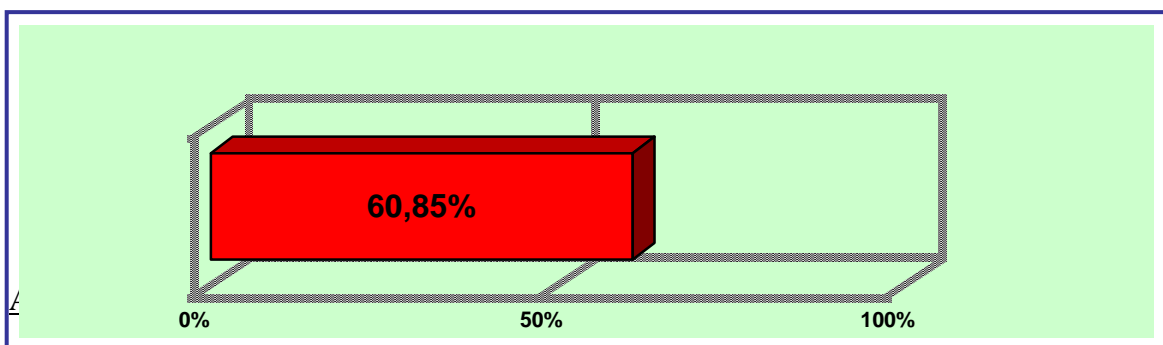
Total maximum score possible = 13496

Graph 4-9 shows that the general level of awareness of the problem for the target group is about 55,53% (7494/13496). As far as the control group is concerned, the result is of 60,85% (see Graph 4.10).

**Graph 4.9: Level of awareness of the problem of the target group – Before measurement**



**Graph 4.10: Level of awareness of the problem of the control group – Before measurement**



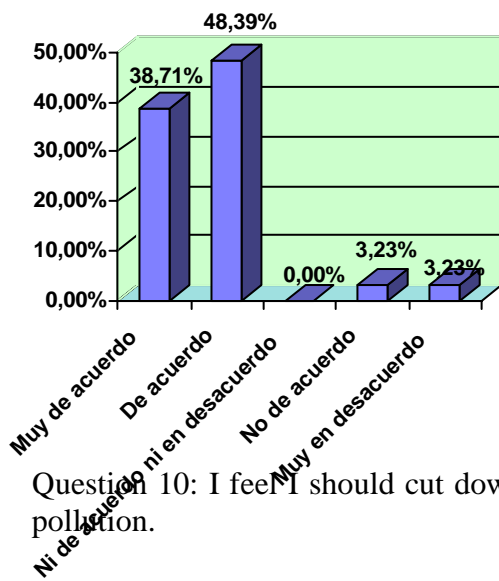
Questions 9, 10 and 11 of the “before measurement questionnaire” deal with the CAF concept “Accepting responsibility”, i.e. if the interviewee accepts and assumes its part of responsibility for the general problem in question (air pollution in our case).

The methodology for the calculation of the general level of “accepting responsibility” is the same as for “awareness of problem”. Graphs 4-11 to 4-16 present the distribution of responses for the three questions related to accepting responsibility.

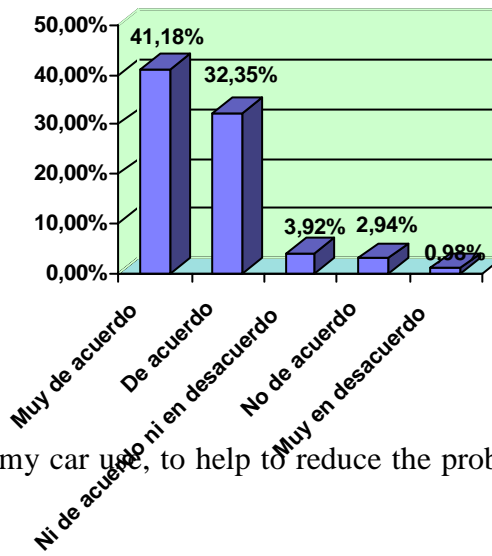
As a general conclusion, it is observed that the control group appear to have a greater acceptance of their responsibility (at least 50% agrees in all questions) than the target group.

Question 9: Am I contributing to air pollution when driving a car?

**Graph 4.11: Distribution of responses to question 8 for target group – Before measurement**

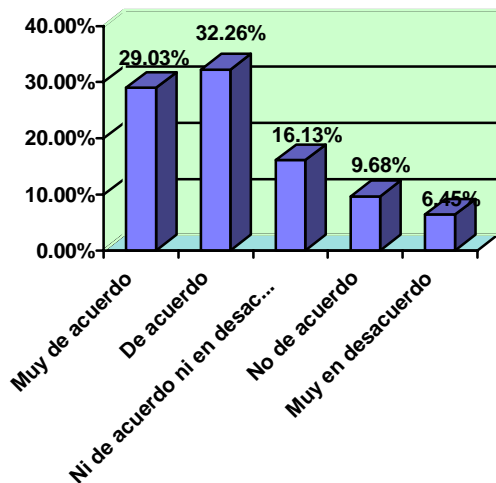


**Graph 4.12: Distribution of responses to question 8 for control group – Before measurement**

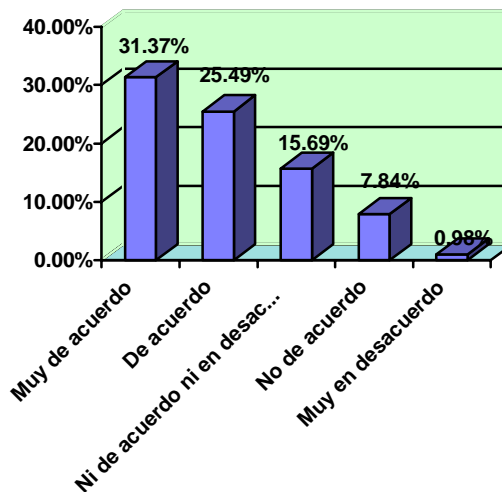


Question 10: I feel I should cut down my car use, to help to reduce the problem of air pollution.

**Graph 4.13: Distribution of responses to question 9 for target group – Before measurement**

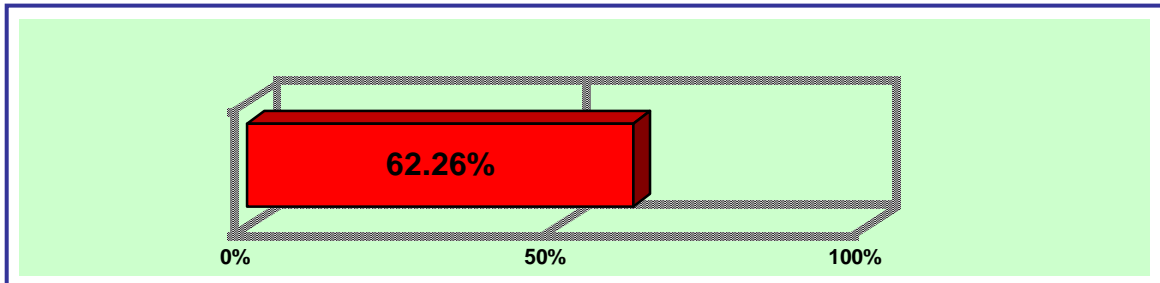


**Graph 4.14: Distribution of responses to question 9 for control group – Before measurement**

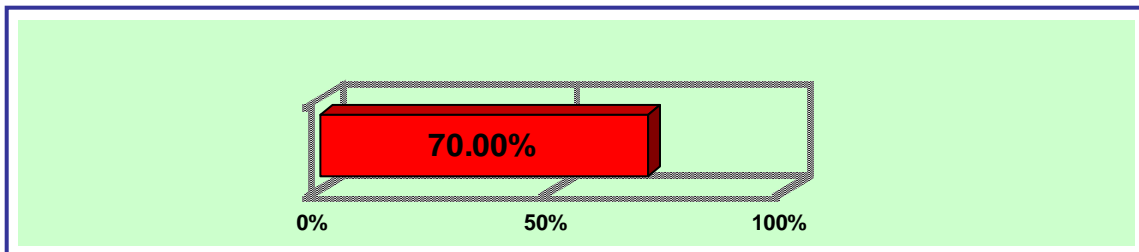


As commented before, graphs 5.15 and 5.16 confirm there is a difference of almost 8 points between the groups.

**Graph 4.15: Level of “accepting responsibility” of the target group – Before measurement**



**Graph 4.16: Level of “accepting responsibility” of the control group – Before measurement**



### Perception of options

The following step in the ‘Seven Stages of Change’ defined by TAPESTRY is the concept of “perception of options”, which means how people perceive the alternative options to the car. The ‘Seven Stages of Change’ model distinguishes between the perception of the transport system performances and the perception of the social and cultural influences.

In the Vitoria-Gasteiz case study it resulted important to question population on the alternative mode of transport, i.e. carpooling. That is the object of the question 11 on transport system performances. The perception of social and cultural influences is treated by the question 12.

Using a methodology of calculation similar to the previous questions, the database quantifies the perception the groups have of car pooling and the private car advantages. Furthermore the system calculates the difference between both modes of transport, which enables the comparison of results between groups and/or before and after questionnaires.

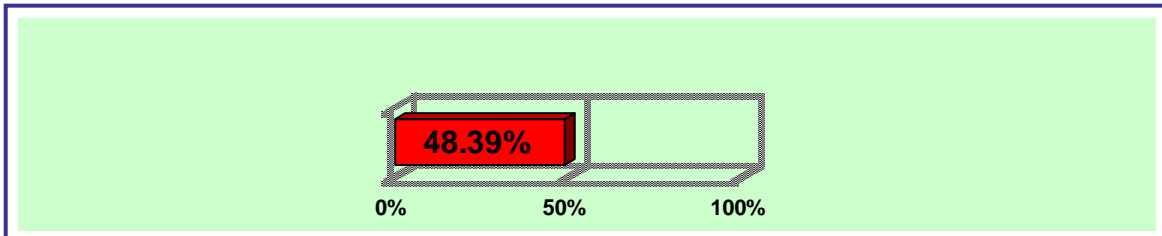
The difference in perception between driving by private car and carpooling is of 0,5 points in favour of private car for the target group.

With respect to the control group's responses to question 11, the difference is slightly bigger than for the control group (2,2 points). Considering the results, it would seem they give more importance to the advantages of the private car; 70,8% against 60% for the target group.

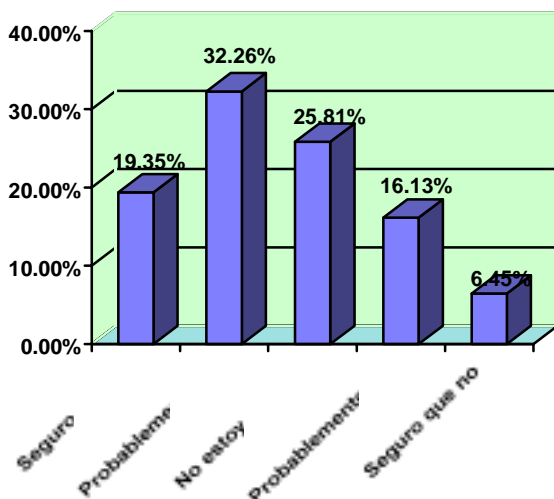


As for the perception of social and cultural influences, more than 50% of the target group believe that most of people will start carpooling if their friends or colleagues did, 25% neither disagree nor agree and the remainder disagrees (See Graph 4.20). Overall, the result is relatively low – the database calculates it to be 48,4%.

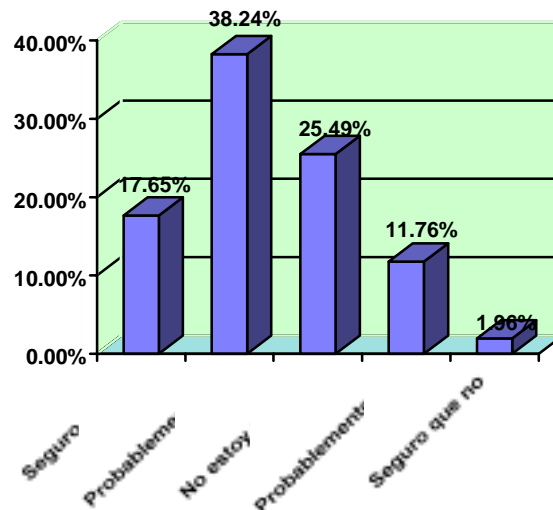
Graph 4.19: level of perception of social/cultural influences of the target group - Before measurement



Graph 4.20: Distribution of responses to question 12 for target group – Before measurement

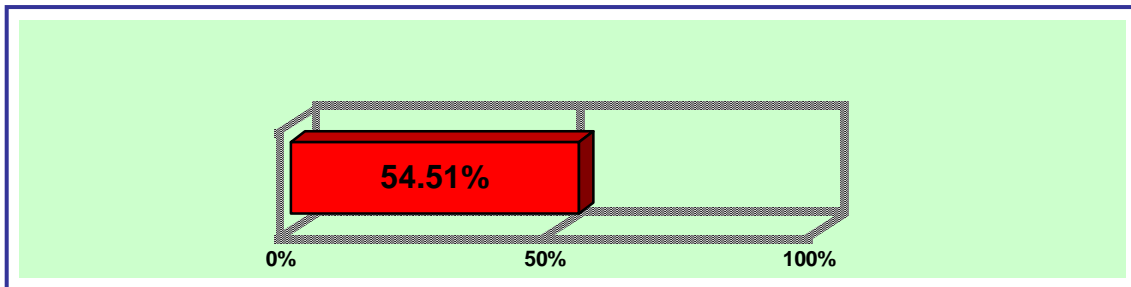


Graph 4.21: Distribution of responses to question 12 for control group – Before measurement



As shown in the Graph 4.21, almost 56% of the control group admit the existence of social and cultural influences as defined in the question 12, 25,5% have no opinion and 13% disagree.

**Graph 4.22: level of perception of social/cultural influences of the target group - Before measurement**

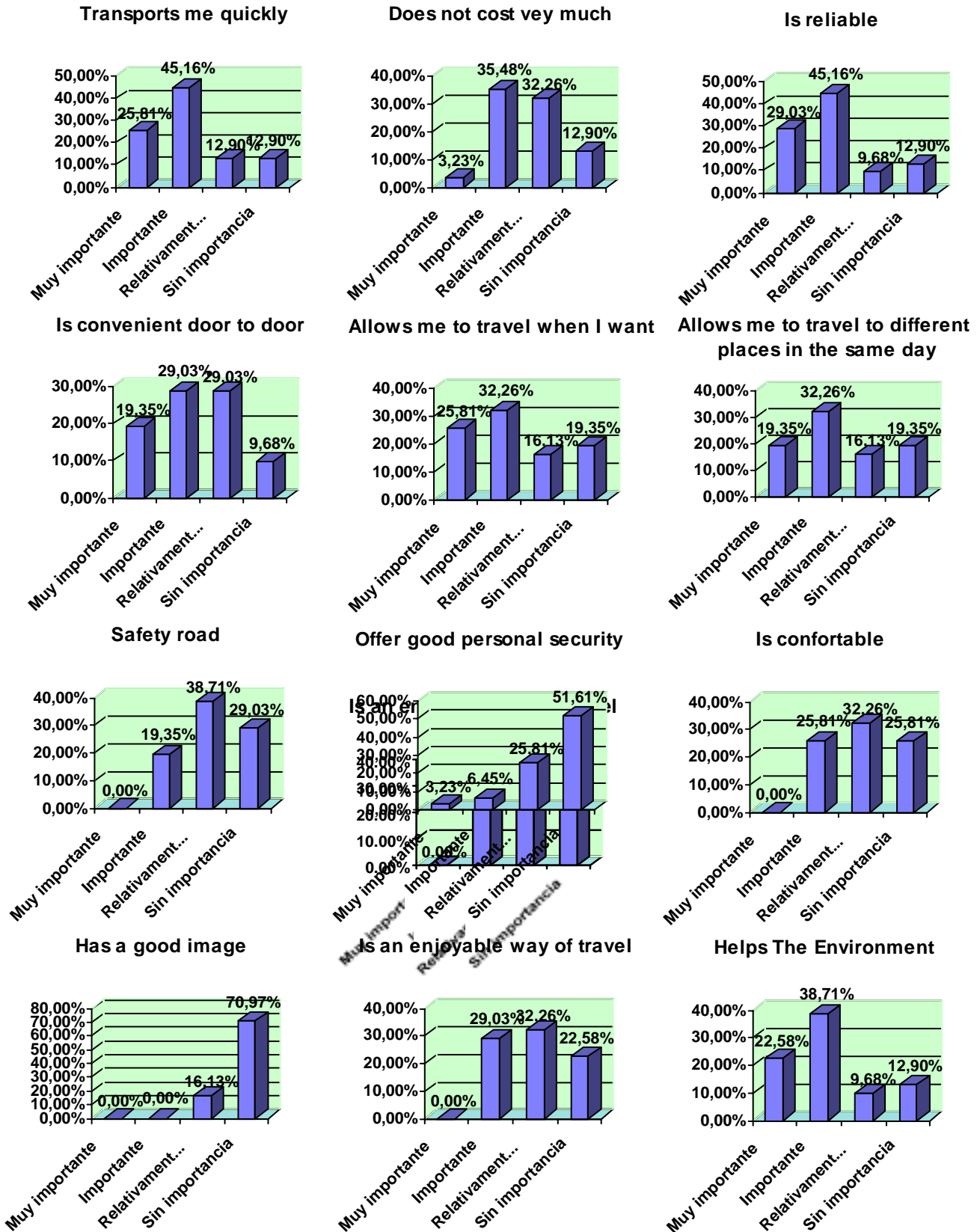


#### Evaluation of the options

Question 13 on “evaluation of the options” assesses which factors are most important in travel choices.

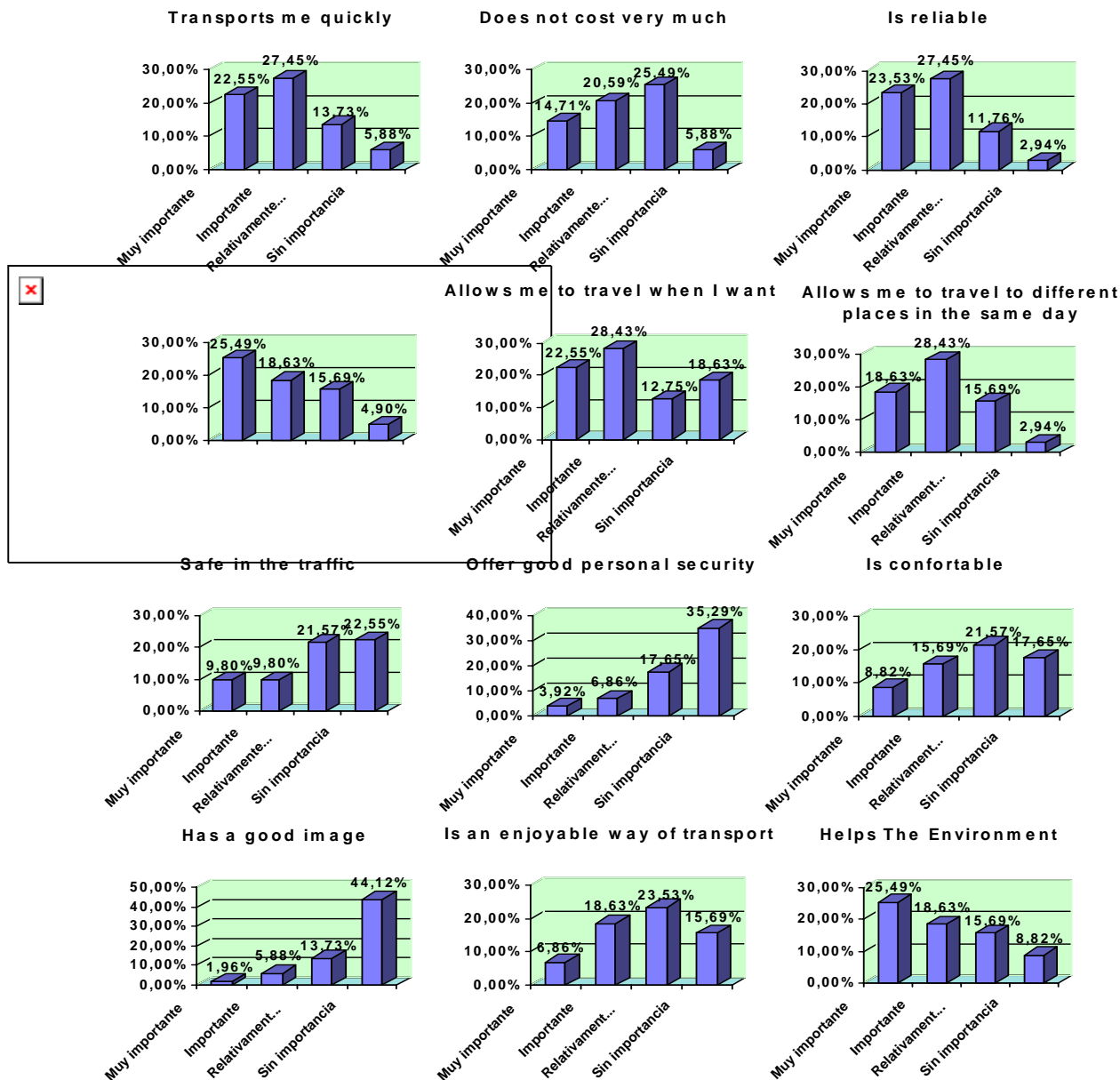
As it can be observed in the last graph, members of the target group consider the principal advantages of a mode of transport (the sum of the two first answers “very important” and “important”): reliability (74,2%), quickness (71%), and protection of the environment (61,3%). On the other hand, image, personal security and road safety are the least important factors. The fact that the protection of the environment represents the third most important preoccupation could have been a hopeful signal for the carpooling initiative development. However, financial criteria, an other important factor in favour of deciding to carpool, is only in seventh place, so was not really important for the target group.

Graph 4.23: Distribution of answers to question 13 for target group – Before measurement



With respect to the control group (see Graph 4.24), the ranking is slightly different since the protection of the environment is here the sixth most answered criteria instead of being the third for the target group. Reliability is still the more important factor; “Allows me to travel when I want” and “quickness” the second and third ones. The control group is not concerned about costs (7<sup>th</sup> position), confirming the results from the target group.

Graph 4.24: Distribution of answers to question 13 for control group – Before measurement



Campaign recall

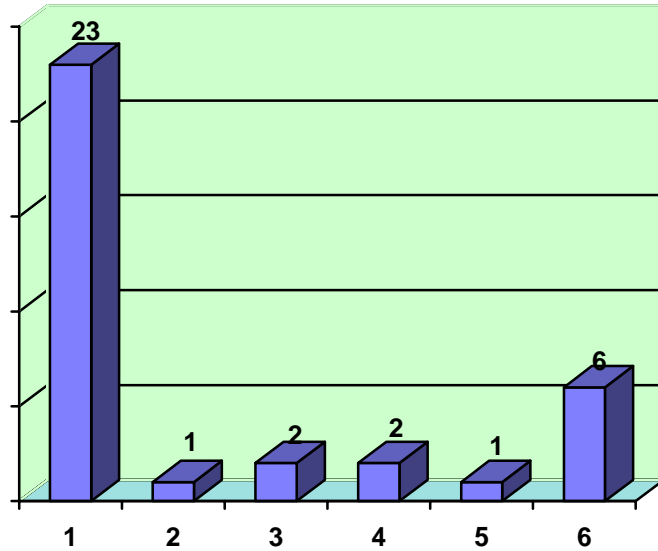
Question 14 of the “before measurement” questionnaire deals with campaign recall among the members of both target and control groups. As the CAF report recommended, campaign developers mixed correct with false responses in order to assess if the groups really recall the campaign. Another objective of the question is to see if they recall the campaign before it starts.

In the questionnaire, the first response says “No I do not believe this campaign had already been developed in Vitoria”, whereas response 4 and 6 reflect a correct slogan. Questions 2,3 and 5 are false options.

As shown in the Graph 4.25 a large majority of the target group correctly answered that the campaign had not been already developed in their city.

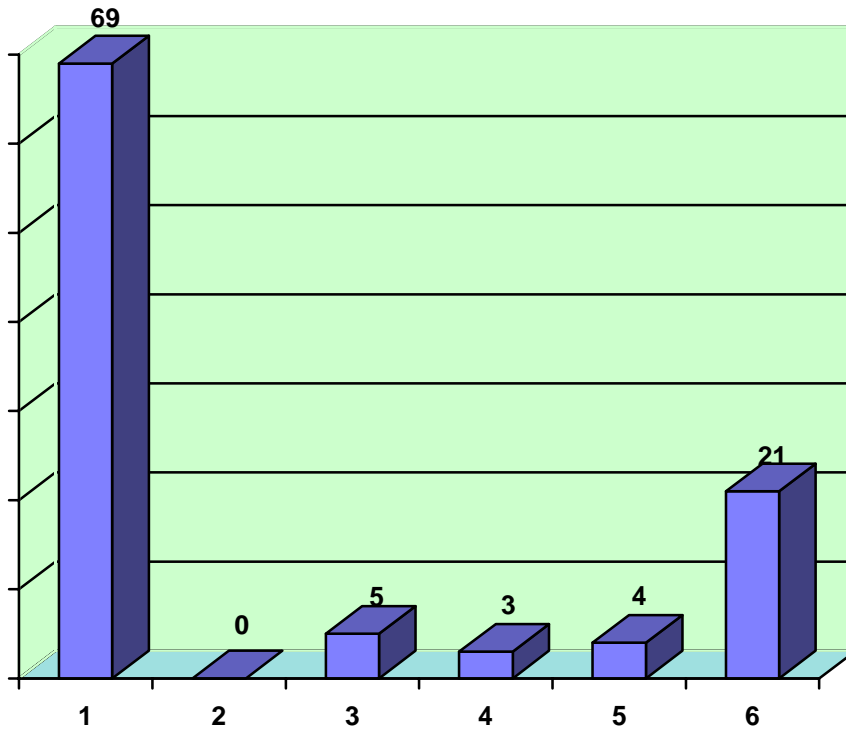
**Graph 4.25: Answers to campaign recall question 14 of the target group – Before measurement**

It results also interesting to note that people recalled a slogan from a campaign that never took place four times.



**Graph 4.26: Answers to campaign recall question 14 of the target group – Before measurement**

Control group members ticked 69 times the first option “no campaign”, and 33 times other responses,



which is, proportionally to the number of people (102 for control group and 31 for target group), slightly lower than for the target group. It should also be highlighted that the low number of people in the target group makes the proportions not really significant.

*After measurement phase*

The after questionnaire analysis was completed using the same database, in order to facilitate the comparison of results from the same questions and also the same people (matched samples).

However, some questions were added, in particular those assessing the materials distributed during the campaign development.

A standard profile of the people interviewed was set out, before having a more detailed look of the responses answered. However, it is important to highlight that the response rate to this second questionnaire was even lower than for the first one. So some questions have been omitted from this report.

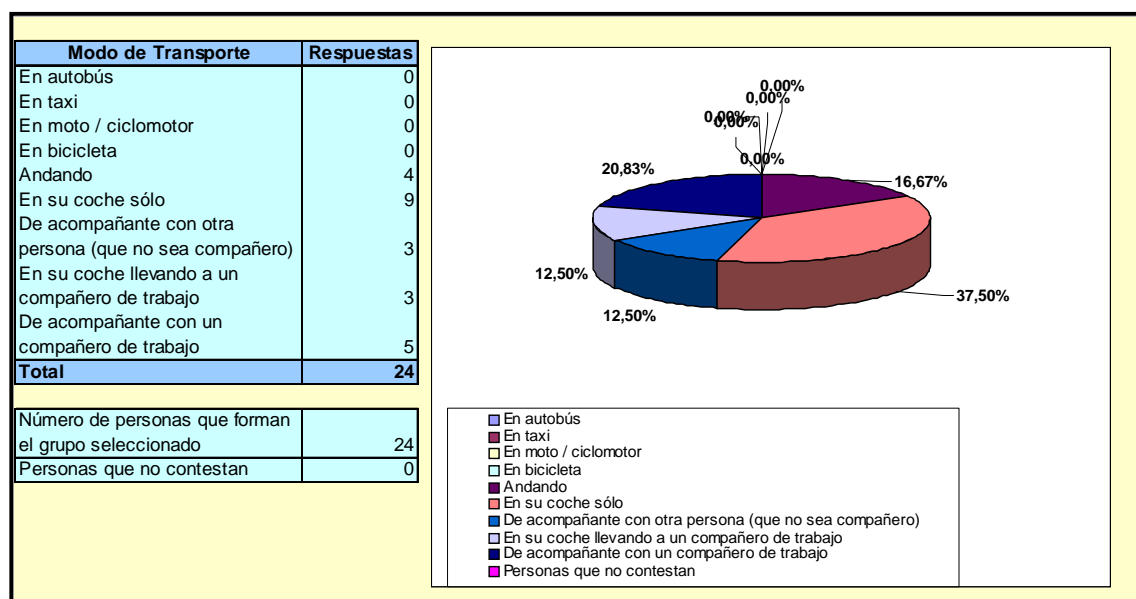
*Profile of interviewed population*

The profile of the interviewed people, both target and control groups, during the after measurement phase is basically the same than for the previous groups., i.e. (almost) nobody is under 18 years, nor over 65 and the majority of the people are between 30 and 45 and there is an even distribution by gender.

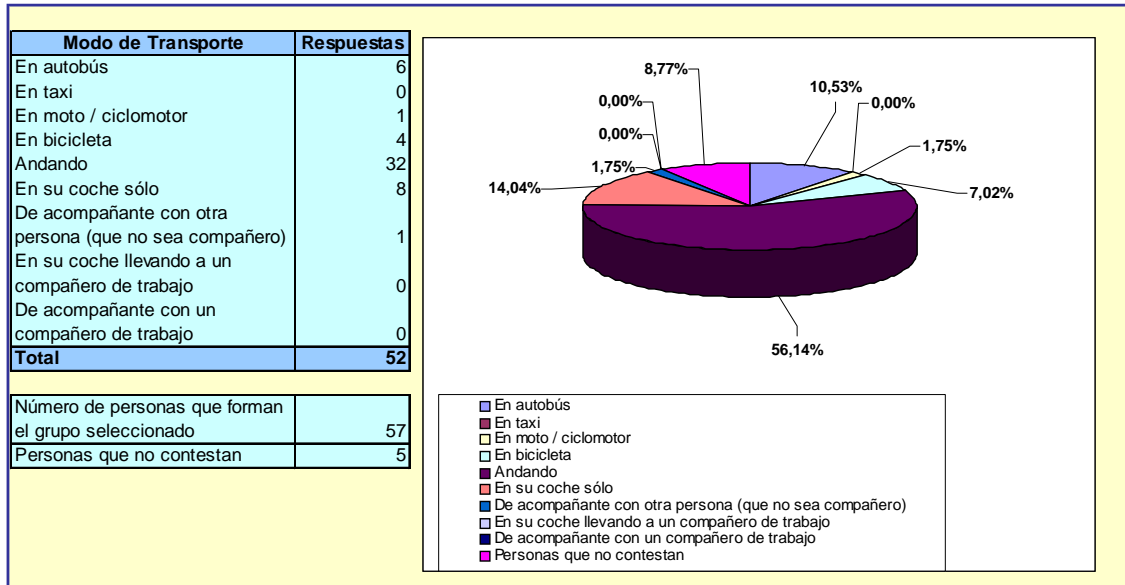
*Mobility background and environmental awareness*

Modes of transport

**Graph 4.27: Modes of transport usage of target group – After measurement**



**Graph 4.28: Modes of transport usage of control group – After measurement**

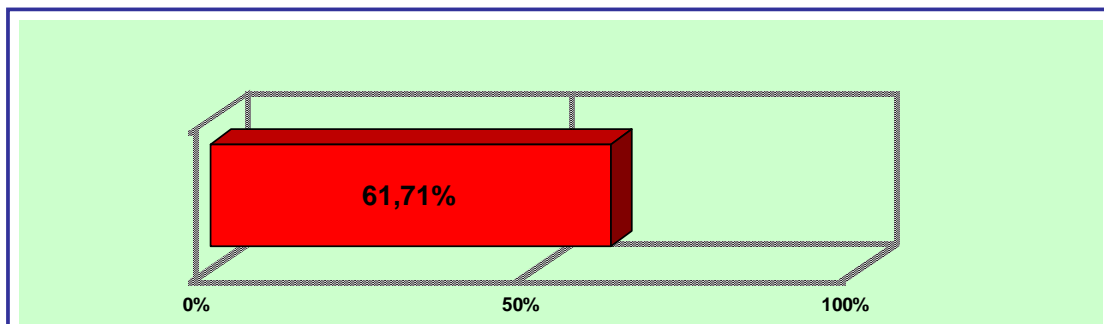


Graphs 5.27 and 5.28 confirm the importance of walking as mode of transport for the control group. This mode of transport is even more important than for the population as a whole, as the control group members are working in buildings located in the city centre. With regard to the target group, walking represents only 16% because members have been selected amongst car users (more than 80% usually use car). Furthermore 8 people answered they usually carpool with a colleague, 3 people more than before the carpooling initiative.

The rest of the modes of transport obtain insignificant results.

Awareness of the problem

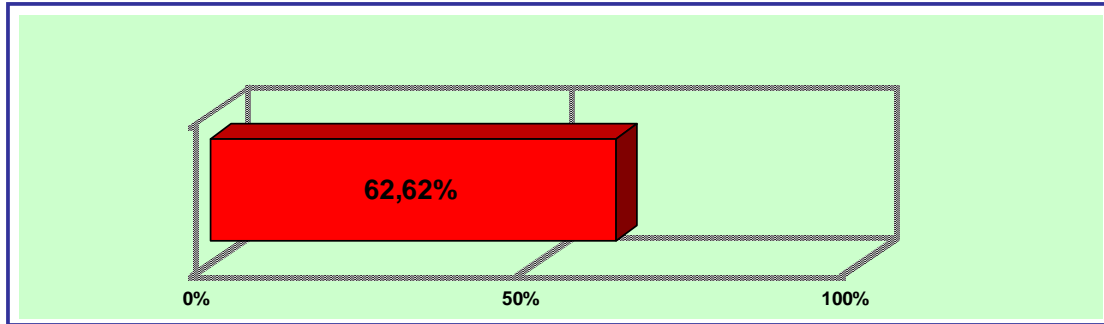
**Graph 4.29: Level of environmental awareness of target group – After measurement**



Comparing with the results obtained in the previous phase, the level of environmental awareness seems to have improved, the difference between the two results is about 6 points.

Graph 4.30 show the results for the control group. It demonstrates how awareness of this group has slightly increased by almost 2 points. Statistical analysis should confirm the significance of this finding.

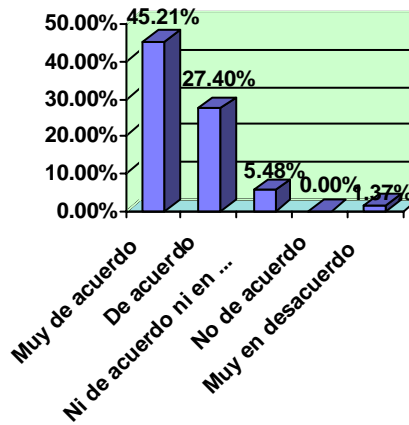
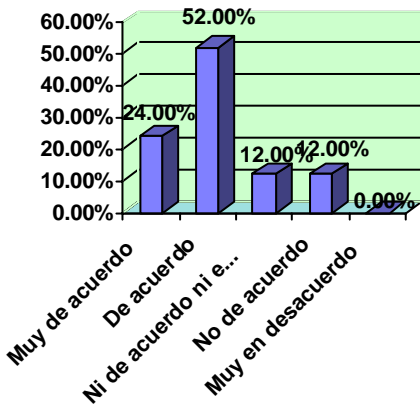
**Graph 4.30: Level of environmental awareness of control group – After measurement**



Accepting responsibility

Question 8: Am I contributing to air pollution when driving a car?

**Graph 4.31: Distribution of responses to question 8 for target group – After measurement**      **Graph 4.32: Distribution of responses to question 8 for control group – After measurement**

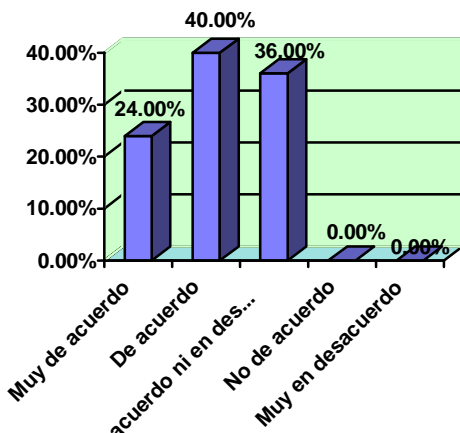


Only 66% of the target group answered “Yes I agree” (also explained by the low number of people) which indicates a clear decrease for the target group. The evolution of results for control group is slightly negative, which suggests the tendency of a decline in the level of accepting responsibility.

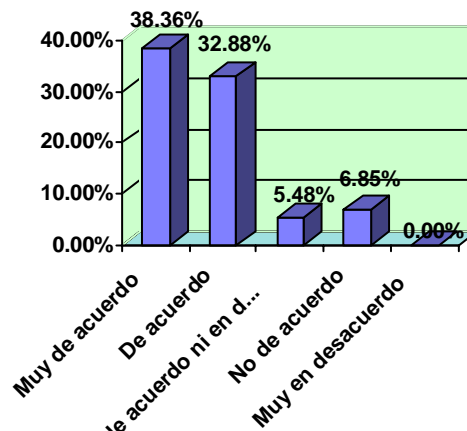
Question 9: I feel I should cut down my car use to help to reduce the problem of air pollution?

With respect to question 9, the graphs 4.33 and 4.34 show the tendency of target group to have increased its level of accepting responsibility related to urban air pollution. 66% agree with the question whereas only 60% agreed with the sentence before the campaign. Agreement amongst the control group also considerably increased, suggesting that the target group result may not be due to the carpooling action.

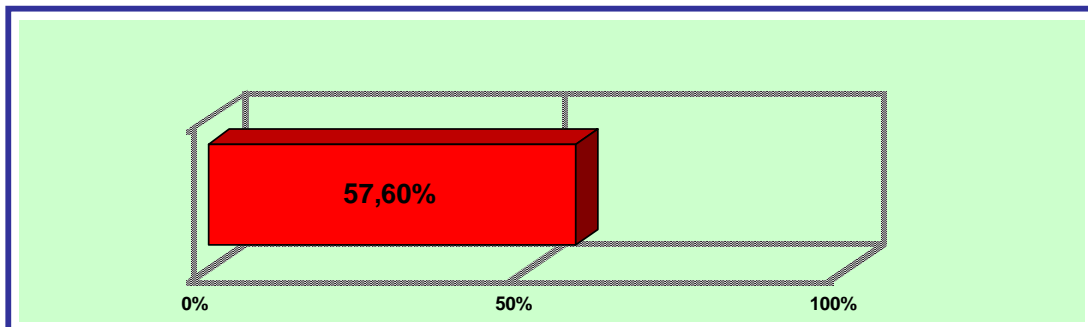
**Graph 4.33: Distribution of responses to question 9 for target group – After measurement**



**Graph 4.34: Distribution of responses to question 9 for control group – After measurement**



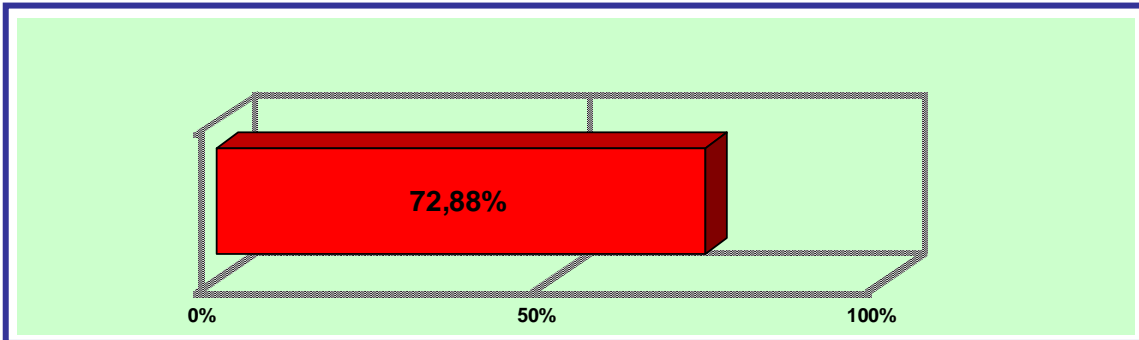
**Graph 4.35: Level of “Accepting responsibility” of target group – After measurement**



Graph 4.37 confirms the tendency seen in the results of the question 9 for the target group, since the calculated total level of “accepting responsibility” is 57,6% and so has decreased almost 5 points.

However, the control group score has increased from 72,9 to 70%.

**Graph 4.36: Level of “accepting responsibility” of target group – After measurement**



Perception of the options

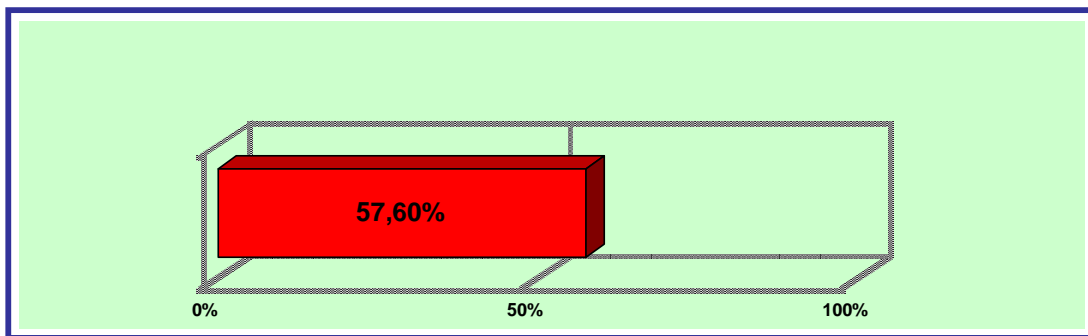
As far the target group is concerned, it can be observed that the difference of perception between the two modes (car pooling / car) is about 6 points. This result means a considerable improvement in comparison to the previous stage for which the difference was about 0,5 points.



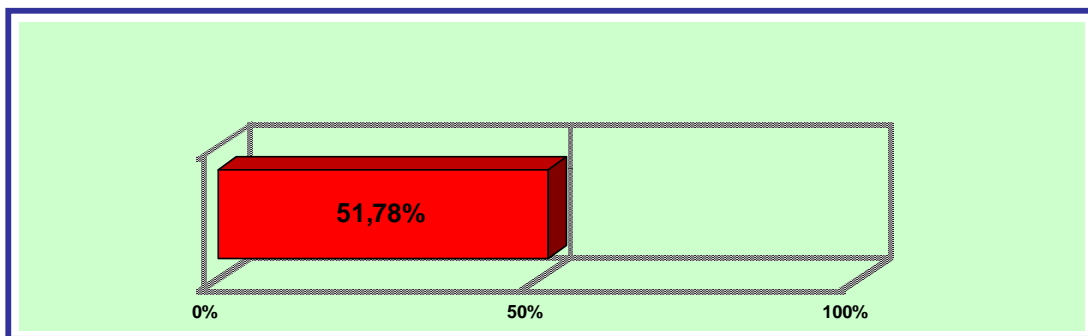
The results for the control group are largely unchanged.

The perception of social and cultural influences amongst the target group (see Graph 4.37) is 57,6%, 9 points more than the “before” questionnaire, compared to a slight reduction in the control group (3 points). These opposite tendencies could be explained by the effects of the information campaign on the targeted population; conclusions that should be confirmed by the statistical analysis.

**Graph 4.37: Perception of social and cultural influences of target group – After measurement**



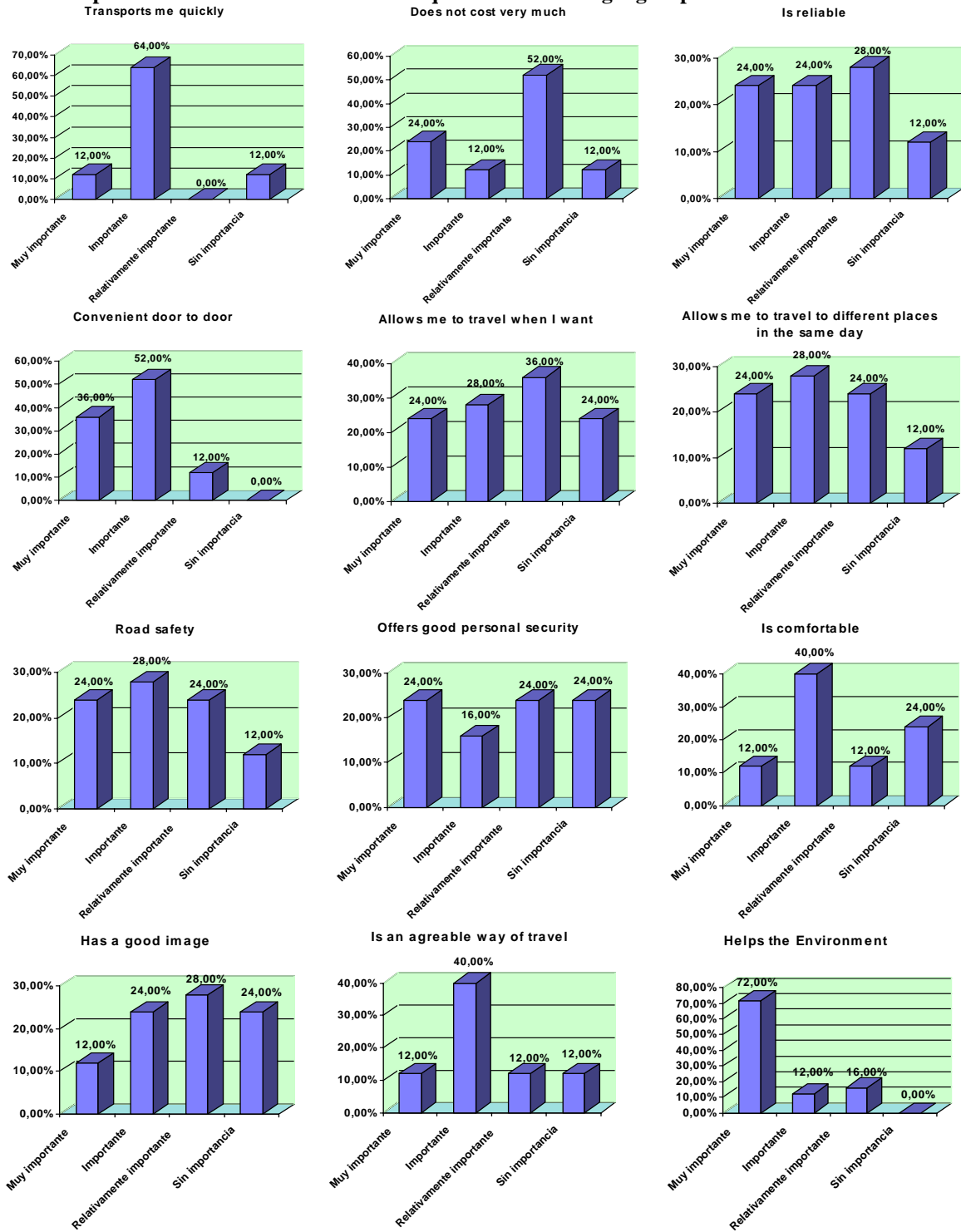
**Graph 4.38: Perception of social and cultural influences of control group – After measurement**



Evaluation of the options

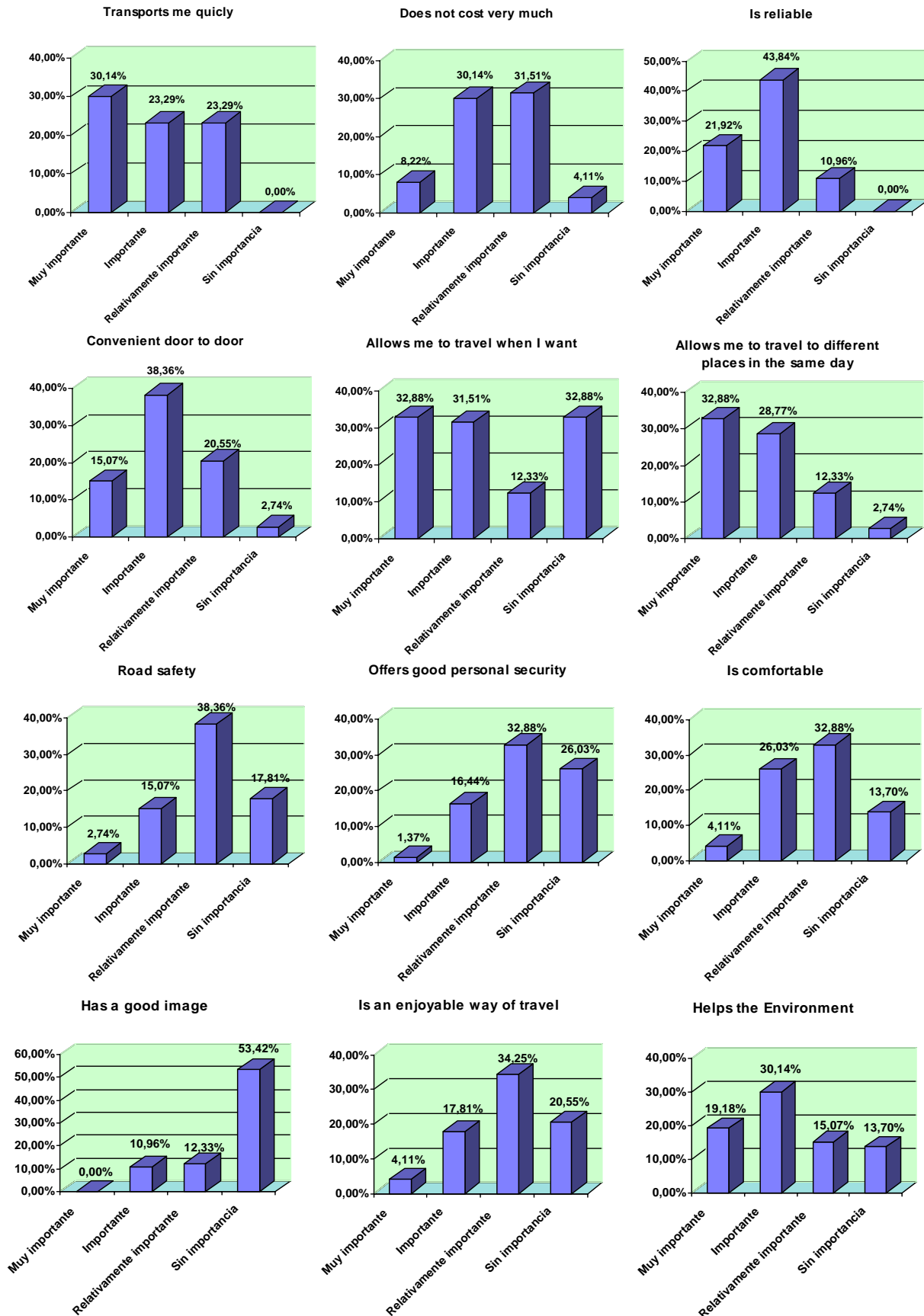
If the same calculation rule (sum of the two first best responses) is used to identify which aspects of the urban modes of transport are the most important for the target group, the first position is given to “Convenient door to door”. Protection of the environment was already a priority in the before measurement since the question referred to it arrived in third position, but its importance seems to have increased during the campaign and is now in second place with 84%. The cost of a trip, however, does not seem to be important. Therefore, it could be said that if people carpool, it is due to environmental reasons, rather than financial ones. However, these are very small samples and so definite conclusions cannot be made.

**Graph 4.39: Distribution of answers to question 13 for target group – After measurement**



Results for control group are very similar to those of the “before” questionnaire. Reliability is still the more important factor; with “Allows me to travel when I want” and “Allows me to travel to different places in the same day” in second and third places. So “quickness” moves to fourth place. Protection of the environment stays at the same priority level, which confirms the possibility for the campaign to influence the target group in favour of an environmental option. The non importance of the financial criteria is also confirmed for the control group.

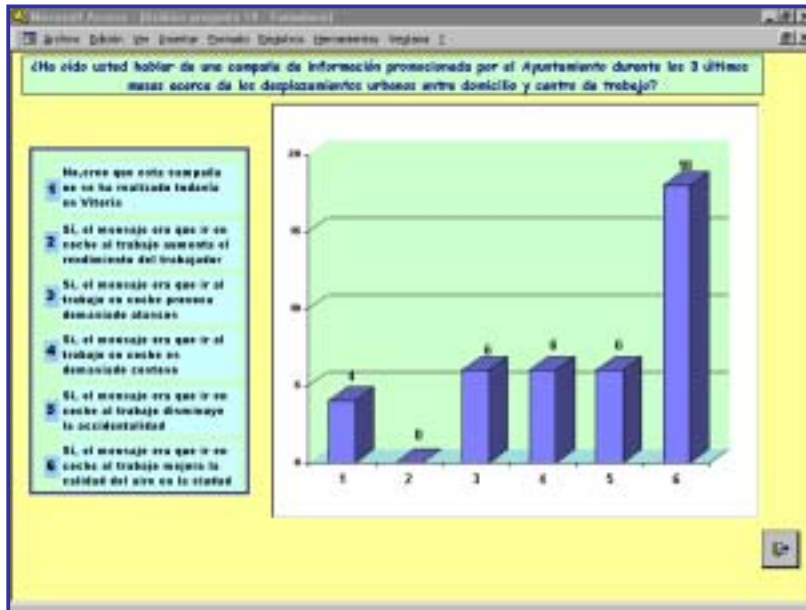
**Graph 4.40: Distribution of answers to question 13 for control group–After measurement**



Campaign recall

As the following graphs demonstrate, there is still a considerable quantity of people that believe no information campaign had been carried out in Vitoria-Gasteiz (Column 1 of the Graph 4.41).

**Graph 4.41: Distribution of answers to question 13 for control group – After measurement**



The correct answer (with the correct slogans) to question 14 on campaign recall are the numbers 4 and 6 and correspond to the columns with the same numbers.

With regard to the target group, the respondents ticked a correct option 24 times, as opposed to 12 times for a false option (the first response is also considered as false).

In the case of the control group, ticked option 6 that deals with carpooling and urban air quality improvement.

A possible explanation is that the questionnaire itself could have influenced the responses of the control group and helped them to “guess” the correct option.

## **Comparison of before and after results**

### *Statistical methodology*

Measuring statistical change is ensured by the use of statistical tests that depends on the characteristics of the samples; if there are independent or matched samples, and if the type of change is measured with proportions or on scales.

The questions that were analysed have matched sampled and scale based answers. The corresponding test here is the Wilcoxon Signed Ranks Test. The results are done at 95% confidence level.

Some of the questions shown in the following points were analysed directly by the University of Westminster; they also used the Wilcoxon Test for the majority of questions, with the exception of the questions on accuracy of the campaign recall and on campaign material.

*Individual Assessment Results***Question 1**

**Do you recall about an information campaign within the last 6 months promoted by the Vitoria-Gasteiz' City Hall on the question of traffic jam and air pollution?**

- TARGET GROUP -

	Before	After	
ONLY correct message(s) ticked (and no others)	16,00%	36,00%	<p><b>p &gt; 0,05</b>  <b>Not Significant</b>            (Calculated by UoW with McNemar test)</p>
Only INCORRECT messages ticked (and no correct ones)	4,00%	0,00%	
Both incorrect and correct messages ticked	4,00%	36,00%	
Ticked NO messages at all	76,00%	28,00%	
<i>Base: 25</i>			

- CONTROL GROUP -

	Before	After	
ONLY correct message(s) ticked (and no others)	16,44%	41,10%	<p><b>p &gt; 0,05</b>  <b>Not Significant</b>            (Calculated by UoW with McNemar test)</p>
Only INCORRECT messages ticked (and no correct ones)	1,37%	0,00%	
Both incorrect and correct messages ticked	2,74%	8,22%	
Ticked NO messages at all	79,45%	50,68%	
<i>Base: 73</i>			

**Question 2**

**How frequently do you travel to or in the city centre using the following modes of transport?**

- TARGET GROUP -

<b>For car use:</b>	Before	After	<b>p &lt; 0,05</b>
5 or more days a week	48,00%	36,00%	

2 to 4 days a week	8,00%	0,00%	<b>Significant</b> <b>(Calculated by UoW)</b>
Once a week	4,00%	0,00%	
at least once a month	8,00%	0,00%	
at least once a year	0,00%	0,00%	
Less often / never	32,00%	64,00%	
<i>Base: 25</i>			

<b>Carpooling:</b>	Before	After	<b>p &gt; 0,05</b> <b>Not Significant</b> <b>(Calculated by UoW)</b>
5 or more days a week	36,00%	48,00%	
2 to 4 days a week	0,00%	0,00%	
Once a week	4,00%	0,00%	
at least once a month	8,00%	12,00%	
at least once a year	4,00%	0,00%	
less often / never	48,00%	40,00%	
<i>Base: 25</i>			

**- CONTROL GROUP -**

<b>For car use:</b>	Before	After	<b>p &lt; 0,05</b> <b>Significant</b> <b>(Calculated by UoW)</b>
5 or more days a week	4,11%	5,48%	
2 to 4 days a week	5,48%	10,96%	
Once a week	4,11%	5,48%	
At least once a month	5,48%	1,37%	
At least once a year	9,59%	9,59%	
Less often / never	71,23%	67,12%	
<i>Base: 73</i>			

<b>Carpooling:</b>	Before	After	<b>p &gt; 0,05</b> <b>Not Significant</b> <b>(Calculated by UoW)</b>
5 or more days a week	1,37%	0,00%	
2 to 4 days a week	5,48%	4,11%	
Once a week	2,74%	4,11%	
At least once a month	4,11%	4,11%	
At least once a year	5,48%	8,22%	
Less often / never	80,82%	79,45%	
<i>Base: 73</i>			

Frequency of car use of the target group significantly decreased while the car use of the control group slightly increased. This indicates a positive impact of the campaign, but it is also important to underline the low number of people that made up the target group.

**Question 3:**

**How frequently do you carpool in comparison with the same period of the last year?**

- TARGET GROUP -

	Before	After	<b>p &lt; 0,05</b> <b>Significant</b>
Approximately with the same frequency	90,91%	59,09%	
Now I carpool more frequently	9,09%	40,91%	
Now I carpool less frequently	0,00%	0,00%	
<i>Base: 22</i>			

- CONTROL GROUP -

	Before	After	<b>p &gt; 0,05</b> <b>Not Significant</b>
Approximately with the same frequency	100,00%	100,00%	
Now I carpool more frequently	0,00%	0,00%	
Now I carpool less frequently	0,00%	0,00%	
<i>Base: 39</i>			

**Question 4**

**How important is each of the following factors to you when deciding on the way you move to work?**

- TARGET GROUP -

	Before	After	
Availability of own car	7	6	WILCOXON TEST NOT APPLICABLE BECAUSE SEVERAL ANSWERS POSSIBLE FOREACH PEOPLE
Home close to work (close enough to go biking or walking)	0	0	
Availability of other person's car	9	9	
Disponibilidad de un coche de otra persona para llevarme	2	3	
People who picks me up is not available	0	0	
My own car is not operational/available	1	0	
Travelling by car is too expensive	1	6	
Car pollutes the Environment	5	3	
Carpooling is cheaper	5	12	
Carpooling is more agreeable	5	6	
I have a free park lot at work	0	3	
To park is difficult	1	6	
I recently moved from my house/college/job...	2	0	
<i>Base: N/A</i>			

- CONTROL GROUP -

	Before	After	
Availability of own car	12	10	WILCOXON TEST NOT APPLICABLE BECAUSE SEVERAL ANSWERS POSSIBLE FOREACH PEOPLE
Home close to work (close enough to go biking or walking)	14	15	
Availability of other person's car	5	10	
Disponibilidad de un coche de otra persona para llevarme	4	2	
People who picks me up is not available	0	0	
My own car is not operational/available	3	0	
Travelling by car is too expensive	4	2	
Car pollutes the Environment	11	7	
Carpooling is cheaper	10	11	
Carpooling is more agreeable	8	6	
I have a free park lot at work	4	1	
To park is difficult	11	8	
I recently moved from my house/college/job...	3	0	
<i>Base: N/A</i>			

**Question 5**

**For my next journey to work I intend to carpool.**

- TARGET GROUP -

	Before	After	<p><b>p &gt; 0,05</b>  <b>Not Significant</b>                      (Calculated by UoW)</p>
Strongly agree	48,00%	24,00%	
Agree	24,00%	64,00%	
Neither disagree or agree	16,00%	0,00%	
Disagree	12,00%	12,00%	
Strongly disagree	0,00%	0,00%	
<i>Base: 25</i>			

- CONTROL GROUP -

	Before	After	<p><b>p &gt; 0,05</b>  <b>Not significant</b>                      (Calculated by UoW)</p>
Strongly agree	29,82%	33,33%	
Agree	35,09%	35,09%	
Neither disagree or agree	17,54%	19,30%	
Disagree	8,77%	3,51%	
Strongly disagree	8,77%	8,77%	
<i>Base: 57</i>			

**Question 6****How serious a problem do you think air pollution is in Vitoria-Gasteiz?***- TARGET GROUP -*

	Before	After	<b>p &lt; 0,05</b> <b>Significant</b> <b>(Calculated by UoW)</b>
Extremely serious	4,00%	0,00%	
Fairly serious	28,00%	100,00%	
Slight problem	56,00%	0,00%	
No problem	12,00%	0,00%	
<i>Base: 25</i>			

*- CONTROL GROUP -*

	Before	After	<b>p &lt; 0,05</b> <b>Significant</b> <b>(Calculated by UoW)</b>
Extremely serious	9,59%	15,07%	
Fairly serious	45,21%	57,53%	
Slight problem	43,84%	24,66%	
No problem	1,37%	2,74%	
<i>Base: 73</i>			

**Question 7**

**Something needs to be done to reduce the number of cars that circulate in town?**

- TARGET GROUP -

	Before	After	<p><b>p &gt; 0,05</b>  <b>Not Significant</b>                      (Calculated by UoW)</p>
Strongly agree	48,00%	52,00%	
Agree	36,00%	24,00%	
Neither disagree or agree	16,00%	24,00%	
Disagree	0,00%	0,00%	
Strongly disagree	0,00%	0,00%	
<i>Base: 25</i>			

- CONTROL GROUP -

	Before	After	<p><b>p &gt; 0,05</b>  <b>Not Significant</b>                      (Calculated by UoW)</p>
Strongly agree	53,42%	54,79%	
Agree	39,73%	36,99%	
Neither disagree or agree	4,11%	6,85%	
Disagree	2,74%	1,37%	
Strongly disagree	0,00%	0,00%	
<i>Base: 73</i>			

**Question 8**

**Air pollution from traffic emissions is contributing to ill death in the community.**

*- TARGET GROUP -*

	Before	After	<b>p &gt; 0,05 Not Significant</b>
Strongly agree	40,00%	24,00%	
Agree	48,00%	52,00%	
Neither disagree or agree	0,00%	12,00%	
Disagree	8,00%	12,00%	
Strongly disagree	4,00%	0,00%	
<i>Base: 25</i>			

*- CONTROL GROUP -*

	Before	After	<b>p &gt; 0,05 Not Significant</b>
Strongly agree	52,31%	56,92%	
Agree	38,46%	32,31%	
Neither disagree or agree	6,15%	9,23%	
Disagree	1,54%	0,00%	
Strongly disagree	1,54%	1,54%	
<i>Base: 65</i>			

**Question 9**

**I am contributing to air pollution when driving a car.**

- TARGET GROUP -

	Before	After	<p><b>p &gt; 0,05</b>  <b>Not Significant</b>                      (Calculated by UoW)</p>
Strongly agree	40,00%	24,00%	
Agree	48,00%	52,00%	
Neither disagree or agree	0,00%	12,00%	
Disagree	8,00%	12,00%	
Strongly disagree	4,00%	0,00%	
<i>Base: 25</i>			

- CONTROL GROUP -

	Before	After	<p><b>p &gt; 0,05</b>  <b>Not Significant</b>                      (Calculated by UoW)</p>
Strongly agree	53,13%	57,81%	
Agree	37,50%	32,81%	
Neither disagree or agree	6,25%	9,38%	
Disagree	1,56%	0,00%	
Strongly disagree	1,56%	1,56%	
<i>Base: 64</i>			

**Question 10**

**I feel I should cut down on my car use to help to reduce the problem of air pollution.**

*- TARGET GROUP -*

	Before	After	<b>p &gt; 0,05</b> <b>Not Significant</b>
Strongly agree	44,00%	36,00%	
Agree	36,00%	64,00%	
Neither disagree or agree	16,00%	0,00%	
Disagree	4,00%	0,00%	
Strongly disagree	0,00%	0,00%	
<i>Base: 25</i>			

*- CONTROL GROUP -*

	Before	After	<b>p &gt; 0,05</b> <b>Not Significant</b>
Strongly agree	38,24%	42,65%	
Agree	32,35%	35,29%	
Neither disagree or agree	19,12%	11,76%	
Disagree	8,82%	8,82%	
Strongly disagree	1,47%	0,00%	
<i>Base: 68</i>			

**Question 11**

**For your journeys to work to what extent do you agree with the following statement?**

*- TARGET GROUP -*

<b>For car</b>	Before	After	
Gets me to work quickly			<b>p &lt; 0,05 Significant</b>
Agree strongly	39,13%	8,70%	
Agree	39,13%	43,48%	
Neither agree / disagree	8,70%	26,09%	
Disagree	13,04%	21,74%	
Disagree strongly	0,00%	0,00%	
<i>Base: 23</i>			
	Before	After	
Does not cost very much			<b>p &gt; 0,05 Not Significant</b>
Agree strongly	27,27%	9,09%	
Agree	50,00%	36,36%	
Neither agree / disagree	18,18%	4,55%	
Disagree	4,55%	40,91%	
Disagree strongly	0,00%	0,00%	
<i>Base: 22</i>			
	Before	After	
Is reliable			<b>P &lt; 0,5 Significant (Calculated by UoW)</b>
Agree strongly	47,62%	14,29%	
Agree	28,57%	33,33%	
Neither agree / disagree	14,29%	33,33%	
Disagree	9,52%	19,05%	
Disagree strongly	0,00%	0,00%	
<i>Base: 21</i>			

	Before	After	
Is convenient door-to-door			<b>p &gt; 0,05 Not</b>
Agree strongly	30,00%	15,00%	

Agree	45,00%	45,00%	<b>Significant</b>
Neither agree / disagree	5,00%	20,00%	
Disagree	15,00%	15,00%	
Disagree strongly	5,00%	5,00%	
<i>Base: 20</i>			

	Before	After	
Allows me to travel when I want to			<b>p &gt; 0,05</b> <b>Not Significant</b>
Agree strongly	47,83%	47,83%	
Agree	43,48%	39,13%	
Neither agree / disagree	4,35%	13,04%	
Disagree	4,35%	0,00%	
Disagree strongly	0,00%	0,00%	
<i>Base: 23</i>			

	Before	After	
Allows to travel to different places in the same day			<b>p &gt; 0,05</b> <b>Not Significant</b>
Agree strongly	43,48%	34,78%	
Agree	39,13%	34,78%	
Neither agree / disagree	13,04%	17,39%	
Disagree	4,35%	13,04%	
Disagree strongly	0,00%	0,00%	
<i>Base: 23</i>			

	Before	After	
Is safe in traffic			<b>p &gt; 0,05</b> <b>Not Significant</b>
Agree strongly	17,39%	17,39%	
Agree	26,09%	21,74%	
Neither agree / disagree	43,48%	39,13%	
Disagree	13,04%	21,74%	
Disagree strongly	0,00%	0,00%	
<i>Base: 23</i>			

	Before	After	
Offers good personal security			<b>p &gt; 0,05</b> <b>Not Significant</b>
Agree strongly	0,00%	0,00%	
Agree	0,00%	13,64%	

Neither agree / disagree	31,82%	22,73%	
Disagree	40,91%	59,09%	
Disagree strongly	27,27%	4,55%	
<i>Base: 22</i>			
	Before	After	
Is an enjoyable way to travel			<b>p &gt; 0,05</b> <b>Not Significant</b>
Agree strongly	26,32%	5,26%	
Agree	47,37%	63,16%	
Neither agree / disagree	26,32%	31,58%	
Disagree	0,00%	0,00%	
Disagree strongly	0,00%	0,00%	
<i>Base: 19</i>			
	Before	After	
Is comfortable			<b>p &gt; 0,05</b> <b>Not Significant</b> <b>(Calculated by UoW)</b>
Agree strongly	26,32%	10,53%	
Agree	52,63%	63,16%	
Neither agree / disagree	21,05%	26,32%	
Disagree	0,00%	0,00%	
Disagree strongly	0,00%	0,00%	
<i>Base: 19</i>			
	Before	After	
Has a good image			<b>p &gt; 0,05</b> <b>Not Significant</b>
Agree strongly	10,53%	0,00%	
Agree	10,53%	0,00%	
Neither agree / disagree	42,11%	52,63%	
Disagree	31,58%	42,11%	
Disagree strongly	5,26%	5,26%	
<i>Base: 19</i>			

	Before	After	
Helps the environment			<b>p &gt; 0,05</b> <b>Not Significant</b>
Agree strongly	11,11%	5,56%	
Agree	0,00%	0,00%	
Neither agree / disagree	16,67%	27,78%	

Disagree	61,11%	44,44%	
Disagree strongly	11,11%	22,22%	
<i>Base: 18</i>			

<b>Carpooling</b>	Before	After	
Gets me to City Centre quickly			<b>p &gt; 0,05 Not Significant</b>
Agree strongly	33,33%	41,67%	
Agree	33,33%	4,17%	
Neither agree / disagree	25,00%	37,50%	
Disagree	8,33%	16,67%	
Disagree strongly	0,00%	0,00%	
<i>Base: 24</i>			

	Before	After	
Does not cost very much			<b>p &lt; 0,05 Significant</b>
Agree strongly	28,00%	40,00%	
Agree	32,00%	56,00%	
Neither agree / disagree	12,00%	4,00%	
Disagree	28,00%	0,00%	
Disagree strongly	0,00%	0,00%	
<i>Base: 25</i>			

	Before	After	
Is reliable			<b>p &lt; 0,05 Significant (Calculated by UoW)</b>
Agree strongly	28,00%	40,00%	
Agree	24,00%	12,00%	
Neither agree / disagree	36,00%	48,00%	
Disagree	12,00%	0,00%	
Disagree strongly	0,00%	0,00%	
<i>Base: 25</i>			

	Before	After	
Is convenient door-to-door			<b>p &gt; 0,05 Not Significant</b>
Agree strongly	24,00%	24,00%	
Agree	36,00%	28,00%	
Neither agree / disagree	36,00%	36,00%	
Disagree	4,00%	12,00%	

Disagree strongly	0,00%	0,00%	
<i>Base: 25</i>			
	Before	After	
Allows me to travel when I want to			<b>p &lt; 0,05 Significant (Calculated by UoW)</b>
Agree strongly	8,70%	17,39%	
Agree	4,35%	0,00%	
Neither agree / disagree	39,13%	26,09%	
Disagree	39,13%	52,17%	
Disagree strongly	8,70%	4,35%	
<i>Base: 23</i>			
	Before	After	
Allows me to travel to different places in the same day			<b>p &gt; 0,05 Not Significant</b>
Agree strongly	17,39%	30,43%	
Agree	8,70%	13,04%	
Neither agree / disagree	21,74%	13,04%	
Disagree	34,78%	34,78%	
Disagree strongly	17,39%	8,70%	
<i>Base: 23</i>			
	Before	After	
Is comfortable			<b>p &gt; 0,05 Not Significant</b>
Agree strongly	16,67%	29,17%	
Agree	20,83%	0,00%	
Neither agree / disagree	50,00%	50,00%	
Disagree	12,50%	20,83%	
Disagree strongly	0,00%	0,00%	
<i>Base: 24</i>			

	Before	After	
Is safe in traffic			<b>p &gt; 0,05 Not Significant</b>
Agree strongly	24,00%	36,00%	
Agree	0,00%	0,00%	
Neither agree / disagree	28,00%	24,00%	
Disagree	28,00%	32,00%	
Disagree strongly	20,00%	8,00%	

<i>Base: 25</i>			
	Before	After	
Offers good personal security			<b>p &gt; 0,05</b> <b>Not Significant</b>
Agree strongly	24,00%	40,00%	
Agree	36,00%	16,00%	
Neither agree / disagree	40,00%	44,00%	
Disagree	0,00%	0,00%	
Disagree strongly	0,00%	0,00%	
<i>Base: 25</i>			
	Before	After	
Has a good image			<b>p &gt; 0,05</b> <b>Not Significant</b> <b>(Calculated by UoW)</b>
Agree strongly	24,00%	36,00%	
Agree	40,00%	28,00%	
Neither agree / disagree	32,00%	36,00%	
Disagree	4,00%	0,00%	
Disagree strongly	0,00%	0,00%	
<i>Base: 25</i>			
	Before	After	
Is an enjoyable way to travel			<b>p &gt; 0,05</b> <b>Not Significant</b>
Agree strongly	20,00%	36,00%	
Agree	28,00%	24,00%	
Neither agree / disagree	44,00%	24,00%	
Disagree	8,00%	16,00%	
Disagree strongly	0,00%	0,00%	
<i>Base: 25</i>			

	Before	After	
Helps the environment			<b>p &lt; 0,05</b> <b>Significant</b>
Agree strongly	16,00%	60,00%	
Agree	48,00%	12,00%	
Neither agree / disagree	20,00%	16,00%	
Disagree	16,00%	12,00%	
Disagree strongly	0,00%	0,00%	
<i>Base: 25</i>			

## - CONTROL GROUP -

<b>For car</b>	Before	After	
Gets me to City Centre quickly			<b>p &lt; 0,05 Significant (Calculated by UoW)</b>
Agree strongly	22,22%	11,11%	
Agree	33,33%	38,10%	
Neither agree / disagree	22,22%	23,81%	
Disagree	17,46%	17,46%	
Disagree strongly	4,76%	9,52%	
<i>Base: 63</i>			
	Before	After	
Does not cost very much			<b>p &lt; 0,05 Significant</b>
Agree strongly	32,20%	11,86%	
Agree	35,59%	25,42%	
Neither agree / disagree	15,25%	13,56%	
Disagree	13,56%	45,76%	
Disagree strongly	3,39%	3,39%	
<i>Base: 59</i>			
	Before	After	
Is reliable			<b>p &lt; 0,05 Significant (Calculated by UoW)</b>
Agree strongly	16,13%	17,74%	
Agree	41,94%	45,16%	
Neither agree / disagree	27,42%	20,97%	
Disagree	12,90%	14,52%	
Disagree strongly	1,61%	1,61%	
<i>Base: 62</i>			
	Before	After	
Is convenient door-to-door			<b>p &gt; 0,05 Not Significant</b>
Agree strongly	27,42%	20,97%	
Agree	43,55%	38,71%	
Neither agree / disagree	16,13%	20,97%	
Disagree	9,68%	12,90%	
Disagree strongly	3,23%	4,84%	
<i>Base: 62</i>			
	Before	After	
Allows me to travel when I want to			

Agree strongly	47,62%	49,21%	<b>p &gt; 0,05</b> <b>Not Significant</b>
Agree	42,86%	39,68%	
Neither agree / disagree	3,17%	3,17%	
Disagree	6,35%	7,94%	
Disagree strongly	0,00%	0,00%	
<i>Base: 63</i>			

	Before	After	
Allows me to travel to different places in the same day			<b>p &gt; 0,05</b> <b>Not Significant</b>
Agree strongly	38,71%	41,94%	
Agree	45,16%	43,55%	
Neither agree / disagree	9,68%	8,06%	
Disagree	6,45%	8,06%	
Disagree strongly	0,00%	0,00%	
<i>Base: 62</i>			

	Before	After	
Is comfortable			<b>p &gt; 0,05</b> <b>Not Significant</b>
Agree strongly	17,46%	19,05%	
Agree	28,57%	19,05%	
Neither agree / disagree	39,68%	44,44%	
Disagree	12,70%	17,46%	
Disagree strongly	1,59%	0,00%	
<i>Base: 63</i>			

	Before	After	
Is safe in traffic			<b>p &lt; 0,05</b> <b>Significant</b>
Agree strongly	1,64%	13,11%	
Agree	4,92%	14,75%	
Neither agree / disagree	32,79%	50,82%	
Disagree	42,62%	14,75%	
Disagree strongly	18,03%	6,56%	
<i>Base: 61</i>			

	Before	After	
Offers good personal security			<b>p &gt; 0,05</b> <b>Not</b>
Agree strongly	25,40%	23,81%	

Agree	31,75%	34,92%	<b>Significant</b>
Neither agree / disagree	39,68%	31,75%	
Disagree	3,17%	9,52%	
Disagree strongly	0,00%	0,00%	
<i>Base: 63</i>			
	<b>Before</b>	<b>After</b>	
Has a good image			<b>p &gt; 0,05 Not Significant (Calculated by UoW)</b>
Agree strongly	25,81%	27,42%	
Agree	37,10%	37,10%	
Neither agree / disagree	32,26%	25,81%	
Disagree	3,23%	9,68%	
Disagree strongly	1,61%	0,00%	
<i>Base: 62</i>			
	<b>Before</b>	<b>After</b>	
Is an enjoyable way to travel			<b>p &gt; 0,05 Not Significant</b>
Agree strongly	8,06%	9,68%	
Agree	11,29%	6,45%	
Neither agree / disagree	46,77%	51,61%	
Disagree	19,35%	17,74%	
Disagree strongly	14,52%	14,52%	
<i>Base: 62</i>			

	<b>Before</b>	<b>After</b>	
Helps the environment			<b>p &gt; 0,05 Not Significant</b>
Agree strongly	0,00%	0,00%	
Agree	0,00%	0,00%	
Neither agree / disagree	11,86%	15,25%	
Disagree	42,37%	42,37%	
Disagree strongly	45,76%	42,37%	
<i>Base: 59</i>			

<b>Carpooling</b>	<b>Before</b>	<b>After</b>	
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Gets me to City Centre quickly			<b>p &gt; 0,05</b> <b>Not Significant</b>
Agree strongly	9,52%	6,35%	
Agree	26,98%	15,87%	
Neither agree / disagree	34,92%	46,03%	
Disagree	26,98%	26,98%	
Disagree strongly	1,59%	4,76%	
<i>Base: 63</i>			
	Before	After	
Does not cost very much			<b>p &lt; 0,05</b> <b>Significant</b>
Agree strongly	10,17%	15,25%	
Agree	13,56%	44,07%	
Neither agree / disagree	25,42%	15,25%	
Disagree	44,07%	25,42%	
Disagree strongly	6,78%	0,00%	
<i>Base: 59</i>			
	Before	After	
Is reliable			<b>p &lt; 0,05</b> <b>Significant</b> <b>(Calculated by UoW)</b>
Agree strongly	6,35%	7,94%	
Agree	34,92%	26,98%	
Neither agree / disagree	38,10%	44,44%	
Disagree	17,46%	19,05%	
Disagree strongly	3,17%	1,59%	
<i>Base: 63</i>			
	Before	After	
Is convenient door-to-door			<b>p &gt; 0,05</b> <b>Not Significant</b>
Agree strongly	11,48%	11,48%	
Agree	37,70%	32,79%	
Neither agree / disagree	36,07%	34,43%	
Disagree	11,48%	16,39%	
Disagree strongly	3,28%	4,92%	
<i>Base: 61</i>			
	Before	After	
Allows me to travel when I want to			<b>p &lt; 0,05</b> <b>Significant</b> <b>(Calculated by UoW)</b>
Agree strongly	3,28%	0,00%	
Agree	9,84%	8,20%	
Neither agree / disagree	26,23%	21,31%	

Disagree	52,46%	59,02%	
Disagree strongly	8,20%	11,48%	
<i>Base: 61</i>			
	Before	After	
Allows me to travel to different places in the same day			<b>p &gt; 0,05</b> <b>Not Significant</b>
Agree strongly	4,92%	0,00%	
Agree	6,56%	3,28%	
Neither agree / disagree	31,15%	32,79%	
Disagree	47,54%	57,38%	
Disagree strongly	9,84%	6,56%	
<i>Base: 61</i>			
	Before	After	
Is comfortable			<b>p &gt; 0,05</b> <b>Not Significant</b>
Agree strongly	8,06%	6,45%	
Agree	24,19%	12,90%	
Neither agree / disagree	46,77%	58,06%	
Disagree	19,35%	22,58%	
Disagree strongly	1,61%	0,00%	
<i>Base: 62</i>			

	Before	After	
Is safe in traffic			<b>p &lt; 0,05</b> <b>Significant</b>
Agree strongly	1,64%	11,48%	
Agree	3,28%	6,56%	
Neither agree / disagree	32,79%	57,38%	
Disagree	42,62%	18,03%	
Disagree strongly	19,67%	6,56%	
<i>Base: 61</i>			
	Before	After	
Offers good personal security			<b>p &lt; 0,05</b> <b>Significant</b>
Agree strongly	22,22%	15,87%	
Agree	39,68%	34,92%	
Neither agree / disagree	28,57%	31,75%	
Disagree	7,94%	15,87%	

Disagree strongly	1,59%	1,59%	
<i>Base: 63</i>			
	Before	After	
Has a good image			<p><b>p &gt; 0,05</b>  <b>Not Significant</b>  <b>(Calculated by UoW)</b></p>
Agree strongly	14,29%	12,70%	
Agree	30,16%	31,75%	
Neither agree / disagree	46,03%	39,68%	
Disagree	9,52%	15,87%	
Disagree strongly	0,00%	0,00%	
<i>Base: 63</i>			
	Before	After	
Is an enjoyable way to travel			<p><b>p &gt; 0,05</b>  <b>Not Significant</b></p>
Agree strongly	12,90%	12,90%	
Agree	33,87%	19,35%	
Neither agree / disagree	41,94%	53,23%	
Disagree	3,23%	6,45%	
Disagree strongly	8,06%	8,06%	
<i>Base: 62</i>			

	Before	After	
Helps the environment			<p><b>p &lt; 0,05</b>  <b>Significant</b>  <b>(Calculated by UoW)</b></p>
Agree strongly	28,13%	18,75%	
Agree	43,75%	46,88%	
Neither agree / disagree	12,50%	15,63%	
Disagree	12,50%	7,81%	
Disagree strongly	3,13%	10,94%	
<i>Base: 64</i>			

**Question 12**

**Do you think that most people would cut down their car use to move to work if friends or parents did the same?**

- TARGET GROUP -

	Before	After	<b>p &gt; 0,05 Not Significant</b>
Strongly agree	20,00%	36,00%	
Agree	28,00%	28,00%	
Neither disagree or agree	28,00%	24,00%	
Disagree	16,00%	12,00%	
Strongly disagree	8,00%	0,00%	
<i>Base: 25</i>			

- CONTROL GROUP -

	Before	After	<b>p &gt; 0,05 Not Significant</b>
Strongly agree	19,18%	15,07%	
Agree	36,99%	45,21%	
Neither disagree or agree	27,40%	26,03%	
Disagree	13,70%	8,22%	
Strongly disagree	2,74%	5,48%	
<i>Base: 73</i>			

### Question 13

For your journeys to the City Centre, how important are the following aspects to choose between car or carpooling?

- TARGET GROUP -

	Before	After	
Gets me to City Centre quickly			<b>p &gt; 0,05</b> <b>Not Significant</b>
Very important	28,00%	16,00%	
Important	44,00%	72,00%	
Fairly important	16,00%	0,00%	
Not at all important	12,00%	12,00%	
<i>Base: 25</i>			

	Before	After	
Does not cost very much			<b>p &gt; 0,05</b> <b>Not Significant</b>
Very important	12,00%	24,00%	
Important	40,00%	12,00%	
Fairly important	36,00%	52,00%	
Not at all important	12,00%	12,00%	
<i>Base: 25</i>			

	Before	After	
Is reliable			<b>p &gt; 0,05</b> <b>Not Significant</b> <b>(Calculated by UoW)</b>
Very important	36,00%	28,00%	
Important	40,00%	32,00%	
Fairly important	12,00%	28,00%	
Not at all important	12,00%	12,00%	
<i>Base: 25</i>			

	Before	After	
Is convenient door-to-door			<b>p &lt; 0,05</b> <b>Significant</b> <b>(Calculated by UoW)</b>
Very important	28,00%	36,00%	
Important	32,00%	52,00%	
Fairly important	32,00%	12,00%	
Not at all important	8,00%	0,00%	
<i>Base: 25</i>			

	Before	After	
Allows me to travel when I want to			

Very important	25,00%	25,00%	<b>p &gt; 0,05</b> <b>Not Significant</b>
Important	29,17%	33,33%	
Fairly important	29,17%	41,67%	
Not at all important	16,67%	0,00%	
<i>Base: 24</i>			
	Before	After	
Allows me to travel to different places in the same day			<b>p &gt; 0,05</b> <b>Not Significant</b>
Very important	25,00%	25,00%	
Important	25,00%	33,33%	
Fairly important	25,00%	29,17%	
Not at all important	25,00%	12,50%	
<i>Base: 24</i>			
	Before	After	
Is comfortable			<b>p &lt; 0,05</b> <b>Significant</b>
Very important	4,17%	25,00%	
Important	16,67%	29,17%	
Fairly important	45,83%	25,00%	
Not at all important	33,33%	20,83%	
<i>Base: 24</i>			
	Before	After	
Is safe in traffic			<b>p &lt; 0,05</b> <b>Significant</b>
Very important	8,33%	25,00%	
Important	0,00%	16,67%	
Fairly important	37,50%	25,00%	
Not at all important	54,17%	33,33%	
<i>Base: 24</i>			
	Before	After	
Offers good personal security			<b>p &lt; 0,05</b> <b>Significant</b>
Very important	0,00%	12,50%	
Important	29,17%	41,67%	
Fairly important	41,67%	20,83%	
Not at all important	29,17%	25,00%	
<i>Base: 24</i>			
	Before	After	
Has a good image			

Very important	4,17%	12,50%	<b>p &lt; 0,05 Significant</b>
Important	4,17%	25,00%	
Fairly important	16,67%	29,17%	
Not at all important	75,00%	33,33%	
<i>Base: 24</i>			
	Before	After	
Is an enjoyable way to travel			<b>p &lt; 0,05 Significant (Calculated by UoW)</b>
Very important	0,00%	12,50%	
Important	33,33%	50,00%	
Fairly important	41,67%	20,83%	
Not at all important	25,00%	16,67%	
<i>Base: 24</i>			
	Before	After	
Helps the environment			<b>p &lt; 0,05 Significant</b>
Very important	36,00%	72,00%	
Important	36,00%	12,00%	
Fairly important	12,00%	16,00%	
Not at all important	16,00%	0,00%	
<i>Base: 25</i>			

- CONTROL GROUP -

	Before	After	
Gets me to City Centre quickly			<b>p &gt; 0,05</b> <b>Not Significant</b>
Very important	32,31%	40,00%	
Important	35,38%	30,77%	
Fairly important	24,62%	27,69%	
Not at all important	7,69%	1,54%	
<i>Base: 65</i>			
	Before	After	
Does not cost very much			<b>p &gt; 0,05</b> <b>Not Significant</b>
Very important	21,31%	11,48%	
Important	34,43%	40,98%	
Fairly important	36,07%	40,98%	
Not at all important	8,20%	6,56%	
<i>Base: 61</i>			
	Before	After	
Is reliable			<b>p &gt; 0,05</b> <b>Not Significant</b> <b>(Calculated by UoW)</b>
Very important	25,81%	30,65%	
Important	48,39%	54,84%	
Fairly important	22,58%	14,52%	
Not at all important	3,23%	0,00%	
<i>Base: 62</i>			
	Before	After	
Is convenient door-to-door			<b>p &lt; 0,05</b> <b>Significant</b> <b>(Calculated by UoW)</b>
Very important	33,87%	22,58%	
Important	32,26%	46,77%	
Fairly important	22,58%	27,42%	
Not at all important	11,29%	3,23%	
<i>Base: 62</i>			
	Before	After	
Allows me to travel when I want to			

Very important	30,16%	42,86%	<b>p &gt; 0,05</b> <b>Not Significant</b>
Important	50,79%	39,68%	
Fairly important	15,87%	17,46%	
Not at all important	3,17%	0,00%	
<i>Base: 63</i>			
	Before	After	
Allows me to travel to different places in the same day			<b>p &lt; 0,05</b> <b>Significant</b>
Very important	23,44%	42,19%	
Important	48,44%	40,63%	
Fairly important	21,88%	14,06%	
Not at all important	6,25%	3,13%	
<i>Base: 64</i>			
	Before	After	
Is comfortable			<b>p &lt; 0,05</b> <b>Significant</b> <b>(Calculated by UoW)</b>
Very important	11,29%	4,84%	
Important	12,90%	17,74%	
Fairly important	41,94%	51,61%	
Not at all important	33,87%	25,81%	
<i>Base: 62</i>			
	Before	After	
Is safe in traffic			<b>p &lt; 0,05</b> <b>Significant</b> <b>(Calculated by UoW)</b>
Very important	6,45%	3,23%	
Important	8,06%	19,35%	
Fairly important	38,71%	41,94%	
Not at all important	46,77%	35,48%	
<i>Base: 62</i>			
	Before	After	
Offers good personal security			<b>p &lt; 0,05</b> <b>Significant</b> <b>(Calculated by UoW)</b>
Very important	11,29%	8,06%	
Important	25,81%	30,65%	
Fairly important	35,48%	43,55%	
Not at all important	27,42%	17,74%	
<i>Base: 62</i>			
	Before	After	
Has a good image			<b>p &lt; 0,05</b>
Very important	3,23%	3,23%	

Important	11,29%	12,90%	<b>Significant (Calculated by UoW)</b>
Fairly important	16,13%	16,13%	
Not at all important	69,35%	67,74%	
<i>Base: 62</i>			
	Before	After	
Is an enjoyable way to travel			<b>p &lt; 0,05 Significant (Calculated by UoW)</b>
Very important	9,68%	8,06%	
Important	20,97%	22,58%	
Fairly important	45,16%	43,55%	
Not at all important	24,19%	25,81%	
<i>Base: 62</i>			
	Before	After	
Helps the environment			<b>p &lt; 0,05 Significant (Calculated by UoW)</b>
Very important	33,33%	26,98%	
Important	34,92%	34,92%	
Fairly important	20,63%	22,22%	
Not at all important	11,11%	15,87%	
<i>Base: 63</i>			

**Question 14**

**Few weeks ago some of our colleagues were asked for participating into a carpooling program. If you were some of them, have you participated in it?**

- TARGET and CONTROL GROUPS -

	Before	After	
Yes		8	<b>p not applicable</b>
No		54	
<i>Base: 72</i>			

**What are the reasons for which you participated or not?**

	Before	After	
Not be proposed		40	<b>p not applicable</b>
Save or waste of time		2	
Save or waste of money		5	
Schedule compatibility (or incompatibility) with the rest of participants		4	
Itinerary compatibility (or incompatibility) with the rest of participants		8	
Convenience (or inconvenience) of carpooling		4	
Special fares for parking lots were convincing (or insufficient)		5	
Character compatibility (or incompatibility) with the rest of participants		2	
I found it irritating		0	
<i>Base: 70</i>			

**Campaign message analysis**

**Question 15a**

**During the information campaign a leaflet on Air Quality Management Plan was distributed. Do you remember to have seen this leaflet?**

- TARGET GROUP -

	Before	After	
Yes		11	<b>p not applicable</b>
No		52	
<i>Base: 63</i>			

**Question 15b**

**Which of the following sentences correspond to your opinion (or recall) about the leaflet?**

	Before	After	
I found it interesting		11	<b>p not applicable</b>
It was well designed		3	
It was directly relevant to me		2	
Made me think about car use		3	
I agreed with what was being said		5	
It seemed irrelevant to me		0	
It had no effect on me at all		0	
I found it irritating		0	
<i>Base: 24</i>			

**Question 15c****Where did you see the mentioned leaflet?**

	Before	After	
At home		1	<b>p not applicable</b>
At other people's home		0	
At School / University		0	
At work		10	
In the bus		0	
In a bus stop		0	
In a library		0	
In a leisure centre		0	
In a shopping centre or supermarket		0	
At the doctor, dentists		0	
In a park, square...		0	
In a bar, pub...		0	
In a gas station		0	
Other places		0	
<i>Base: 11</i>			

Like for the informative action, the leaflet delivered did not get a high level of penetration among the target group. Nevertheless, those who recalled the leaflet made a positive assessment of its contents.

## **CONCLUSIONS**

Unfortunately, the number of participants in the carpooling initiative was very low and this had an impact on the development of the action and its results. Therefore, any changes in attitudes and behaviour have to be considered with caution.

What is more interesting, however, especially for future campaigns, is to understand the reasons why carpooling has not been attractive to the employees of the Vitoria-Gasteiz' City Hall.

The first possible explanation is the city's own characteristics. Vitoria-Gasteiz is a medium-sized town in terms of population, but also in terms of its geography, which enables a high level of walking. This is confirmed by the municipal statistics on mobility. Furthermore, during the last decades, the City has promoted new mobility infrastructures that improve and foster sustainable modes of transport, such as cycling and walking. As a result, few City Hall employees were interested in carpooling because they usually commute on foot.

Finally, the incentives that were offered to those employees that do drive to work, to encourage them to carpool might have been insufficient.