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Parking Policy Measures and their Effects on Mobility and the Economy

Subject : Case studies in Belgium

LIST OF THE CASE STUDIES

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W. DEBAUCHE - Belgian Road Research Centre

B. Brussels : Proposed agreement between public authorities and car park management companies with a view to managing car parking

M. THOULEN, Association of the Local Authorities of the Brussels-Capital Region

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A. PARKING POLICY MEASURES IN THE CITIES OF MONS AND CHARLEROI

CHARLEROI

1. The local context - Diagnosis

1.1. Population

Charleroi, at the heart of the Walloon Region, is situated close to Brussels and near the French border; with a population of 202,000, it is Wallonia's biggest city. The highest population densities are concentrated in the historic centre of the city, where most people live in blocks of flats (shared housing). As one moves away from the centre, densities tend to decrease and one-family houses become more frequent (individual housing).

Like other Walloon and Belgian cities, Charleroi is losing population to the surrounding areas. Suburbanization is clearly in progress, with the daily commuting problems it entails.

1.2. Employment

Though severely depressed by the industrial crisis of the early eighties, the city of Charleroi has remained the second major centre of employment in Wallonia. In 1996, there were jobs for 772,000 people in the city as opposed to 896,000 in 1982, that is, a loss of 14 % in fifteen years. The town is no longer able to provide sufficient employment for its population. This has resulted in much commuting mainly to Brussels, which remains the first provider of employment in Belgium.

1.3. School attendance

Charleroi is relatively important as a regional centre of education. Each day 15,000 students come to schools at the town centre, and another 6,000 to schools in the suburbs. This concentration of educational institutes enhances the use of public transport. Nevertheless, traffic on roads in the immediate surroundings of schools is seriously hampered by double or even triple parking at the beginning and end of teaching hours, in spite of specific facilities such as loading and unloading areas provided near certain establishments.

1.4. Trade

The geography of trade in Charleroi is characterized by a high concentration in the inner city - with over 25 % of all the town's shops -, the presence of three major shopping centres at the outskirts, and a strong representation of hypermarkets.

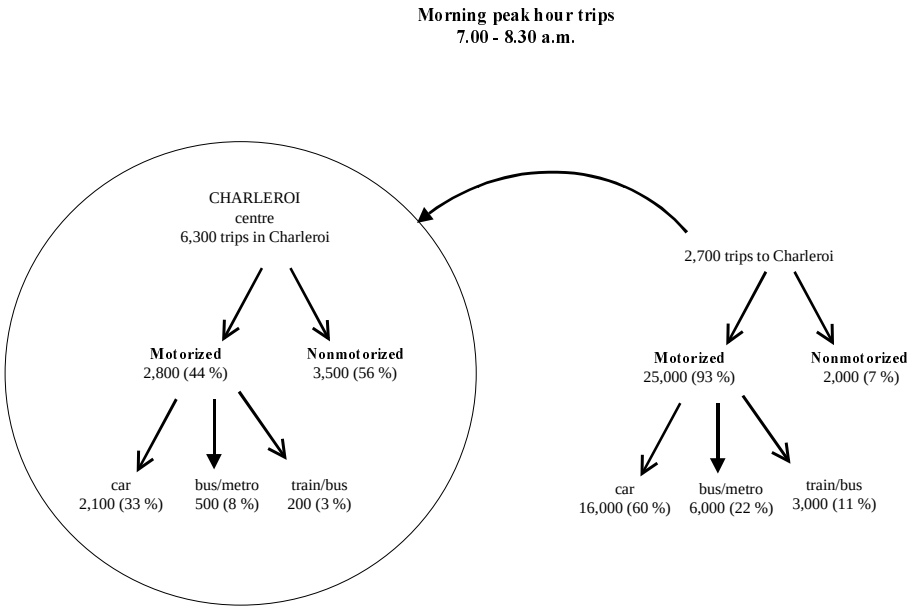
Hypermarkets and shopping centres have location logics based on good accessibility by road and tend to establish themselves preferably along main national roads or close to motorway interchanges. This location policy causes real traffic problems at certain times of day and/or in the week, in terms of both volumes of generated traffic and safety on access junctions.

It should be noted that Charleroi has a Town Centre Manager responsible for managing, federating and revitalizing trade in the inner city so as to make it attractive and able to face suburban competition.

1.5. Transportation and transport networks

1.5.1. Modal split

The diagram below represents the numbers of inbound trips to the centre of Charleroi during morning peak hours. The data was recorded in 1998.



MODAL SPLIT BY PURPOSE OF MOTORIZED TRIPS IN 1990

Trip purpose	Private transport	Public transport
Home to work	92 %	8 %
Home to school	62 %	38 %
Home to other destinations	94 %	6 %
Nonhome-based	92 %	8 %
MARKET SHARE	**83 %**	**17 %**

Public transport cannot compete with the car - except among the school population group, which represents 60 % of the regular customers of public transport companies. The small share of public transport in home-to-work travel can be explained by:

- places of residence becoming increasingly scattered away from working areas;
- the change in preferred location of working areas, which in search of maximum accessibility by road tend to develop mainly at road junctions or motorway interchanges. This location policy greatly encourages the use of the private car.

1.5.2. Public transport

The Charleroi public transport company (TEC Charleroi) is bound to the Walloon regional transport country (SRWT) by a management contract that sets a line of conduct to be followed in order to be consistent with the public transport policy defined by the regional minister of transport. In return, the Region commits itself to granting TEC Charleroi financial support for both its operating and investment costs.

TEC Charleroi covers a territory of 1,500 km^2 extending over some twenty municipalities. It serves a population of 580,000 inhabitants in this area. The network has a total length of 1,545 km, including 41 km of metro lines and 322 km of lines conceded to private operators. It is composed of sixty-five lines, four of which are metro lines, and is operated by a vehicle fleet of 280 buses and thirty-five electric rail cars. In 1997, the average age of vehicles in the fleet was twelve years for buses and seventeen years for tramcars. This high age may seem surprising, but it should be added that the fleet is in the full process of renewal and that, as a result, the average age of vehicles should decrease sharply in the next few years. As for human resources, TEC Charleroi currently employs nearly nine hundred people.

TEC CHARLEROI - BASIC DATA IN 1998

- 1,545 km of network for a territory of 1,500 km^2

- 2,070 stops (1 direction)

- 12,732,000 km travelled/year (that is, 14 % of total travel by all Walloon public transport companies), shared out as follows:

  - 7,385,000 km travelled/year in urban areas
  - 4,949,000 km travelled/year in suburban areas
  - 398,000 km travelled/year in rural areas

  or as follows:

  - 11,603,000 km travelled/year by bus
  - 1,028,000 km travelled/year by metro
  - 101,000 km travelled/year by city bus

- 22.0 km/year/inh. for the TEC Charleroi area

- 36.6 km/year/inh. for the TEC Charleroi urban area

Charleroi is also served by rail, which is managed by the Belgian national railway company (SNCB). Six railway stations in greater Charleroi receive a total of 838 trains a day, including four high-speed trains (TGV) from and to Paris.

1.5.3. Private transport

Car ownership is the ratio of the number of light vehicles and motorcycles to the number of inhabitants. In the greater Charleroi area there are wide differences between the "centre town" and the residential suburbs, where car ownership is higher. It should also be noted that car ownership has risen sharply over the past few years.

DEVELOPMENT OF CAR OWNERSHIP BETWEEN 1985 AND 1998:

CITY OF CHARLEROI, SUBURBS, GREATER CHARLEROI AREA, AND WALLOON REGION

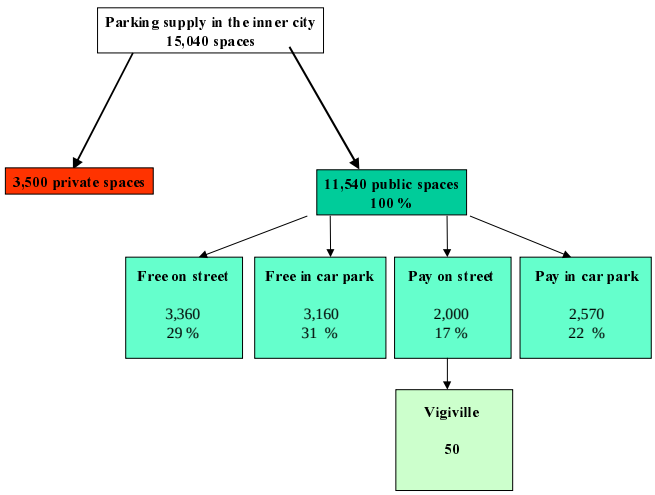
	1985	**1990**	**1998**
City of Charleroi	32.2	35.9	40.0
Farciennes	27.5	31.0	35.2
Gerpinnes	40.7	45.5	50.8
Montigny-Le-Tilleul	40.1	44.8	50.0
Greater Charleroi area	32.5	36.4	41.0
Walloon Region	34.9	38.7	43.9

Although car ownership in the greater Charleroi area increased by 26 % between 1985 and 1998, it is still lower than average in the Walloon Region.

Concurrently, traffic volumes have been steadily increasing on both the road and motorway networks - especially on the Charleroi ring road, where traffic is growing faster than 5 % a year.

The town centre of Charleroi is being faced with serious traffic problems. The capacity reserves of the entry junctions are limited or in some cases even nonexistent. Moreover, the operation of these junctions is often affected by malfunctions in the inner city, the effects of which may be felt as far as at the points of entry. The question as to how to relieve the load of car traffic on the inner city is, therefore, topical.

1.6. Parking



The tariff for on-street pay parking is progressive:

- 20 BEF for one hour,
- 50 BEF for two hours,
- 100 BEF for three hours (the maximum permitted parking time).

A project to extend charging for on-street parking is being studied by the public land management corporation of Charleroi. If it is carried through, about 1,200 on-street spaces will become subject to pay parking. This will equalize the total numbers of pay and free parking spaces in the inner city, so that each will represent 50 % of the public supply.

The present ***flaws in present parking conditions*** are:

- too many public parking spaces - especially free spaces - in the inner city;
- highly saturated on-street parking - both free and pay - in the inner city;
- insufficient on-street parking turnover in trading areas;
- failure to observe regulations and charge for infringements, resulting in abnormally high rates of illegal parking;
- private car parks in the inner city highly saturated during working hours;
- the absence of dynamic route signing on the ring road to optimize the occupancy of parking structures (buildings or underground garages);
- similar problems, though less acute, at suburban shopping centres.

2. The parking measures implemented

The City of Charleroi, supported by the Walloon Region, has mandated a consultant to make a transportation and parking study on its territory. This study is in progress and should result in the implementation of an integrated package of traffic and parking policy measures for the various modes of both private and public transport.

The problems encountered are, however, not new. A few years ago, the City, aware of the importance of parking issues for its development and for the well-being of its central trading area, already took a number of measures, including the introduction of two parking supply techniques that were innovative at the time: Parcoville and Vigiville.

2.1. THE VIGIVILLE SYSTEM

2.1.1. Description

Vigiville is an automated system for the management of on-street parking spaces. A test site with forty-eight Vigiville parking places was developed in the inner city of Charleroi in the mid-nineties and the experiment still continues.

The spaces provided are 5 m long by 2.5 m wide. They are well separated and easily identified by users. A locking device is located at the extremity. The gate, a curved metal block, is raised by a pneumatic jack. Two magnetic sensors are located in the line under the car. As soon as a car enters the space, the sensors activate the operating system, and the gates rises after the "free" period - if any - has elapsed.

The payment machines are located at the centre of the parking site. The driver only has to enter the number of his space to know the amount due. Upon payment, he receives a ticket indicating the amount paid, and the gate is lowered immediately to allow him to leave.

The payment machines accept coins or specific prepayment chip cards sold in shops or by the parking operator. These cards can be used for payment in other car park systems (pay-and-display underground car parks, etc.).

The machines are connected to a simple PC operated by software that is very easy to use. The computer handles the information transmitted by the sensors, makes an account of the number of vehicles parked, carries out the collection of electronic payments made, prepares a monthly account statement, and generates statistics. For cash payments, the PC records the number of coins in each machine and informs the technician as soon as the cash box is full. It also sends out an alarm signal to a remote monitoring centre if it detects an error or breakdown.

2.1.2. Advantages and disadvantages

- The hourly rate can be flat or increase with time, and can be changed any time by the computer manager.

- There is no more need for police control, as this is done automatically. It is impossible to leave a space without paying the fee. This argument carries considerable weight, since municipal authorities have great difficulty in enforcing payment owing to a shortage of personnel.

- Tokens prepaid by shopkeepers can be given to clients according to the amount of their purchases.

- The last argument relates to security. Users can also prevent car theft if they like. To do so, they only have to insert their card and enter their space number into the payment machine upon their arrival. The car cannot be removed from the space without using the same card. This is an interesting system for local residents at night and at weekends.

2.1.3. Evaluation –problems encountered

OVERVIEW OF THE ECONOMICS OF THE PROJECT

Working basis

- Fee (since 01/01/1999): 20 BEF (= 0.5 EUR) per half hour / 40 BEF (0.99 EUR) per hour
- Time schedule: seven days a week except holidays, from 8 a.m. to 8 p.m.
- Payment: with coins or chip card

Use statistics

- Number of working days: 350
- Number of spaces: 48
- Average number of entries per year: 50,000 cars
- Average number of hours paid per year and per space: 1,750
- Average number of hours paid per day and per space: 5
- Average parking time per client: 1.66 hours
- Average fee paid per client: 66 BEF (= 1.65 EUR)

Revenue statistics

- Average income per space and per year: 70,000 BEF (= 1,735 EUR)
- Average % of payment with chip card: 5

Expenditure statistics

- Total investment per space: 350,000 BEF (7,437 EUR)
- Yearly operation expenses per space : 40 000 BEF (= 867 EURO)

The following problems have been encountered in Charleroi with the implementation of the Vigiville system:

- some users feel very uncomfortable about this new technology which they are unfamiliar with;

- the first technological version of the system was not 100 % reliable. The sensors picking up differences in magnetic field also reacted to tiny differences that could be produced by elements external to the system (e.g. a heavy thunderstorm). As a result, the gates rose as if the space were taken. Of course, this had a deterrent effect on users. This technical problem is believed to have been solved in the new generation of sensors;

- there is no consistent and comprehensive management policy for on-street and off-street parking. Parking regulations are inadequately enforced, fees for traditional on-street parking are too low, etc.

All things considered, the experiment has nevertheless been found satisfactory and will be continued in the next few years.

2.2. The Parcoville system

2.2.1. Description

Parcoville is an automated off-street parking system. The motorist drives his vehicle into a lift cage that is lowered after the driver has stepped outside and automatically parks the vehicle in one of the available spaces. Parking spaces on each floor are arranged in a daisy-like pattern with their metal racks, and are accessible from the lifting device fitted with a turning platform. The vehicle is recovered in the same way.

Payment at the cash desk at the entry of the structure is automatic as well, and is made when collecting the vehicle.

2.2.2. Advantages and disadvantages

- Parking spaces can be provided in places that are a priori difficult to access.

- The system enhances security by making it impossible for burglars to break into cars.

- Entry and exit times are shorter than in a traditional underground car park BUT the waiting time, though limited, is felt to be a disadvantage since users perceive it as being three times as long as it actually is.

- The user feels ill at ease at seeing his car disappear and losing physical contact with it.

- Investment costs are very high: 1.2 to 1.6 million BEF (300,000 to 400,000 EUR) per space. The facility can, therefore, not be operated profitably without charging a fee as high as 200 BEF (± 5 EUR) per hour, which is three times the present fee in most off-street underground car parks!

2.2.3. Evaluation – Problems encountered

Six Parcoville facilities offering a total of about 330 parking places were provided in the inner city of Charleroi about seven years ago. They were operated for five years, after which they were closed down for lack of sufficient use to cover the expenses incurred.

The following causes are suggested for this failure:

- the company entrusted with the maintenance and breakdown servicing of the system was located in the south of France. This resulted in monitoring problems. The few occasional breakdowns had dramatic effects on occupancy;

- the locations of the Parcoville structures, which are strategically important for the development of the system, were badly chosen, that is, in places where they met with keen competition from on-street parking;

- there was no integrated policy for on- and off-street parking (including control of the on-street parking alternative), and on-street parking in the neighbourhood was too cheap or even free;

- the fee charged was rather stiff for the declined public purchasing power in an economically severely depressed area.

3. Results and conclusions

Generally speaking, the two experimental systems have major technological advantages. The Vigiville experiment seems to be more realistic as far as return on investment is concerned. As for its effectiveness as a parking management tool, it can be considered as satisfactory insofar as it encourages parking turnover and consequently requires systematic control. Its success seems, however, to be subject to the express condition of consistent actions (supply, fees, control) in managing both on- and off-street parking. The multiplicity of actors in play (various private managers of publicly accessible off-street parking facilities, municipal manager of on-street parking, municipal police responsible for control) is a strongly hampering factor in this respect.

MONS

1. The local context – Diagnosis

1.1. Population

The city of Mons is on the eastern side of its greater metropolitan area and at the heart of the province of Hainault. Mons is not far away from the national capital (69 km by road) and also close to the French border.

In 1991, the greater Mons area had a total population of 251,285 inhabitants, 91,726 of which lived in the city of Mons. In 1996, the population of Mons was 92,260, excluding the many students accommodated but not domiciled in the city and part of the staff of SHAPE (the military headquarters of NATO). The total population of the city of Mons is, therefore, estimated at some 100,000 people, including about 10,000 inhabitants of the historic "intra muros" centre - which has retained a certain residential attractiveness among other things thanks to the renovation efforts undertaken by the municipal authorities over the past twenty years.

The total population of the province of Hainault is about 1,300,000. Some three million people live within a radius of 50 km from Mons, and nine million within a radius of 100 km.

1.2. Employment

The city of Mons has jobs for some 34,000 people. Half of this employment is concentrated in the "intra muros" centre (with only 10 % of the population). SHAPE alone employs 4,000 people. Generally speaking, people work at the centre and east of the city, whereas they live in the western part.

1.3. School attendance

The city of Mons is a very important centre of education. There are about one hundred educational institutes, including sixteen colleges of advanced education and three universities. Most of the institutes are located in the "intra muros" area. The schoolgoing population and school employees total about 39,000, with one third of this figure in the "intra muros". It should be emphasized that **this concentration of schoolgoing population raises serious traffic and especially parking problems** in the vicinity of schools at the beginning and end of teaching hours.

1.4. Transportation and transport networks

1.4.1 Public transport

Greater Mons is served by twenty-eight bus lines of the TEC-Hainault company, which form a radial network. This network is generous in approaching the town centre (five to ten buses during peak hours). On the other hand, as all the municipalities within the metropolitan area must be served, its geographical coverage becomes qualitatively poor and little attractive in the outside areas, mainly owing to inadequate service frequencies (two to four buses during morning peak hours). Two free minibus routes were opened in the inner city early in 1999. The object of these circular routes is to preserve the town centre from heavy public transport (noise, visual and air pollution), which fits in badly with an ancient historic environment where streets are very narrow, and to offer a new and attractive service to users. Disadvantages of this system are its smaller capacity to accommodate users (maximum twenty passengers per minibus) and the need for modal interchange facilities at the main entrances of the town.

The city of Mons is served well by rail. Two major railway lines converge towards the centre of Mons (approximately 120 trains in total per day in two directions), making it easy for users to reach big cities in Belgium (Brussels, Tournai, Namur, Liège, Charleroi) and in Europe (Paris, Lille). The high-speed train (TGV) that stops in Mons links up the north of France and Germany. The frequency of train connections is high, both with Belgium and with the region of Hainault. Boarding and alighting surveys at the Mons station in 1999 revealed high daily numbers of passengers (15,000) mainly heading for the big centres of employment such as Brussels (34 % of passengers) or Tournai, Quiévrain (21 % of passengers). **The railway station of Mons**, therefore, **plays an important part in providing access to the city and receiving commuters.**

1.4.2 Private transport

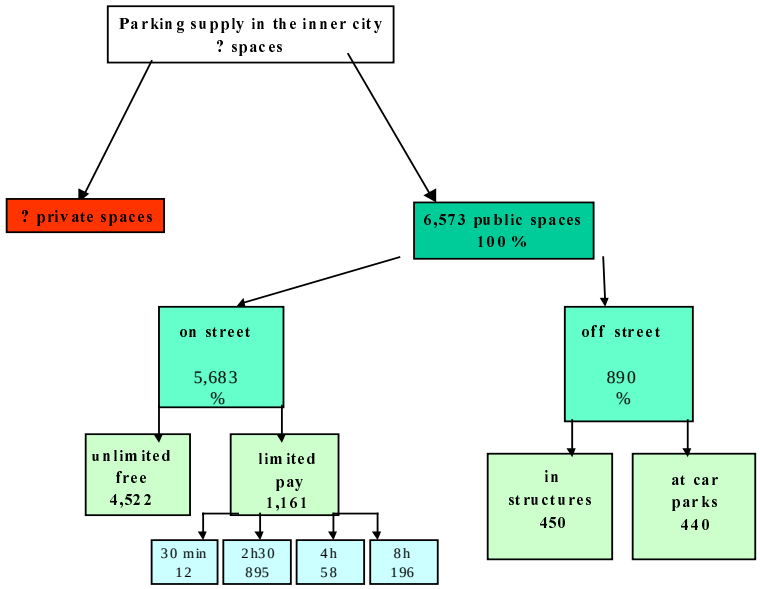
Mons and the surrounding area are readily accessible by road. Hainault, the province that the city of Mons is subject to, is equipped remarkably well with transport infrastructure. It has a privileged location at the crossroads of European routes linking up, on the one hand, Paris, Brussels and Amsterdam, and, on the other, Dunkirk, Lille and Bonn.

The main radials of the greater Mons road network converge towards the concentric network that surrounds the historic town centre of Mons. This concentric network consists of a one-way boulevard (2 x 3 lanes, depending on the section) and two one-way "service roads" (one inner and one outer; one or two lanes, depending on the section). As such, it forms a **strong barrier to exchange between the inner city and the rest of the greater Mons** area. Access to the "intra muros" is by a secondary concentric network that is one-way as well, and by a local distributor ring network connecting up the streets of the inner city and intended to control through traffic.

The two-wheeler network is currently little developed or virtually nonexistent on the scale of greater Mons. The absence of cycle routes and facilities makes the use of this travel mode little encouraging and hazardous to certain categories of road users. To do something about this situation, the city of Mons decided in 1998 to conduct a study with a view to developing a municipal cycle network both metropolitan area-wide and on the approaches to the town centre. In the "intra muros", cyclist-friendly facilities and arrangements are available such as cycle lanes, one-way systems for motor vehicles, and bicycle parks. In the other parts of the town, cycle tracks are rarely in good condition, making one's way in general traffic is a risky enterprise, and the major arteries are dangerous - especially the approaches to the boulevards and the town centre.

Narrow footways and few pedestrian crossings are indicative of the little consideration that is being given to pedestrians on the arteries outside the town centre. On the other hand, in the inner city pedestrians are well accommodated within a radius of 400 m from the central market place. Some shopping streets nevertheless still fail to meet the comfort requirements of their large pedestrian clienteles.

1.5. Parking



The current features of parking in the town centre are as follows:

on the supply side:

- a public supply of approximately 5,700 on-street spaces, which is relatively poor considering the numbers of people living and working in the inner city. Moreover, this supply is not being managed very dynamically for a very busy urban shopping area, since more than three quarters of the spaces are freely available without any time limit - which does not tend to promote parking turnover;

- extremely attractive on-street parking rates, even for long stays;

- a poor supply of off-street parking spaces (900), half of which is reserved for pass holders;

on the demand side:

- saturation during the day (90 to 95 %), whereas occupancy is lower in the morning and the evening (40 to 50 %);

- little room for manoeuvre in the two central parking structures, with only 150 spaces remaining available during the day;

- very different turnovers depending on the areas surveyed: from very low where parking is free and unlimited in time (two to four vehicles/space/day) to high in shopping areas and in pay parking areas with a time limit of 2.30 hours (seven to eight vehicles/space/day);

- a composition of users dominated by long-term parkers (more than 50 % of the users during the day), short- and medium-term parkers being very little represented in the overall picture. There is, indeed, little chance for the latter to find a parking space after 9 a.m.;

- long-term parkers being outnumbered five times by the short-term parkers, but taking up 1.5 time as much of the parking supply (in terms of product of space and time). This means that **by reducing the number of long-term parkers it is possible to reallocate a substantial portion of the supply to short-term parkers.**

2. The parking measures implemented

The city of Mons is implementing a new transportation and parking plan. As far as parking is concerned, the general objectives set in this plan are:

at the town centre:

- to ensure quality of life for residents;
- to exclude illegal parking both in space and in time;
- to dynamize local trade;
- to improve parking conditions for loading and unloading;
- to reduce the pressure of commuter traffic;

outside the town centre:

- to control the pressure of commuter traffic;
- to privilege residential parking.

For the four main zones making up the inner city, each having specific parking problems, different parking policy scenarios based on the creation/cancelling of spaces and the improvement of turnover have been developed and assessed form the following points of view: degree of satisfaction per type of user (short-term: shoppers; medium-term: visitors and flextime and/or part-time commuters; long-term: fixed- and/or full-time commuters, residents), daily and peak hour traffic load, environment, space recovery, and economic viability of the system.

In short, the recommended actions aim at **transferring some 1,800 long-term parkers** to:

- medium-term parking by improving parking time control and enforcement policy;
- parking outside sensitive areas by encouraging walking;
- park-and-ride facilities at the perimeter of the historic town centre, with shuttle minibus services to and from that centre. The routes and capacities of the currently existing shuttle services will be adapted accordingly. Projected capacity figures for the park-and-ride facilities vary between 150 and 300 vehicles/day. The actual design (size) of the facilities will depend upon various input parameters, including land availability constraints.

3. Results and conclusions

The recommended measures - such as the provision of park-and-ride facilities - are just being developed and implemented. It is, therefore, difficult to learn any lessons or draw any conclusions as to their effectiveness at this stage. Nevertheless, conditions have been set for park-and-ride schemes to work properly. As a general rule, the combination of park-and-ride and public transport must be more attractive than private transport, that is, total journey times must be competitive. More specifically, the conditions to be met are:

before parking:

- adequate route signing to inform users about the location of parking facilities and the numbers of available spaces left;
- well-chosen location, that is, readily accessible by road and upstream or in the access control area before entering the congested area;

at the parking facility:

- adequate design capacity;
- very high safety;
- attractive prices of combined park-and-bus tickets;
- minimum walking distance between parking place and bus stop;
- minimum waiting time for bus connection, hence high service frequencies;

After parking:

- achieving high performance (speed, comfort, etc.) in public transport;
- well-balanced sharing of road use;
- good service down to the final destination point (the very heart of the town centre);
- a policy that discourages long-term parking in the inner city;
- well-advised town planning to create liveable conditions in the inner city.

B. PROPOSED AGREEMENT BETWEEN PUBLIC AUTHORITIES AND CAR PARK MANAGEMENT COMPANIES WITH A VIEW TO MANAGING CAR PARKING

BRUSSELS

The elements of the context relative to the Brussels-Capital Region are to be found in the presentation of the IRIS plan, which was the subject of a parallel presentation by the Belgian representation.

The problems encountered are similar to those of a numerous other large European cities. Among the points emphasised in the parallel presentation note, the following elements are particularly noteworthy and are more directly relevant to the proposed agreement analysed here.

1. Rush hour commuting is relatively important in Brussels. This is due principally to the structure of employment. The development of the city, which is essentially service orientated, is based on a more industrial past: this is reflected in relatively inappropriate skill levels among the population and this phenomenon is reinforced by the high percentage of people of foreign origin among the population. Consequently, rush hour commuting is important, while unemployment remains high.

   Moreover, this rush hour commuting often involves the use of cars, which can be explained by the fact that a fairly large part of the population lives in the suburbs, plus the absence of a dense public transport system serving outlying areas and the low or irregular frequency of public transport in the Region itself. The notably strong preference for cars also depends on objective factors is well as cultural factors.

2. Public car parks are frequently underused, which is reflected in relatively low occupancy rates as well as the strong proportion of ticket holders. The fact that the equipment is often obsolete adds to the feeling of insecurity of users.

   As regards surface parking, the demand for car parking space largely exceeds the space available in certain districts and rush hour commuters make considerable use of the public highways for long periods. Metered parking areas are still rare and their cost remains low: this can be explained to a large extent by the fragility of the commercial nucleus, which is small (dispersed in the urban fabric) and has low added value (traditional products). Accordingly, extreme prudence is required when implementing these measures. Many users do not pay and controls are few, on account of a lack of resources and a lack of motivation on the part of local police. This lack of motivation is in turn largely due to the fact that, also because of a lack of resources, parking offences are not followed up by the courts.

3. The management of car parks also falls outside the scope of the public authorities, since these car parks are often managed by the private sector, in a relatively concentrated way. The system of concessions, when it exists, offers only limited means of control.

   The institutional structure also complicates the management of the problem. Parking in fact falls under the responsibility of the districts, while the Region is responsible for mobility in general. That is why the idea has been mooted of an agreement destined to improve the management of parking, both on the public highways and in car parks. This agreement lays down the rights and obligation of the three parties concerned: the Region, the districts and the managers of car parks. It should be drawn up on a case by case basis with the authorities and managers concerned.

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The agreement comprises the following six chapters.

1. Dynamic electronic signs. We have opted for signs with variable messages indicating the number of parking spaces free. This choice, more complex to manage than signs merely indicating “space available” or “full” was motivated by the difficulty of agreeing on a rule for determining whether the car park is full when its occupancy rate is close to 100%.

This part contains four types of measures, which concern the equipment of public car parks, the variable message signs at the entrance to the car parks or on the public highways and operating conditions. This part contains detailed technical specifications, with a view to ensuring their coherence and reliability.

2. Making car parks more attractive. This part deals first of all with training car park employees and increasing their awareness of the need to ensure that the car parks are kept clean and welcoming for the public.

A second part deals with the feeling of security and measures intended to promote security. The procedure provides for carrying out an inventory of the premises, deciding the measures to be implemented and a monitoring those measures.

A third part deals with increasing the number of parking places available. This issue is treated separately, depending on whether it concerns normal business hours, evenings, Saturdays, Sundays and public holidays or special events. Managers of public car parks undertake to put forward proposals within a limited time. These proposals are then adopted by the project management committee and introduced on a trial basis for a one-year period, before being possibly changed on the basis of the manager’s report.

3. A consistent pricing policy, both for parking both on public highways and in car parks. The agreement covers the cost of parking, both on the public highways, which are the responsibility of the districts, as well as parking in car parks, which are the responsibility of the managers of public car parks.

As regards parking on the public highways, this agreement confirms the principle of dividing the space into maximum control zones, buffer zones for the protection of the latter and free zones. It is to be noted that in the maximum control and buffer zones, the parking time authorised is the same; the rates are however lower in the buffer zones, while resident facilities are greater. We opted for this system of different rates because it was easier to apply than adjusting the time authorised. In order to limit the authorised parking time to less than two hours would require important resources to carry out the necessary controls. Unfortunately, the Brussels districts do not have such resources.

Even in the maximum control zones, the rates applied are still low. The rate for short periods is 1 euro an hour, with the second hour being slightly more expensive (50%). After two hours, or if no more money has been fed into the meter, the two-rate system, which allows four hours of parking, but at a higher rate than public car parks is applied (in order to encourage people to switch), while remaining lower than the amount of fines (to encourage people to respect parking regulations). The possibility to park for long periods on the public highways, which may seem incoherent, is thus corrected by the pricing system.

Parking rates in public car parks are based on the opposite approach, which is to try, by offering more interesting rates, to encourage people to use car parks rather than the public highways if they are parking their vehicle for a long period. However, depending on the business imperatives of car parks, this does not seem to be conceivable for periods under two hours. That is why the sliding scale is only applied after two hours, on the same basis as the two-rate system on public highways. Nor does this sliding scale apply during normal working hours in order to avoid encouraging people to use cars for their rush hour commuting. Split payment periods have also been introduced to make public car parks more attractive.

4. Reinforcing controls. The agreement sets out a minimum frequency for controls by local police, which varies according to whether it is a maximum control zone or a buffer zone. Depending on personnel constraints in the districts, the frequencies imposed remain low: twice a day in maximum control zones, only once a day in buffer zones. The agreement also lays down cases where fines are compulsory as well as, under the responsibility of the districts, where it is appropriate to tow away or clamp vehicles.

The follow up to parking offences, and the conditions applying to towing away or clamping vehicles must, however, be discussed with the judicial authorities which are responsible for these issues.

5. Measures regarding the entrances and exits to car parks. The agreement also sets out different measures destined to ensure that car parks are clearly signposted. One idea would be to combine such signs with those indicating the city's historic or major tourist sites. Security at the entrances and exits to the car parks is also covered by the agreement and concerns the improvements and maintenance of the surroundings, as well as signposting.

6. A media campaign is also planned. This campaign directed at the public will be financed by the authorities.

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The agreement is scheduled to remain in force for a period of 10 years, but it is nevertheless possible to withdraw after 5 years. It has a relatively binding framework, providing for fines, fees, repayments and penalty interest. It is accompanied by procedures for carrying out studies, decision-making and monitoring the measures adopted. These procedures are set out in a relatively detailed way in order to guarantee the rights of all parties. A management committee, on which all the parties will be represented, will oversee the agreement.

An important idea of this agreement is that it should not be restricted to the themes explicitly set out in it, but that it should create a working framework as a basis for co-operation for other possible developments. Hence the measures currently planned appear, in some respects, relatively modest. They have been designed as such, in agreement with the representatives of the public and district authorities, in order to facilitate their acceptance by the actors, some of whom are not yet totally convinced by the idea, and with whom further discussions still have to be held.

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C. PARKO : THE EXPERIENCE OF THE CITY OF KORTRIJK

KORTRIJK

The city of Kortrijk has a population of around 70,000 inhabitants and is situated in the Flemish part of the country. Its industrial activity, which has traditionally been oriented around textiles, has recently been restructured. As a city and regional centre, Kortrijk is also the focal point for major commercial activity. It also has a highly valued historic district that the city has long striven to protect from the invasion of reckless parking.

Dual-tariff

The city invented the dual-tariff parking system which has since entered into general use in many other municipalities throughout the country. The concept behind the system was recently modified in Kortrijk to ensure greater effectiveness of fee collection, and this is also beginning to be introduced in other local entities.

The dual-tariff system involves charging parked vehicles a fixed fee for half a day, known as tariff 1. It is nevertheless possible for the driver to opt for a shorter duration, up to 2 hours, by using a timed ticket machine in the locality: this is tariff 2. Unless proof is provided that tariff 2 has been chosen, the driver is considered to have opted for tariff 1., which is thus the reference tariff. This can be paid in advance, at the municipal payment desk, but most frequently, the driver receives a request from the traffic warden to pay the sum at the municipal desk within 48 hours.

It should be noted that non-payment of this fee is considered to be an offence in terms of the highway code and is thus subject to a fine, and being a criminal offence under the Belgian system, payment is generally requested as an alternative to going to court. The fixed fee is still owed however, and is subject to a recovery procedure by civil means. It should also be noted that the money collected from fines and transactions is only partially returned to the municipalities (7.5%) overall, whereas they collect the entire amount of the parking fees.

This system has often been reproached for discouraging long-stay parking on the roadside, insofar as it only allows the permitted limit to be extended by 2 hours. This does not however stand up to a practical analysis based on the comparison of tariffs. The dual-tariff is in fact set at half the price of the charge proposed in the event of a parking offence (€25), but is approximately equivalent to the double of what is generally requested in off-street car parks for an equivalent duration of 4 hours (€6). Tariff 1 thus clearly encourages the use of off-street, public car parks for periods of over 2 hours.

A second problem is associated with the difficulty in recovering the amounts owed under tariff 1. The criminal procedure is cumbersome and the judicial authority hardly ever pursues parking offences in general, especially for paid parking. The civil recovery procedure for the fee is also *singularly* cumbersome and expensive in comparison to the amounts to be collected. Tariff 1 thus only has a very low recovery rate.

For this reason, the city of Kortrijk has recently modified the initial regulation of the said tariff by specifying it as a tax and thus independent from the service provided, which up until now has been considered as a fee for the occupation of the public area. The argument put forward to do this is that the fee for the use of the highway does not relate to the real production cost of this service and furthermore is not the result of a specific request, which would have to be expressed by the driver. Legal opinion is not agreed on this point, but the supervisory authority to which the city of Kortrijk is subjected has nevertheless accepted this vision of the matter. However, the fact of considering the roadside parking payment as a tax rather than a fee makes it possible to use a tax recovery procedure, which gives municipalities broader options for action, particularly with regard to advance payment and the simplification of procedures. Every month, the city calls on the services of bailiffs (300 cases/month).

Furthermore, the comparison of tariffs only guarantees the effectiveness of the system insofar as the probability of being checked is perceived by the driver as sufficiently high. The amount to be paid with the timed ticket should not be compared with the fixed fee for half a day, but to this cost multiplied by the probability of receiving a fine. In this respect, it appears that over time, the checks carried out by the police have gradually been reduced, which has ultimately resulted in a relatively low payment of tariff 2 charges, comparable with the 10% rate generally achieved in other municipalities throughout the country. This is why in 1998, the city of Kortrijk wanted to revise the system and entrust the management and checking of roadside parking to Parko, a municipal service with separate management.

Parko

Parko is a "*régie communale*" (municipal government-operated service), in the generally accepted sense of the term in Belgium.

It is not an independent public company, comparable to the companies as found in mixed economies in many European countries, whose creation was enabled by virtue of Belgian legislation since 1995, the application of which has remained extremely limited owing to the apparently cumbersome administrative procedures.

In actual fact, it is a simple municipal service with separate management, whose procedures have been organised by law since 1946. Parko is not therefore a legal entity. It nevertheless has separate accounts and a separate budget. The operating deficit or surplus is supported by the *régie*. The personnel recruited by the municipality, are made available to the *régie*. The wardens are police auxiliaries, registered as part of the police force, but paid by the *régie*. The *régie* has a part-time tax collector, who also carries out the same function for the municipality.

Managing parking through a service with separate management makes it possible to reduce pressure exerted by certain groups of citizens on political authorities. The closer relations within the *régie*, of police personnel allocated to parking surveillance and services responsible for city planning and financial aspects, normally separated in municipal administrations, enables greater coherency to be achieved in the management of this issue.

At the same time, the fact that it does not constitute an independent company makes it possible to combine this advantage with others, owing to its municipal status. Thus the wardens in charge of checks are not solely concerned with paid parking, but also check for illegal parking; the fact that the *régie* remains a municipal service enables wardens to be recruited from the police force, which was not possible with the independent company system. The essential factor of financial profitability can also be combined with the pursual of general objectives in the municipality's interest.

The management of paid roadside parking, associated with the checking for illegal parking, nevertheless remains a profitable activity that generates a certain surplus. Parko manages 2,600 roadside spaces with 9 wardens (1/288 spaces) and the same number of administrative and technical personnel. The frequency of checks, which affects paid parking as much as illegal parking, remains moderate – once a day in the city centre, once a week in less concentrated areas – but is sufficient to ensue the regular increase in payments. These amount to €1.5 M, a significant sum for such an entity, despite the existence of a preferential system for local inhabitants and the relatively low tariffs (€1.25/hour). Equally remarkable is the increasing proportion collected through tariff 2 (80%) and the 95% payment proportion for tariff 1. This success is mainly due to the combined effect of increased checking and the fiscal recovery procedure.

These figures are unique in Belgium and guarantee an operating surplus that makes it possible to enter new fields of activity.

Thus it has been planned to manage a 600-space dissuasion car park (500 millions BEF), the investment for which nevertheless remains the municipality's responsibility (100 millions), at the same time as a regular bus service every 10 minutes, operating between the centre and this car park. The management of parking spaces for two-wheeled vehicles is also Parko's responsibility.

Parko thus manages the access to the historic centre for suppliers and local inhabitants: these districts are open from 5.00 to 12.00 and between 20.00 and 23.00, outside which times parking is payable, except for local people and emergency services. This is paid by means of an electronic payment device which is registered beforehand with the *régie* service. This automatically generates access authorisations and more generally, the issuing of cards for local inhabitants.

Parko has also brought out a Piaf-card, an electronic parking payment system fitted to the vehicle, that the driver operates himself and which can easily be checked from the outside. This system has been particularly successful amongst professionals (the professions, company cars and public services, etc.) which otherwise would not often use timed ticket payments. Their use thus constitutes additional net income for the *régie*. In spite of its higher cost (particularly the €50 investment), the ease of use of the system, the exact charging for the time used and the tax deductibility of the purchase explain the card's success. It is now used by 5% of all parked vehicles, and persistent offenders are proposed this option systematically.

Generally speaking, we note the positive approach of communication to the general public (promotion of the system and the rate of persistent offenders), and the particular attention given to information (written communication and road signs in particular). It was also ensured that wardens were better informed, by making use of the available synergies in the *régie*.

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