

Measure title: **Cycle Transport Improvements in Monza**

City: **Monza**

Project: **ARCHIMEDES**

Measure number: **62**

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## Executive summary

The city of Monza has undertaken the development of the bike plan and production of a document on constructing criteria for cycling routes in the City of Monza. The document, later approved by the City Government (February 2012), has provided 'cycling guidelines for every intervention in Monza'. At the same time, the study focused on the opportunity to implement a bike sharing scheme in the city, which should have been accomplished through a grant by Regione Lombardia.

Disappointingly, because of a reduction of funds coming from the central government to local authorities due to the economical situation, it was decided to postpone the introduction of the bike sharing scheme and to accomplish the following actions with a remaining 2011 budget):

- extension of a cycling route by 800 metres and creation of two new cycling connections;
- installation of a camcorder for videosurveillance of the cycle parking in the railway station;
- revamp of a cycling walkway in the city centre;
- organization of events with local stakeholders and cyclists' associations to encourage the use of bicycle.

**Key result 1** - The goal to increase the number of cyclists in the city has been fully achieved, since from a total number of 3345 cyclists counted during 2010 census, the number of 6568 cyclist in 2012 has been reached (+ 96,35%, which means that the number of cyclist has almost doubled in two years).

**Key result 2** - Awareness of needs to improve cycling conditions is very high, since people are very aware of actions to be accomplished; on the other hand, only part of actions taken by comune of Monza are known to surveyed people, and this shows that there is still much to do to communicate interventions in order to enforce knowledge of actions between citizens.

**Key result 3** - All proposed actions for cycling improvement have been welcomed by surveyed people, the most interesting being "Bike parking areas at railway station or bus stops" and "More bicycle paths" (90% of preference). If those actions were realized, many people would use bicycle more, mainly during free time and to reach bus stops.

As far as the process of implementing this measure is concerned, important drivers are stakeholders' involvement and financial support coming from the opportunity to obtain a grant to implement a bike sharing scheme in Monza. On the other hand difficulties in achieving the necessary authorizations to install ramps in the railway station and economic crisis which did not allow Comune of Monza to invest its share in bike sharing project, delayed the implementation of the measure.

Fortunately, the opportunity to invest some extra revenues, although included in Streets and Infrastructures Department section of the city budget, together with the political support made it possible to implement actions in favour of cycling mobility.

### Lessons to learn

The development of the Bikeplan will prove strategic in order to approach the theme of cycling improvements in a systemic way, especially in shortage times, when unexpected funds appear to implement a step by step programme of works. Moreover, a strict relationship with stakeholders is important to identify priorities and needs in order to plan interventions according to the real requests of citizens,

## **A Introduction**

### **A1.1 Objectives**

The measure objectives are:

(A) High level / longer term:

- To increase the number of trips by bicycle and thus improve energy efficiency and public health.

(B) Strategic level:

- To change transport modes towards multimodality including cycling.
- To stimulate the use of bicycles on short trips within the city.
- To attract new users of bicycles

(C) Measure level:

- (1) To raise visibility of cycling
- (2) To promote convenience and use of bicycles in a medium-sized city like Monza

### **A1.2 Target groups**

- Citizens
- Students
- Tourists

The measure will be implemented in particular areas of the city, where the need to improve cycling is stronger, through actions aimed at connecting cycling routes, at revamping existing routes and at creating facilities for bicycles' parkings.

## **A2 Description**

The city of Monza has implemented improvements to cycle facilities to encourage the use of the bicycle as a form of transport. Starting from the suggestions that emerged in the Bike Plan, new cycle routes with bicycle parking facilities and related services will be implemented, especially at key interchange nodes such as the railway stations and in the centre of the city.

### **Task 11.6.5 Planning of cycling strategy**

Monza has undertaken a study to develop the city Bike Plan and to define constructing criteria for cycling routes, which has resulted in Deliverable R61.1.

### **Task 6.12 Cycle Transport Improvements**

The city of Monza, after approving the Bike Plan, has implemented improvements in infrastructure and bike facilities to encourage cycling based on the findings of the study.

## **A3 Person in charge for evaluation of this measure**

Name of person	Simonetta Vittoria
Name of organisation	Comune of Monza
Direct telephone	0039 039 2832839
e-mail	mobilita@comune.monza.it

## **B Measure implementation**

### **B1 Innovative aspects**

The innovative aspects of the measure are:

- **New conceptual approach** – Although cycling in Monza is well widespread, it is expected that the introduction of further facilities for cyclists will develop in people a new conceptual approach towards cycling, filling the gaps in mobility needs, increasing the use of alternative modes and stimulating remarks on savings resulting from the use of a bicycle for short trips and on advantages for health.
- **Targeting specific user groups** – All citizens have been targeted in the implementation of this measure. In Monza many people use bicycles to go to work and shopping, as proved by a yearly census since 2004. From secondary schools on, cycling is also widespread between students. Because of the presence of the largest fenced park in Europe, cycling during weekends to reach the park is also very popular. Expo 2015, to be held in Milan in 2015, will attract many tourist which will probably come to visit Monza: cycling facilities will be useful to tourists as well, in order to encourage them to discover the artistic and natural beauties of the city and its surroundings.
- **New policy instrument** - In order to encourage people to shift to more sustainable mobility modes, it will be important to undertake work aimed at improving cycling facilities and its intermodality with public transport services.
- **New physical infrastructure solutions** – Actions have been undertaken aimed at interconnecting the existing cycling network, at creating parking facilities and related services, especially at key interchange nodes, such as the railway station and the centre of the city, and at tourist points of attraction. The opportunity of launching a bike – sharing scheme in Monza has been investigated.

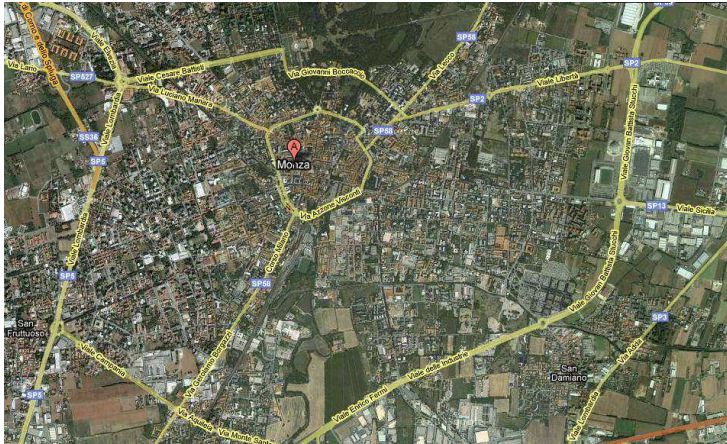
### **B2 Planning of Research and Technology Development Tasks**

The measure research stage was identified as the starting point for the development of the bike plan and production of a document on constructing criteria for cycling routes in the City of Monza, resulted in Deliverable R61.1. The document, later approved by the City Government (February 2012), has provided 'cycling guidelines for every intervention in Monza'.

A review of the study results identifies Monza as *perfectly suited for the development of cycling* due to the city being of mostly flat terrain and at the average altitude of 150 m above sea level. The urban area of Monza is based around the core old town with a series of districts developing out of the centre: for these areas cycling has been considered particularly suitable.

Excluding the most external districts located outside the primary ring road system (San Fruttuoso, San Rocco, Sant'Alessandro and Sant'Albino), the urban area could be described as a 5 km circle in diameter, within which the great majority of the population live (123.000 residents).

In the traditional planning of urban mobility it is usually assumed that distances up to 5 km can be covered with ease by cyclists. Travel up to this distance by cycle is generally perceived as acceptable by most travellers, assuming an average speed of 15km/h, a journey of this distance would take less than 20 minutes in duration. Therefore, despite the current lack of cycling infrastructure in the area, there is evidence that bicycles could be considered a suitable mode of transport to be widely promoted.



**Figure 1 – Map of Monza**

Additional advantages for Monza to develop policies in favour of cycling are:

- a strong demand for cycling (high numbers of bicycles are used in the town particularly in the central districts (town centre and districts of the first ring) and at particular sites (e.g. the train station);
- a network of cycling routes which, although still incomplete, (1) serve several connections between attraction centres and (2) offer a number of quality routes (e.g. the path along Villoresi Channel, or the network of cycling routes of Via Foscolo and Via Tintoretto), which are essential elements in the development of an integrated cycling network;
- identifiable residential districts within areas of the city, located away from the major traffic routes, which, if seen as “environmental precincts” (given specific use of road signs and/or physical dividers aimed at traffic calming), could encourage bicycle usage.

On this basis, the Bike Plan is aimed at:

- assessing strengths and weaknesses for cycling in the city of Monza;
- developing a proposal for a cycling network and integrating the current offer with a series of possible paths;
- identifying measures to enhance cycling in the city, thus reducing the use of private cars in favour of more sustainable mobility;
- evaluating the opportunity to implement a bike-sharing scheme in the city;
- providing constructing criteria of cycling routes.

At present the existing cycling routes within the borders of the municipality reaches about 23 km.. Figure 2 highlights the existing routes (depicted in green), and tracks proposed as part of this project are shown in pink. Tracks to be developed in order to complete the network are shown in red. In figure 3, the wide existing network in Monza is also shown.

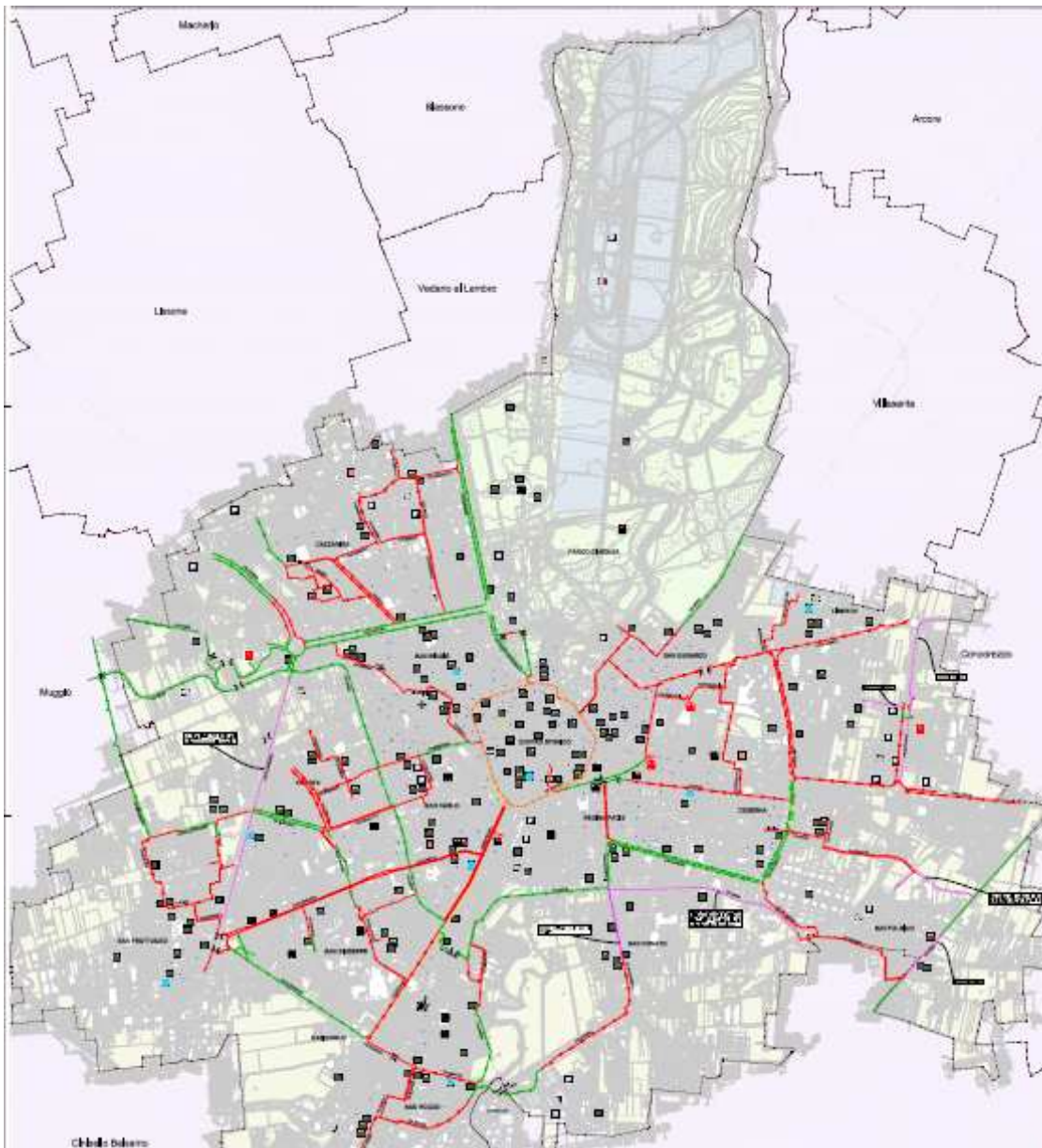


Figure 2 - Plan of existing and proposed cycling routes

### B3 Situation before CIVITAS

Monza has invested in the last five years in creating an important backbone only for cyclists. This network is not yet fully interconnected, but the number of cyclists has been increasing along time.

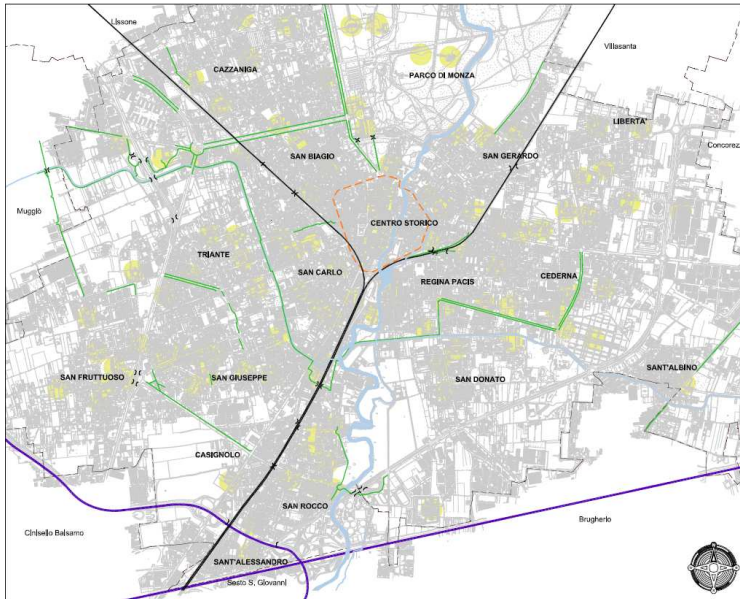


Figure 2 - Existing cycling routes

Since 2004, Monza's cyclists association, MonzainBici, has organised every year a bicycle census. With the help of students of advanced technical institute, the number of bicycles passing by in 13 strategic points of the city, all located along the inner ring of the city towards the city centre or the railway station or in the city centre itself, as depicted in the picture below, is calculated during a working day (usually on Thursdays, since it is market day in Monza). Cyclists are materially counted and during the census, surveys are made to ask cyclists about cycling conditions in the city. Students usually operate under the supervision of Monzain Bici volunteers, after some meetings at school aimed at training them to follow the same guidelines during the census. In 2008 census, from 8,00 o'clock in the morning to 12,00 o'clock 8.560 cyclists have been counted. In September 2009, 10.120 cyclists have been counted, with an increment of 20%.

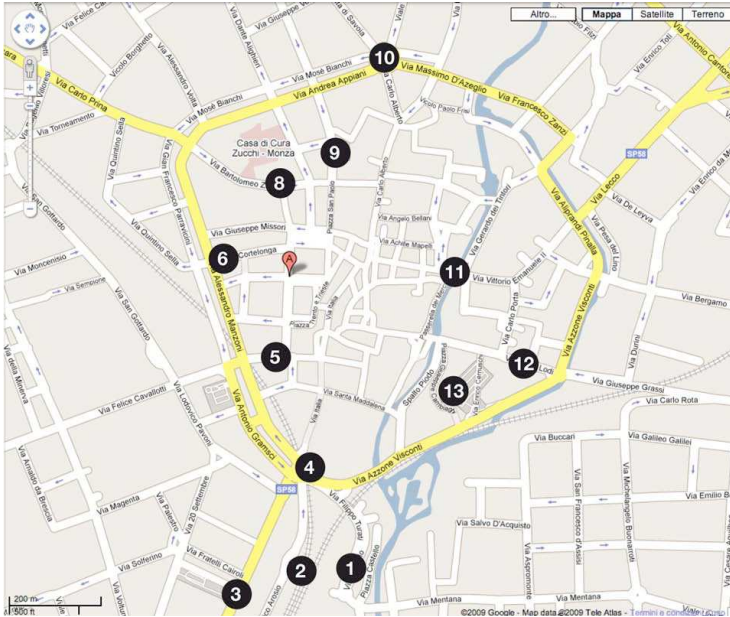


Figure 3 – Location of strategic points for bicycle census

## B4 Actual implementation of the measure

When ARCHIMEDES project was submitted, one objective was to subcontract a study about cycling in Monza focusing on the opportunity to implement a bike sharing scheme in the city. According to the study results, it was defined that the Municipality of Monza could promote a Bike Sharing system as a contribution to the strategy that aims to widen intermodal opportunities, developing the realisation of a multi-modal model, free from an excessive use of private motor vehicles.

For this reason, the Municipality presented a bike sharing project to Regione Lombardia and obtained a grant to implement the system within the lifetime of ARCHIMEDES. Unfortunately, a reduction of funds coming from the central government to local authorities due to the economical situation, has not allowed the investment of money originally allocated by the City as its share of project funding.

Because of these problems (which will be described in detail in the section dedicated to process evaluation), it was decided to postpone the introduction of the bike sharing scheme.

By the end of 2011, extra revenue was identified through the sale of real estate owned by the municipality, however these revenues were included in Streets and Infrastructures Department section of the city budget. It was for this reason that the measure was implemented in a different way from what initially scheduled, accomplishing the following actions:

- extension of a cycling route by 800 metres and creation of two new cycling connections;
- installation of a camcorder for videosurveillance of the cycle parking in the railway station;
- revamp of a cycling walkway in the city centre;
- organization of events with local stakeholders and cyclists' associations to encourage the use of bicycle.

Such activities are described in more detail as follows.

### Stage 1: New cycling connections

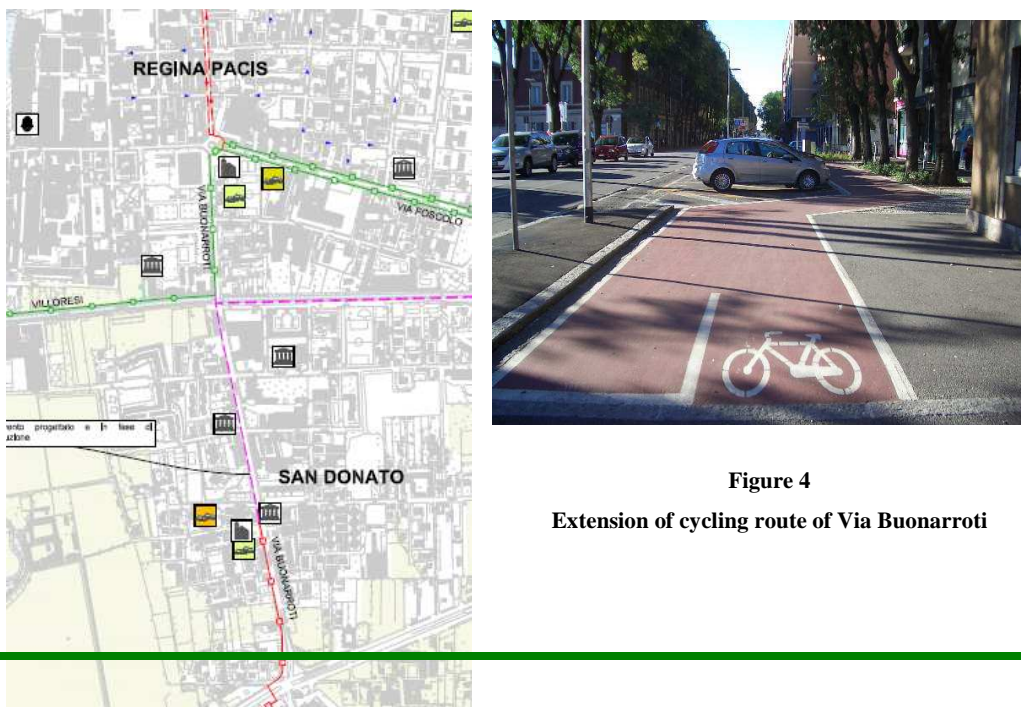
The Bike Plan of the city of Monza, approved by the City Government in February 2012, has highlighted the following barriers to a full development of cycling in Monza:

- although there are a number of cycle paths, some of them high quality, these are not always connected resulting in no defined cycle network. The cycle paths available do not cover large areas of the urban site or link the radial connections between districts and the city centre;
- the circulation of traffic in the districts within the first ring is often difficult for a number of reasons: (1) the density of built-up sites, (2) one way roads and (3) the presence of narrow roads with further road space being reduced due to road side parking;
- several natural barriers (Lambro river and Villoresi channel) and infrastructure of transport network obstacles (freeways and the railway) can make the bike accessibility in the local area more complicated (can only cross at certain points, e.g. bridges, subways, flyovers) and increase the distance travelled. It is also noted that existing cycle routes are often twisted and go through a number of districts.

For this reason, infrastructural interventions have targeted developing a joined cycling network, starting from interconnections between several fragments of existing cycling routes. In this section these interventions will be shown through pictures and details taken from Figure 3 to identify how they expand on the existing network to enlarge or complete it where appropriate.

#### A 800 metre extension to an existing cycling route

The first intervention was an 800 metre extension of the cycling route in Via Buonarroti (see Figure 4). To address this, the roadway was restricted and the pavement widened to free up additional space for the cycle route. By making these changes (see Figure 5), people living in San Donato district can now travel by bike to the Regina Pacis district, beneficial for visiting the large supermarket or connecting to the railway station and to Porta Castello interchange. In addition to helping the residents, this cycle route expansion has joined up the cycle route along Villoresi Channel, representing a vital connection for residents of the east side of the city to the western area, where the park, the University and the Hospital are located.



**Figure 4**  
Extension of cycling route of Via Buonarroti





**Figure 5 (left and above)**  
**Via Buonarroti cycling route**

***B Creation of two new cycling connections***

The second intervention was divided into two:

- The addition of 300 additional metres of cycle route in Via Adda to complete and join up the cycle route throughout Via Adda. The completion of this additional section of cycle route is still in progress and is represented in pink in Figure 6. Figure 7 highlights the proposed intervention and Figure 8 the work in progress aimed at completing the cycling network to the nearby cities of Brugherio and Concorezzo.



**Figure 6 - Completion of cycling route of Via Adda**

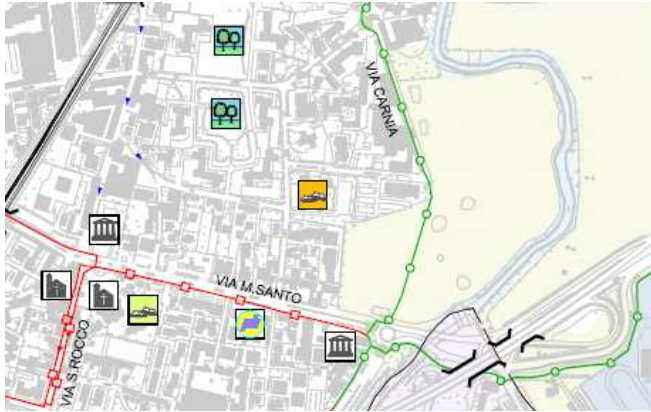


Figure 7 (left and above)  
Rendering of Via Adda connection



Figure 8 (left and above)  
Works in progress for Via Adda cycling connection

- The completion of the cycle route between Via Montesanto and Via Carnia to develop a cycling network in San Rocco District (see Figure 9). The proposed intervention and current development work can be seen in Figures 10 and 11



**Figure 9- Via Montesanto cycling route**



**Figure 10 – Rendering of Via Montesanto connection**





**Figure 11 - Works in progress in Via Montesanto**

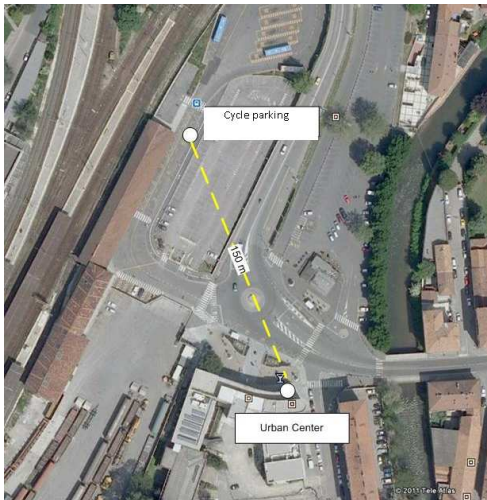
### **Stage 2: Videosurveillance of the cycle parking in the railway station**

Results of the annual bicycle census survey indicated that numerous people in Monza had been a victim of bicycle theft and for this reason cycle parking on the eastern side of the railway station in Porta Castello was scarcely used (Figure 12). It was noted that only 50% of people losing a bike reported the matter to the Police. To help improve this situation a camcorder to control the outdoor cycle parking and monitor cycle theft was installed at Monza railway station.



**Figure 12 – Cycle parking**

The city of Monza already has a video surveillance system in place so it was agreed to extend this to install a fixed camera and corresponding wireless device at the railway station to transfer video streams to the Urban Center building (via a wireless link "dot-dot"), where another camera is already installed. Once the video stream has reached the camera located on the Urban Center this information enters the "existing circuit" of the surveillance system of the Municipality of Monza. Figure 13 identifies the location of the cycle parking and distance from the Urban Center.



**Figure 13**

**Location of cycle parking and distance from Urban Center**

In order to install the camcorder on the building it was necessary to ask for permission to Rete Ferroviaria Italiana (RFI – Italian Railways Network), the company of Italian Railways associated with railway infrastructure and real estate assets, the owner of the building. Considering that the camcorder can also pick up images of the rails, the initiative was warmly welcomed by RFI, allowing electricity to be taken from their own power supply. The camcorder, installed on the external architrave of the building located in front of the cycle parking, can be seen in Figure 14.



**Figure 144 - Location of the camcorder on the station building**

### **Stage 3: Revamping of a cycling walkway in the city centre**

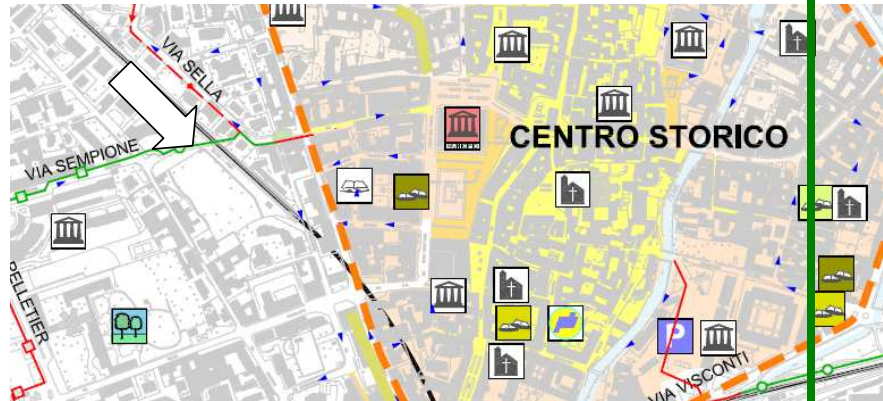
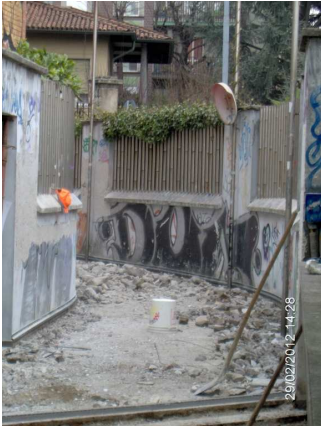
In the city centre a cycle/walk way was built over a railway track to connect Triante district with the city center. A white arrow in Figure 17 highlights the location of the walkway in Via San Gottardo.

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**Figure 155 - Location of the cycling walkway in Via San Gottardo**

The adaptation of the walkway has involved the interventions depicted in Figures 15, 16 and 17:

- dismantling, renovation and paving of the floor;
- cleaning of walls to remove graffiti and painting;
- waterproofing of the roof;
- welding of worn tubes supporting the roof;
- modernisation of the existing lighting system.



**Figure 166**

**Dismantling, renovation and paving of the floor**

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**Figure 16 - Cleaning of walls smeared with graffiti and painting**



**Figure 17**

**Waterproofing of the roof and welding of support tubes**

#### **Stage 4: Events to encourage the use of bicycle**

To help encourage people to cycle, many events were planned as part of the ARCHIMEDES project. Particular attention was given to workshops aimed at teaching people how to repair their bicycle. Such workshops were organized during events dedicated to sustainability and more specifically during UNESCO Sustainability Week in 2010 and during European Mobility Week in 2011.



Figure 18 - Posters for events in 2010 and 2011

During 2010 European Mobility week all Monza libraries organised thematic shelves with a selection of books for children and adults dedicated to cycling and sustainability in general. Images from these events can be seen in Figure 19.





Figure 19: Shots from Monza libraries and from workshops

## B5 Inter-relationships with other measures

At project level the measure is related to similar measures which will be implemented in the other cities involved in ARCHIMEDES. The implementation of the measure will be influenced by the initiatives in the leading cities of Aalborg (specially measures AAL 51 and AAL 52), Brighton & Hove, (BH 45 and BH 55), Donostia - San Sebastian (DSS 24 and DSS 58) and Iasi (IAS 59) .

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## **C Impact Evaluation Findings**

### **C1 Measurement methodology**

#### **C1.1 Impacts and indicators**

##### **C1.1.0 Scope of the impact**

The indicators chosen in the table below, when the Measure Level Evaluation Plan was presented, were selected as directly related to the introduction of the measure. The indicators relate to:

Economy – only capital costs will be evaluated, since interventions have been mostly of infrastructural nature; benefits are not considered, since no direct operational revenues are expected.

Energy – No energy indicators will be addressed since a change in modal choice (e.g. more people using bicycle instead of car) will not cause any relevant impact on a massive level.

Environment – No environment indicators will be addressed since a change in modal choice (e.g. more people using bicycle instead of car) will not cause any relevant impact on a massive level.

Society – all evaluation subcategories related to society will be addressed.

Transport – The introduction of the measure will impact on transport safety and on the number of circulating bicycles. No traffic counts have been made even though during bicycle censuses people have been asked questions about their mobility habits. Other indicators are not applicable.

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### C1.1.1 Selection of indicators

NO.	EVALUATION CATEGORY	EVALUATION SUB-CATEGORY	IMPACT	INDICATOR	DESCRIPTION	DATA /UNITS
	<b>ECONOMY</b>					
2A			<b>Capital Costs</b>	<b>Capital costs</b>	<b>NEW!</b>	<b>NEW!</b>
	<b>SOCIETY</b>					
13		<b>Acceptance</b>	Awareness	Awareness level	Awareness of the policies/measures	Index (%), qualitative, collected, survey
14			Acceptance	Acceptance level	Attitude survey of current acceptance of the measure	Index (%), qualitative, collected, survey
17		<b>Security</b>	Security	Perception of security	Perception of security when using service	Index, qualitative, collected, survey
	<b>TRANSPORT</b>					
20		<b>Safety</b>	Transport Safety	Injuries and deaths caused by transport accidents	Number of accidents, fatalities and casualties caused by transport accidents	No, Quantitative, measurement
<b>NEW!</b>		<b>Circulating bicycles</b>			Number of circulating bicycles	No, Quantitative, measurement

### C1.1.2 Methods for evaluation of indicators

No.	INDICATOR	TARGET VALUE	Source of data and methods	Frequency of Data Collection
2a	Capital costs	Evaluating capital costs afforded to implement cycling facilities in Monza	Capital costs have been considered in order to define expenses afforded to implement cycling facilities in Monza. Data needed are provided by Comune of Monza.	Data have been collected once during the project (after the start of demonstration tasks)

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No.	INDICATOR	TARGET VALUE	Source of data and methods	Frequency of Data Collection
13, 14	Acceptance	Evaluating users' acceptance of new cycling facilities in Monza	<p>Quantitative surveys have been conducted to measure acceptance and awareness level of citizens on new cycling facilities to define the percentage of the target population knowing the measure and the understanding and usefulness level of the measure between users. More specifically, during the annual bicycle census it has been investigated whether cyclists have heard about the new facilities and whether the implementation of the measure could cause a change in their mobility behaviours.</p> <p>The sample size has been different during the two surveys, made in occasion of the annual bicycle census: the first census bicycles were counted in 13 strategic points of the city (so the sample size was of 298 people, that is to say about 23 people surveyed for each point). During the second survey, Regione Lombardia imposed some guidelines to follow (only 4 strategic points of the city) as the census took place the same day in the whole region and then the same criteria were used to make the data comparable: for this reason surveyed people were 98 (29 for each point) so to keep the same proportion.</p>	Data have been collected twice during the project (before the start of demonstration tasks and at the end of the project)
17	Security	Improving attractiveness of cycling by increasing citizens' perception of security	<p>In the surveys conducted it has been asked if new facilities increase citizens' perception of security and which interventions to improve safety may be a good incentive to use the bike. Moreover, since in Monza the phenomenon of bike thefts is unfortunately widespread, it has also been asked if people were stolen their bicycle and whether they reported the theft to the police.</p> <p>As far as the sample size is concerned, please see note for indicators no. 13 and 14.</p>	Data have been collected twice during the project (before the start of demonstration tasks and at the end of the project)
20	Safety	Evaluating if new facilities reduce the number of street accidents with bicycles involved	<p>During the surveys it has been asked if people have suffered from accidents or falls.</p> <p>As far as the sample size is concerned, please see note for indicators no. 13 and 14.</p>	Data will be collected twice during the project (before the start of demonstration tasks and at the end of the project)
<b>NEW!</b>	Circulating bicycles	Increasing number of circulating bicycles	A bicycle census is yearly taken in the centre of the city in order to understand how many people cycle in Monza during a working day. Some questions about requests for a safer town for cyclists have been asked.	Data have been collected twice during the project (before the start of

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No.	INDICATOR	TARGET VALUE	Source of data and methods	Frequency of Data Collection
			The results of this census, reasonably upscaled, will help to define it the number of circulating bicycles increases after the implementation.	demonstration tasks and at the end of the project)

### C1.1.3 Planning of before and after data collection

EVALUATION TASK	INDICATORS INVOLVED	COMPLETED BY (DATE)	RESPONSIBLE ORGANISATION AND PERSON
Evaluating capital costs afforded to implement cycling facilities in Monza	Capital costs	Month 36 (only after data)	Comune of Monza – Simonetta Vittoria
Evaluating users' acceptance of new cycling facilities in Monza	Acceptance	Month 24(before data) Month 48 (after data)	Comune of Monza – Simonetta Vittoria
Improving attractiveness of cycling by increasing citizens' perception of security	Security	Month 24(before data) Month 48 (after data)	Comune of Monza – Simonetta Vittoria
Evaluating if new facilities reduce the number of street accidents with bicycles involved	Safety	Month 24(before data) Month 48 (after data)	Comune of Monza – Simonetta Vittoria
Increasing number of circulating bicycles	Circulating bicycles	Month 24(before data) Month 48 (after data)	Comune of Monza – Simonetta Vittoria
D12.2 Baseline and first results from data collection	All indicators	Month 30	Comune of Monza – Simonetta Vittoria
D12.3 Draft results template available	All indicators	Month 49	Comune of Monza – Simonetta Vittoria
D12.4 Final version of results template available	All indicators	Month 49	Comune of Monza – Simonetta Vittoria

## C1.2 Establishing a Baseline

Monza has invested in the last years in creating an important backbone only for cyclists. This network is not yet fully interconnected, but the number of cyclists has been increasing along time.

Each year, in September, the city cyclists' association, called MonzainBici, organizes a bicycle census in the centre of the city in order to understand how many people cycle in Monza during a working day (usually a Thursday, since in Monza it is market day) from 8,00 o' clock to 13,00 o'clock, as better described at page 6. Some questions about requests for a safer town for cyclists are asked. In September 2008, at the beginning of ARCHIMEDES project, 8.560 cyclists were counted. The study aimed at identifying suitable measures for cycling mobility has been developed starting from these data.

## C1.3 Building the Business-as-Usual scenario

In Monza many people use bicycles to go to work and shopping, as proved by the annual bicycle census held by MonzainBici, Monza cyclist's association. According to census results in 2009, when no actions had been taken yet to implement cycling facilities, an increase in the number of cyclists has been nevertheless registered.

As a matter of fact, whilst in 2008 8.560 cyclists were counted, in 2009 the number of cyclists counted reached 10.120, although the implementation of the measure had not started yet. This significant increase (+ 18,22%) helps to suppose that, even without implementing facilities for cyclists, the number of circulating bicycles will increase more and more.

This is probably due to the fact that, from a geographical point of view, the city of Monza is placed in a mostly flat area, at the average altitude of 150 m above sea level, which is perfectly suitable for the development of cycling. The model of expansion of the urban area, developing around an old town centre with a series of districts disposed in a circle – the further from the centre, the less dense – is ideal for the use of bicycles. Moreover, in the traditional planning of urban mobility it is usually assumed that distances up to 5 km can be regularly covered without a special training in a time which is perceived as acceptable by the traveller (less than 20 minutes, assuming an average speed of 15 km p.h.). Therefore, it is evident that bicycles have to be necessarily considered as a form of transport to be widely promoted.

If we also consider the period of economic crisis and the fact that fuel price is more and more increasing since it is now considered one of the strongest levers for Government to raise incomes, it can be easily assumed that cycling is growing not only as a more sustainable approach to urban mobility, but also as a cheaper alternative for journeys in urban areas.

## C2 Measure results

In this section the results achieved are shown.

### C2.1 Economy

#### Table C2.1.1: Costs

In this section, only after data have been assessed since interventions to improve cycling have been activated after the approval of the Bike Plan.

Indicator	Before (date)	B-a-U (date)	After (June 2012)	Difference: After – Before	Difference: After – B-a-U
No. 2A: Capital Cost		Not applicable	€ 310.000 for extension of Via		

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			Buonarroti cycling route € 245.000 for Via Montesanto connection € 181.000 for Via Adda connection € 120.000 for revamp of Via San Gottardo walkway € 10.285 VAT included for Porta Castello vide-surveillance		
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## C2.4 Transport

During the annual bicycle census, in September 2010 and in September 2012, two qualitative surveys were conducted aimed at evaluating core indicators before and after the implementation stage of the measure.

First of all, it should be clarified that the approach to the two censuses was different: as a matter of fact, since its first activation, the census was organized somehow spontaneously by MonzainBici, which identified 13 strategic points (see [Figure 3](#)) in the city where cyclists passing in correspondence of these points were materially counted with the cooperation of the students attending a technical institute in Monza: this approach has been used in the following years and for all censuses held during ARCHIMEDES lifetime. In 2010 census, during which the survey interested 298 people (about 23 for each strategic point) who expressed their opinion about cycling mobility in the city, a questionnaire of 15 questions was elaborated by statistic technicians according to Municipality of Monza's requirements in agreement with Monzainbici.

In 2012, Regione Lombardia, within activities related to the Regional Plan of Cycling Mobility Chassis, has signed an agreement with FIAB - Italian Federation of Bicycle Friends - Coordination for Lombardia, in order to activate a bicycle census on a regional level as an attempt to give answers to a lack of information on those who use the bicycle in our region: such an activity, scheduled year by year, will provide interesting information about changing in mobility habits of citizens. For this reason in 2012, for the first year, the census was carried out in all the 12 capital cities of Regione Lombardia, to verify the daily use of the bicycle, but only in 4 strategic points of each city (in Monza Largo Mazzini, Via Cortelonga, Piazza Grandi and Ponte dei Leoni), according to guidelines prepared for this activity. Consequently, 93 people (about 26 for each strategic point) were surveyed asking them questions about their opinion about cycling in Monza and about actions accomplished to improve this form of soft mobility in the city.

For this reason, whilst to calculate the number of circulating bicycles data collected in the 4 strategic points considered in 2012 have been extrapolated from results of 2010 census (since counts were made separately for each single location) in order to better compare quantitative data collected, the same cannot be achieved for qualitative surveys, since all questionnaires collected were mixed together (not knowing that, after two years, Regione Lombardia would have signed the agreement and prepared guidelines for the census).

In order to assess data about circulating bicycles, data of the bicycle census of 2010 have been considered as before data, data of 2011 (when the bike plan had already been developed but not approved yet by the City Government and no intervention had been done to improve cycling in the city) have been assessed as BaU values, whilst data of 2012 have been considered as after data..

Eliminato: Figure 3

In this section results of the two surveys will be summarized, whilst all findings from the interviews will be shown in the annex to the present document.

**Table C2.4.1: Transport**

Indicator	Before (Census in Sept 2010)	B-a-U (Census in Sept 2011)	After (Census in Sept 2012)	Difference: After –Before	Difference: After – B-a-U
No. 20: Safety	<b>33%</b> suffered from thefts  <b>14%</b> from accidents  <b>32%</b> from falls	Not applicable	<b>45%</b> suffered from thefts  <b>26%</b> from accidents  <b>35%</b> from falls	<b>+ 12%</b>  <b>+ 12%</b>  <b>+ 3%</b>	Not applicable
NEW: Circulating bicycles	Largo Mazzini <b>991</b> Via Cortelonga <b>707</b> Piazza Grandi <b>758</b> Ponte dei Leoni <b>1238</b> <b>TOTAL 3345</b>	<b>1020</b> <b>835</b> <b>871</b> <b>1608</b> <b>TOTAL 4334</b>	<b>2480</b> <b>1227</b> <b>797</b> <b>2064</b> <b>TOTAL 6568</b>	<b>+ 1489</b> <b>+ 520</b> <b>+ 39</b> <b>+ 826</b> <b>TOTAL + 2874</b>	<b>+ 1460</b> <b>+392</b> <b>- 74</b> <b>+456</b> <b>TOTAL + 2234</b>

Actions accomplished have been mostly aimed at improving cycling conditions through infrastructural interventions along already existing and used cycling routes but not at creating new infrastructures which could push people towards a change in their mobility mode: for this reason it has been preferred to address the number of circulating bicycles, which have been counted each year during the annual census made by Monza cyclists' association, MonzainBici, to demonstrate if the trend in using bicycles for urban journeys is increasing, instead of addressing the modal split which could demonstrate not particularly significant on a massive level.

As data collected show, the number of circulating bicycles is increasing more and more, and data collected during bicycle census of 2011, when actions had not been accomplished yet, show that the BaU approach described in Section C.1.3 can be considered reliable.

Results are very encouraging, since they show Monza citizens are shifting towards cycling as a more sustainable form of mobility, and this was happening even without the implementation of the actions described in the present report. Such a change in mobility habits, obviously, can also find its explanation in the period of economic crisis and the continue increases in fuel price, considered one of the strongest levers for Government to raise incomes. Actually many people find more cycling cheaper and this can be the reason for such a valuable increase. Anyway, lesson learnt must push decision makers towards a strong engagement in boosting cycling mobility, since more routes and more facilities can help more and more people to turn towards cycling.

On the other hand, it is assumable that such a steep increase of the number of circulating bicycles inevitably involves an increase in the number of thefts, road accidents and falls, which does not depend on the worsening safety conditions, but possibly on the increased percentage of cyclists in the streets.



**C2.5 Society****Table C2.5.1: Social indicators**

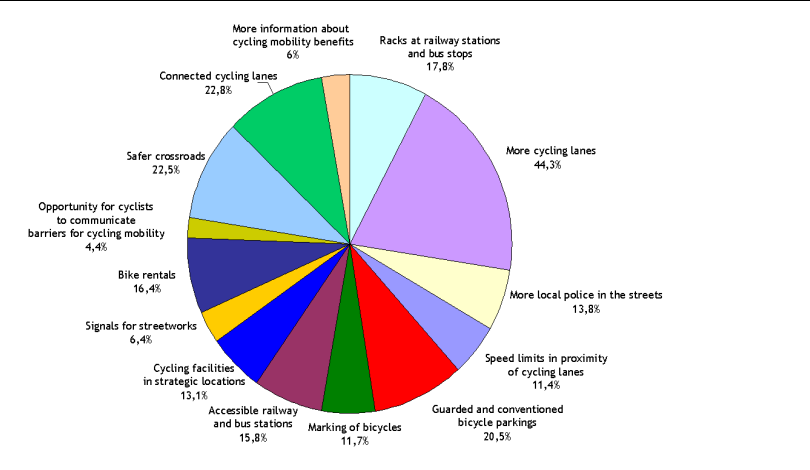
In this section, results of the two surveys concerning social indicators will be summarized, whilst all findings from the interviews will be shown in the annex to the present document.

Indicator	Before (Sept 2010)	B-a-U (date)	After (Sept 2012)	Difference : After – Before	Difference: After – B-a-U
No. 14: Awareness	<p><b>44%</b> know MonzainBici</p> <p><b>54%</b> doesn't</p> <p><b>44,3%</b> ask for more cycling routes</p> <p><b>20,5%</b> for more parkings</p> <p><b>22,5%</b> for safer crossroads</p> <p><b>16,4%</b> for bike rentals</p> <p><b>15,8%</b> for accessibility to interchange nodes</p> <p><b>17,8%</b> ask for racks in interchange nodes</p>	Not applicable	<p><b>54%</b> know MonzainBici</p> <p><b>46%</b> doesn't</p> <p><b>89%</b> ask for more cycling routes</p> <p><b>84%</b> for more parkings (<b>51%</b> consider parkings inadequate and <b>31%</b> just sufficient)</p> <p><b>81%</b> for safer crossroads</p> <p><b>81%</b> for bike rentals</p> <p><b>79%</b> for accessibility to interchange nodes</p> <p><b>89%</b> ask for racks in interchange nodes</p> <p>Awareness of actions implemented by Comune of Monza is not very high, since only part of actions are known.</p>	<p><b>+ 10%</b></p> <p><b>- 8%</b></p> <p><b>+44,7%</b></p> <p><b>+ 63,5%</b></p> <p><b>+ 58,5%</b></p> <p><b>+ 64,6%</b></p> <p><b>+ 63,2%</b></p> <p><b>+ 72%</b></p>	Not applicable
No. 17: Security	<p><b>32,9%</b> suffered from thefts</p> <p><b>47%</b> reported to the Police</p>	Not applicable	<p><b>42%</b> suffered from thefts</p> <p><b>56%</b> reported to the Police</p>	<p><b>+ 9,1%</b></p> <p><b>+ 9%</b></p>	Not applicable

From a general point of view, it must be noticed that the population of cyclists shows very aware of actions to be accomplished in order to improve cycling in the city. During the last three years, requests have become more and more pretending, since the increase of the number of cyclists goes hand in hand with a greater awareness of the needs. The following graphs show which interventions surveyed people think necessary to shift towards cycling mobility.

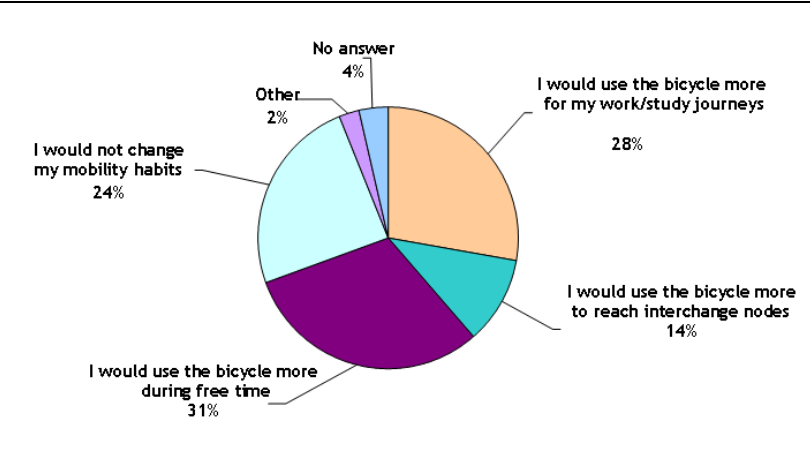
What measures would be useful to implement cycling in Monza?

**INDICATORS NO. 14 (Awareness) AND 17 (Security)**

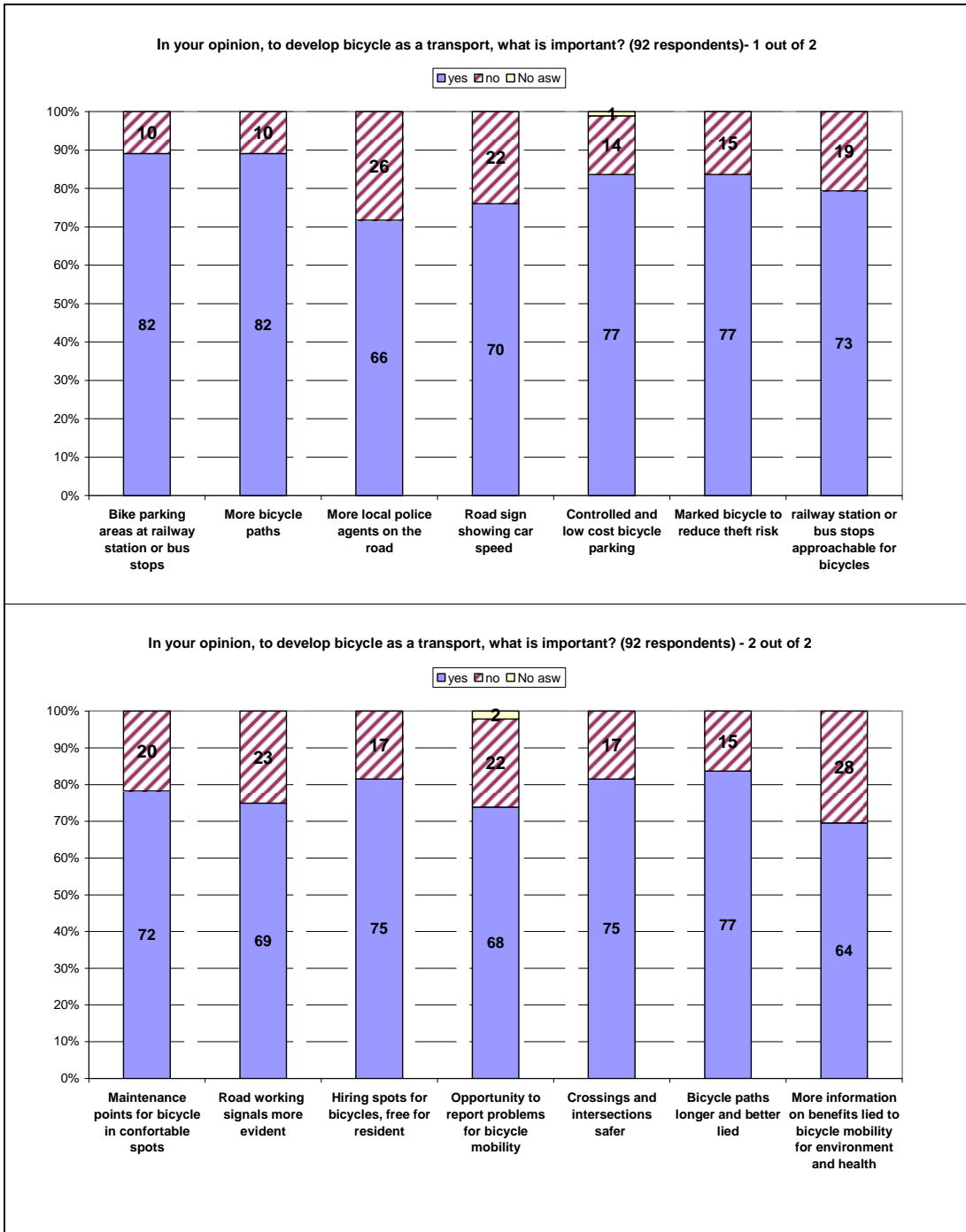


**Graph 1 – Useful measures for cycling – Bicycle census 2010**

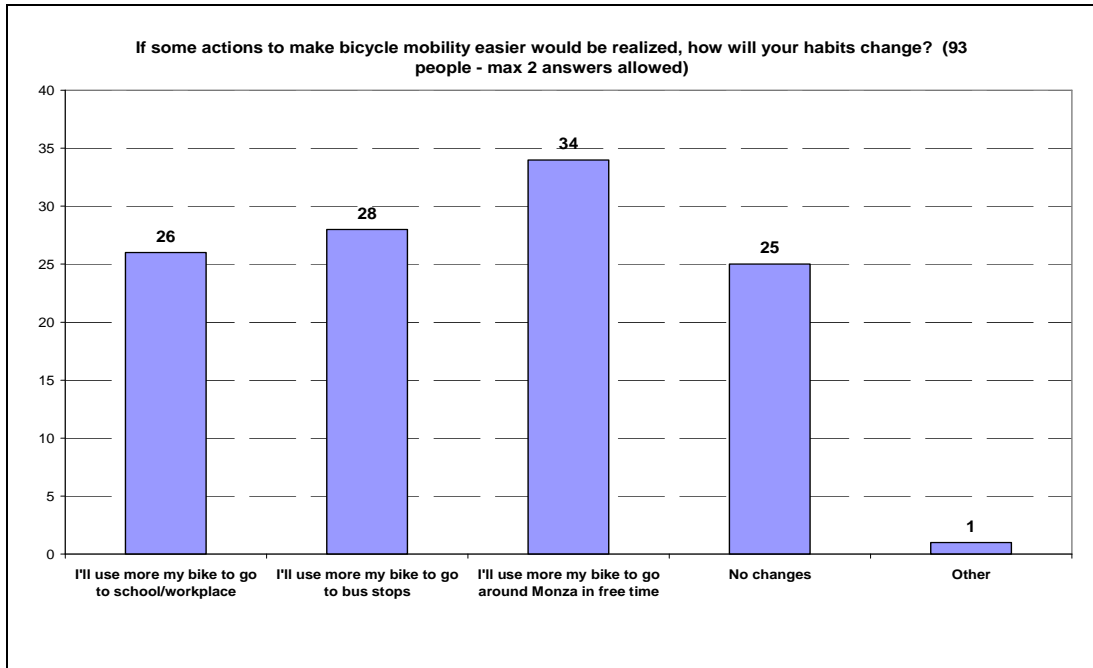
If those measures were implemented, would you use the bicycle more?



**Graph 2 – Shifting to cycling - Bicycle census 2010**



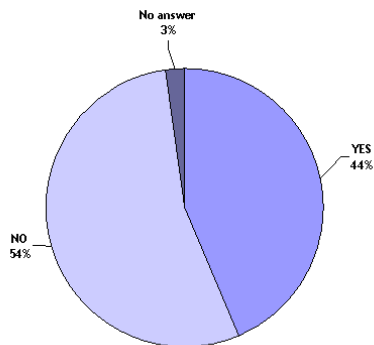
**Graph 3 - Useful measures for cycling – Bicycle census 2012**



**Graph 4 - Shifting to cycling - Bicycle census 2012**

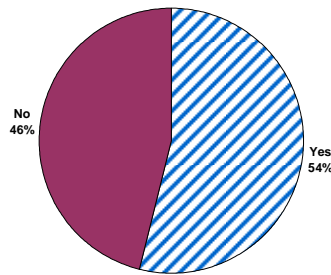
People knowing MonzainBici, Monza cyclists' association, have increased and this shows that the association, even though on a voluntary basis, has a very important role in promoting cycling in the city. For this reason, it is important that decision makers share any interventions concerning cycling with the association, so to better identify priority actions to accomplish in order to achieve more consensus.

Do you know association "MonzainBici" (298 answers)?



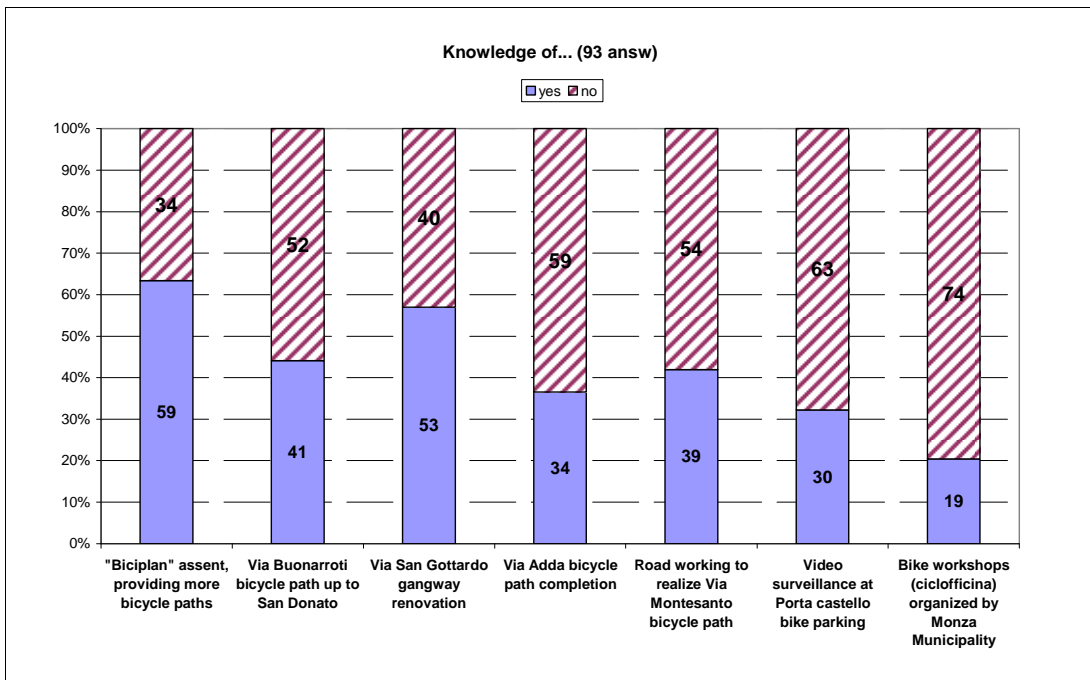
**Graph 5 – Knowledge of MonzainBici – Census 2010**

Do you know Association "Monzainbici"? (93 answ.)



Graph 6 - Knowledge of MonzainBici – Census 2012

On the other hand, results of survey held during the second bicycle census demonstrate that only part of actions taken by comune of Monza are known to surveyed people. As a matter of fact, only two of the several actions accomplished by Comune of Monza to improve cycling in the city ("Biciplan" assent and Via San Gottardo gangway renovation) are known by more than 50% of the surveyed people: more specifically, the approval of the Bikeplan is known by 63% of surveyed people, revamp of Via San Gottardo cycling walkway by 58%, extension of Via Buonarroti cycling route by 44%, works for Via Montesanto connection by 41% and for Via Adda connection by 38%, videosurveillance in Porta Castello bicycle parking by 31% and events to boost cycling in the city by 20%. These results show that there is still much to do to communicate interventions in order to enforce knowledge of actions between citizens.



Graph 7 - Awareness of actions on cycling mobility – Census 2012

C3 Achievement of quantifiable targets and objectives

No.	Target	Rating
<b>2A</b>	Evaluating capital costs afforded to implement cycling facilities in Monza	<b>**</b>
<b>13-14</b>	Evaluating users' acceptance of new cycling facilities in Monza	<b>**</b>
<b>17</b>	Improving attractiveness of cycling by increasing citizens' perception of security	<b>**</b>
<b>20</b>	Evaluating if new facilities reduce the number of street accidents with bicycles involved	<b>*</b>
<b>NEW 1</b>	Increasing number of circulating bicycles	<b>**</b>
<b>NA = Not Assessed    O = Not Achieved    * = Substantially achieved (at least 50%)</b> <b>** = Achieved in full            *** = Exceeded</b>		

## C4 Up-scaling of results

Once that the Bike Plan and the constructing criteria for cycling routes has been approved by the City Government, this document will serve as guidelines for every intervention about cycling. In a first stage, priority will be given to implement cycling towards key interchange nodes, such as the railway station, the centre of the city and the most important bus stops, and to tourist points of attraction, like the Park of Monza and the Villa Reale (also in view of Expo 2015 which will be held in Milan).

Successively, citizens and MonzainBici will be consulted to identify priorities of interventions in order to complete the city cycling network with the connections of already existing cycling routes and with the improvement of facilities like racks, parkings and shelters for bicycles.

If data collected during bicycle censuses have demonstrated that the number of cyclists is steeply increasing even though no interventions are made (see data concerning 2011 census) it can be stated that with a series of actions, included the implementation of a bike sharing scheme in the city, cycling will grow more and more pushing citizens towards a softer mobility.

## C5 Appraisal of evaluation approach

Evaluation activities, especially as far as surveys are concerned, have been aimed at :

- checking the level of use of bicycle in the city of Monza, defining drivers and barriers;
- understanding users' needs in order to identify which improvements could be more helpful to implement cycling in town for daily mobility;
- identifying potential target groups in order to tailor the service to expressed needs.

Through the bicycle censuses, organized with the cooperation of students of a high school in Monza, it has been easy to interview a sample of citizens in order to collect data about cycling in Monza.

These data will be available each year to assess if the trend demonstrated since now towards an increase in cycling will be maintained, and the intervention of Regione Lombardia with the subscription of the agreement with FIAB will make the collection of data more reliable since it will be organized every year following the same guidelines and the same criteria.

In future, when the accomplishments of actions required by the bikeplan to complete the cycling network of the city will be achieved, it could be useful to have traffic counts to better define the amount of modal shift towards cycling.

## C6 Summary of evaluation results

In the two bicycle censuses, the following results have been achieved:

- the goal to increase the number of cyclists in the city has been fully achieved, since from a total number of 3345 cyclists counted during 2010 census, the number of 6568 cyclist in 2012

has been reached (+ 96,35%, which means that the number of cyclist has almost doubled in two years);

- awareness of needs to improve cycling conditions is very high within the Monza cyclist' community, since people are very aware of actions to be accomplished;
- on the other hand, only part of actions taken by comune of Monza are known to surveyed people, and this shows that there is still much to do to communicate interventions in order to enforce knowledge of actions between citizens;
- hand in hand with the increase of the number of cyclists, also the number of thefts and accidents tends to increase, but people reporting thefts to the police is increasing at the same time;
- all proposed actions for cycling improvement have been welcomed by surveyed people, the most interesting being "Bike parking areas at railway station or bus stops" and "More bicycle paths" (90% of preference). If those actions were realized, many people would use bicycle more, mainly during free time and to reach bus stops;
- reasons for a scarce use of bicycle are: lack of cycling lanes, long journey times and traffic;
- people who always or often use the bicycle want to be fit (21%), to respect environment (18%) and to save fuel's costs (11%)

## **C7 Future activities relating to the measure**

In order to activate the bike sharing scheme in Monza, also exploiting experience gained in other ARCHIMEDES cities like Aalborg and San Sebastian, it has been decided to start working on tender documents to issue the tender in the first months of 2013, so to use the grant obtained by Regione Lombardia together with funds from Municipality budget.

During ARCHIMEDES the Municipality also had the intention to introduce bicycle ramps for staircases to help cyclists cross the railway station subway (an example of a bicycle ramp can be seen in Figure 24). Disappointingly this intervention has not been possible due to problems gaining the necessary authorisations from Centostazioni, the company of Italian Railways managing the railway station building. The station is a protected building on a historical site and the high number of requirements imposed by Centostazioni have made the intervention, in itself simple and inexpensive, particularly difficult and costly. For this reason it has not been possible to complete address this within ARCHIMEDES lifetime.

As far as the installation of ramps for bicycles is concerned, contacts are still in progress with Centostazioni to find the most suitable solution in order to implement this facility for cyclists as soon as possible. A good chance to realize it could be given by the installation of elevators that Centostazioni is realizing in order to guarantee access to all platforms for disabled people: in this intervention some solution can be found to overcome the problems so far unsolved

**Fig 20 - Sample of bicycle ramps**

Measure title:

**Cycle Transport Improvements in Monza**

City: **Monza**

Project: **ARCHIMEDES**

Measure number: **62**





## D Process Evaluation Findings

### D.0 Focused measure

X	0	No focussed measure
	1	Most important reason
	2	Second most important reason
	3	Third most important reason

### D1 Deviations from the original plan

No particular deviations from the original plan can be assessed, even though the measure was delayed in its implementation stage due to a reduction of funds coming from the central government to local authorities because of the economical situation, which made it impossible to introduce a bike sharing scheme within ARCHIMEDES lifetime.

Fortunately by the end of 2011, extra revenue was identified through the sale of real estate owned by the municipality. These revenues were included in Streets and Infrastructures Department section of the city budget and it was possible to implement actions described in Section B4.

### D2 Barriers and drivers

The town of Monza, chief town of the Province of Monza and Brianza, is located in a densely populated and built-up area, to the north-east of Milan on the road from Milan to Lecco.

From a geographical point of view, the town is placed in a mostly flat area, at the average altitude of 150 m above sea level, which is perfectly suitable for the development of cyclability.

The model of expansion of the urban area, developing around an old town centre with a series of districts disposed in a circle – the further from the centre, the less dense – is ideal for the use of bicycles.

Excluding the most external districts, which are easily individuated for they are located outside the primary ring roads system (San Fruttoso, San Rocco and Sant'Alessandro, Sant'Albino), the urban site could be inscribed in a circle of 5 km of diameter, within which the great majority of the population lives (120.000 residents).

In the traditional planning of urban mobility it is usually assumed that distances up to 5 km can be regularly covered without a special training in a time which is perceived as acceptable by the traveller (less than 20 minutes, assuming an average speed of 15 km/h). Therefore, theoretically, if we momentarily leave apart the problems and lacks of the cycle network of Monza, it is evident that bicycles have to be necessarily considered as a form of transport to be widely promoted.

Besides the advantages coming from the morphology of the territory, Monza can today boast other assets for developing its policies in favour of cyclability:

- a demand, means a number of bicycles in town, which is particularly considerable in the central districts (town centre and districts of the first ring) and in some particular sites (e.g. the train station);
- a network of bikeways which is still incomplete but serves a certain number of connections and offers some quality routes (e.g. the path of Via Villoresi, or the network of bikeways of Via Foscolo and Via Tintoretto), that have to be taken into account as essential elements in the creation of a project;
- an identifiable system of residential areas, located away from the great streams of traffic across the town and from district to district, which, if seen as “environmental precincts”

(thanks to special road signs and/or physical dividers aimed to hold back the traffic), can encourage the “free” use of bicycles.

Practically, the present development of cyclability in Monza is limited by a series of problems, within which we point out the biggest ones:

Today the sum of the existent cycle routes within the borders of the municipality reaches about 23 km on the whole.

## **D.2.1 Barriers**

### **Preparation phase**

- **Involvement** – First activities about cycling were not strongly supported by policy key stakeholders who were particularly concerned about security problems where cycling routes are far from highly frequented locations
- **Spatial** – The lack of interconnections between existing cycling routes acted as a barrier to implement cycling since there were many interventions to be activated without having a comprehensive picture of needs and priorities
- **Institutional** – Delay in achieving the European Commission’s agreement to use savings from another measure in order to activate a subcontract for developing a study about cycling in Monza

### **Implementation phase**

- **Financial** - Reduction of funds coming from the central government to local authorities because of the economical situation, which made it impossible to introduce a bike sharing scheme within ARCHIMEDES lifetime, as well as implementing other actions in favour of cycling.

### **Operation phase**

- **Problem related** – An intervention to install ramps to overcome stairs in the railway station has not been possible due to problems gaining the necessary authorisations from Centostazioni, the company of Italian Railways managing the railway station building. The station is a protected building on a historical site and the high number of requirements imposed by Centostazioni have made the intervention, in itself simple and inexpensive, particularly difficult and costly.

## **D2.1 Drivers**

### **Preparation phase**

- **Involvement** - Citizens and MonzainBici, Monza cyclists’ association, have always been very proactive in suggesting initiatives and interventions in order to shift towards cycling mobility in the city
- **Cultural** – As soon as the subcontract to develop the study about cycling mobility in Monza was issued, it was evident that a new cultural approach towards soft modes,

reducing the need for private car use, could act as a driving force for a more systemic approach to cycling in the city

#### **Implementation phase**

- **Financial** – The opportunity to raise funds from Regione Lombardia through the submission of a project aimed at introducing a bike sharing scheme in the city worked as a driver to overcome financial difficulties, although the initiative did not prove successful at the very end.

#### **Operation phase**

- **Financial** – By the end of 2011 extra revenue was identified through the sale of real estate owned by the municipality. These revenues were included in Streets and Infrastructures Department section of the city budget and it was possible to implement actions described in Section B4.
- **Involvement** – The former Mobility Deputy Mayor took over the former Infrastructure Deputy Mayor and this allowed to use revenues achieved to identify the first actions in favour of cycling to be accomplished.

### **D.2.3 Activities**

#### **Preparation phase**

- **Planning** - Once that the European Commission agreement was gained, the subcontract to develop a study about cycling in Monza was immediately issued.
- **Involvement** – Thanks to the initiative of MonzainBici, bicycle census was activated and first surveys about cycling in the city were held in order to identify needs and priorities.

#### **Implementation phase**

- **Planning** - A project to implement a bike sharing scheme in the city was presented in order to obtain a grant by Regione Lombardia, even though for reasons described in the section dedicated to barriers implementation of the scheme resulted impossible to achieve during ARCHIMEDES project. In the meanwhile, as soon as new revenue was achieved, planning of interventions to realise started.
- **Ramps in the railway station** – Contacts were activated with Centostazioni, the company of Italian Railways managing the railway station building, in order to install ramps to overcome stairs leading to platforms and to allow the crossing of the station. Disappointingly, an agreement was not reached due to the high number of requirements imposed by Centostazioni which have made the intervention, in itself simple and inexpensive, particularly difficult and costly.

#### **Operation phase**

- **Start up of streetworks** – Streetworks to realize the extension of Via Buonarroti cycling route, the two connections of Via Montesanto and Via Adda and the revamp of the cycling walkway have begun.
- **Installation of videosurveillance** – after asking for needed authorizations by Rete Ferroviaria Italiana, ), the company of Italian Railways associated with railway infrastructure and real estate assets, owner of the building, a camcorder was installed and connected to the already existing videosurveillance system of the city of Monza in order to control the bicycle parking in Porta Castello.

## **D3 Participation of stakeholders**

### **D.3.1. Measure Partners**

- Comune of Monza – Mobility and Transportation Department, in charge of activities interventions concerning cycling in the city
- Netmobility – Professional Society charged for developing through a subcontract the study for cycling implementation in Monza. This society has developed the bikeplan for the city Of Monza together with the document about constructing criteria for cycling lanes. They have also supported Comune of Monza in developing the project of the bike sharing scheme which has obtained a grant by Regione Lombardia.

### **D.3.2 Stakeholders**

- MonzainBici – Monza cyclists' association which every year in September organizes the bicycle census and supports Comune of Monza in choices about cycling in the city
- Citizens – Cyclists in Monza are increasing, so improvements of cycling conditions concern both people who already use the bicycle and people who could shift towards a more sustainable way of moving.
- Rete Ferroviaria Italiana (company of Italian Railways associated with railway infrastructure and real estate assets) for videosurveillance installation
- Centostazioni (company of Italian Railways managing the railway station building) for ramps installation

## **D.4 Recommendations**

The experience achieved in Monza can be transferred to other cities and countries, since an integrated approach to sustainable mobility is now on the agenda of all cities in order to reduce emissions and traffic.

The planning of a cycling network is an essential step towards the construction of a cycle system that is likely to work as an alternative of the traditional road system used by private motorized vehicles. Obviously, baseline conditions are different: some cities enjoy a well developed cycling network, whilst others have still much to do to push people towards cycling.

During ARCHIMEDES, some lessons have been learned during the development of the implementation stage of the measure which could be helpful for other cities willing to improve cycling.

#### **D.4.1 Recommendations: measure replication**

- **Development of the bike plan** – The development of a bike plan for the city of Monza during the research stage of the measure has given the opportunity to better understand drivers and barriers to the development of cycling mobility in the city. In this stage, Monza experience has taught that it is advisable to follow suggestions coming from citizens and cyclists associations to pay adequate attention to what is necessary to create a cycling network,.
- **Equipment of interchange nodes** - Interchange junctions need to be equipped with bike stations and complementary services such as bike repair shops, guarded bike parks, bike sharing stations and everything that will contribute to communicate the comfort and easiness of modal interchanges to the potential users. These initiatives, which can be considered as soft measures in favour of cycling, together with infrastructural interventions will help to shift more and more people towards cycling.

#### **D.4.2 Recommendations: process**

- **Marketing campaign** –It is very important to develop a strong marketing campaign, based on a wellconstructed image can reach citizens in order to widen the group of users. Indeed, the system of cyclability is to be seen as a new service to be launched on the market.
- **Financial issues** - The idea of implementing the bike sharing scheme within ARCHIMEDES project was too optimistic and actually delayed the demonstration stage which could have been better structured. Financial situation needs to be very clear since the beginning in order to avoid spending energies for a project which will not be implemented.
- **Problems with railways management** – As far as the failed attempt to install ramps in the railway station is concerned, what can be suggested is to not assume that initiatives that may appear worthy and easy to implement are as welcomed by who will have to manage the process, otherwise the risk to devote time and human and financial resources to actions which will not be accomplished is concrete.

## **ANNEX 1 TO MERT NO. 62**

### **Cycle Transport Improvements**

During the annual bicycle census, in September 2010 and in September 2012, two qualitative surveys were conducted aimed at evaluating core indicators before and after the implementation stage of the measure.

First of all, it must be clarified that the approach to the two censuses was different: as a matter of fact, since its first activation, was organized somehow spontaneously by MonzainBici, Monza cyclists' association, which identified 13 strategic points (see **Errore. L'origine riferimento non è stata trovata.**) in the city where cyclists were counted with the cooperation of the students attending a technical institute in Monza: this approach was followed also in 2010 census, during which the survey interested 298 people (about 23 for each strategic point) who expressed their opinion about cycling mobility in the city, following a questionnaire of 15 questions, which has been elaborated by statistic technicians according to Municipality of Monza's requirements in agreement with Monzainbici.

In 2012, Regione Lombardia, within activities related to the Regional Plan of Cycling Mobility Chassis, has signed an agreement with FIAB - Italian Federation of Bicycle Friends - Coordination for Lombardia, in order to activate a bicycle census on a regional level as an attempt to give answers to a lack of information on those who use the bicycle in our region: such an activity, scheduled year by year, will provide interesting information about changing in mobility habits of citizens. For this reason in 2012, for the first year, the census was carried out in all the capital cities of the 12 Provinces of Regione Lombardia, to verify the daily use of the bicycle, but only in 4 strategic points of each city, according to guidelines prepared for this activity. Consequently, 93 people (about 26 for each strategic point) were surveyed asking them questions about their opinion about cycling in Monza and about actions accomplished to improve this form of soft mobility in the city.

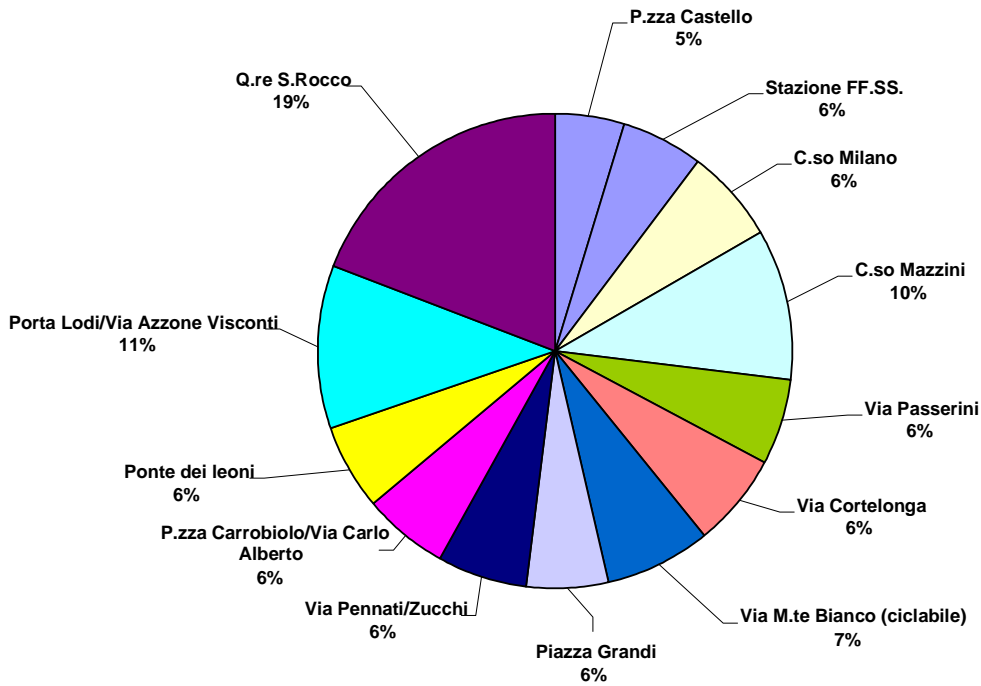
For this reason, whilst to calculate the number of circulating bicycles data collected in the 4 strategic points considered in 2012 have been extrapolated from results of 2010 census (since counts were made separately for each single location) in order to better compare quantitative data collected, the same cannot be achieved for qualitative surveys, since all questionnaires collected were mixed together (not knowing that, after two years, Regione Lombardia would have signed the agreement and prepared guidelines for the census).

In this annex to MERT no. 62 all findings from the interviews are shown.

#### **1. FIRST SURVEY: BICYCLE CENSUS (SEPTEMBER 2010)**

Graph no. 1 shows the percentages of surveyed people for each of the 13 locations.

Eliminato: Figure 5



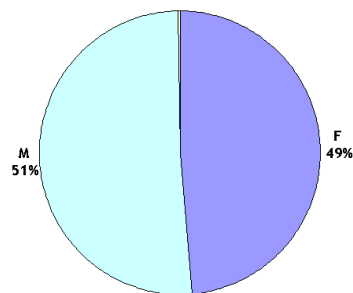
Graph 8 - Percentage of surveyed people for each location

Eliminato: 1

Aims of the survey were:

- checking the level of cycling in home/job-school journeys and related critical aspects;
- identifying citizens' needs and requests as far as cycling improvements are concerned.

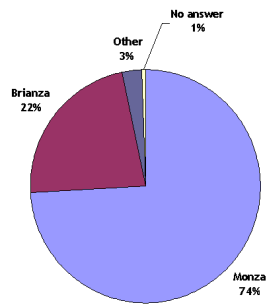
The sample size (298 people) was made up by 51% of males and 49% of females.



Graph 9 - Sex of surveyed people

Eliminato: 2

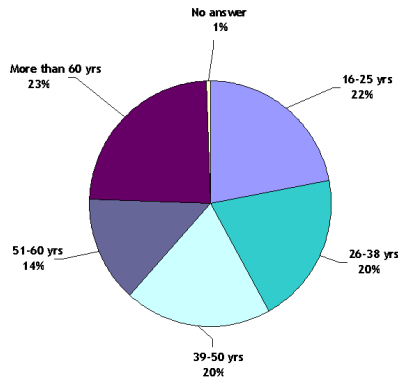
74% of surveyed people live in the city of Monza, 22% live in Brianza and 3% live elsewhere: only 1% of the sample did not answer to the question.



Graph 10 - Residence of surveyed people

Eliminato: 3

Age of surveyed people is shown in the below graph.



Graph 11 - Age of surveyed people

Eliminato: 4

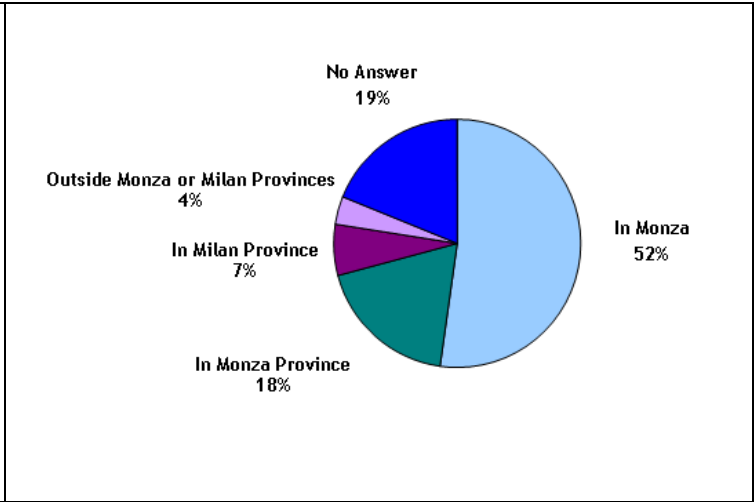
A first group of questions concerned mobility habits of surveyed people

**Mobility habits**

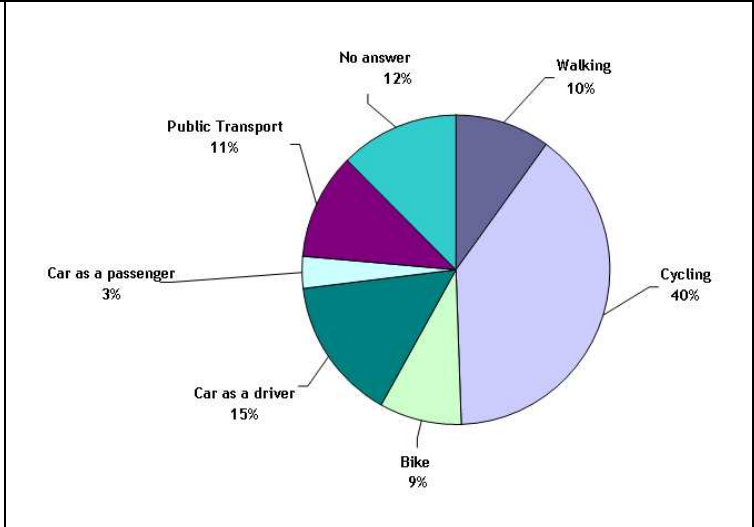
Question asked	Answers
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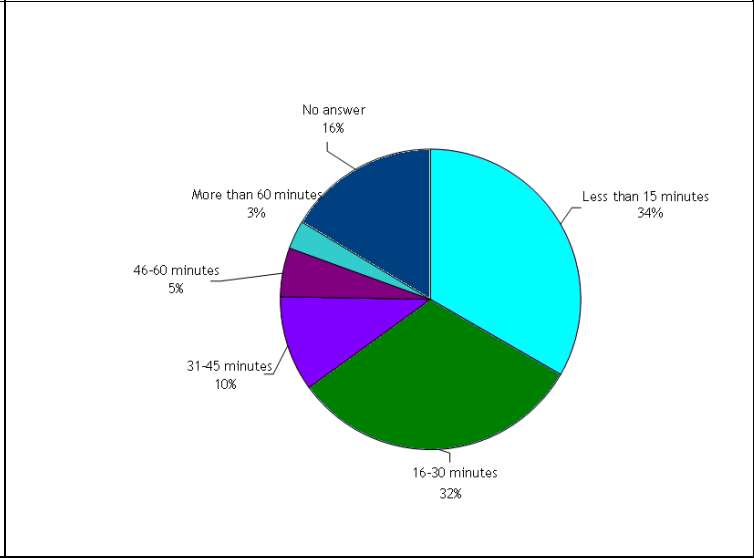
1. Where is your job/study place located?



2. By which means do you reach your job/study place?  
**NEW INDICATOR (Circulating bicycles)**



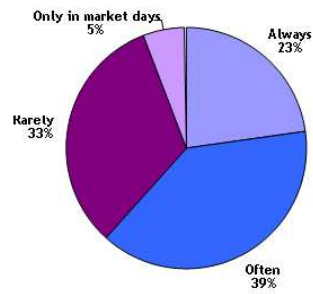
3. How long do you take to reach your job/study place?



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4. How often do you use your bicycle?

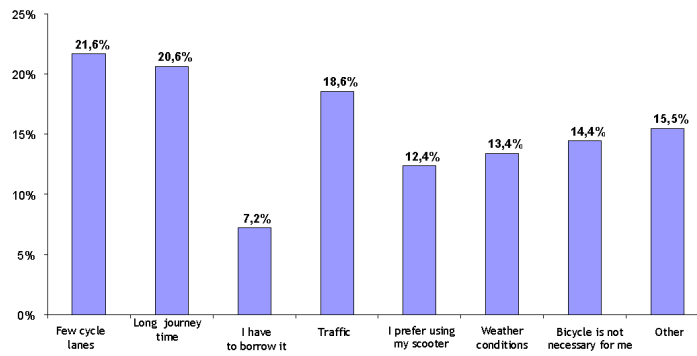
**INDICATOR NO. 29 (Modal Split)**



5. If the answer to question 4 was "rarely", which is the reason?

SAMPLE SIZE FOR THIS QUESTION IS 97 PEOPLE (MULTIPLE ANSWERS ALLOWED)

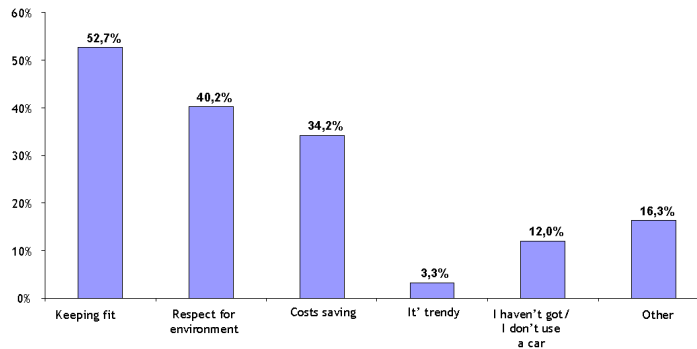
**INDICATOR NO. 29 (Modal Split)**



6. If the answer to question 4 was "always" or "often", which is the reason?

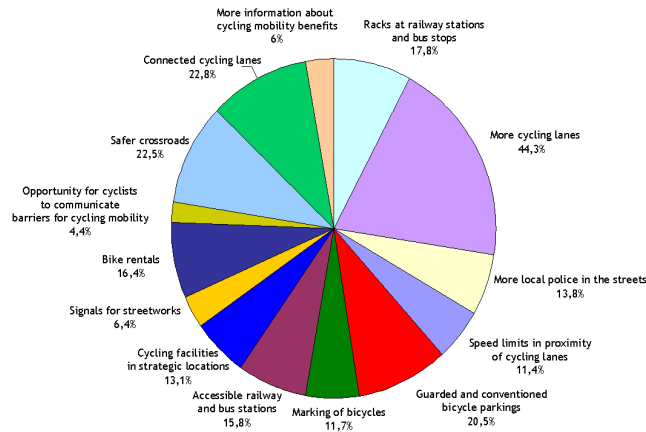
SAMPLE SIZE FOR THIS QUESTION IS 184 PEOPLE (MULTIPLE ANSWERS ALLOWED)

**INDICATOR NO. 29 (Modal Split)**



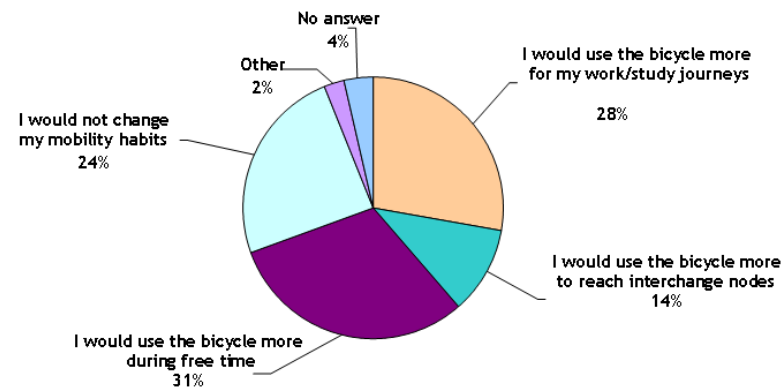
What measures would be useful to implement cycling in Monza?

**INDICATORS NO. 14 (Awareness) AND 17 (Security)**



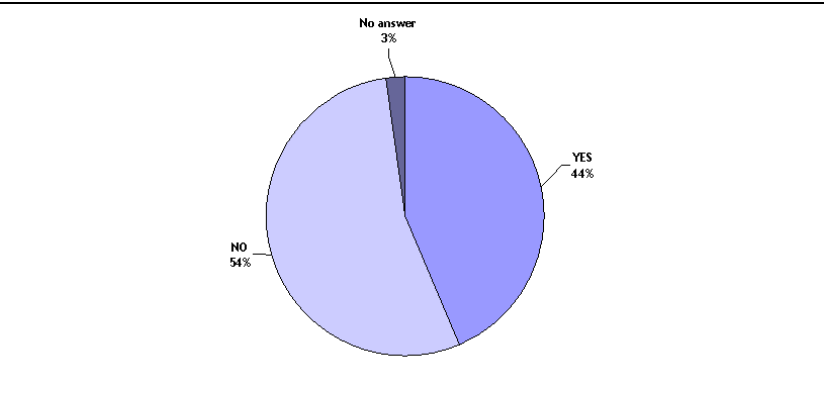
If those measures were implemented, would you use the bicycle more?

**INDICATOR NO. 29 (Modal split)**

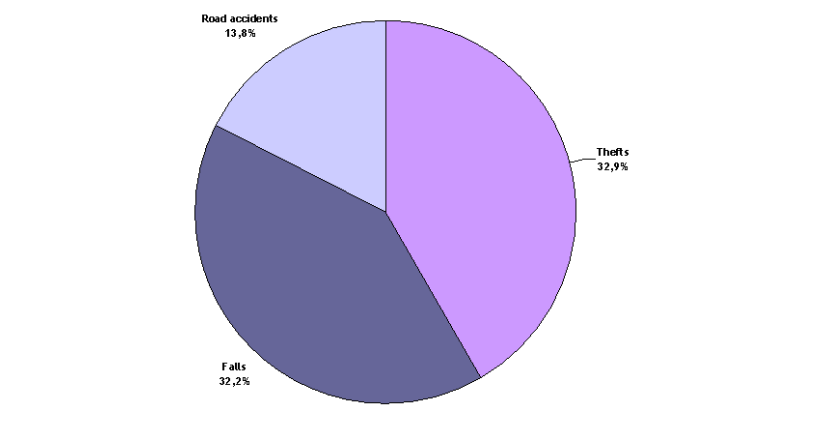


Do you know the cycling association Monzainbici operating in Monza?

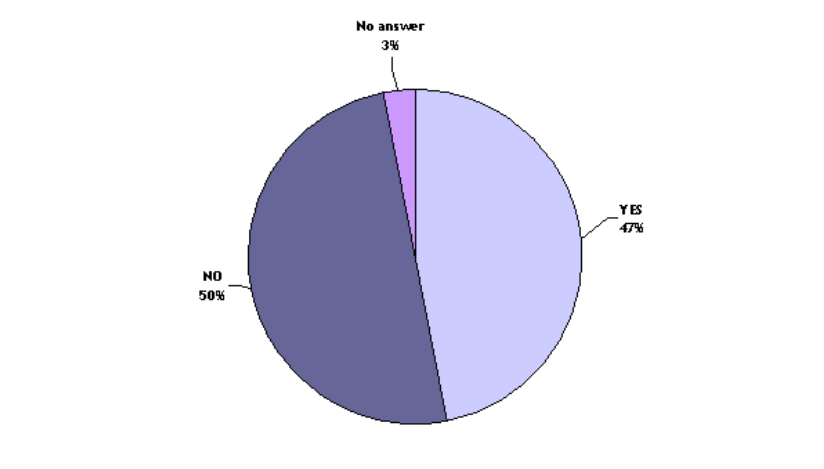
**INDICATOR NO. 14**  
(Awareness)



Have you have suffered situation of discomfort (thefts, falls, road accidents)?  
 MULTIPLE ANSWERS ALLOWED  
**INDICATORS NO. 17**  
(Security) AND **20**  
(Safety)



If your bicycle was stolen, did you report to the police?  
 SAMPLE FOR THIS QUESTION WAS OF 98 PEOPLE  
**INDICATORS NO. 17**  
(Security) AND **20**  
(Safety)



**2. SECOND SURVEY: BICYCLE CENSUS (SEPTEMBER 2012)**

The sample size (93 people) was made up by 52% of males and 48% of females.

Measure title:

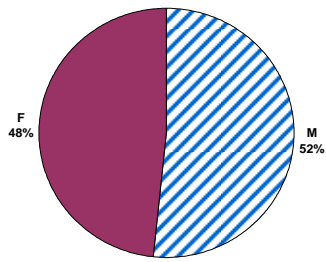
**Cycle Transport Improvements in Monza**

City: **Monza**

Project: **ARCHIMEDES**

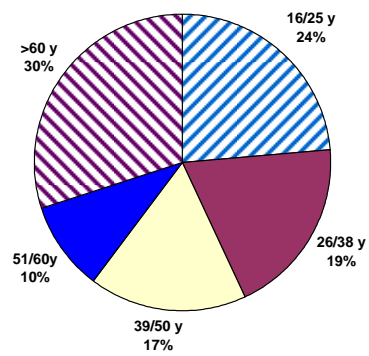
Measure number: **62**

Sex of surveyed people  
(93 answ.)

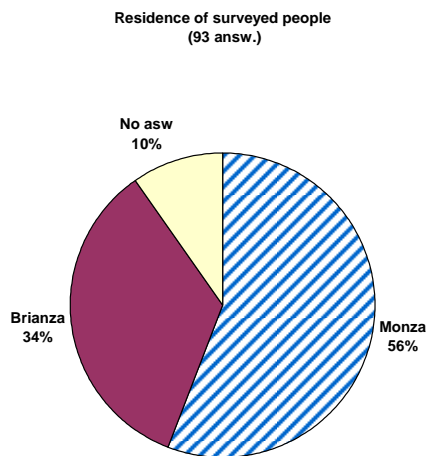


Age of surveyed people is shown in the below graph. All range is represented.

Age of surveyed people  
(93 answ.)

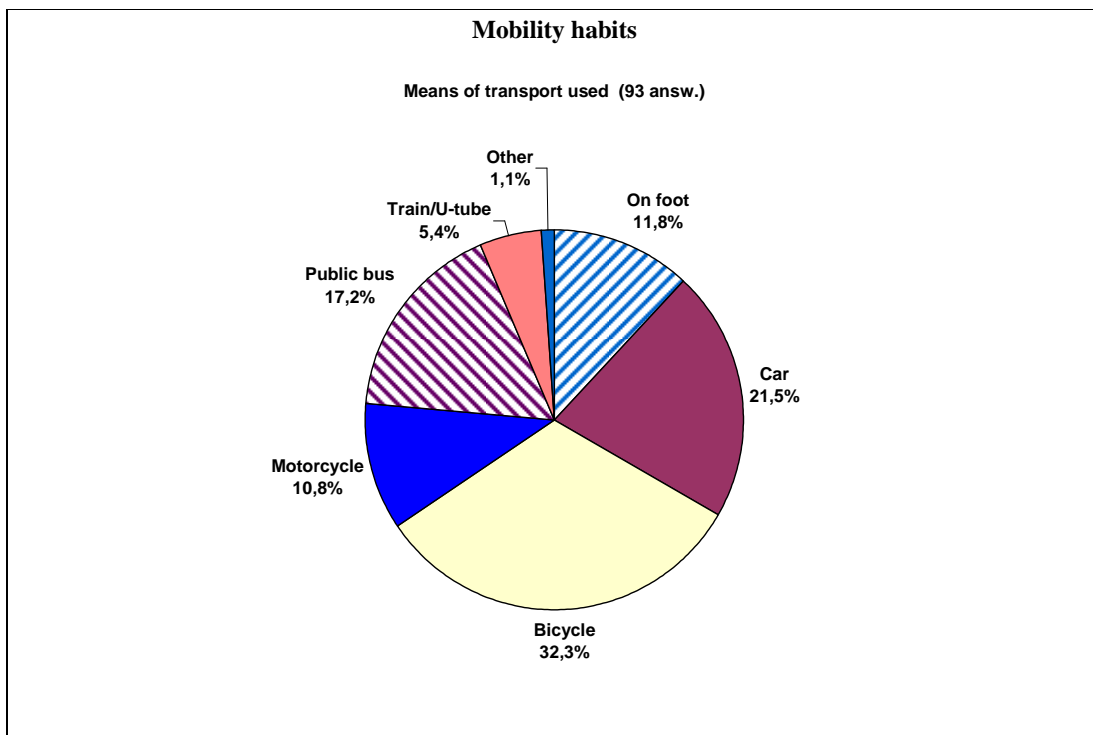


56% of surveyed people live in the city of Monza and 34% live in Brianza; 10% of the sample did not answer to the question.

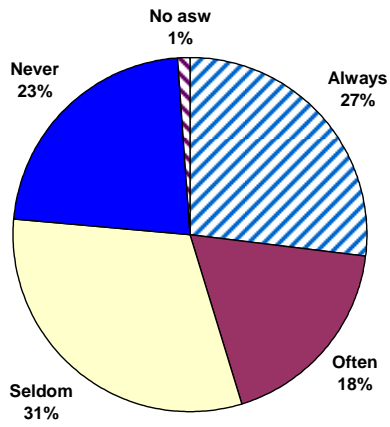


To get to their workplace or school, surveyed people use mainly their car (32%), bicycle (31%) or public bus (30%); more answers (max 2) were allowed.

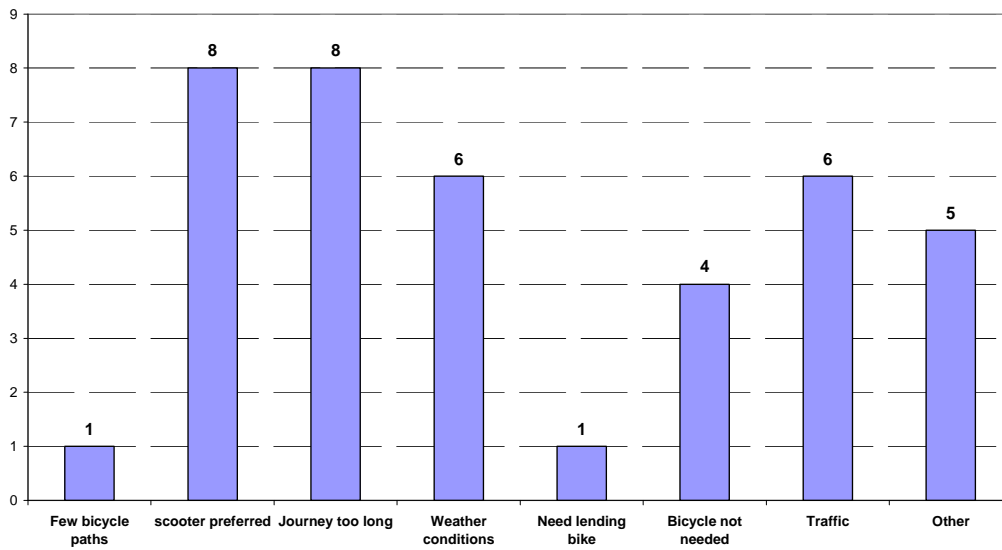
A first group of questions concerned mobility habits of surveyed people.

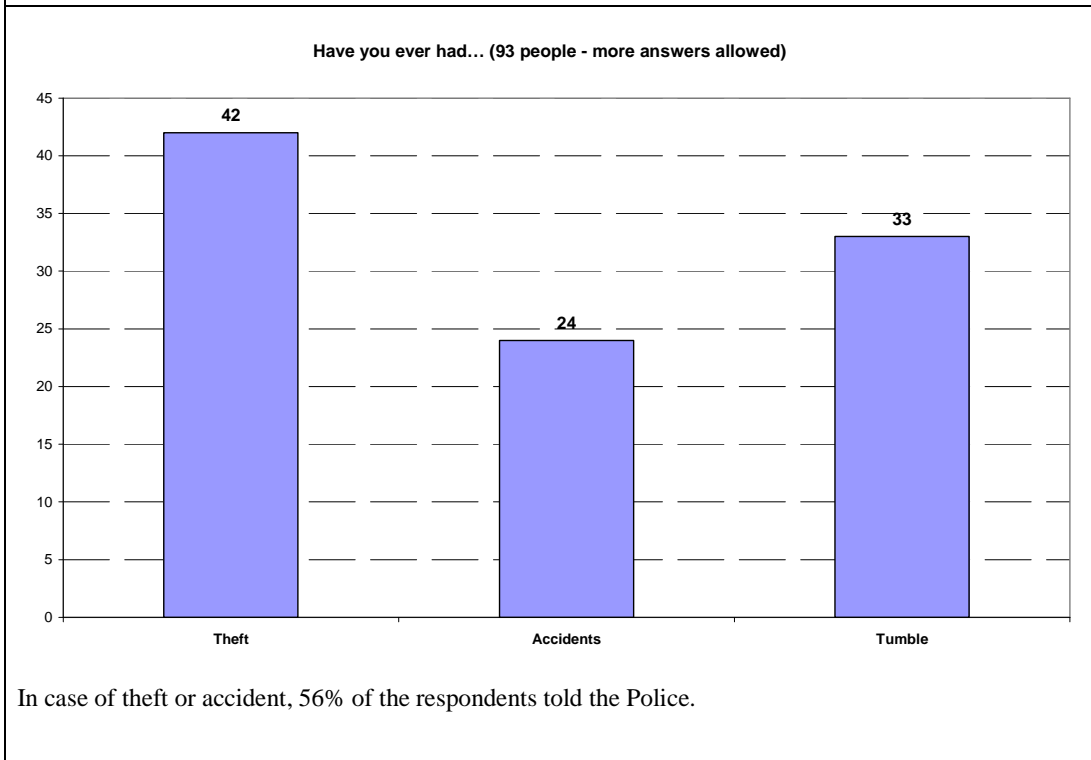
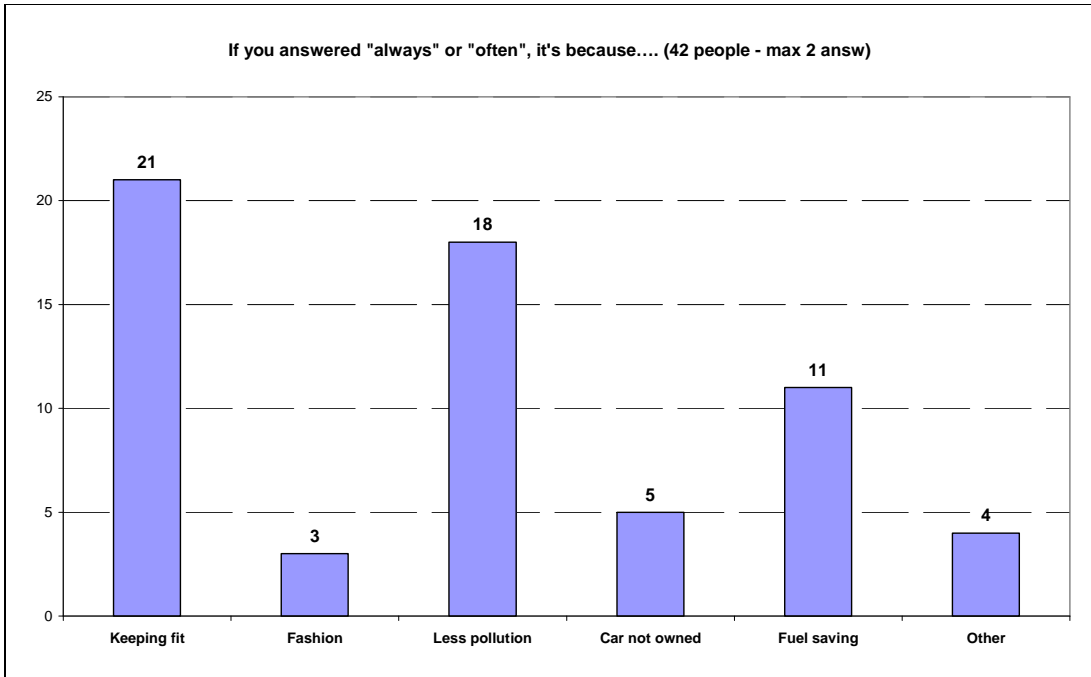


Do you use bicycle...  
(93 answ.)



If you answered "seldom", it's because.... (29 people - max 2 answ)

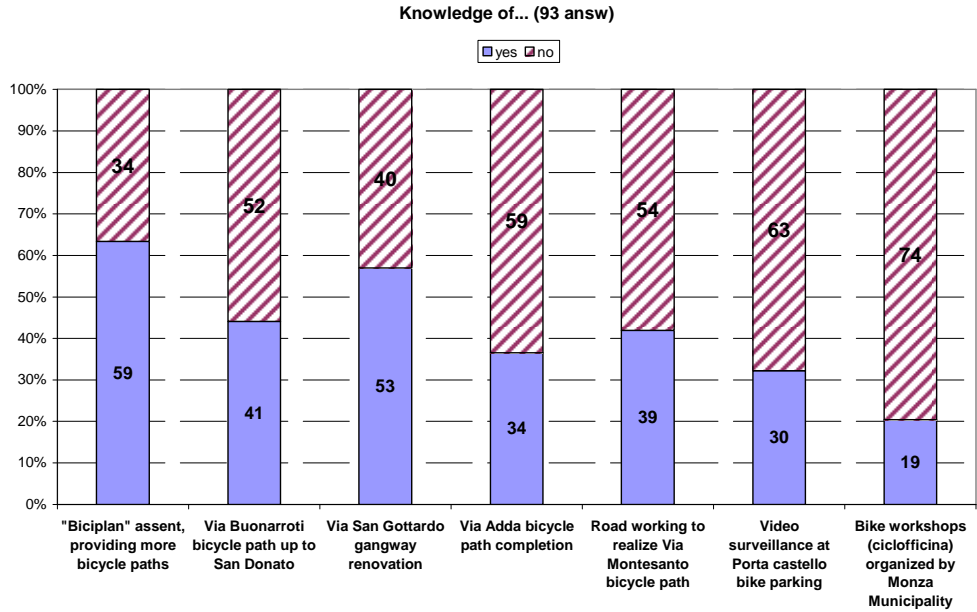




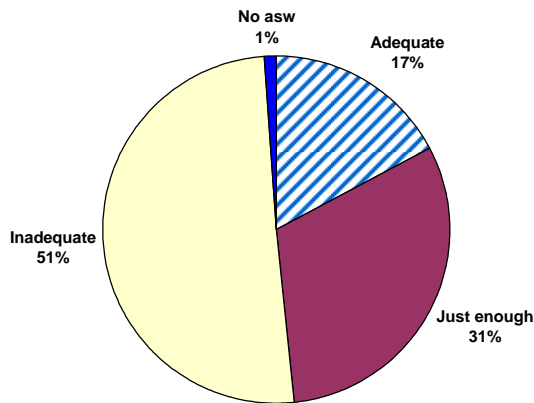


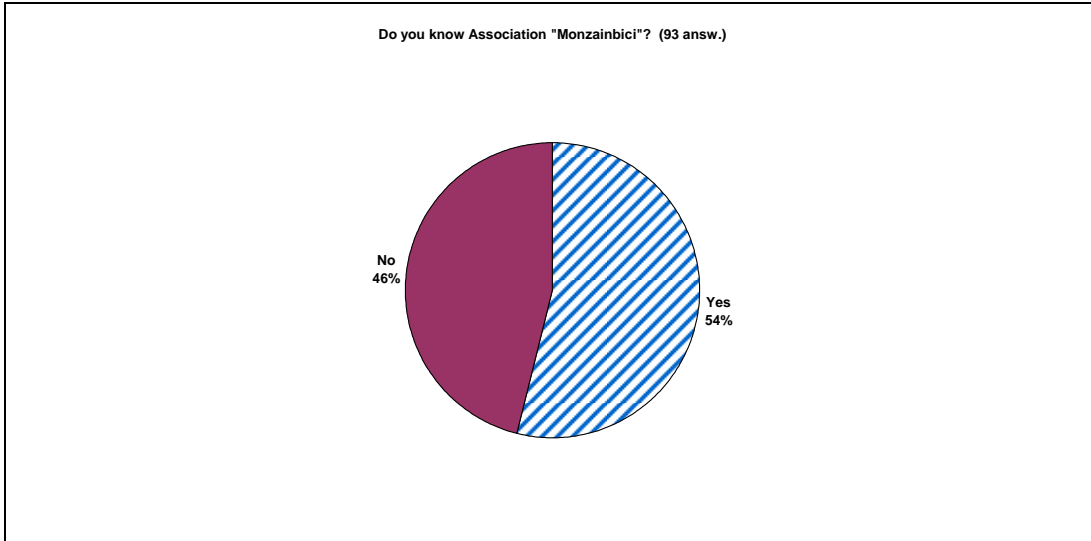
A second group of questions concerned how much surveyed people know about what Monza Municipality did lately to improve bicycle mobility.

**Knowledge of improvement on bicycle mobility**

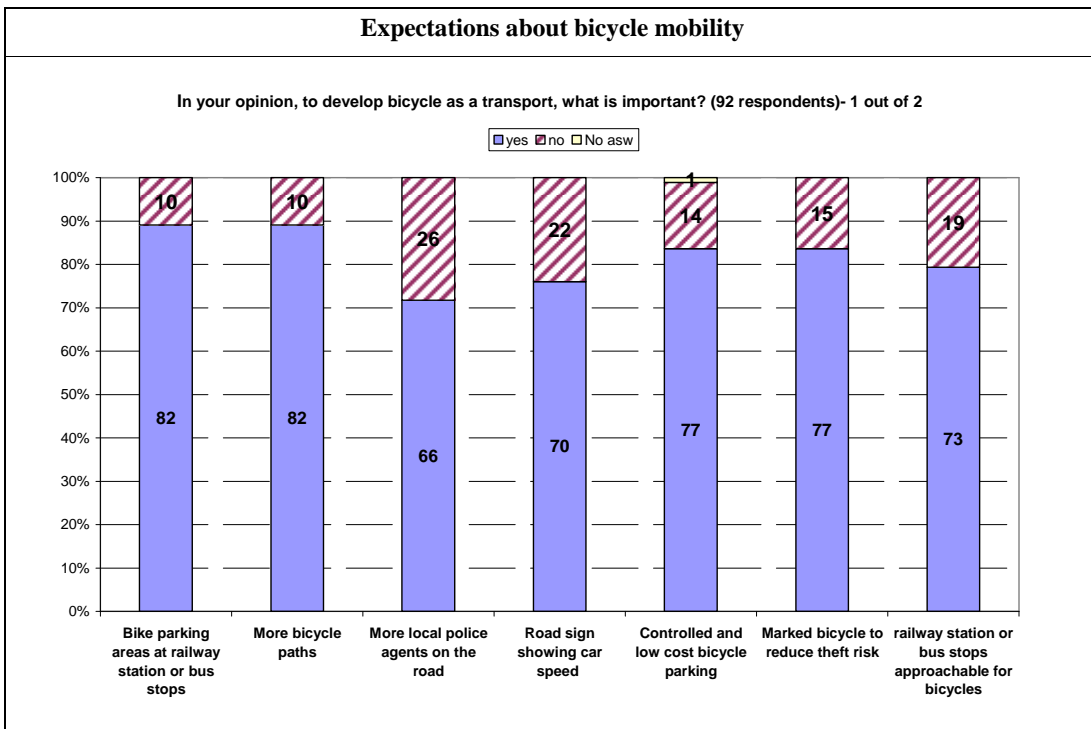


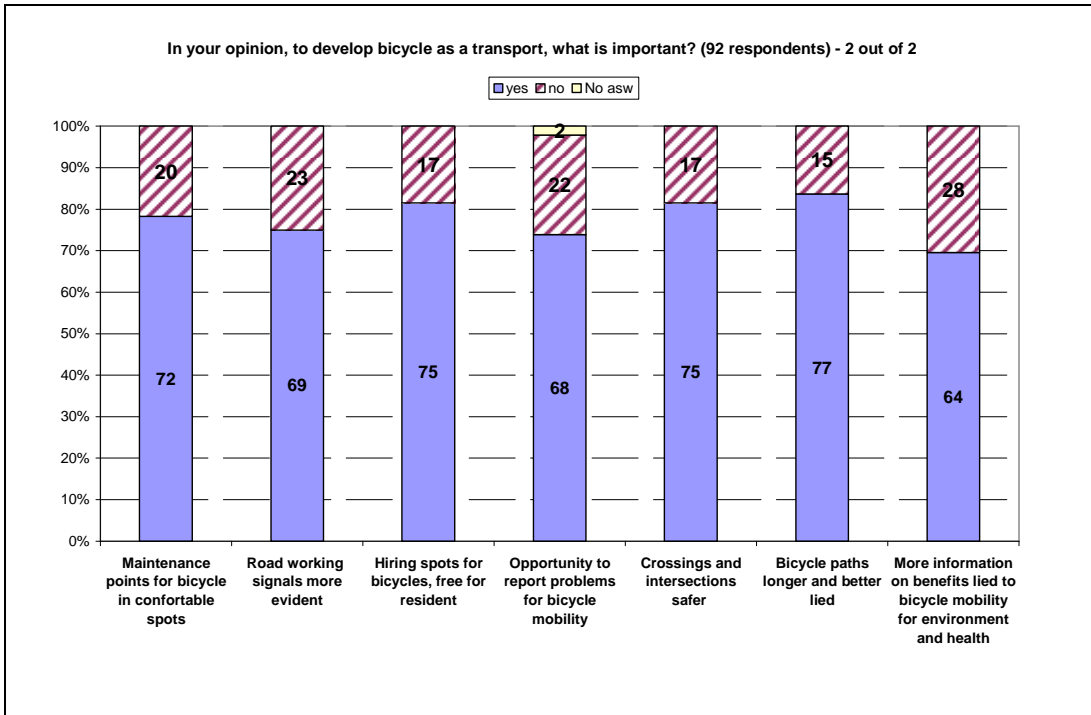
**Opinion on bike parkings at Monza (93 answ.)**



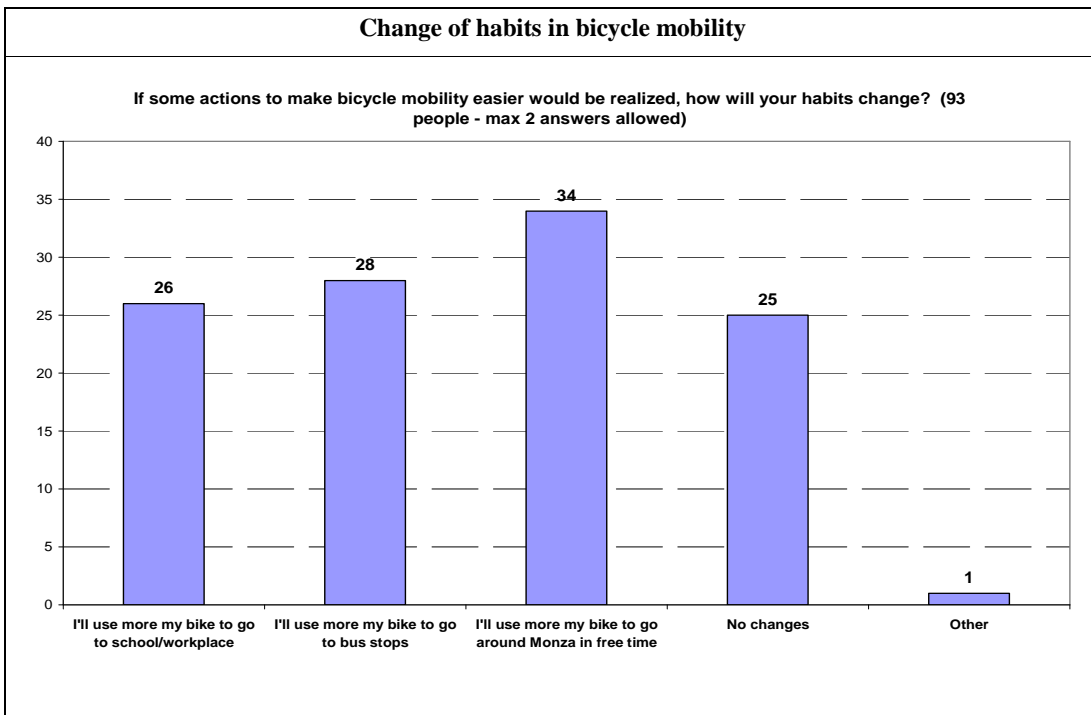


A third group of questions concerned surveyed people's expectations about bicycle mobility at Monza –new services, improvement in actual service, etc..





The last group of questions evaluated the impact of new actions on surveyed people’s habits in bicycle mobility.



*Measure title:*

**Cycle Transport Improvements in Monza**

*City:* **Monza**

*Project:* **ARCHIMEDES**

*Measure number:* **62**