

SUGAR

CURRENT CITY LOGISTICS MEASURES APPLIED IN THE MUNICIPALITY OF ATHENS

Municipality of Athens
1st & 2nd of July, Heraklion

Aim of the presentation

The aim of the current presentation is to present the most representative city logistics measures applied in the Municipality of Athens towards improvement of the traffic and urban freight transport situation.

The situation in the Municipality of Athens requires more improvements (and sometimes radical changes) but the experience so far shows that the actions are in the right track.

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Waste Collection System

Legislative Framework and Regulations (1/2)

The legislative framework and regulations for the introduction of city logistics measures are in place. Harmonisation measures on the provisions are required. For the measures implemented solely by the Municipality, the Municipal Council has the authority to issue special regulations.

The most relevant to SUGAR policies are presented below:

- Decision for loading/unloading practices for enterprises in the Ring Zone area of Athens
- Provision in the Government Gazette for Super Markets deliveries
- Provision in the Government Gazette for traffic regulation restriction in the Commercial Triangle
- Decision of Blue Zone

Legislative Framework and Regulations (2/2)

- Decision regarding vehicle circulation based on their payloads
- National legislation for noise levels
- Traffic Control Code regulations
- Law for the establishment of Freight Villages
- New development law (for logistics facilities)
- Law for Public Private Partnership
- Regulation for pedestrianisation works

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Pedestrianisation activities

The two most significant pedestrianisation projects are:

- The Commercial Triangle – so called (in Greek) Emporiko Trigono
- Unification of Athens Archaeological Sites

Pedestrianisation activities

The Commercial Triangle Case

Map of the area



- Its three edges are the most famous squares Omonoia, Sintagma and Monastiraki
- It is surrounded by Ermou, Mitropoleos and Athinas streets
- An area of 40 ha
- Main part of Athens Archaeological Sites area

175

Pedestrianisation activities

The Commercial Triangle Case

The identity of the area

- 60.000 employees
- Administrative and commercial centre of the capital
- Thousands of visitors on a daily basis (banks, ministries, public services, shops etc)
- “Heart” of the Historical Centre of Athens

The area has an important role not only from the commercial /business point of view but also for its administrative, social, cultural and historical character.

Pedestrianisation activities

The Commercial Triangle Case

What was the problem?

- Traffic problems
- Atmospheric pollution
- High noise level
- Mixture of activities
- Lack of free spaces for common use
- Deterioration of the identity of the area
- Aesthetics downgrading

Pedestrianisation activities

The Commercial Triangle Case

Three Areas of actions

- The first area was on Spatial Planning interventions
- The second area included actions for reformation of the area and promotion of its identity
- The third area concentrated on the establishment and introduction of traffic and parking regulations in the area

Pedestrianisation activities

The Commercial Triangle Case

Main provisions of the third area of actions

- No access to private vehicles (definition of the streets providing access to the area)
- Pedestrianisation of Ermou Street
- Provisions for the hotels in the area
- Enhancement of Public Transport serving the area
- Parking regulations for the residents, visitors, public services, motor cycles, taxi
- Regulations for loading/unloading activities and deliveries
- Regulations for waste collections
- Establishment of enforcement –control mechanisms

Pedestrianisation activities

Unification of Athens Archaeological Sites

Goal of the project

- elevation of the historic profile of Athens.
- a sound effort for the Revival of Historical Athens.
- provision of new perception of archaeological monuments, so much regarding their form, as regarding access to them.

A goal that does not simply aim at the promotion of monuments, but intends to familiarize citizens (residents and visitors) with ancient history too.

Pedestrianisation activities

Unification of Athens Archaeological Sites

Main interventions

- The Grand Promenade (pedestrianisation of Dionysiou Areopagitou, Apostolou Pavlou and Ermou Sts)
- Enhancement of the Archaeological Sites (the Olympieion, North and South Slopes of the Acropolis), Filopappos Hill, Ancient and Roman Agora and Kerameikos)
- Widening of pavements (Metropoleos, Kolokotroni, Perikleous Sts etc)
- Small-scale pedestrianisations (Adrianou, Aeolou, Athenas Sts) have facilitated access to the Historic Centre and promenading among heritage treasures.
- Remodeling of the four major squares in Athens: Syntagma Sq., Omonoia Sq., Monasteraki Sq., Koumoundourou Sq.
- Restoration of facades of the buildings in the Historical centre and the removal of advertising billboards.

Pedestrianisation activities

Unification of Athens Archaeological Sites

The Grand Promenade



- Dionysiou Aeropagitou
- Apostolou Pavlou
- Ermou
- Kerameikos Square

Pedestrianisation activities Unification of Athens Archaeological Sites

The Grand Promenade – Apostolou Pavlou Street

After

Before



Design: 1998-2000
Construction: 2002-2003
Street Length: 830 m

Pedestrianisation activities

Unification of Athens Archaeological Sites

The Grand Promenade – Apostolou Pavlou Street

After

Before



Pedestrianisation activities

Unification of Athens Archaeological Sites

The Grand Promenade –Dionyssiou Aeropagitou Street

Before



After



Design:1998-2000

Construction: 2000-2002

Street Length: 920 m

Pedestrianisation activities

Unification of Athens Archaeological Sites

The Grand Promenade –Dionyssiou Aeropagitou Street



Before



After

Pedestrianisation activities

Unification of Athens Archaeological Sites

The Grand Promenade –Ermou Street

After



Design: 1998-2004
Construction: 2003-2004
Street Length: 600 m

Pedestrianisation activities

Unification of Athens Archaeological Sites

The Grand Promenade –Ermou Street

Before



Pedestrianisation activities

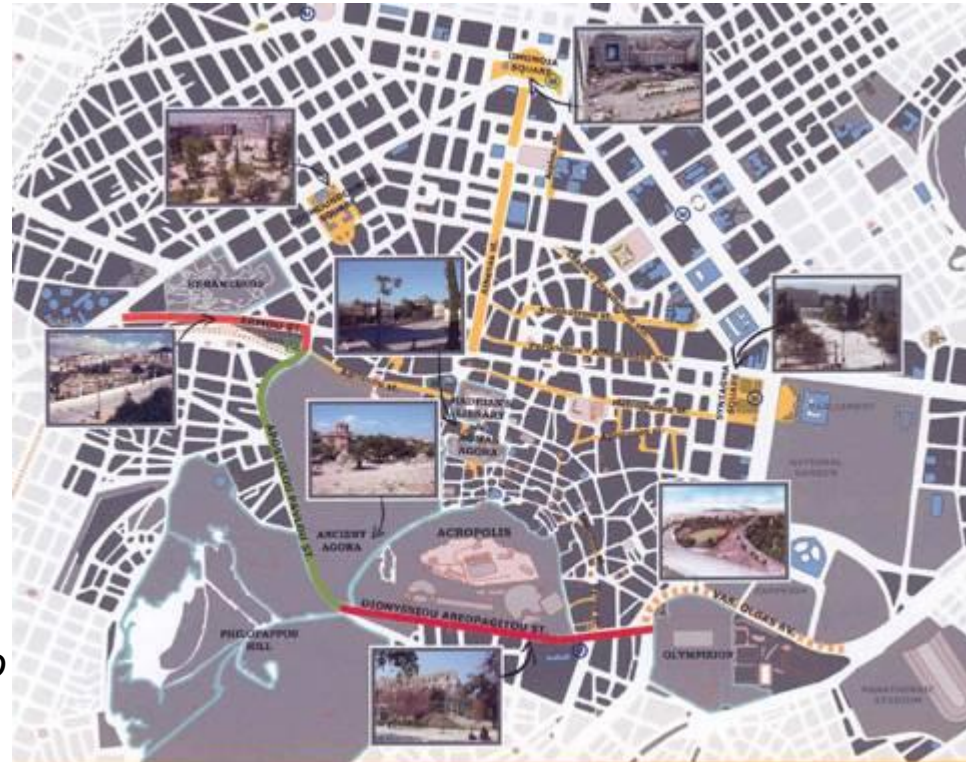
Unification of Athens Archaeological Sites

Revival of the Historic Centre of Athens

A large “open” Museum has been created unifying the rich cultural heritage with the city’s every day life

“Thus the entire area can be a museum of ancient art unrivalled anywhere else in the world”

Kleanthes&Schaubert, 1832, Memorandum to the Regency of Nafplion



Pedestrianisation activities

Unification of Athens Archaeological Sites

Façade restoration-Remodelling of central streets



A blue-toned illustration at the top of the slide shows a perspective view of a city street with a grid pattern. A white line-art truck is parked on the right, and a white line-art car is on the left. In the background, there are white line-art buildings and a small figure of a person walking.

Pedestrianisation activities

Unification of Athens Archaeological Sites

The know-how and experience acquired from this period can be passed on to other cities that may wish to implement similar policies for the revival and enhancement of their historic heritage.

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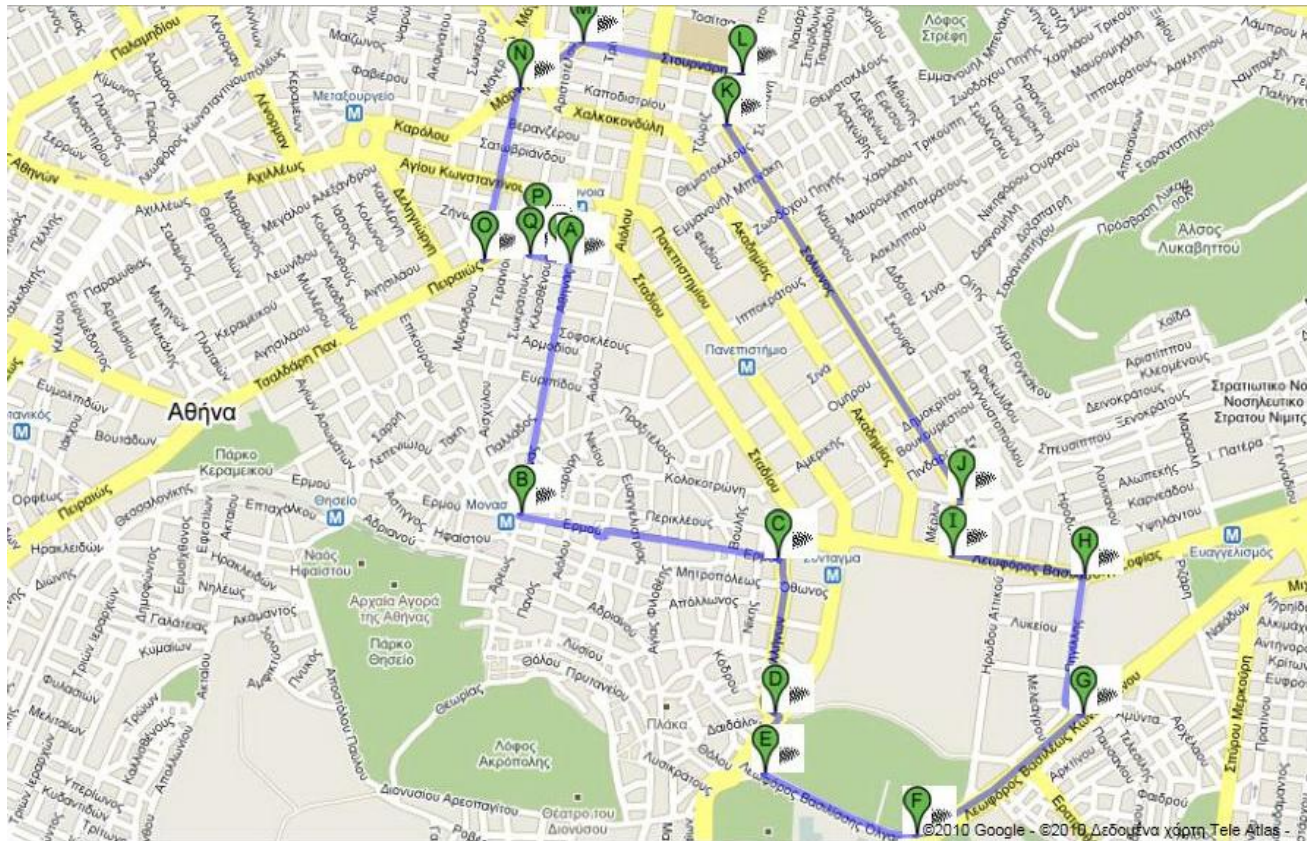
Loading/Unloading Operations

Legal Framework (1/3)

- The “Blue Zone” Decision, issued in 1998 identifies specific hours for loading/unloading operations in relation to the vehicles weight.
 - » Trucks up to 4tn are allowed from 14:30-17:00 and from 21:00-07:00. For loading/unloading operations, they use the dedicated bays and for the time period according to the signs provisions. Special traffic regulations are foreseen for operations along specific roads of the zone for the period between 07:00 – 11:00.
 - » Trucks heavier than 4tn are allowed to enter and operate in the area in the period between 14:30-17:00 and 21:00-07:00.
 - » There are provisions for special uses (e.g. construction activities, hospitals, press etc.)

Loading/Unloading Operations

Map of the area of Blue Zone



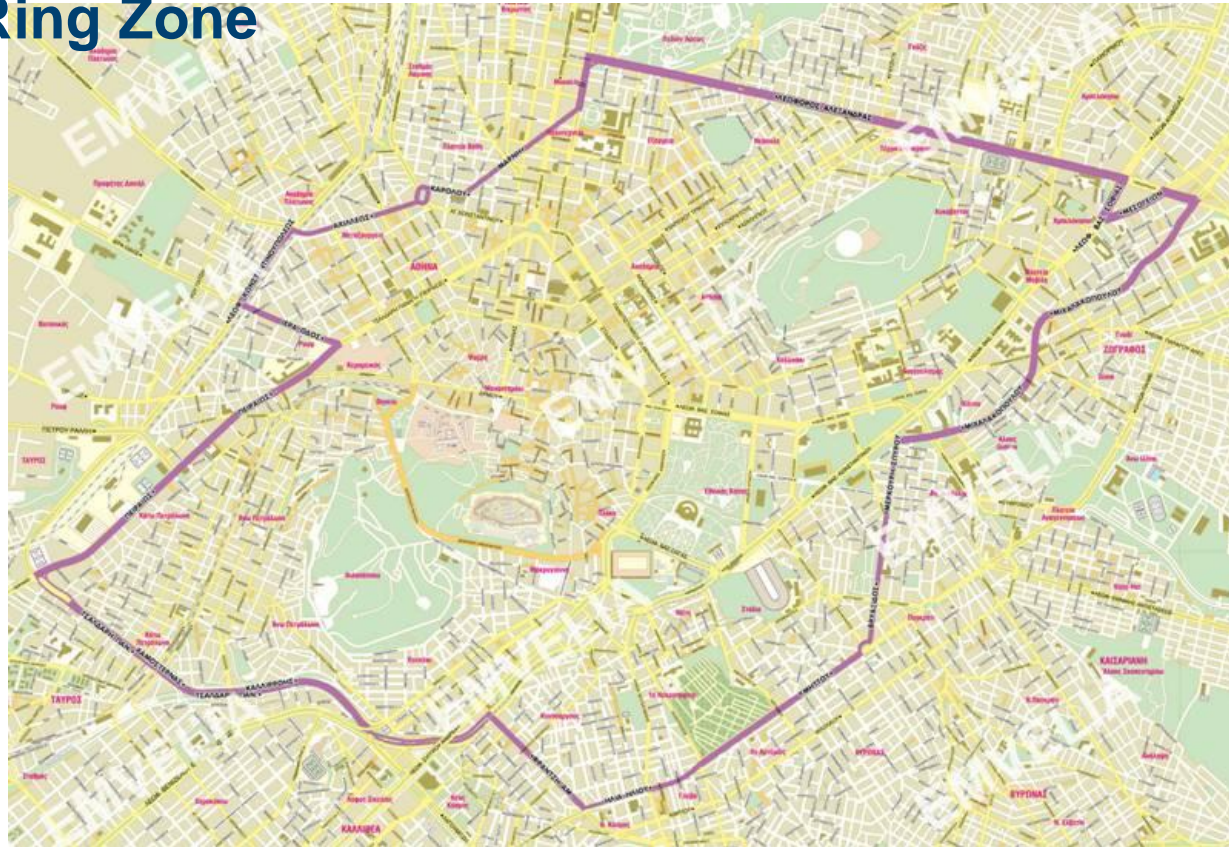
Loading/Unloading Operations

Legal Framework (2/3)

- The Operation of Ring Zone of Athens
 - » The loading /unloading operations of Super Markets and Department Stores are not allowed for trucks with payload more than 1.5 tn from 07:00-10:30
 - » The same applies for the roads in the periphery of the Ring
 - » Operations for fresh products and Central Market are excluded

Loading/Unloading Operations

Map of the Ring Zone



Loading/Unloading Operations

Legal Framework (3/3)

- The Operation of Commercial Triangle
 - » The loading /unloading operations are allowed from 07:00-10:30 and from 14:30-17:30

Loading/Unloading Operations

Loading Bays

- The definition of the loading bays have been made following on site visits in order to identify the number of shops, their needs for deliveries/shipments, the geometric characteristics of the roads etc.
- Currently there are 1.000 dedicated spaces for loading/unloading operations.
- The loading bays are defined in areas with road width of at least 5m and have length 10 m and width 2. They are marked with yellow lineation.
- In narrower roads, there are special grooves marked with white lineation
- Max allowed time for loading/unloading activities is 15 min.

Loading/Unloading Operations – Snapshot of the Drawing



— Loading bays of Phase A
— Loading bays of Phase B



Loading/Unloading Operations

Loading Bays

White lineation



Sign



Loading/Unloading Operations

Evaluation of the practices

- Difficulties with the different operating hours foreseen in the three regulations. Requirements for harmonisation.
- Complex definitions. The regulations foresee restrictions based on payload and not on maximum weight.
- Problems with small shops with limited storage spaces. Increased need for often deliveries.

Loading/Unloading Operations

Evaluation of the practices

- The special loading /unloading bays most of the times are occupied by private cars (stop and park)



Loading/Unloading Operations

Evaluation of the practices

- Need for enhanced control and enforcement.



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Municipal Parking System

The Problem

- Increased lack of sufficient number of legal parking places due to:
 - » The increased number of vehicle traffic (from 470 vehicles /1000 inhab in 2008 to 650 vehicles in 2010)
 - » The reduction of on street parking places (pedestrianisation, control, public works)
 - » The increased parking at off street places does not satisfy the demand
 - » The car parks are not filled in the peak hours

Municipal Parking System

The implications

- Illegal parking at critical points (junctions, bus stops, turnovers)

Results

- Reduction of the traffic capacity of the road network
- Increased traffic and waiting times
- Increased energy consumption
- Increased emissions

Municipal Parking System

The way to success (1/2)

- The former efforts for the implementation of controlled parking systems (in the Municipality of Athens but also in other Municipalities of the Prefecture) were not that successful mainly due to
 - » inefficient studies
 - » lack of systematic control and enforcement mechanisms
 - » lack of efficient mechanism for the recovery of fines
 - » incomplete information and awareness of the citizens

Municipal Parking System

The way to success (2/2)

- The following steps have led to the successful implementation of the project
 - » Open consultation
 - » Formulation of a committee with representatives from all political parties
 - » Study award
 - » Formulation of the legal framework from the Municipality
 - » Open Tender
 - » Planning

Municipal Parking System

Background Information

Before

Legal Places: 5.291
Average shift rate: 3 veh/place
Total: 15.873 vehicles

Illegal places: 2.509
Average shift rate: 4 veh/place
Total: 10.036 vehicles

TOTAL LEGAL PARKING:
~ 16.000 vehicles

After (A Phase)

Legal Places: 3.538
Average shift rate: 2,5 veh/place
Total: 8.845 vehicles

Visitors places: 1.956
Average shift rate: 6 veh/place
Total: 11.736 vehicles

TOTAL LEGAL PARKING:
~ 20.500 vehicles

Municipal Parking System

Characteristics of the system (1/3)

- 2.538 parking spaces reserved exclusively for permanent residents (blue lineation - P70 "P-Residents"),
- 1.956 spaces for short-term visitors (white lineation - P69 "P-Paid")
- 1.000 spaces for special use and commercial use (yellow lineation - P40 "Stopping and parking are prohibited. Exceptions...).
- The system - as regards short-term visitors - is in effect Monday to Friday from 9:00 to 21:00 and on Saturday from 9:00 to 16:00.

Municipal Parking System

Characteristics of the system (2/3)

- Permanent residents can apply to the City of Athens for a special parking permit that should be affixed to the windscreen of their vehicle. (10€/year)
- For visitors, the maximum time permissible for short-term parking is three hours. The parking fee for a 30-minute period is 50 cents. The rate for every additional 30 minutes is 50 cents, up until the second hour. The fee for a two-hour period is €2. The flat rate for a 2.5-hour period is €4, while the rate for three hours is €6.
- Special-use parking spaces, whose rate in the initial phase of the system's implementation stands at 1,800 € /year, are managed by the municipal authority and designated in accordance with Athens City Council decisions to facilitate specific professional needs.

Municipal Parking System

Characteristics of the system (3/3)

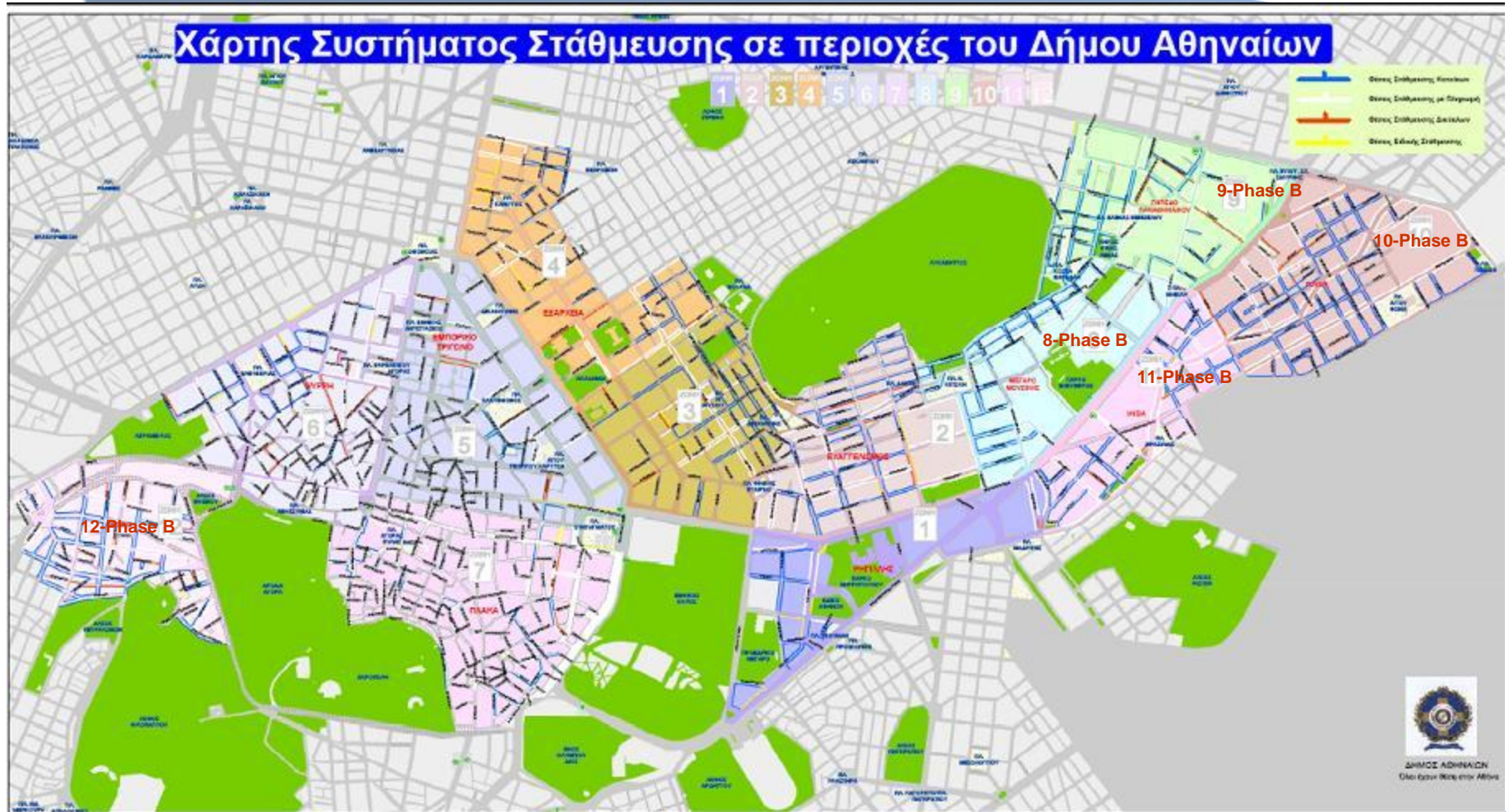
- Parking fees are paid:
 - » with a pre-paid voucher (50 cents, €1 and €2) or
 - » with a pre-paid cash card (€5, €10, €20 and €50), which involves using a mobile phone to call the provider's automated service system on telephone 1577.

Municipal Parking System

Implementation phases of the project

- Phase A: zones (1-7) – Completed
- Phase B: zones (8-12) – Under Implementation (~ 5.500 parking places)
- Phase C: Remaining areas of the Municipality. Priorities to the areas with high visitors number.

Municipal Parking System –Map of the area



Municipal Parking System –Snap shot of the drawing



Municipal Parking System

Experience from the implementation of the First Phase

+

Well accepted
Increased use of Public Transport
Availability of free parking places for visitors
Facilitation of parking to the residents
Better use of on street places
Extra income for the Municipality
Exploitation of the information collected by the system
Use of new methods for control (handheld terminals)

-

Quality of cards
Problems with the handhelds terminals
Time consuming processes for the issuing of the permanent residents cards
Inefficient control and enforcement mechanisms
Number of free parking places
Illegal use of parking places by the public

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Control and Enforcement mechanism

The control and enforcement of traffic regulations are performed by the Traffic Police.

The control and enforcement of parking regulations are under the authority of Municipal Police. An electronic system has been implemented for the control of parking operations. The data recorded by the system enables the assessment and the evaluation of its operation.

Municipal Police Officers with handheld terminals check if there is parking violation rules. There is a Central Administration system that records and processes the fines.

Control and Enforcement mechanism

**The controlled parking areas are divided in zones.
The officers repeat their assigned route every 45 minutes. (may be it is long)**

**Traffic cameras are used (or planned to be used) for
Traffic Control Code supervision.**

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Ring Zone of Athens

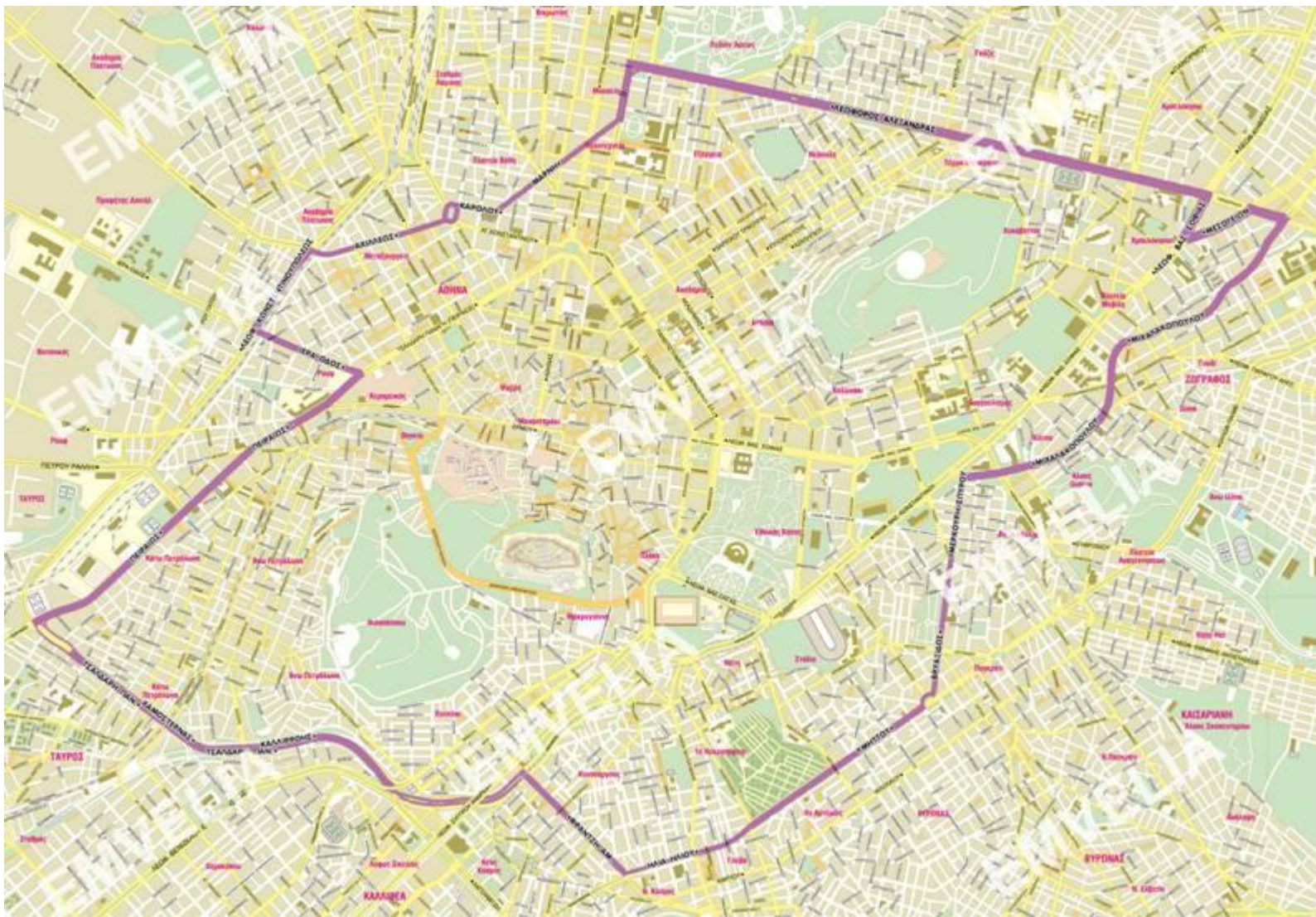
- Definition and History
 - » Ring Zone of Athens is the measure implemented to regulate car traffic in the city centre.
 - » It has been introduced as a pilot measure in July, 1979 because of the oil crisis. Since 1982, the measure has been officially implemented.
- Aim
 - » To reduce congestion
 - » To reduce through traffic
 - » To reduce air pollution from automobile exhausts
- Description of the measure
 - » Vehicles (private and trucks up to 2,2 tn) are allowed to enter the area of the Ring Zone of Athens depending on the last digit of the registration number plate and date last digit i.e vehicles with odd number are allowed to enter the Ring on odd dates - for example, on February 3, vehicles with number plates ending in 1, 3, 5, 7, 9 are allowed

Access Control

Ring Zone of Athens

- Operational hours - Exceptions
 - » Starts in September and stops in mid-July (01-09-2009 to 16-07-2010)
 - » from Monday to Thursday from 7:00 a.m. to 8 pm
 - » On Fridays from 7:00 a.m to 3 pm
 - » It does not apply on weekends.
 - » The measure does not apply to car rental, hybrid cars and users with special needs and.... **VARIOUS OTHER CATEGORIES.** For these categories special licenses are issued by the Traffic Police

Access Control - Map of Ring Zone of Athens



Access Control

Ring Zone of Athens

- Evaluation of the measure
 - » The measure has brought significant improvements but nowadays is considered as “old fashioned” mainly due to the increased number of vehicles (430.000 in 1982, 3.000.000 today)
 - » 43% of the households have two cars with odd and even numbers
 - » 30% of the vehicles entering the Ring are illegal
 - » Thousands of special permits have been issued

As a result alternative solutions are seeking.

Access Control

Electronic barriers (autosinked)

- A pilot application introduced in 1995 from the Ministry of Spatial Planning, Environment and Public Works in the pedestrian areas of the Commercial Triangle and Plaka. 36 points had electronic barriers
 - » The measure was not successful mainly due to the lack of maturity of the public, despite the awareness campaign of the Ministry.
 - » The experience of that time has helped the Municipality to reconsider the way of introducing new measures and find economically viable solutions.

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Athens Traffic Management System

Description of the system

- The traffic management system (TMS) is operated from two control centres (to allow for the event of one control centre failing) fed by data from a variety of sources including close circuit television cameras, traffic signals, Autoscope video-detection cameras, ground loop detectors, speed radar devices, security personnel and traffic police on the ground.
- The system can analyse and process the information it receives and then display traffic conditions using a graphic user interface (GUI).
- It controls 1.500 traffic signals in the greater Athens area and 24 Variable Message Signs (VMS).

Athens Traffic Management System

Services provided

- provision of information to VMS regarding current traffic conditions, special events and incidents, on line time estimation on selected routes, instructions for safe driving etc.
- regulation of traffic lights
- provision of information to competent services (road maintenance services, Ambulance, Traffic Police, Fire Brigade, etc.) in order to manage the incidents (accidents, damages to roads, traffic barriers, etc.)
- provision of traffic data to third parties

Athens Traffic Management System

Traffic Management Control Centre



Sign informing for the cameras existence



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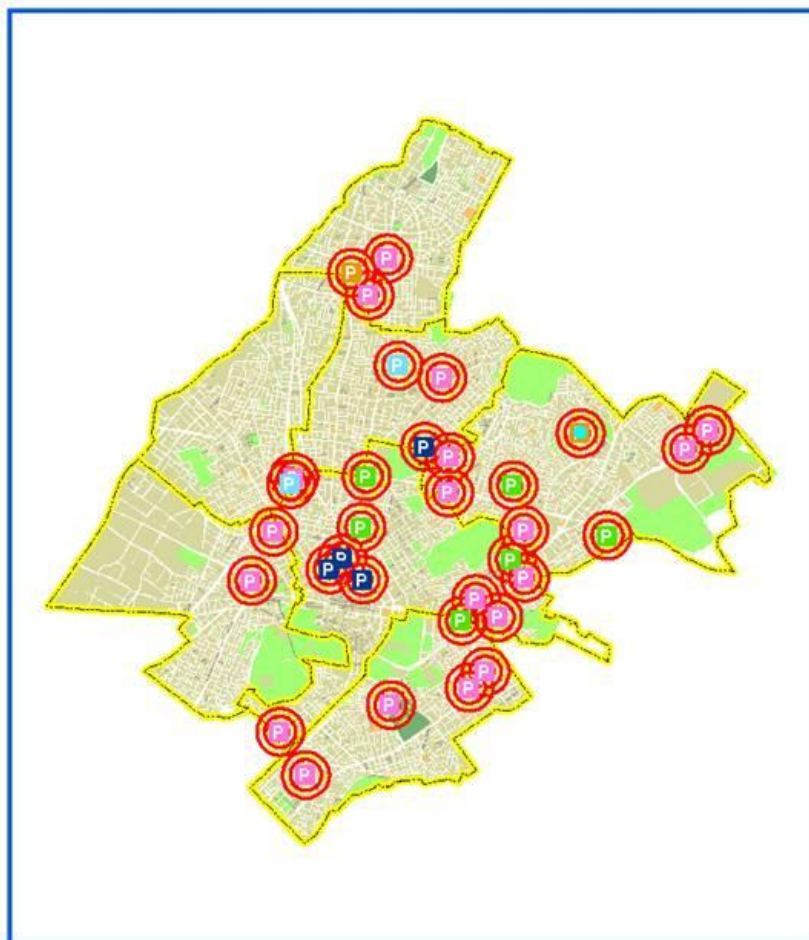
Parking Stations (1/3)

The creation of parking stations underground with reformation of the ground areas to creation areas, open or closed are in the priorities of the Municipality of Athens.

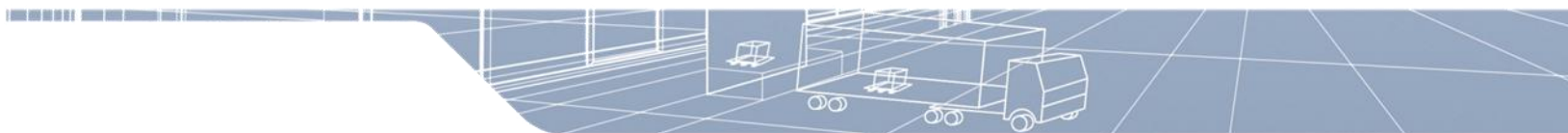
Some of the parking places are created with funds and initiatives of the Municipality while others by the Ministry of Environment and Climate Change.

Currently, the emphasis for the creation of parking places is given to the city centre area where parking is a major issue.

Parking Stations (2/3)-Existing and planned parking stations



ΥΠΗΛΑ	ΚΩΔ.	ΟΝΟΜΑΣΙΑ	ΚΑΤΑΣΤΑΣΗ	ΚΑΤΑΣΚΕΥΑΣΤΗΣ
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	11	ΠΛΑΤΕΙΑ ΑΙΓΥΠΤΟΥ	ΚΑΤΑΣΚΕΥΑΖΟΜΕΝΟΙ	ΥΠΕΧΩΔΕ
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	13	ΡΙΖΑΡΗ-ΒΑΣ. ΚΩΝ/ΝΟΥ	ΚΑΤΑΣΚΕΥΑΖΟΜΕΝΟΙ	ΥΠΕΧΩΔΕ
	14	ΘΗΒΩΝ-ΜΙΧΑΛΑΚΟΠΟΥΛΟΥ	ΚΑΤΑΣΚΕΥΑΖΟΜΕΝΟΙ	ΥΠΕΧΩΔΕ
	15	Κ. ΛΟΥΚΑΡΕΩΣ-ΚΑΛΒΟΥ	ΚΑΤΑΣΚΕΥΑΖΟΜΕΝΟΙ	ΥΠΕΧΩΔΕ
	16	ΚΟΚΚΑΛΗ (ΜΕΓΑΡΟ ΜΟΥΣΙΚΗΣ)	ΚΑΤΑΣΚΕΥΑΖΟΜΕΝΟΙ	ΜΕΓΑΡΟ ΜΟΥΣΙΚ.
	21	ΚΥΠΡΟΥ-ΠΑΤΗΣΙΩΝ	ΠΡΟΣ ΔΗΜΟΠΡΑΤΗΣΗ	ΔΗΜΟΣ ΑΘΗΝΑΙΩΝ
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	47	ΒΑΛΤΙΝΩΝ (ΠΕΔΙΟ ΑΡΕΩΣ)	ΠΡΟΣ ΜΕΛΕΤΗ	ΥΠΕΧΩΔΕ
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	60	ΕΥΓΕΝΕΙΟΥ ΚΑΡΑΒΙΑ-ΑΙΛΙΑΝΟΥ	ΠΡΟΣ ΜΕΛΕΤΗ	ΔΗΜΟΣ ΑΘΗΝΑΙΩΝ
	61	ΟΔΟΣ ΥΨΗΛΑΝΤΟΥ	ΠΡΟΣ ΜΕΛΕΤΗ	ΔΗΜΟΣ ΑΘΗΝΑΙΩΝ
	62	ΠΟΠΛΟΥ ΛΕΝΟΡΜΑΝ-Β. ΜΠΕΝΑΚΗ	ΠΡΟΣ ΜΕΛΕΤΗ	ΔΗΜΟΣ ΑΘΗΝΑΙΩΝ
	63	ΟΔΟΣ ΒΡΥΞΕΛΙΔΟΣ	ΠΡΟΣ ΜΕΛΕΤΗ	ΥΠΕΧΩΔΕ
	64	ΠΑΤΗΣΙΩΝ-ΚΑΥΤΑΝΤΖΟΓΛΟΥ-ΤΣΙΛΛΕΡ	ΠΡΟΣ ΜΕΛΕΤΗ	ΔΗΜΟΣ ΑΘΗΝΑΙΩΝ
	65	ΔΕΛΗΓΙΑΝΝΗ-ΜΕΤΑΞΑ-ΣΑΜΟΥ	ΠΡΟΣ ΜΕΛΕΤΗ	ΔΗΜΟΣ ΑΘΗΝΑΙΩΝ
	66	ΧΕΛΝΤΡΑΙΧ-ΛΑΓΟΥΜΙΤΖΗ	ΠΡΟΣ ΜΕΛΕΤΗ	ΔΗΜΟΣ ΑΘΗΝΑΙΩΝ
	67	ΠΕΙΡΑΙΩΣ-ΙΕΡΑ ΟΔΟΣ	ΠΡΟΣ ΜΕΛΕΤΗ	ΔΗΜΟΣ ΑΘΗΝΑΙΩΝ



Parking Stations (3/3) –Existing Parking Places



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Pedestrianisation activities

Loading/Unloading Operations

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Control and Enforcement mechanism

Access Control

Athens Traffic Management System

Parking Stations

Waste Collection System

Waste Collection System (1/3)

The waste collection system has been totally reorganised and updated.

- The infrastructure and the mechanical equipment have been modernised.
- Better fleet routing using MIS
- Automatic vehicles weigh
- Use of RFID tags for management of the garbage bins
- Reorganisation of the transshipment centres
- Special attention to road cleaning and disinfection

Waste Collection System (2/3)

The waste collection, in small streets, takes place in evening hours while in central roads three times a day (with new environmental friendly vehicles of natural gas)

Acquisition of 32 vehicles of environmental friendly technology

New mechanical systems for road cleaning.

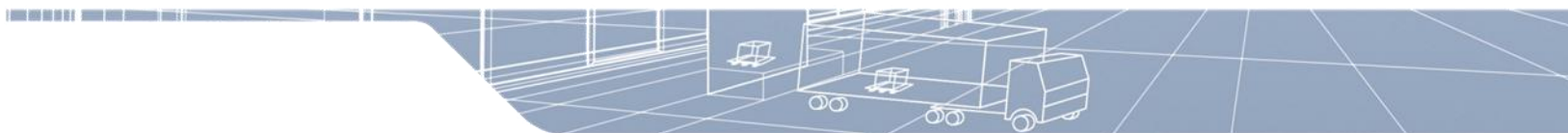
An extensive awareness campaign “find the right spot” for the proper use of the garbage bins (10.000 T-shirts with the campaign logo, 50.000 leaflets, 10.000 CDs with an electronic game, 10.000 bags with the campaign logo)

Waste Collection System (3/3)

Photos of

- garbage bins with RFID tags and the GIS system
- The new fleet





Thank you for your attention!!

