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Measure Evaluation Results

BOL 2.2 Park & Ride System

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Executive Summary

The measure 'Park & Ride system' in Bologna is part of a general framework initiated by the Municipality to make the transportation system in urban areas more efficient and sustainable. Special focus has been pointed to the city centre. Due to the historical shape of the road network in the city centre vehicular traffic is difficult. One of the key objectives of the measure was to reduce the access of private cars in the central area of the city through the development of Park & Ride services. This should further support intermodality and decrease on-street parking. In order to reach this target, plans were put in place in one existing parking area to include structural actions and interventions for bus service and Park & Ride fares. It was also intended to introduce one new parking area. The measure was implemented in the following stages:

Stage 1: Improvement of existing parking areas (November 2008 – December 2011) Tanari parking area, located in the north western part of the city, was selected for an increase in Park & Ride facilities. The number of parking places was increased. Video surveillance system, access control and security system were improved. Technical analysis and working plan for the implementation of the new infrastructure for Park & Bike users was completed and technical analysis for the improvement of the lighting system of the whole parking area was set.

Stage 2: Realization of a new Park & Ride area (from September 2009) One other area ("Ex-Euraquarium") was selected for a new Park & Ride area. Analysis of the area, technical specifications for design and civil engineering works as well as the acquisition of the access system have also been completed. There was a delay in the opening of the area because Bologna Municipality requested adjustments from the civil engineering contractors before the completion of works in compliance with the current regulations. "Ex-Euraquarium" area was opened at the end of year 2012.

Stage 3: Realization of bus connection to the city centre and Park & Bus fare (from January 2011) The parking area Tanari is connected to the city centre with two bus shuttles. The routes of the shuttle lines were improved and optimized during the MIMOSA project taking into consideration the different actions carried out by Bologna Municipality in the creation of the new city centre pedestrian zones.. Several measures have been set in order to support the transformation of this parking area as an intermodal node. Now the parking is free of charge for drivers that leave their cars and take the bus shuttle (they only pay for the bus ticket), and the parking is also free for drivers that leave their own bicycle in the parking area and use it to continue their trip with a mode of their choice.

Stage 4: Requirement analysis and design of an electronic booking system for parking places (October 2010 – September 2012) The activity involved the analysis of the general requirements for an electronic booking system that allows for the reservation of a parking place. The study analysed the legal regulation of car park booking in Italy (on-street and in closed areas) and the technical and organizational development aspects of the system.

The evaluation focused on transport and society indicators as well as ticket sales which could give information on the number of users and associated revenues. Surveys addressing both to the users and non-users of the Tanari parking area supplemented the evaluation.

The following **key-results** highlighted the success of the measure: The number of users (according to ticket sales) more than doubled from 2008 to 2011. The surveys confirmed that the customers used this Park & Ride regularly: 48% of 333 users in the sample use the parking facilities at least twice a week, while 97% of them use Park & Bus at least once. Fare

policy to promote Park & Bus, improvement of the structures, and an increase in parking places, together with the choices about urban mobility taken by the Municipality, have contributed to improve the area's attractiveness. Nevertheless, among non users the awareness of the Park & Ride services was unsatisfactory: out of a sample of 300 citizens, only 40% knew the interchange opportunities of the existing parking area. On the other hand 88% of the non users have shown a significant acceptance of Park & Ride as an important issue to strengthen sustainable mobility.

Concerning stage 2 of this measure a **barrier** emerged in finding a suitable area to match many requirements such as high density of houses and people in the area or closeness to main traffic corridors. Local government commitment was the fundamental **driver** for the development of effective Park & Ride systems: urban mobility has to be carefully regulated and coherent policies about limitations and fares have to be set.

One key recommendation for the implementation of Park & Ride is to strategically determine the location and the availability of suitable areas. Car parks should be built in zones with high density of houses and inhabitants, close to main traffic corridors and to access point to main lines of public transport. Another key factor of success is to raise awareness of Park & Ride facilities among citizens. Therefore, coherent communication and promotion measures should go along with the realisation.

The Park & Ride measure in Bologna has demonstrated improvements in terms of awareness and acceptance among citizens. Based on the success of the MIMOSA measure, the city is confident that other interchange parking structures, if set up in suitable areas of the city, will attract new users.

A   Introduction

A1   Objectives

High level objectives:

- Increase of modal split towards sustainable modes

Strategic level objectives:

- Promote collective passenger transport through actions that will encourage the modal shift from private to public modes

Specific measure objectives:

- Improve of use and acceptance of Park & Ride facilities.

A2   Description

The aim of this action was to further improve the Park & Ride system in Bologna with complementary measures that could stimulate the use of these car parks with a supporting intermodality policy and to discourage on-street parking. The Park and Ride measure includes three main components and the analysis of the results during the test period.

1. Introduction of one new Park & Ride car park and improvement of the existing ones (parking slot extension, structure restyling, etc.)
2. Improvement of public transport connections through the revision of existing lines from the Park & Ride areas to the city centre.
3. Improvement of parking facilities. In the parking area the citizen can take:

    - their own bicycle if they leaves it stored in the parking area
    - a bike on hire: public bikes are available for clients of the parking area.

Additionally, innovative facilities to guarantee a reliable and secure service have been implemented:

- video surveillance system in the parking area;
- access control;
- automatic payment system;
- bike racks will be installed with intelligent locking systems.

B   Measure Implementation

B1   Innovative Aspects

New economic management - that finds the best balance between maintenance costs and promotional fares and services;

New physical infrastructure - facilities introduced in order to create a friendly and agreeable environment in the P&R structures and to stimulate their usage

B2   Research and Technology Development

RTD activities were:

- Planning and design of a new parking area.

  The creation of the new parking area requested a set of activities developed by ATC spa in cooperation with the Municipality. They consist in the analysis of the characteristics of the target area: situation of on street parking spaces, existing public transport service, characteristics of the traffic and movements in the area, and urban planning development of the area. This analysis was the basis for the choice of the parking location.

- Requirement analysis and design of an electronic booking system for parking places

  The activity developed consisted in the analysis of the general requirements of an electronic booking system that allows the reservation of a parking place. The study analysed the legal regulation of car park booking in Italy both on street and in closed areas and the technical and organizational aspect for the development of this system. The study is available at:

  http://www.civitas-initiative.org/index.php?id=79&sel_menu=18&measure_id=432

  Furthermore a first demo application was developed: it consists in a web application that allows you to book parking in the parking areas Tanari and Staveco.

B3   Situation before CIVITAS

The public transport network in medium size cities is often not sufficient to cover all requirements in terms of spatial coverage, therefore intermodality is the best policy approach, allowing for economic sustainability and satisfying environmental and transport needs.

In Bologna a new concept of parking facilities and economic management has been implemented. On the one hand Bologna Municipality introduced the payment for on street parking in the city centre area and in the first peripherial ring. And on the other the choice was to address the mobility demand outside the city centre creating Park & Ride structures that can offer:

- Cheap fares (some car parks are free if the user takes the bus shuttle);
- Free bicycle rent;
- Video Message Signs for real time availability information;
- Internet booking and payment system.

Following this mobility management policy, there was a need for improving existing Park & Ride structures and developing new areas in strategic points of the periphery.

Mimosa actions aimed to close this gap working on Park & Ride services and intermodality between private and public transport.

B4   Actual Implementation of the Measure

The measure was implemented in the following stages:

Stage 1: Improvement of existing parking areas *(from November 2008 to December 2011)*

Several activities were developed in the existing parking area "*Tanari*":

- The number of available parking spaces was doubled from 400 to 800 thanks to the possibility to use the area that was previously allocated to the depot of removed cars
- Technological and infrastructural improvement concerning access control and security system; the video surveillance system was improved installing controlling cameras in the parking area that are controlled from the central surveillance point.
- Technical analysis and working plan for the creation of new infrastructures for Park & Bike users: new bike racks protected by a shelter.
- Technical analysis for the improvement of the lighting system of the whole parking area

The parking area Tanari, after Mimosa improvements, is a successful example of intermodality:

- people can park their car and take the bus shuttle to the city centre;
- the area is equipped with racks where people can leave their own bicycles and use them to continue their trip in the city after parking their car
- public bicycles of the "C'entro in bici" service are available inside the parking area

Stage 2: Realization of a new Park & Ride area *(from September 2009 to present)*

The creation of the new parking area required a set of preparation activities developed by ATC spa in cooperation with the Municipality:

- analysis of the interested area: situation of on street parking spaces, existing public transport service, characteristics of the traffic and movements in the area, urban planning development of the area.
- realization of the technical specifications for the civil work and structure
- technical specifications and realization of the call for tender for the supply of the access system for the parking area.

Two areas were selected:

- Parking area "**ex Riva-Calzoni**": this area was in the past a parking area for the workers of a big firm. It's located along Via Emilia Ponente an important traffic route, near a big hospital with heavy traffic problems but also a strong public transport service. The Municipality and ATC analized the traffic flows and the mobility needs around this area and identified it as a strategic point for the creation of a new intermodal parking area. ATC worked together with the Municipality on the technical planning of the infrastructure for the access control, video surveillance and remote

control of the parking area. During the completion of works, some technical problems were raised: the owner of the parking area (Bologna Municipality) requested to civil engineering contractor some adjustments in order to ensure compliance with regulations.

- Parking structure "**ex Euraquarium**": it's in the east area of the city near a major transport corridor served by some of the main bus lines for the city centre. It will consist of 160 parking spaces which are mainly reserved for residents. This will clear space on the main road via Mazzini to create a reserved bus lane and to gain free space for cars that wish to access shops and service buildings. Also for this area ATC worked together with the Municipality of Bologna on the technical planning of the infrastructure for access control, video surveillance and remote control of the parking area. The realization of the access management system was assigned with a tender in the first months of 2012. The parking area will open towards the end of 2012.

Stage 3: Realization of bus connection to the city centre and Park & Bus fare integration *(from January 2011 to Present)*

The parking area Tanari is connected to the city centre by two bus shuttles. The routes of the shuttle lines were improved and optimized during the Mimosa project development by taking into consideration the different actions that the Bologna Municipality took for the creation of the new pedestrian zones in the city centre. The first step was the pedestrianization of Via Zamboni in April 2011; the second one was the introduction of T-Days (during Saturdays, Sundays and public holidays the three main streets of the city centre Rizzoli, Ugo Bassi and Indipendenza are closed to all vehicles) in May 2012.

Furthermore for the T-days a completely new shuttle lines was created: the circular line "T" connects the parking area Sant'Orsola (in the east part of the city) to the core of the city centre (the two Towers), and line "T2" runs around the restricted area and brings passengers close to city main square. Concerning fare integration with sustainable transport modes in the parking area Tanari, it can be specified that:

- the parking is free of charge for drivers that leave their cars and take the bus shuttle (they only pay for the bus ticket).
- the parking is also free for people that leave their own bicycle in the parking area and use it to continue their trip to the final destination.

Stage 4: Requirement analysis and design of an electronic booking system for parking places *(from October 2010 to September 2012)*

The activity developed consists in the analysis of the general requirements of an electronic booking system that allows the reservation of a parking place. The study analysed the legal regulation of car park booking in Italy both on street and in closed areas and the technical and organizational aspect for the development of this system. The study is available at:

http://www.civitas-initiative.org/index.php?id=79&sel_menu=18&measure_id=432

Furthermore a first demo application was developed: it consists in a web application that allows you to book parking in the parking areas Tanari and Staveco.

B5   Inter-Relationships with Other Measures

This measure is related to measure BOL 3.2 "Pricing and monitoring policies for parking".

Measure 3.2 developed actions for the on-street parking management in the city centre and in the first peripheral zones by reorganizing the payment for parking on street and developing a new management system based on bar code for access permission to the city centre.

Both measure 2.2 and 3.2 works for the realization of the main objectives of the urban mobility policy in Bologna: decongest the central area from private cars with the introduction of disincentives (pay for parking, limitation of access to the centre) and promoting the use of Park & Ride areas outside the centre for the modal exchange from private car to public transport or other sustainable modes (bicycles, car sharing).

B5   Inter-Relationships with Other Measures

C   Impact Evaluation Findings

C1   Measurement Methodology

C1.1 Impacts and Indicators

Table C1.1.1: Indicators.

Evaluation area	Evaluation category	Impact	No.	Indicator	Source of data	Month
Economy	Benefits	Operating Revenues	1	Operating revenues	Accounts ATC	45
	Costs	Capital Costs	2	Capital Costs	Accounts ATC	45
		Maintenance and Operating Costs	3	Maintenance and Operating Costs	Accounts ATC	45
Society	Acceptance	Awareness	4	Awareness level	Surveys	45
		Acceptance	5	Acceptance level	Surveys	45
	Security	Security	6	Perception of security	Surveys	45
Transport	Quality of service	Quality of service	7	Quality of P&R service	Surveys	45
	Transport Park & Ride	Park occupancy	8	Average occupancy	Parking data collection	45

The realization and the improvement of Park & Ride areas is an action aimed to decongest and improve mobility in the central area of the city reducing private car circulation through the creation of equipped areas in strategic locations where drivers can leave their own car and continue their trip in the city with public transport or private/public bicycle.

Park & Ride areas guarantee numerous advantages for the users:

- the possibility to leave cars and bicycles in a secure place;
- the certainty to find a parking space and as a consequence the certainty of the travel time.

In general the development of Park & Ride areas in the city implies an increase in public transport and bicycle use with a consequent change in modal split towards sustainable modes.

At the moment data on modal split are not available because they are only measurable through the population census (last census was in 2011 but data are not published yet).

The evaluation that we carried out is limited to Tanari parking area, as the other selected new areas are not open for the users.

The indicators we selected allowed the assessment of the effective use of Park&Ride service and loyalty of the users.

Below you find the description of the indicators we used to evaluate the results of the measure.

Indicator 1-3 "Economical evaluation area":

To evaluate the measure from the economical point of view we consider data of the parking area Tanari:

- revenues from tickets sale,
- investments for the improvement in the parking area (doubling of the parking space, new bike racks installed, improvement in the lighting and surveillance system, improvement in the bus stop area)
- operating/maintenance costs

Indicator 4-6 "Society evaluation area" and Indicator 7-8 "Transport evaluation area":

In order to evaluate these indicators we realized three surveys:

- one survey carried out directly to the parking clients at the parking area Tanari: 333 clients have been interviewed between 11th and 15th June 2012, as weekdays were of most interest, because of the higher number of users. The aim of the survey was to evaluate the awareness and acceptance of the the Park & Ride services offered in the parking area (Park & Bus and Park & Bike services) , the perception on the quality, the perception on security of the parking place.
- one telephone survey to a sample of 500 citizens of Bologna carried out between 11th and 17th June. This surveys was used for the evaluation of the two Bologna measures concerning parking management actions (measure 2.2 and measure 3.2.). We wanted to evaluate the general awareness and acceptance of the measures adopted.
- one telephone survey to a sample of 300 citizens has been carried out between 20th and 24th September 2012, to collect data about the knowledge of Park & Ride systems and their eventual use and acceptance. We wanted to address citizens inhabiting both in Bologna and out of the city: we interviewed 150 people of the city and 150 of other towns, close to Bologna.

C1.2 Establishing a Baseline

Until 2008 Tanari parking area was used not only as a off road parking, but also as a depot for cars that were removed from the streets because of violation of law. Starting from that year that parking area begun to achieve a stronger role as a intermodal node and as interchange for drivers that had city center as destination. This was a part of the overall guidelines of the Municipality in order to reduce the number of cars accessing the center.

C1.3 Building the Business-As-Usual Scenario

The lack of interchange areas from private to public transport produces traffic and congestion in the central area of the city. The creation of Park & Ride areas at strategic points along the main route allows one to stop outside the centre, a significant reduction in number of cars entering the city has an immediate positive effect on traffic and congestion of the parking on-street in the central area.

The creation of Park & Ride areas is also a support to the introduction of the policy of payment for on-street parking in the centre because citizens have the potential to leave their car outside the centre and take the bus at a very advantageous fare.

If we hadn't developed this measure the situation of congestion of the central area of Bologna would make things worse progressively and the demand for on-street parking spaces would have been unsustainable.

Referring to Tanari parking area we estimated that:

- without the upgrades, users could have grown each year at a 20% ratio maximum.
- level of operating and maintenance costs (surveillance, cleaning and little maintenance, power and water consumption) would have remained stable throughout the years.

C2   Measure Results

The results are presented under sub headings corresponding to the areas used for indicators – economy, energy, environment, society and transport.

C2.1 Economy

Table C2.1.1: Parking area Tanari – Revenues and Costs (Euro)

Indicator	2008	2009	2010	2011
n. 1 - Revenues	14.887	12.879 (1)	19.618	26.365 (2)
n. 2 – Capital costs – Parking System, racks/bikes (3)	-	8.082	16.461	17.387
n. 3 – Maintenance and Operating costs (4)	153.151	150.236	145.422	148.122

(1) On 1st May 2009 fare for daily parking decreased from 3,00 Euro to 1,00 Euro.

(2) The Park & Bus ticket was 1,00 euro till 31/8/2011; from 1/9/2011 it's 1,20 Euro.

(3) Capital costs here displayed are mainly related to investments for the improvements of the parking area: new surveillance system, information signs, self service ticketing machine and management server. Costs for these issues are 80.821,00 Euro, spent in 2009. Cost for new racks and bikes are included to: 2.972 Euro spent in 2010 and 6.280 spent in 2011. Figures in the table above are set according to the quote of depreciation per year (ordinary rate for this kind of assets is 20% per year, but 10% for first year of use).

(4) Data of maintenance and operating costs are substantially constant over all the years of the project. This trend was expected at all, because improve on delivering new facilities didn't request any particular additional activity for personnel of the society in charge of manage and watch the parking, neither significant increase of other operating cost such as power consumption.

C2.2 Energy

Not applicable

C2.3 Environment

Not applicable

C2.4 Transport

Indicator 7: Quality of service

The quality of the service offered was evaluated with the survey carried out in June 2012 to clients of the parking area Tanari (333 people in total).

About a half of the interviewed (48%) are regular clients ("two or more times a week") and another 14% use the parking ("once a week") (see Fig. C2.4.1).

Figure C2.4.1: Average use of parking area "Tanari" (333 answers)
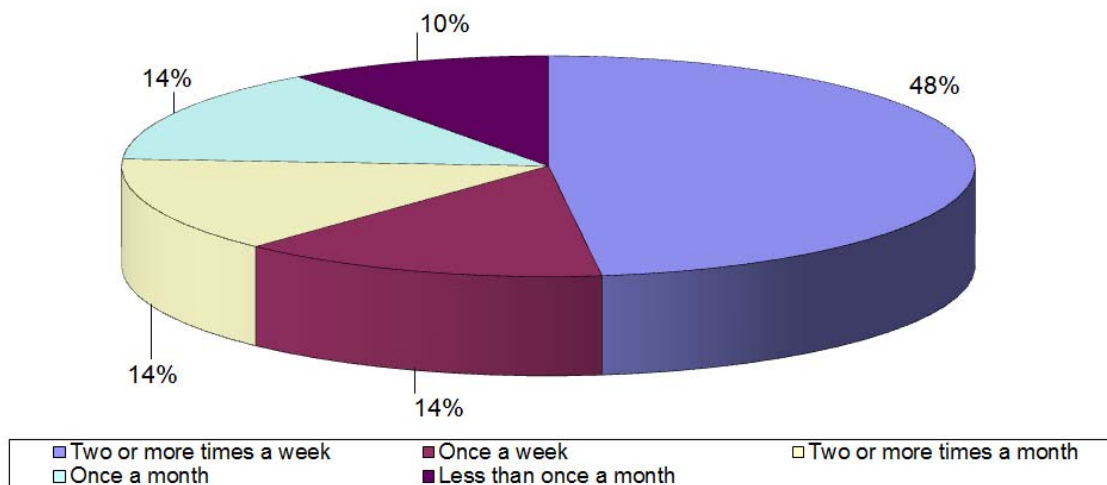
We asked the clients the reasons why they use this parking area (multiple answers were possible).

From the results we see that the main reason (71%) for using the parking area Tanari is the presence of the bus service. The second reason is the convenience of the fare together with the closeness to the city centre or to the final destination of users. The percentage of preferences for the Park & Bike service is quite low (8%). (see Fig. C2.4.2)

Figure C2.4.2 – Reasons for using the parking area Tanari (333 answers, multiple options)
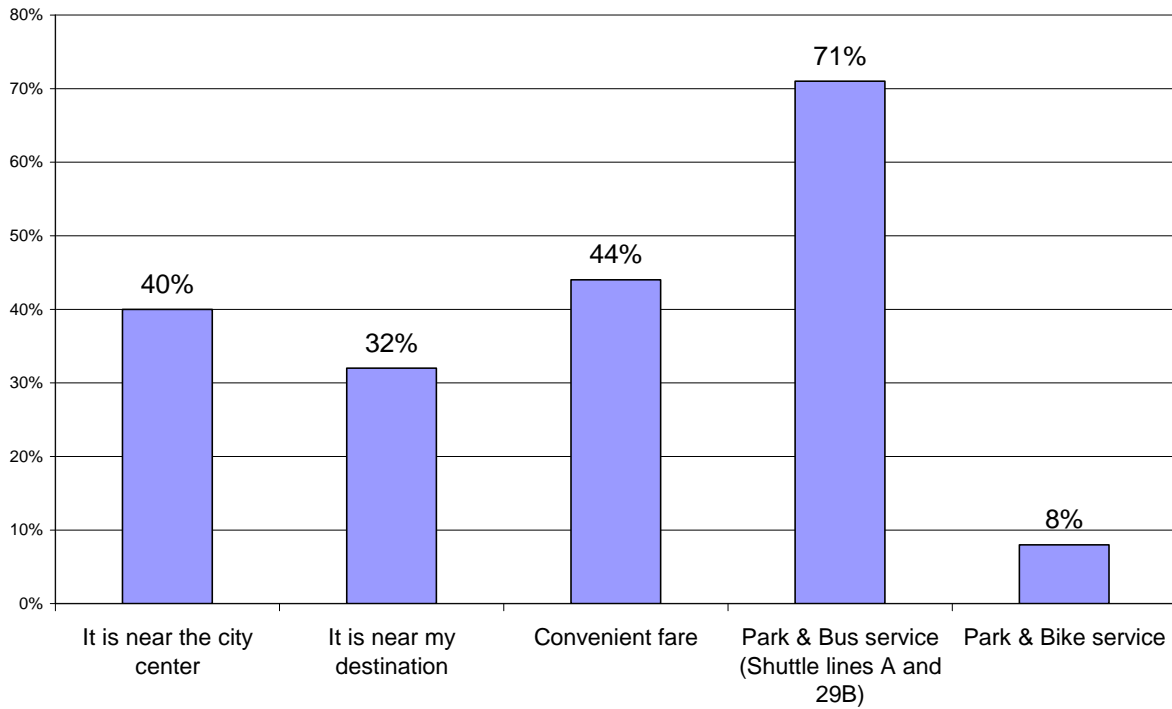

The success of the Park & Bus service is confirmed by 97% of clients that used the service in the following figure.

Figure C2.4.3 - Question: Have you ever used Park & Bus service? (333 answers)
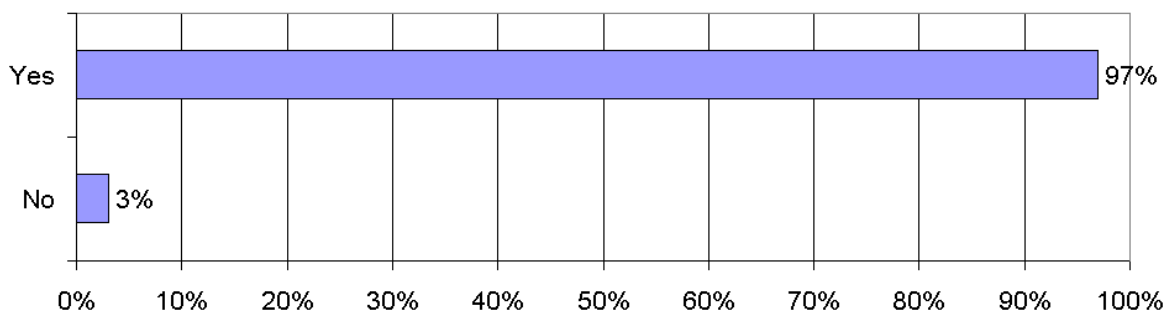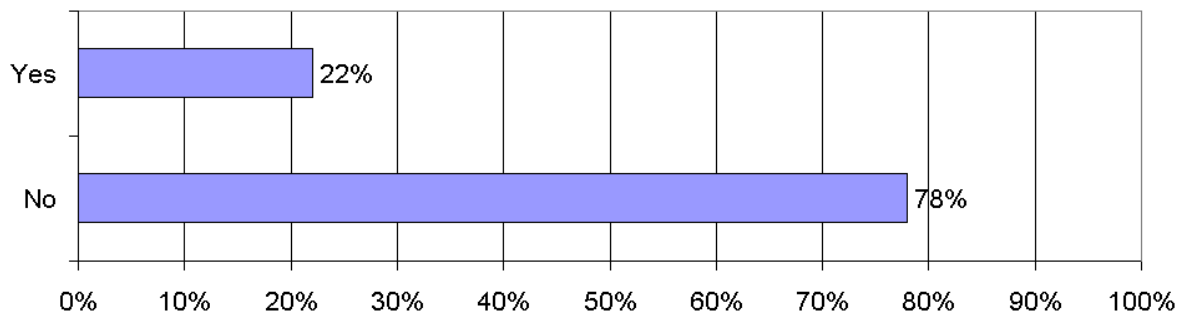

The Park & Bike service is not sufficiently known from the clients: only 50% know the system (See Fig. C2.4.4) and only the 22% of them has used it. (See Fig. C2.4.5)

Figure C2.4.4 - Question: Do you know the Park & Bike service? (333 answers)
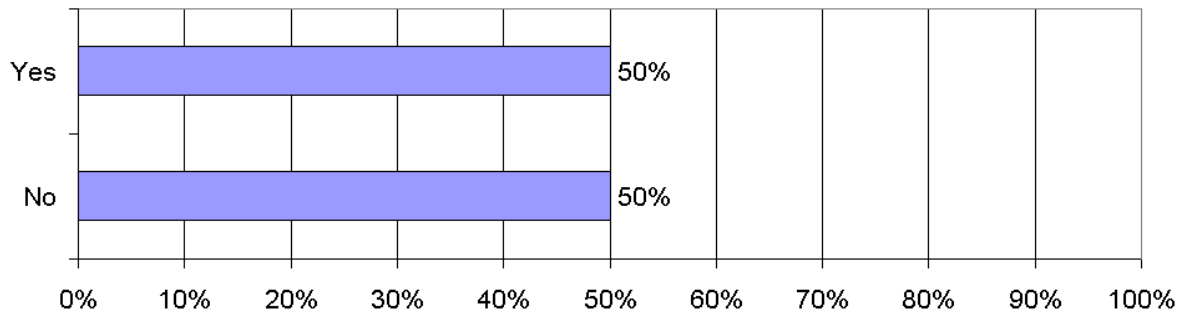
Figure C2.4.5 - Question: Have you ever used Park & Bike service? (166 answers: question asked just to users that previously declared to know the service)

We can finally say that the Park & Ride service in the parking area Tanari is a success; clients appreciate and use it: they leave their cars and take the bus to complete their trip. The presence of the Park & Bus service with a cheap fare is the qualifying element of the area. The Park & Bike service needs to be promoted because it is not known from half of the interviewed.

Data above, collected through the regular users of the parking, indicate good loyalty and acceptance.

We should investigate, for the future, the most suitable measure to drive actual clients to spread information about the services and to underline related advantages to potential new users that don't know or don't think the facilities of the parking area are convenient .

Matching findings above with data obtained through the telephone survey addressed to a casual sample of car users (see chapter C2.5), which show a good potential acceptance of Park & Ride patterns, we can foresee that new parking areas, located in convenient parts of the city and offering a wide range of services, will be able to attract citizens that by now haven't used them.

Indicator 8: Park Occupancy

Indicator	2008	2009	2010	2011
n. 8 - Park occupancy (*)	36.000	43.000	71.000	95.000

(*) number of users per year of the parking area Tanari; estimated on the basis of sales of tickets.

In order to make quantitative assessments we chose the number of citizens paying for the parking (tickets sold).

Data on users confirmed the extremely positive trend of Tanari parking: this is due on one side to the increase of the parking spaces available and on the other side to improvements made in the area (new surveillance system, bus shuttle line, Park & Bike service).

An increase in use of the parking area Tanari has been observed: in the period of time 2008-2011 users are increased from 36.000 to 95.000.

Car park occupancy has increased by 19% from 2008 to 2009, while from 2009 to 2010 the increase was by 65%. The enhanced trend has been confirmed comparing 2011 and 2010 (+34% of users).

A key item for this achievement is represented by the fare policy that strongly supported Park & Bus and Park & Bike facilities, offering free parking to bus and bicycle users.

Apart from users paying parking or Park & Bus fare, there are other categories of citizens (bus travelcard owners, Park & Bike users, employees of particular companies and public bodies) that have the right of free parking and cannot be registered through the revenues. Paying users are around one third of the total.

C2.5 Society

Indicator 4: Awareness and Indicator 5: Acceptance

A specific question has been addressed to 300 car users, through a telephone survey made between 20th and 24th September 2012, about the awareness of Park & Ride (see Tab. C2.5.1). The operator had briefly described what it is, in order to be sure of the comprehension and, successively asked their opinion about the general effectiveness of such facilities, even if they were not personally interested (see Fig. C2.5.1).

Results show a few satisfying awareness (40%), and even among the 26 car drivers that have used Park & Ride services, none is a frequent user and just 3 use them (see Tab. C2.5.2)

Figure C2.5.1 – Question: Do you know the Park & Ride facilities available in Tanari parking area? (300 answers)
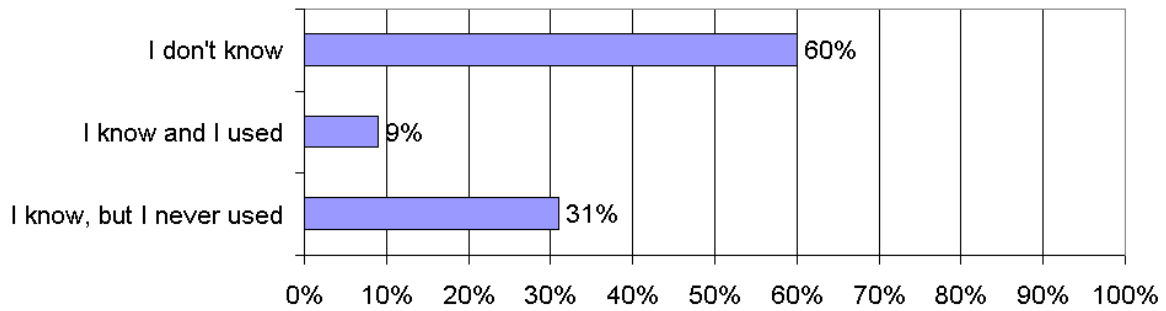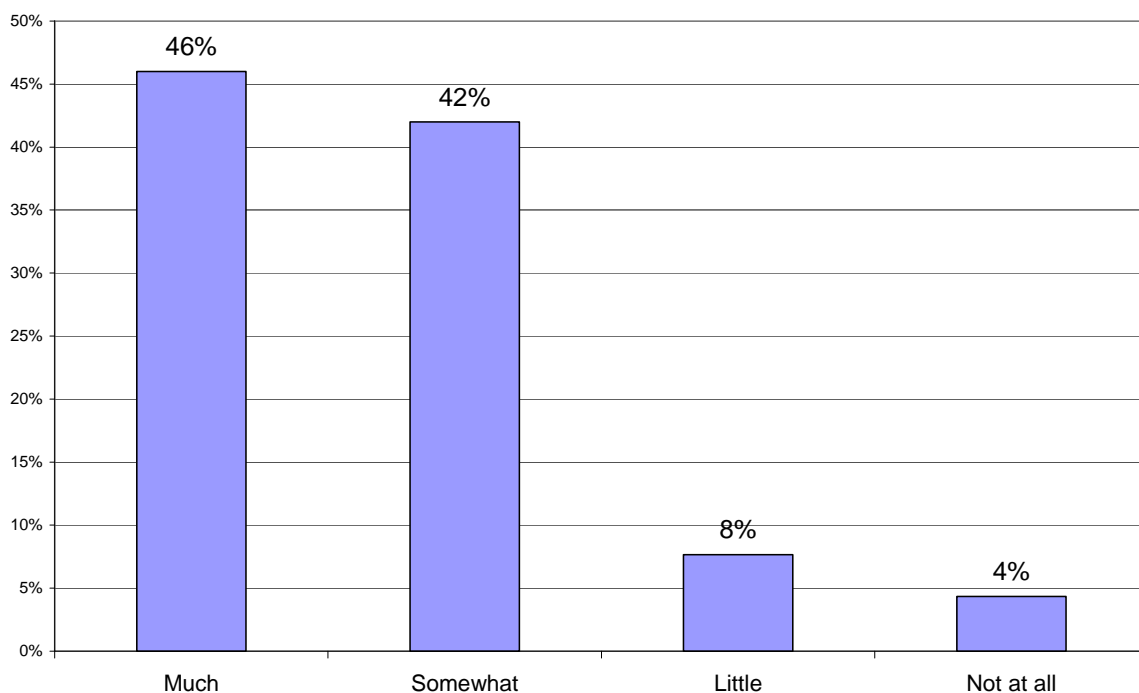

Figure C2.5.2 – Question: How often do you use Park & Ride facilities? (26 answers)
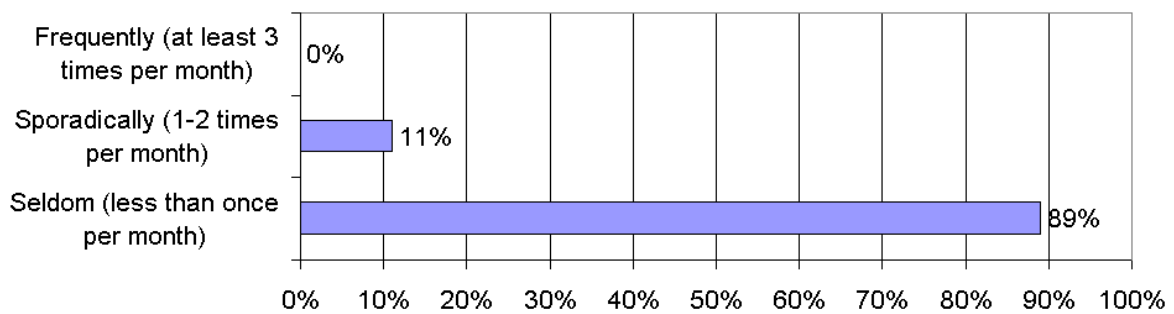
Most of the people (86%) agreed (much or somewhat) about the idea that Park & Ride can improve quality of urban mobility (see Fig. C2.5.3).

Figure C2.5.3 – Question: Do you think that Park & Ride can improve, in general, traffic, and parking in urban area? (300 answers)

This figure suggests that people understand the importance of structures that can offer real alternatives to reach their destination. It can be read, together with other findings, as encouraging for further implementation of Park & Ride services.

Indicator 6: Security

Concerning the security of the parking area Tanari, according to the survey carried out in the parking with actual users, 59% of the clients evaluated it good or very good, 30% sufficient, only 11% insufficient (See Figure C2.5.4).

Figure C2.5.4 – Question: How do you evaluate safety of this parking area? (333 answers)
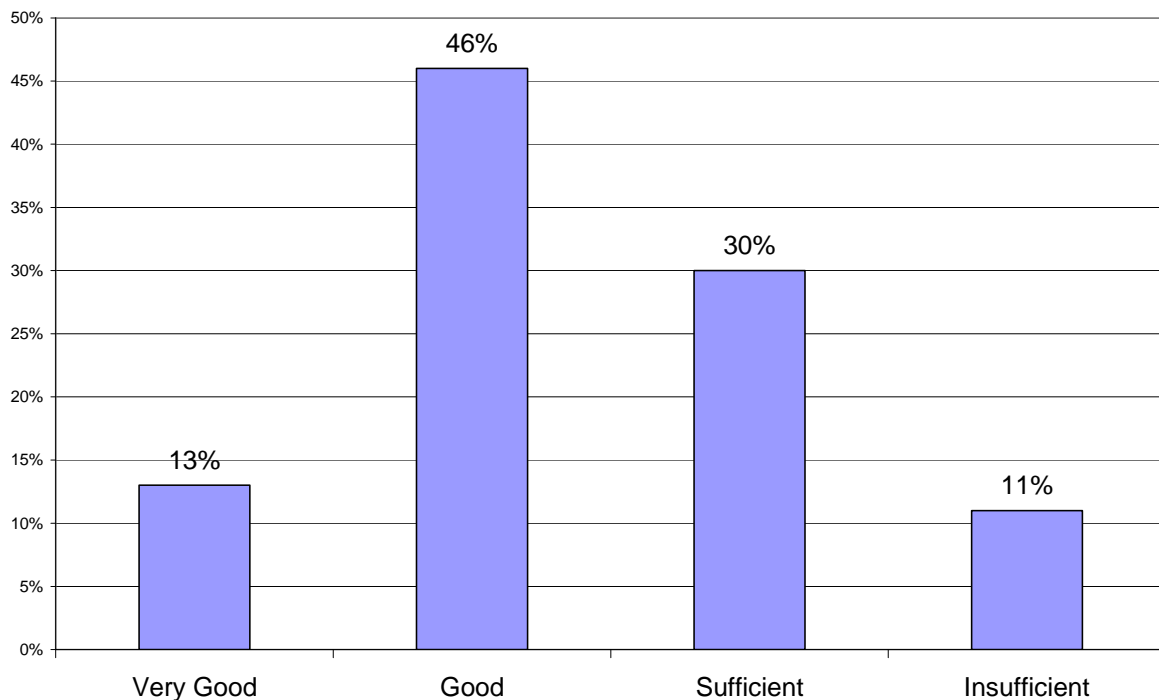
Answers of the people interviewed show that they have a general safe perception while they are in the parking the area. This can be considered a further issue for the success of Tanari parking area.

We can assess that presence of operators and surveillance systems have a very important role.

C3   Achievement of Quantifiable Targets and Objectives

No.	Target	Rating
1	Improve of use and acceptance of Park & Ride facilities.	★★
NA = Not Assessed O = Not Achieved ★ = Substantially achieved (at least 50%) **★★ = Achieved in full ★★★ = Exceeded**		

Results achievied after the improvements on Tanari parking area have shown capability of that parking structure to attract more users and to offer them services that they appreciate: an increase by 163% of users beween 2008 and 2011, and by 34% of the revenues show a clear success.

Tanari parking area is now a credited node for integration between private car and other modes of transport.

Evident agreement of the users of the parking allow us to think that the opening of new similar structures, in the future, will bring benefits to users and, in general, to the urban environment.

C4   Up-Scaling of Results

The experience achieved on Tanari parking area is positive, and will be the basis for projects for new implementation of Park & Ride facilities that will be exploited in other city areas.

New racks and bicycles for Park & Bike have already been installed in STAVECO parking area, and other car parks managed by ATC will be equipped.

C5   Appraisal of Evaluation Approach

Data collected on Tanari parking, even if partial area, are significant and show the effectiveness of the Park & Ride measures displayed.

When other planned parking areas are opened in other zones of the city, the data that we will collect will, we suspect, be even more indicative.

The evaluation should have been more complete if we had the possibility to collect data before/after concerning the modal split of the transport modes used. These data are not available at the moment and they are only measurable through the population census. With this information we could have measured change in mobility behaviours.

C6   Summary of Evaluation Results

The key results are as follows:

- **Increase of use –** from 2008 to 2011 the use of Park & Ride facilities in parking area Tanari is more than doubled. Fare policy to promote Park & Bus, improvement of the structures and increasing of the parking places, together with the choices about urban mobility taken by the Municipality, have contributed to increase the attractiveness of this area. This is a good point for start of future up-scaling of the Park & Ride patterns.

- **Awareness** – citizens (non users of Park & Ride facilities) have shown a low level of awareness of them. Any new activation of structures of Park & Ride will have to be accompanied by suitable communication measures.

- **Acceptance** – even citizens that are not aware of Park & Ride services, or just don't use, assess that these measures can help to achieve a better mobility in urban areas and to make parking easier.

C7   Future Activities Relating to the Measure

During next months new parking areas will be open to the citizens.

As we observed both a lack of knowledge of Park and Ride among non-users and a high level of satisfaction of the service among the users, specific information measures will be exploited to let people know the new opportunities.

C7   Future Activities Relating to the Measure

D   Process Evaluation Findings

D1   Deviations from the Original Plan

There is a delay in the opening of the new parking area "ex-Riva Calzoni" due to problems raised during the final technical inspection. The Bologna Municipality requested to the civil engineering company some necessary adjustments before the completion of works in compliance with the current regulation and for the final technical approval.

As far as new Ex-Euraquarium parking area, similar problems had caused a delay in test of civil works, and it will be at citizens' disposal towards the end of year 2012.

D2   Barriers and Drivers

D2.1 Barriers

Preparation phase

- **1. Definition of location** – It was difficult to find an area which is really suitable, matching many requirements:
    - high density of houses and people in the area;
    - presence or settlements (i.e. industrial) that can be converted, according to urban regulation;
    - closeness to main main traffic corridors;
    - closeness to main public transport lines;
    - lack of other parking opportunities.

Implementation phase

- **2. External issues -** Works on "ex-Riva Calzoni" and "ex-Euraquarium" have been completed, but the area couldn't be taken in charge by ATC because of the controversy between the owner (Municipality) and the civil contractors about the respect of all the technical requirements.

D2.2 Drivers

Overall Drivers

- **1. Political issues** - Strong commitment of local authorities is needed, to increase Park & Ride areas in order to rationalize mobility in the city, promote public transport and bicycle use.

D2.3 Activities

Implementation phase

- **System acquisition:** In order to complete the realization of "Ex- Euraquarium" parking area as soon as we take in charge the operation of the area, we carried out all the activities to acquire the parking access control system. We awarded the contract for the supply of devices and the system is ready for installation. This activity has been taken to overcome barrier n. 2.

D3   Participation

D3.1 Measure Partners

- **ATC spa** - as the company in charge of parking management on behalf of Bologna Municipality in the whole Bologna urban area followed the planning and development of all activities.
- **Bologna Municipality** – as local authority is directly involved in mobility planning and it is involved in all the activities for the planning and authorization point of view.

D3.2 Stakeholders

- **Citizens, mainly those with a car and have the city centre as destination** - As access to city center in Bologna has been discouraged by the decisions of local government, people arriving in by car can benefit of solutions that allow them to park not far from the center itself and continue their trip through other modes of transport.
- **Bologna Municipality** – The Municipality defines the guidelines for the urban development and, consequently, rules on mobility and the use of spaces in the city. The correct and effective application of measures adopted to support such choices, like Park & Ride schemes, has influence on the success of the Municipality's policies and the achievement of its objectives.

D4   Recommendations

D4.1 Recommendations: Measure Replication

Not applicable

D4.2 Recommendations: Process (Related to Barrier-, Driver- and Action Fields)

- **Definition of location** – Location of parking areas should match the following requirements: to be close to destinations, to have surfaces wide enough, to be easy to access from main traffic corridors, to be very close to main public transport lines.
- **Commitment of local government** – Park & Ride schemes have to match local government long term plans about urban planning and mobility policies and measures. Only this way resources (land, technical investments, operational costs) can really benefit citizens.
- **External issues -** Areas that can suit the ideal requirements for the creation of an attractive area for Park & Ride structures are generally located in populous parts of the cities. All the administrative and legal aspects (according to specific regulations and situations) have to be taken into consideration in order to achieve the availability of the areas themselves.