

## **Urban Freight Management in Barcelona (Spain)**

### **Topic**

Freight and city logistics

### **Summary**

The project (including several different single measures) was initiated by the Municipality of Barcelona in order to approve the uncontrolled use of private vehicles which make goods deliveries more and more difficult.

Furthermore the management of kerbside access with efficient enforcement was regarded as a powerful measure to solve the problems.

This case study was collected in the framework of the Bestufs project.

### **Case Study**

#### **Basic facts**

- Some 25'000 vehicles realise approximately 100,000 loading/unloading operations each day in Barcelona.
- 4,000 kerbside spaces are required to accommodate the needs of goods delivery vehicles.
- Different measures need to be applied according to different typologies (area, street - in hierarchical design).
- Urban development planning norms should be modified to require delivery bays to be provided in new constructions of more than 400 m<sup>2</sup>.
- Pilot regulatory measures require efficient, automated enforcement.
- Telematics techniques should be employed to optimise operations.

The main objective of the project was to increase the quality of life in the inner-city areas.

#### **Users and stakeholders**

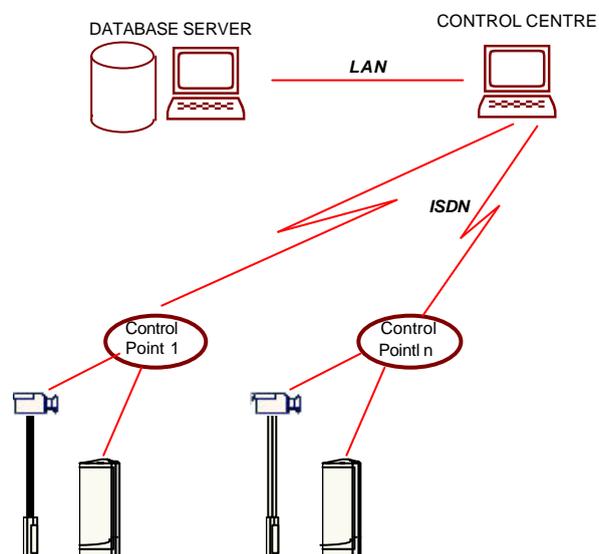
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#### **Implementation set-up**

Traffic regulations at junctions which include:

- Zones which are reserved for loading/unloading only from 08.00 until 14.00h (or 20.00h) within the city centre.
- Maximum stay period: 30 minutes.

- 700 zones have been implemented and within the "Forum 2004 - Poble Nou Infrastructure plan" the measure is extended to all junctions involving "Primary" roads.
- Combined-use of streets which is done by use of VMS messages which clarify who is allowed to use the street (residents, clear-way, and deliveries) according to time of day.
- Special zones for pedestrians where access is only possible with a special permission: These zones (5 zones which are centrally controlled) have only a few entrances (50 gates are installed city-wide) with barriers which can be entered by use of a special key-card (8'000 resident cards are issued; further cards are available for delivery vehicles). For delivery vehicles access is only allowed during defined time windows. In order to avoid abuse the entrances are monitored by camera.



### Results

The following experiences have been made during the first period of implementation:

- The good progress could only be reached because of a strong political will to continue and improve.
- The signed spaces allocated for goods give a 30-minute limit (defined through surveys, which is sufficient for all-but exceptional deliveries) for deliveries. Tow-away enforcement is used (strong and expensive efforts of the police are necessary in order to enforce the new measures) but to automate the enforcement is an important task which is currently a heavy policing burden.
- The implementation of all equipment (especially for the combined-use of streets, approx. 0.5 M. Euro per route) is quite expensive. Only step by step further lanes (applicable only for primary routes of the grid road system) or zones can be equipped and city-wide implementation takes long time.

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- The combined-use of streets is successful. This measure is accepted by the users and could also raise the innovative image of the city.
- The acceptance of the inhabitants of the special zones for pedestrians is very high, quality of live increased.

### **Web links**

<http://www.bestufs.net/>

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### **City or region**

Barcelona

### **Country**

Spain

### **Submission date**

2006