



**CiViTAS**

Cleaner and better transport in cities



06

POLICY ADVICE NOTES

# Smart mobility management measures



The CIVITAS Initiative is a European action that supports cities in the implementation of an integrated sustainable, clean and energy efficient transport policy. Lessons learned during the planning, implementation and operation phases of the activities are summarised in twelve Policy Advice Notes and give an idea on how to cope with urban transport problems which cities of the European Union have to face in the future.



# Smart mobility management measures

Successful ways to influence people's mobility behaviour



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Different measures targeted to influence the mobility behaviour of city residents and commuters of a city were implemented within CIVITAS II (2005–2009) and comprehensive information about the implementation processes and results were collected. To support politicians and decision-makers interested in these actions, the most important information is summarised in this Policy Advice Note.

## Overview

### DESCRIPTION OF THE MEASURES

Smart mobility management measures are “soft” activities that influence the mobility behaviour of the people. More and more European cities are turning to this type of measure to provide inhabitants with information on all sustainable modes of transport (e.g. public transport, bicycle, car-sharing, etc.) and to remove physical and psychological barriers limiting their mobility choices. It has been found that the reasons for not using public transport are often a lack of awareness of real options and the bad reputation of this transport mode. The following measures were implemented in the field of mobility management:

1. Development of integrated mobility plans (or commuter plans) for
  - Private companies
  - Public institutions (e.g. universities, hospitals, administration, schools)
  - Specific areas with a number of enterprises (e.g. business parks, science-technology parks)
  - Areas with temporary working sites, which cause changes in routing and time schedules of public transport lines
  - Areas which are frequently used for big events (stadia, fairs, concert halls, etc.)



The mobility plans offer information on how to travel by different transport modes to the particular site. Special offers, such as car-sharing and car-pooling, bike sharing, special tickets for employees of a company (e.g. non-personal tickets or tickets paid directly from salaries to ensure an easy and subsidised handling for tax reasons) should be integrated. Also incentives can be provided, e.g. a prize for the employee who travelled in the most sustainable way in one month.

2. Personalised information campaigns for well-defined target groups (e.g. through individualised marketing activities)
  - Face-to-face consultation proposing sustainable mobility solutions to individuals and companies
  - Distributing information in mailboxes, e.g. public transport timetables and maps as well as bicycle maps for free
  - Providing free tickets for public transport to induce people to try this transport mode
  - Spreading information at public events (e.g. Car Free Day)
  - Setting up a phone number for free personal travel planning aid
  - Offering free tickets for bike carriage in public transport vehicles

More and more internet-based information on sustainable mobility or personalised travel homepages is used to offer travellers individual guidance and specified timetables.

## TARGET GROUPS

For both types of measures the main target groups are employees, visitors, students, pupils and inhabitants of a certain target area. Also elderly and handicapped persons can be addressed to show them, how they can be mo-

bile without using a car. Of special interest are people, who had recently moved to a city. This group should be provided with comprehensive information about all possible transport modes in a city because they can be convinced more easily to use a sustainable transport mode than a person who has travelled by car in the city for many years. Managers of companies, local administrations and public institutions should be encouraged as well to develop mobility management measures for their employees and visitors. The preparation of a mobility plan or promotional event in a company might be linked with an internal public relations campaign addressed to workers and their families.

## IMPACTS AND BENEFITS

**Many potential benefits from mobility management measures were explored during CIVITAS II, and the generalised findings and impacts are reported here.**

### For the public

By giving people information on alternatives to private car use, mobility behaviour can be influenced and a modal shift towards sustainable transport modes can be stimulated. For example, a travel plan was established for a business park in a Spanish city, which caused a decrease of 12% in the number of people coming to work by car<sup>1</sup>. Hence, the measures can cause a decrease of car traffic and the negative impacts of individual motorised transport, such as noise and emissions of particulate matter, CO<sub>2</sub> and NO<sub>x</sub> can be reduced. The more the quality of life in the cities improves the more attractive the settlements become creating a virtuous circle effect.

<sup>1</sup> FGM-AMOR – Forschungsgesellschaft Mobilität, Austrian Mobility Research (2003): MOST – Mobility Management Strategies for the next Decades, final report, D9, Graz, Austria



### **For individuals**

People, who are exposed to an individualised marketing campaign, will be informed about the most suitable and economic possibilities to travel in a city. Using this information and applying the advice, each person can save money and time. Furthermore, the people who walk and cycle are healthier. Experiences from the CIVITAS II measure in Odense (Denmark) show that individualised marketing implemented within 310 households achieved a reduction of car trips of 9% and an increase of the number of bus trips and train trips of more than 50%. These changes in individual transport behaviour result in a decrease of energy consumption of more than 5% among the participants of individualised marketing. The implementation of individualised marketing in Preston (United Kingdom) with about 25,000 households caused a decrease in car use of between 10 and 13% and an increase in the use of sustainable transport modes by up to 36% among the target population. In most cases, the use of sustainable modes is cheaper for the households.

### **For companies**

The mobility management measures can offer benefits to companies and institutions as the need for parking spaces is reduced. For example, in La Rochelle (France) the creation of a business travel plan for employees of the city centre caused an increase of car-pool trips from 200 to over 1,800. In Norwich (United Kingdom) the number of single occupant cars decreased by 18% after travel plans for companies of a specific corridor were introduced. Without needing any additional high investments in infrastructure, the demand for public transport will rise and also the revenues of the public transport companies can increase. Furthermore, companies can profit from a positive organisational image of taking a socially responsible attitude and being environmentally-friendly.

### **FRAMEWORK CONDITIONS FOR SUCCESS**

The possibility of influencing the relationship between urban planning, transport and parking policies is an important precondition for implementing mobility management measures and it is helpful if cities have integrated the mobility management measures in their leading policy documents. The current taxation has to favour the measures and should address the commuters. For example, if commuting expenses are tax-deductible, all transport modes have to be treated equally (no privilege for car users like in Austria and Germany where commuting by car is tax-deductible).

The existence of different high quality mobility systems (e.g. well developed bicycle path network, car-pooling platforms, car-sharing, reliable public transport services) in a city is a good starting point for implementing mobility management activities. Mobility centres or a mobility manager in a city can support the results of the measures.





## Implementation steps and timeline

**When implementing mobility management measures in a city several important considerations should be taken into account, including supportive measures and a reasonable timeline.**

### WORKING STEPS

#### 1. Data collection

In order to design and tailor the measures to the specific needs of the potential target groups in a given area, different surveys should be implemented, for example:

- a) General studies on city or area-wide traffic and mobility: Analysis of the current traffic situation (traffic flows, public transport data, general mobility behaviour etc.)
- b) Company and area specific mobility behaviour studies: In order to understand the potential beneficiaries at a minimum the survey should include:
  - Mobility behaviour (number of daily journeys, routes travelled, time spent travelling, modes of transport being used, preferences and hierarchy of qualitative factors of any mode of transport) and main problems with travelling
  - Socio-economic data (e.g. age distribution, car ownership rate, working status) and characteristics of the target group (e.g. geographic distribution of residence, working hours and days of employees)
  - Communication behaviours and preferences, where people currently get their information
  - Awareness of sustainable modes of transport

c) Good practice and state of the art studies: A state-of-the-art report should be prepared to analyse the experiences of equivalent measures in other municipalities. It is advisable to create a feasibility study on new services and to evaluate the expected additional demand for services through the modal shift achieved. The technology to be used and long-term funding should be assessed, as well as the necessary legal framework.

#### 2. Designing the concept

- Establishment of organisation structure for mobility management services and involvement of all stakeholders
- Definition of the concrete target group and choosing the appropriate site
- Accomplishment of meetings with companies, employees groups, the public, etc., in order to attract potential candidates for the measures and to explain the project
- Selection of companies or institutions to take part in the measure
- Decision about the activities to be implemented
- Selection of operation systems, incentives, technical efforts, etc.
- Appointing a mobility manager, who is responsible for the measure implementation

**3. Development of the main tools** (campaign, commuter plan, individualised marketing etc.) taking into account the existing and future mobility services, e.g.:

- Parking and access management
- Traffic flow and circulation scheme
- Pedestrian and bicycle routes
- Car-pooling and car-sharing services
- Public transport (also on-demand services)
- Ticket integration
- Integrated information about public transport



It is advisable to combine soft and hard measures and to integrate numerous different transport modes in the plans, e.g. access and parking restrictions as well as a car sharing service.

**4. Preparation and implementation** of the mobility management measures

- Organising training courses on individualised marketing practice for mobility managers or commercial staff
- Organising meetings with companies, employees groups, the public, etc., in order to hear proposals for changes or improvements
- Implement individualised marketing with the target group members and complete the commuter plans
- Providing guidance tools supporting the realisation of individual commuter plans of small- and medium-sized companies (e.g. a travel plan online software survey and template)

**5. Monitoring and evaluating progress**

It is advisable to set up an evaluation strategy and to define quantified and measurable indicators that can show the level of changes<sup>2</sup>. It has to be taken into account from the beginning of the project that up to 10% of the budget can be required for the evaluation of the impacts<sup>3</sup>.

**6. Marketing and promotion** of the measures

- Publishing results of the activities in order to raise awareness

<sup>2</sup> Such as those developed in the CIVITAS Evaluation process  
<sup>3</sup> FGM-AMOR – Forschungsgesellschaft Mobilität, Austrian Mobility Research (2003): MOST – Mobility Management Strategies for the next Decades, final report, D9, Graz, Austria

**ACCOMPANYING MEASURES TO  
AMPLIFY POSITIVE EFFECTS**

Mobility management measures are notably successful if they are implemented hand-in-hand with other sustainable transport projects, such as the introduction of new public transport services (e.g. introduction of new rolling stock, new ticketing pricing schemes) or infrastructure as well as the installation of new bicycle racks or implementation of a new car-pooling platform in the city. It is also advisable to combine the measures with promotional events, such as a Car Free Day, which creates a good possibility of integrating different sustainable mobility management measures onto one promotional platform.

**TIMEFRAME**

Prior to the realisation of any mobility management measures, important data (see also working step 1 “Data collection”) have to be collected. This first phase can take 6 to 12 months. Setting up and developing commuter plans for companies or for specific areas can take about two years, depending on the number of services and activities included. After a running phase (e.g. half a year) the first impacts of the activities can be evaluated.

It should be underlined here that efforts to affect the attitude and mobility behaviour of people can take considerable time. To achieve substantial and lasting effects with mobility management measures it is crucial that the campaigns are repeated often and actively managed. It is also recommended to integrate the measures within different sustainable transport projects.



## What are the investments involved?

Investments for mobility management can differ strongly, depending on the number of persons involved and the strategy chosen.

Costs for individualised marketing can vary, according to the level of effort necessary to provide useful information, the number of materials produced and the kind of incentives, which can be offered to the person addressed (e.g. free tickets for public transport). The costs for individualised marketing for one person are usually around EUR 10. But within the measures implemented in CIVITAS II costs of EUR 200 per person were achieved, as development costs of the strategy were also included. It has to be pointed out here that this type of measure is very successful and also cost effective. Without any investment in infrastructure a mode shift can be achieved among the target population.

Investments for implementing area-wide commuter plans range between EUR 30,000 and 50,000, depending on the size of the target group addressed. For example, EUR 50,000 were spent for a commuter plan implemented in a business district in Toulouse (France) with about 24,000 employees. Four companies of this area have between 500 and more than 1,000 employees, but mainly smaller firms are located there.

Costs for dissemination activities (e.g. providing information on the measure in general and on sustainable transport modes, such as public transport, cycling, walking, car-sharing etc.)

can differ considerably as well, depending on the duration, number of persons to be reached, and materials chosen for the campaigns. Between EUR 7,000 and 40,000 were spent for dissemination activities in CIVITAS II measures. Investment in equipment is required when setting up an internet portal. Hard- and software tools have to be purchased (ranging from approx. EUR 9,000 to 25,000) and the IT connection to travel data sources for an internet portal can cost, e.g. EUR 54,000.

For all measures it has to be considered that costs for external consultants developing the strategy, printing information material, personnel for accomplishing the marketing activities or distributing the information material will be incurred.



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## Main drivers that serve as precursors to success

**Important drivers for the initiation, as well as for an efficient and successful implementation of mobility management measures, are:**

- Senior level political interest is necessary in order to make principle decisions at an early stage of the project
- The competence and engagement of the project team and good cooperation between all local partners as well as all stakeholders involved (e.g. public transport operator, site owners, representative of the target group), is necessary
- It is advisable to appoint a full-time mobility manager who is responsible for the overall coordination of the measures and who works on this issue on a day-to-day basis
- A good communication strategy, including local media providing informative and personal description of the measure, supports the implementation process. Whenever possible, an independent facilitator should be engaged, e.g. for meetings or workshops.
- The availability of good framework conditions (access management, suitable bike network, existing car-sharing or car-pooling services and high quality public transport system) enables the target group to be offered real alternatives to the individual motorised transport mode
- For the development of area-wide mobility plans it is advisable to use commuter plans at company level as a basis
- Exchange of experiences with other municipalities, which have already achieved positive effects with the help of such measures

## Strategies for a successful implementation

**All innovative and new public policies experience significant barriers to their adoption and acceptance. Here are a few recommended ways to overcome some of the more common barriers:**

### **Political support**

Dissemination of quantitative information about the measure and its potentially achievable benefits may help to overcome negative attitudes towards this innovative tool. The members of the city authority should be engaged at an early stage of project design.

### **Acceptance**

It is important to distribute comprehensive information on the objectives and the individual benefits of the measure among the target population. The advantages of the measures and their implementation steps have to be explained, as mobility management measures are mainly based on a communication and decision-making process. In this context a “positive” press plays a crucial role in gaining the acceptance among the inhabitants.

Sometimes it can be a barrier if unions are involved, which insist that commuter services become part of collective bargaining agreements. The fear of this is often the reason for companies not introducing mobility management measures.

### **Financial management**

It has to be pointed out that positive results can be achieved at a relatively low price without any additional investments in new infrastructure. However, cost-effectiveness of mobility man-



agement measures is often underestimated as effects are usually not measurable directly and are often visible only a long time after the measure was implemented.

Because mobility management measures are not yet established as “mainstream” measures in most European countries, funding is available only indirectly from different programmes, actions and ministries. Therefore, it is advisable to apply for several sources of funds to support measure implementation. For example, the following European funds are available:

- Seventh Framework Programme for Research, Technological Development and Demonstration (RTD) (2007–2013, 50 to 100% funding, link: <http://cordis.europa.eu/>)
- LIFE+ (2007–2013, up to 50% funding, link: <http://ec.europa.eu/environment/life/>)
- URBACT (<http://urbact.eu>)
- Structural and cohesion funds in general
- European territorial cooperation programmes (former INTERREG, supporting interregional cooperation (A), transnational cooperation (B) and interregional cooperation (C))

#### **Legal framework condition**

Mobility management measures are easy to implement without expecting any legal constraints. The local authorities can even influence the framework condition positively because they can use legal and fiscal tools to affect the transport and planning policies in order to support mobility management measures. However, in some European countries the national legal framework of taxation diminishes the willingness of companies to take part in such measure (e.g. national laws complicate the taxation for the enterprises in Sweden).

#### **Institution & Organisation**

To implement mobility management measures successfully it is necessary for the municipality to organise regular meetings to bring together

all stakeholders and municipal bodies (e.g. land use planning department, environmental department) to discuss the individual steps and to find a global consensus concerning objectives of the measure. This is helpful to ensure that integrated mobility plans are consistent with the existing transport strategy of the city and the responsibilities of the different stakeholders are clearly assigned. For the successful implementation of measures, which are implemented in parallel to other (infrastructural) activities, time schedules of the measures may have to be adjusted.

#### **KEY ELEMENTS TO BE CONSIDERED**

- This type of measure is very successful and cost effective. A mode shift towards sustainable transport means can be achieved without any infrastructure investments.
- People who had recently moved to a city are important target persons because it is easier to influence their mobility behaviour than that of persons who have travelled by car for years
- It is supportive to employ a full-time mobility manager or to set up a mobility centre
- Positive press plays an important role for mobility management measures because they are mainly based on good communication with the public
- Target persons are usually very positive about the measures and appreciate the direct and individual contact with the transport operator or mobility management consultants



## Who are the key people to be involved?

### STAKEHOLDERS

The involvement of potential beneficiaries is the most important part of mobility management measures. It is very helpful to organise interviews and to get in contact with the target persons directly and individually.

These persons or organisations should be involved as informal advisors or supporters:

- Local and regional businesses (e.g. commerce or industrial chambers)
- Public bodies (e.g. schools, universities or hospitals)
- Employees (commuters)
- Residents of the target area
- Public transport users, cycling and walking groups (e.g. organised as non-government organisations)

Different associations (e.g. for bicycle users or for handicapped people) and transport experts can be involved to support the municipality and give them information on required implementation activities.

Journalists (“traditional” and electronic media) are important stakeholders as well. With the help of good public relations management the costs for traditional promotion using commercial channels of communication can be reduced.

### MAIN PROJECT PARTNERS

These types of people are critical to the success of mobility management measures:

#### Decision makers

In most cases the activities have to be initiated by the local authorities, because the best travel options often include several modes or transport providers, which are competing operators and therefore are not interested in offering integrated information to the users.

#### Other partners

- Local and regional administrations
- Town planning departments
- Institutions responsible for the respective territory (e.g. regional organisations, local chamber of commerce, special authorities, such as for an airport zone)
- Transport operators (bus service, taxi association, car sharing, railway companies, etc.)

Public transport operators or public transport authorities as well as universities can be involved to evaluate the results of the mobility management measures. Furthermore, road administrations and social cooperatives for disabled services can take an active part in the planning and implementation processes. For technical solutions (IT) and public relations private companies can be consulted.





## Enumeration of practical examples from CIVITAS II

**the CIVITAS II 9 cities implemented measures dealing with mobility management measures:**

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**Genoa (Italy):** Integrated mobility plan for the San Martino Hospital; Integrated mobility strategy for trade fairs; Mobility service agency

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**Krakow (Poland):** Integrated mobility plan

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**La Rochelle (France):** Business travel plan; Development of integrated transport management systems; Students travel plan

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**Malmö (Sweden):** Managing mobility needs of private persons and business sector

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**Norwich (United Kingdom):** Individual travel advice; Travel Planning

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**Odense (Denmark):** Creating alternative mobility options for owners of old cars; Mobility management services for the harbour; Personal transport choice marketing

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**Potenza (Italy):** Mobility Management

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**Preston (United Kingdom):** Business travel plans; Personalised travel planning; School travel plans

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**Toulouse (France):** Commuter and school mobility plans; Implementation of the urban mobility plan in the Blagnac area; Set-up of a mobility agency and customised services; Awareness raising campaign for changing mobility behaviour

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The CIVITAS website contains information about CIVITAS-related **news and events**. It provides an overview of all **CIVITAS projects, CIVITAS cities** and maintains **contact details** of over 600 people working within CIVITAS.

In addition, you get in-depth knowledge of **more than 650 innovative showcases** from the CIVITAS demonstration cities.

Visit the CIVITAS website and search for **prime examples of experiences** in sustainable urban transport currently being undertaken in cities. If any of the ideas suit your city, or you are just interested in learning more, you may then contact the relevant person responsible for this measure.



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