



Project no.: 518368 Project acronym: MAX

> Project title: Successful Travel Awareness Campaigns and Mobility Management Strategies

> > **Integrated Project**

6.2 Sustainable Development

1.6.2 Sustainable Surface Transport Objective
3.1.1.1.3 Advancing Knowledge on innovative measures in urban transport

Title of Report:

#### **MaxSumo**

Guidance on how to plan, monitor and evaluate mobility projects

Period covered: Date of preparation: August 2009

1 Oct. 2006 Start date of project: Duration:

> Version: 1.9

Prepared by: Trivector, ILS

Checked by:

Verified by:

Status: **Final** 

Dissemination level: Public

Project co-funded by the European Commission within the Sixth Framework Programme (2002-2008)

#### Foreword - MaxSumo as part of the MAX - Project

MaxSumo is a tool for systematic evaluation of mobility projects or programmes described in this document. It presents a method for systematic planning, monitoring and evaluation of mobility projects. If evaluations are carried out in the same way, it is easier to transfer experiences and compare similar projects. In the longer term, this also offers opportunities to describe the correlation between communicative efforts and their impact on overall societal goals. The method can also assist better project planning and in setting relevant and realistic goals.

MaxSumo was developed in the project MAX - Successful Travel Awareness Campaigns and Mobility Management Strategies as a part of WP B – Predictive Models of Behaviour Change and Prospective Assessment Tools. MaxSumo is based on existing tools including SUMO, MOST-MET and CAG. The aim was to combine the travel awareness aspects from CAG, the theoretical-based research conducted within the MAX Project and the more practical hands-on experience learned from the application of SUMO and MOST-MET in real life mobility project evaluations into the same tool<sup>1</sup>.

MAX ran from 2006 to 2009 and was the largest research project on Mobility Management within the EU's sixth framework programme. The MAX consortium served to extend, standardise and improve Mobility Management – it did so in the fields of quality management, campaigns, evaluation, modelling and land use planning. Much of the work was directly endorsed by the European Platform on Mobility Management (EPOMM) and continues to be supported by EPOMM – in order to provide truly Europe-wide expansion, standardisation and dissemination of Mobility Management. The work has resulted in several products and services that can be downloaded via www.epomm.org. For more information, please visit www.epomm.org or www.max-success.eu.

MaxSumo was developed by Trivector Traffic (Sweden), ILS (Germany) and Edinburgh Napier University – ENU (Scotland); with input from the other partners in MAX WPB.

#### Authors:

Trivector Traffic: P. Hyllenius, L. Smidfelt Rosqvist

ILS: S. Haustein, J. Welsch ENU: M. Carreno, T. Rye

1 MOST-MET was developed in 2000–2002 as part of the EU project MOST, MObility management STrategies for the next decades. CAG – Common/Campaign Assessment Guide was developed in the EU project TAPESTRY in 1999-2001. SUMO is a further development of MOST-MET and was commissioned by the SRA (Swedish Road Administration). It has been widely used as a result of the broad interest in this method on the part of a great many stakeholders in the Swedish transport and community sectors.







Project no.: 518368
Project acronym: MAX

Project title: Successful Travel Awareness Campaigns and Mobility Management Strategies

**Integrated Project** 

6.2 Sustainable Development

1.6.2 Sustainable Surface Transport Objective

3.1.1.1.3 Advancing Knowledge on innovative measures in urban transport

Title of Report:

# WP D - MaxLupo

# **Guidelines for the integration of Mobility Management with Land Use Planning**

Period covered: Date of preparation: August 2009

Start date of project: 1 Oct. 2006 Duration: 36 months

Version: 1.7

Prepared by: synergo, ENU
Checked by: ILS, Uni Maribor

Verified by: ENU, ILS

Status: Final

Dissemination level: External

Project co-funded by the European Commission within the Sixth Framework Programme (2002-2008)

#### FOREWORD – MAXLUPO AS PART OF THE MAX PROJECT

Mobility Management (MM) is a powerful way of influencing how people travel and so reducing the negative impacts of excessive car use. The land use planning process presents key opportunities for MM: it can help to produce a built environment that is less car-dependent. The plan-making and building permission process are key points at which MM can be introduced, to influence how people travel to and from a new development, from the day it opens. MaxLupo uses real-life examples to show how and when MM can be integrated with the land use planning process. It is useful for any planning professional, developer or politician who wants to more actively use the planning process as a way to influence travel behaviour to reduce congestion and improve the accessibility and quality of life of our towns and cities, and new developments within them.

MaxLupo was developed in the project MAX - Successful Travel Awareness Campaigns and Mobility Management Strategies as a part of Work Package (WP) D- Integrating Mobility Management and Land Use Planning. MaxLupo explains and provides examples of policies to better integrate sustainable transport with the land use planning process; and how to better integrate MM with land use planning.

MAX ran from 2006 to 2009 and was the largest research project on Mobility Management within the EU's sixth framework programme. The MAX consortium, of 28 partners, served to extend, standardise and improve Mobility Management – it did so in the fields of quality management, campaigns, evaluation, modelling and land use planning. Much of the work was directly endorsed by the European Platform on Mobility Management (EPOMM) and continues to be supported by it. The work has resulted in several products and services that can be downloaded via www.epomm.org. For more information, please visit www.epomm.org or www.max-success.eu.

MaxLupo was developed by synergo (Switzerland), ILS (Germany), Edinburgh Napier University (Scotland) and University of Maribor (Slovenia); with input from the other partners in MAX WP D: Cracow University of Technology (Poland), Vilnius Gediminas Technical University (Lithuania), ETT (Spain), Trivector Traffic (Sweden). MaxLupo is based on the findings in the above shown WP D member countries, Ireland and The Netherlands, and are also informed by US experience in this field. A full list of WP D reports is provided at the end of MaxLupo.

#### **Authors:**

synergo: Roberto De Tommasi

ILS: Janina Welsch

Edinburgh Napier University: Tom Rye University of Maribor: Aljaž Plevnik







#### So:

 MAX extends the field of Mobility Management by including the connection to Land Use Planning.

MaxEva is in many ways MaxSumo on the web. The more that MaxEva is used, the more

MM results there will be to compare and use in planning new projects.

MaxSem is a modelling tool that allows you to understand the behaviour

change process and to segment your target group accordingly.

Research results, case studies, CWA, Web

- MAX improves MM with several new planning tools (MaxExplorer, MaxSumo, MaxEva, MaxSem, MaxLupo), a quality management system (MaxO), and guidelines on how to develop and implement effective campaigns (MaxTag).
- It helps to **standardise** Mobility Management by providing clear definitions, an easy to use monitoring and evaluation tool (MaxSumo and MaxEva) and some standard procedures. A new standard quality management system for MM may also be established at a European level.

The European Platform on Mobility Management (EPOMM) will work to promote and disseminate these tools.



# We improved, extended and standardised Mobility Management – for you to use

As you have found your way to this brochure, we expect you are familiar with the problems caused by modern (car-) mobility – and also that you might think Mobility Management may be helpful in providing solutions. So we won't bore you with arguments about why this is important – we aim to provide you with helpful facts – straight away.

The MAX-project ran from 2006 to 2009 and was the largest research project on Mobility Management within the EU's sixth framework programme. The MAX consortium, of 28 partners, served to extend, standardise and improve Mobility Management – it did so in the fields of quality management, campaigns, evaluation, modelling and land use planning.

In these fields, MAX produced new research results – but also a whole array of tools. This brochure aims to give you a quick overview of both. We hope we can convince you to take the first steps to try out the tools and to improve your mobility management projects and measures.

A unique aspect of MAX is that it is not one of the many projects that just "finish" when the funding runs out. On the contrary, it is one of the few projects that will continue its dissemination well beyond the end of the project. That is because much of the work in MAX was directly endorsed by the European Platform on Mobility Management (EPOMM) and continues to be supported by them – in order to provide truly Europe-wide growth, standardisation and dissemination of Mobility Management.

As coordinator of this very large consortium over more than three years, I must say that the coordination has been extremely challenging. In the end I think we have achieved very good results. But there is always room for improvement, so we would be happy to receive any feedback you have.

So, have a good read and, if you then want to find out more, go to www.epomm.org to find more MM tools and services including those from MAX, or contact EPOMM directly at info@epomm.org. EPOMM can also help to organise and even partfund training sessions and workshops to bring this information to your country.

Many materials (including this brochure) have been translated into up to 14 other languages. If your country is or becomes a member of EPOMM, more translations will be possible.

Karl-Heinz Posch

MAX Coordinator EPOMM Coordinator



# Starting with Mobility Management: MaxExplorer

The MaxExplorer is an interactive decision support guide for Mobility Management projects. If you are not very familiar with Mobility Management, it might be a good idea to use the Max-Explorer to guide you through the wide range of possible Mobility Management measures. It helps you to choose appropriate solutions to your local problem.

### What is the MaxExplorer?

MaxExplorer is an interactive internet guide, which assists decision makers and Mobility Management practitioners to select Mobility Management measures which were rated by MAX project experts as the most appropriate for specific situations.

It is designed to be used primarily by newcomers to and those with less experience in MM, from all around Europe. In contrast to existing guides, it is designed for users with different organisational backgrounds and offers guidance not only to companies, but also to municipalities, schools, public transport operators and public services (e.g. hospitals).

### Summary of main points

MaxExplorer helps you to:

- Develop your own local project, with reference to the characteristics of the group(s) you are targeting.
- Benefit from the experience of MAX experts in choosing appropriate measures.
- Compare the effectiveness of different Mobility Management measures, in the context of your specific situation.
- Easily find actual examples of MM to let you form your own opinion on the appropriateness and effectiveness of different measures.

#### How does it work?

It is very simple: to start MaxExplorer, you have to answer just a few questions: about your organisation, the target group in question, the characteristics of your location and the size of your target group. In sum, just 4 clicks.

Once you have done this, a selection of recommended measures is offered: the output package. A click on one of the measures provides you with a brief description of the measure, plus a link to one or more carefully selected case studies or examples of implementation.

You then have the further possibility to get, again with one click, a multi-criteria assessment of your measures, to answer some other important questions:

- How much does this measure contribute to public policy goals such as road safety and reduction of parking problems?
- What are the main drivers and possible barriers for the successful implementation of this measure?

Finally, with one further click you get some additional information and recommendations. Here you are also pointed to other useful tools like MaxSumo that can assist you with the further planning, monitoring and evaluation of your Mobility Management measures and projects.

In sum, MaxExplorer can provide you with a good start to your MM project in just a few minutes.

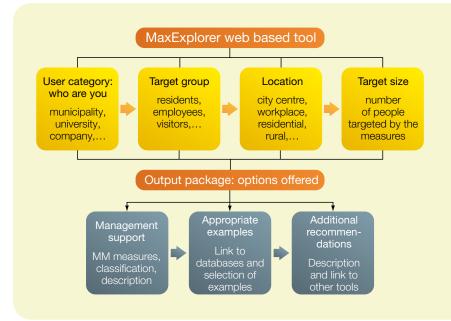


### Why use MaxExplorer?

- MaxExplorer helps you to discover the world of Mobility Management by offering you a general overview of a wide range of measures.
- This decision support guide will give you customised advice taking into account the specifics of your own project, helping you to find the measures that are appropriate to your goals and the characteristics of your target group.
- You will be able to compare the appropriateness and the effectiveness of different types of measures, through a multi-criteria assessment.
- You will get a list of recommended measures, from a ranking based on the knowledge of MAX experts.
- MaxExplorer covers all the main Mobility Management measures applied in Europe, from Company Mobility Plans to Walking Buses for Schools and Travel Awareness Campaigns.

### Who can use MaxExplorer?

MaxExplorer is a tool for newcomers and less experienced practitioners within the field of Mobility Management. Users of MaxExplorer can be local mobility managers from cities or public transport operators, as well as others in organisations dealing with changing travel behaviour, such as those working on Mobility Management in companies, schools, housing projects or any other traffic generating locations.



# What is Mobility Management? What are Mobility Management Measures? Who has defined this?

Many have tried to define Mobility Management. It is not possible to define it in one sentence. The MAX consortium has produced a workable definition, one that has been endorsed by EPOMM:

Mobility Management (MM) is a concept to promote sustainable transport and manage the demand for

car use by changing travellers' attitudes and behaviour. At the core of Mobility Management are "soft" measures like information and communication, organising services and coordinating activities of different partners. "Soft" measures most often enhance the effectiveness of "hard" measures within urban transport (e.g., new tram lines, new roads and new bike lanes). Mobility Management measures (in comparison to "hard" measures) do not necessarily require large financial investments and may have a high benefit-

A more detailed description including a definition and description of the various MM measures can be found on the EPOMMwebsite

With MaxExplorer and the list of measures you have a basis on which to start your MM projects. Now the next chapter explains how you can organise, assure the quality of and systematically improve these.

# Quality in Mobility Management

#### MaxQ: The Quality Management System for Mobility Management

Keeping customers and users and providing a high level of services are major goals of any organisation and quality is the driving force towards developing efficient and effective services. The MAX project has developed a quality management approach as a powerful tool to improve Mobility Management in general, but especially for cities. It helps to provide services in an organised and consistent manner and to continuously improve them based on user satisfaction and desires. The Quality Management System for Mobility Management (MaxQ) focuses on developing, monitoring, assessing and improving both the overall Mobility Management policy and separate Mobility Management measures.

#### What is MaxQ?

The MaxQ scheme is a process, which can be adopted by any organisation for managing their mobility policy and measures. That process focuses on developing, monitoring, assessing and improving both the overall Mobility Management policy and separate Mobility Management measures. It involves four steps (policy, strategy, implementation and monitoring and evaluation) and twelve sub steps, which are structured in a quality circle:

& Evaluation **User & society** Management review needs Stakeholder **Policy** feedback on paper User & **Process** society Leadership results Management and no mentation w communication MM Supportive **Programme** Human resource **MM-measures** 0 management **Partnerships Budget** Kestens

The city's policy defines the overall vision of a city or an organisation on how it will promote sustainable transport. Within the framework of the overall Mobility Management policy a Mobility Management strategy is developed, which includes the Mobility Management programme to be implemented, along with necessary partnerships, budget issues, and internal organisation and resources. The Implementation of measures with a sound implementation plan is the next step in the circle, and this can be accompanied by supportive measures. Finally, a good evaluation plan contributes to the overall quality of your Mobility Management project. It is recommended to use the MaxSumo method for this plan see the Evaluation chapter on page 12.

In order to adopt MaxQ, a city administration or department must take an active role. They must be prepared to examine and assess their current practices regarding each criterion and then determine how changes could start or improve their Mobility Management project(s). The analysis is done through a combination of document analysis, personal interviews and collective discussions with the Mobility Management team and with the main stakeholders. The resulting assessment forms the basis for further improvement.

The Max project developed an audit procedure to support the implementation of MaxQ. It places the status-quo of each element of the quality circle on a development ladder, and provides guidance to make further improvements.



#### Why use MaxQ

- Good quality is essential for your services
- Quality management is a successful tool already used in a wide range of organisations and services.
- The quality management approach and culture lead to better performance and reduced costs.
- Quality management fits well to Mobility Management.
- Your overall mobility policy and measures will be managed and improved in a consistent, systematic and organised way.
- The credibility of your Mobility Management organisation will improve.
- All stakeholders of the Mobility Management system (senior management, employees, users) will be actively involved.
- As your organisation might already have a quality management culture in other services (e.g. waste management, environmental management), extending it to Mobility Management may be an easy and logical next step.
- MaxQ has been tried and tested in several European cities.
- Parts of MaxQ are established as a draft code of practice within the European Committee for Standardisation (CEN)

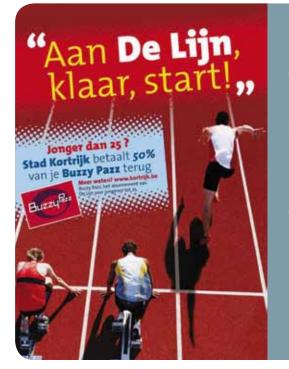
#### Who can use MaxQ?

MaxQ focuses on Mobility Management practitioners in cities, especially at higher levels. This includes city officials and senior mobility managers of cities, companies and organisations. Anybody responsible for the mobility strategy, policy and measures in a city, organisation or company, can benefit from adopting MaxQ in their Mobility Management operations.

# Summary of main points

MaxQ is a tool:

- For introducing quality management in your mobility operations
- For achieving quality while adopting a quality culture in your services.
- For improving the performance and credibility of your Mobility Management processes



## Case Study Kortrijk

The city of Kortrijk in Belgium has tested MaxQ and went through an audit according to the quality circle. It was used to review the city's urban transport plan, to make an in-depth evaluation of their project "schools and mobility" and to investigate the possibilities to extend and reinforce mobility management in other mobility domains. The system revealed the strengths and weaknesses of their policy. The city of Kortrijk will use the resulting recommendations to formalise their mobility policy in the future. The guidelines of MaxQ will be described in their new transport plan. Kortrijk's test of the prototype MaxQ also led to some improvements. A detailed report on Kortrijk's experience is available at www.epomm.org.

This section is related to MM as a whole. The next chapter is more specific, looking at a very important component of MM: campaigns, and how to make them effective.

# Travel Awareness Campaigns

Travel Awareness Campaigns come in different shapes and sizes throughout Europe and are at the core of Mobility Management. The MAX project determined exactly what makes Travel Awareness Campaigns successful and used this to produce the Travel Awareness Campaign Guide MaxTag. This guide can be used by anyone, regardless of their occupation or level of experience in Mobility Management. Be inspired by MaxTag!

### What is MaxTag?

MaxTag is an exciting online tool that offers Mobility Management practitioners step-bystep guidance in setting up their own successful Travel Awareness Campaign.

The guide takes Mobility Management practitioners on a journey through every stage of producing a campaign, highlighting key success factors together with inspirational best practices at every stage.

For practitioners who are at the planning stage of their Travel Awareness Campaign, this tool offers guidance on:

- setting aims and objectives;
- performing formative research on the target audience(s);
- communication to stakeholders and the community:
- identifying environmental conditions;
- establishing a framework for monitoring and evaluation.

For more advanced Mobility Management practitioners, the tool gives guidance on identifying campaign target groups and segmentation of the audience as well as defining the exact social marketing mix for delivering a Travel Awareness Campaign. For people in the final stage of their campaign, the so-called post-campaign phase, the tool gives guidance on stakeholder feedback and evaluation of the campaign's effects.

MaxTag offers Mobility Management practitioners full A to Z guidance on planning, implementing and evaluating your own Travel Awareness Campaign. Success guaranteed!

### Summary of main points

The Travel Awareness Campaign Guide MaxTag offers:

- step-by step advice on designing your own successful Travel Awareness Campaign from the small scale in towns and villages to larger schemes in cities or regions;
- full A to Z guidance on planning, implementing and evaluating your own Travel Awareness Campaign
- inspiring best practices of Travel Awareness
   Campaigns throughout Europe and the US



# Why use MaxTag?

- Get customised step-by-step advice on designing your own Travel Awareness Campaign
- Learn and apply success factors that make your campaign work
- Learn about specific issues such as the importance of the message giver, implementing a combination of campaigns and infrastructure, and the combination of campaigns with educational measures
- Be inspired by Travel Awareness Campaign best practices throughout Europe and the US
- Get recommendations on how to convince your decision makers to adopt Travel Awareness initiatives

### Who can use MaxTag?

The Travel Awareness Campaign Guide MaxTag can be used by anyone, regardless of occupation or level of experience in Mobility Management. It suits people involved in projects of any scale from small Travel Awareness Campaigns in towns or companies up to larger more ambitious schemes in cities or regions. It offers guidance to people that are either in the planning and design phase of a campaign, or managing an existing campaign, or following up on one that has recently been completed.



# Case Study Het Nieuwe Rijden (A New Style of Driving), Netherlands

The message of the Dutch ecodriving campaign, Het Nieuwe Rijden (HNR), is very positive and rational, stressing both personal and community benefits. Ecodriving is presented as a quick win-win solution both for the car driver and the politician. The message is backed up by hard evidence on fuel and cost savings. The interested driver can find more information in the form of "golden rules" on the HNR website. For companies and local governments, the message targets the hard results from ecodriving: in this target group the facts were important to motivate them to invest in it (the pay back argument). In contrast, in the mass media campaign, a more emotional approach was chosen as a better way to make the concept of HNR known to a wider audience.

Campaigns are one component of MM and can fit anywhere in your mobility management policy. In the next chapter MAX shows how MM can be extended to cover a field that has so far largely been ignored by mobility management: land use planning.

# Land Use Planning and Mobility Management

#### MaxLupo: Guidelines for the integration of Mobility Management with Land Use **Planning**

Aimed at planners, planning consultants, local authorities, developers and university planning schools, these guidelines give practical advice on how to better integrate sustainable transport with land use planning. Thus they show how to make Mobility Management a core part of the building permission process for new developments.

# What is integration of Mobility Management with Land Use Planning?

The MAX project has been working on the integration of Mobility Management and land use planning both in the plan-making process and in the site-related building permission process.

Early in the planning process, when land use plans are made, local authorities can ensure that new development will be sited in locations where a choice of modes is available. This is an important prerequisite for achieving success in Mobility Management.



Mobility Management and its measures often focus on specific sites - an office, shopping centre or stadium, for example. When a new site is being planned or an existing one expanded or changed, this usually requires building permission, involving negotiations between the site developer and public authorities. Such negotiations can be used to secure both Mobility Management measures for the site before it opens and for when it is in use, such as:

- parking management;
- infrastructure for cycling, walking and public transport;
- new bus services;
- or advertising and promotion to encourage site users to take alternative modes.

This also ensures that site users have a choice of modes to reach the site from the first day that it opens.

This is important, as site users usually decide how to get to the site and what mode to take, when they go there for the first time. This is the moment when they are most open to try new alternatives. After that, they start to establish a habit and this is then much harder to change at a later date.

Sihlcity in Zurich, a shopping and entertainment centre that was required to integrate Mobility Management with the development in order to get a building permit. Source: Sihlcity AG



### Why use MaxLupo?

Such an integration of Mobility Management and land use planning is a good idea because:

- it helps to reduce congestion and pollution caused by motorised traffic at new developments;
- provides access to developments for all, regardless of whether or not they have a car;
- and because it works:
- New hospitals in Cambridge and Edinburgh, in the UK, were subject to Mobility Management as part of the building permission process. Today only 40-50% of their staff drive on their own to work. Without Mobility Management, this figure would be closer to 90%. This means less traffic, less congestion, healthier staff and fewer CO2 emissions.
- MaxLupo has a useful appendix with 38 case studies of integration of sustainable transport and land use, and of the integration of Mobility Management into the building permission process.
- MaxLupo also provides a comparison of the integration of MM and land use planning in 9 EU countries, and Switzerland.

#### Who can use MaxLupo?

- Planners working in land use, transport or environmental planning departments in national, regional or local administrations.
- Personnel of units in local and regional administrations involved in the planning and building permit process of developments.
- Urban and transport planning consultants working as Mobility Management experts for public administrations, for owners of developments or directly for developers.
- Developers
- Universities, Schools of Planning, etc.

# Summary of main points

The MaxLupo-guidelines give practical advice on

- How to better integrate transport planning and land use planning.
- How to integrate Mobility Management into the land use planning process.

# Case Study Sihlcity, Zurich, Switzerland

Sihlcity is a multifunctional shopping and entertainment development. In a total floor area of 97.000 m² retail, services, culture, cinema, hotels, fitness, wellness and even a few housing units are located. It has around 19.000 visitors per day and 2.300 employees are based at the site. The development has good road access (highway) but is also well-served by local railway, tram and bus. The overall number of parking spaces at Sihlcity is 850, that is 1 parking per 110m² of gross floor area.

Within the process of getting the building permission tough transport solutions were set in a legal contract between municipality and developer: the maximum number of parking spaces was limited to 850, parking had to be priced, and 600 bike parking spaces and a home delivery service by bike had to be imple-

finance frequency enhancements to a local bus and tram line for the first two years of operation. The transport impact had to be calculated by a so called Access Contingent Model, allowing the generation of maximum 8.800 car trips per day (to be achieved after 5 years)

The preceding chapters show how you can choose your measure, define your policy, develop good campaigns and integrate MM with land use planning. The next chapter is on a very important part of MM: evaluation. The MaxSumo tool is a great aid to all MM-projects and thus also in campaigns, as part of quality assurance and in integrating MM with land use planning.

# Plan, monitor and evaluate with MaxSumo

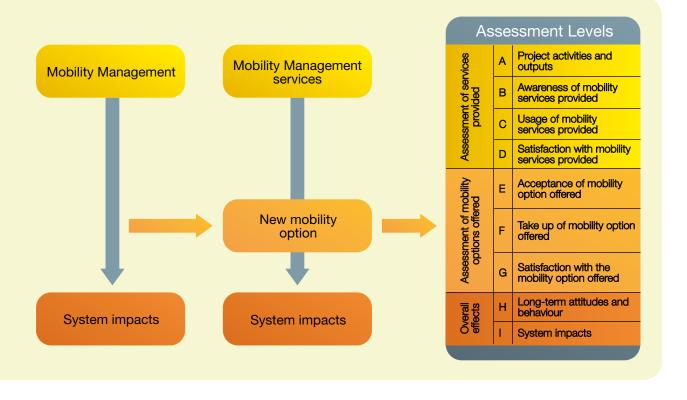
For anyone carrying out Mobility Management, it is of primary interest to know and to be able to show that the effort and the costs are justified. The MAX-project developed the MaxSumo evaluation tool based on previous European research and on the SUMO-tool that is widely used in Sweden. It offers an accessible and systematic method for evaluating and planning Mobility Management measures and projects. MaxSumo is supported by EPOMM with the objective of achieving a widely accepted standard and to obtain data for a European database on Mobility Management projects called MaxEva – see next chapter.

#### This is MaxSumo

With MaxSumo you can effectively plan, monitor and evaluate Mobility Management projects. It provides standardised guidance during all the steps in your project, e.g. when setting targets, defining target groups, selecting services and mobility options. In this way, you break down the complex process of behavioural change into smaller steps that can be monitored and evaluated successively. This is comparable to using the staircase when descending a tall building, instead of jumping from the highest floor. By going in small, successive steps, possible deviations can be corrected at an early stage.

These steps are presented in MaxSumo as different assessment levels (see figure below). Each assessment level logically follows from the other, and for each level you need to decide your target, which indicators to use and how to measure these. You might decide to skip some steps – in some projects it is neither possible nor necessary to monitor all levels.

MaxSumo can be used for single measures, but also for combined measures. With MaxSumo evaluation data can be compiled in a standardised way.





#### Why use MaxSumo?

- MaxSumo helps you to effectively evaluate and manage your project – by leading you through a simple but careful systematic approach.
- The MaxSumo guide offers helpful advice on setting targets and choosing consistent indicators throughout planning, monitoring and evaluation.
- You have a method that permits project monitoring both during and after the project. So it helps to adjust your services during the process, to make them more effective.
- You can enter your results in the database MaxEva (see next chapter) that allows you to compare your project with other projects implemented elsewhere in Europe that have used the same evaluation method.
- All this will facilitate your assessment process by deriving agreed and understandable evaluation outputs.
- You can demonstrate that your mobility management project has been successful, effective and that it justifies the money invested.
- You can contribute to development on a European level, as the results can be used optimising future work.
- MaxSumo has been tried and tested, and its predecessor SUMO has been proven to work in over 100 projects.

#### Who can use MaxSumo?

MaxSumo is a tool for you as a practitioner within the field of Mobility Management. You can be a local mobility manager, a city or transport planner or a consultant working for these organisations, you can also work with Mobility Management in companies, schools, housing project or any other traffic generating locations.

Furthermore, MaxSumo can function as a constructive tool for you as a researcher at universities and other research institutions. If you use MaxSumo, you should also use MaxEva – see next chapter.

# Summary of main points

MaxSumo helps you to:

- Evaluate, structure and pilot your project.
- Monitor and adjust your services and projects during the process, to make them more effective.
- Learn from the results obtained.
- Compare these results with those from similar projects and with the targets set at the beginning of the process.

#### Example job ticket / test traveller

A company set the objective that more commuters should come to work by bus. In the MaxSumo process detailed activities and targets were set, for example that:

- · After an information campaign, 80% of the employees should be aware of the new programme
- At least 6% of the employees should agree to use the job ticket and become test travellers
- At least 90% of these should indeed commute by bus
- At least 50% of these should still use the bus a year after the test period is over
- CO2 emissions should be reduced by 20 tonnes per year

In this campaign, all results were measured (as laid down in the evaluation plan set up in the planning phase) and all targets were achieved (except for CO2, here a reduction of 18 tonnes "only" was achieved)

We hope this chapter has convinced you to try out MaxSumo. MaxEva, described in the next chapter, should also help. We hope that the use of MaxEva and MaxSumo will lead to a large database of well documented MM-projects so that MM practitioners can understand which MM measures work, when and why.

# MaxEva: Building up knowledge

#### MaxEva: A Web Based Evaluation Tool for Mobility Management Projects

MaxEva is an interactive web database for evaluation data of Mobility Management projects. It is based on the type of data which is generated by using MaxSumo (see previous chapter) for evaluation. MaxEva offers simple tables and boxes to be filled in. Using it will guide you in the evaluation of Mobility Management interventions. MaxEva and MaxSumo are supported by EPOMM with the objective to achieve a widely accepted standard and to obtain data for a European database on the impacts of Mobility Management projects.

#### This is MaxFva

MaxEva is an interactive database and provides a resource for practitioners to benchmark their achievements. The main purpose of MaxEva is to allow MaxSumo users to add their own results into the database during the implementation process or having completed a Mobility Management project. Using MaxEva gives you an overview of the obtained results of your project. You can also compare the results of your own project with projects implemented elsewhere in Europe that have used the same evaluation method.

Over time, MaxEva will accumulate data from a large number of Mobility Management interventions. MaxEva will then offer an interactive database with reliable information on efficient measures and services in a variety of contexts.

You can use MaxEva to evaluate single measures as well as whole mobility plans or programmes. This might include measures like:

- Personalised travel assistance
- Projects like "job ticket" or "test traveller"
- Campaigns like "commute by bike"
- Schemes for car pooling
- Walking and cycling school busses

The structure of MaxEva follows MaxSumo (see previous chapter). The MaxEva database fields reflect these different MaxSumo levels and sub-levels. So, when you successively enter your data in the database by means of the boxes and tables, MaxEva guides you in collecting data according to MaxSumo and thus helps you whenever you are planning, monitoring and evaluating a Mobility Management project.

The output of the database consists of results obtained on the same assessment levels as MaxSumo. MaxEva also calculates exhaust emissions using default values for the use of fuel etc. To facilitate comparisons with other projects, the effects and results (e.g. on yearly reduction in CO2 emissions), can be listed for a specific type of measure you can select.





#### Why use MaxEva?

- You compile your evaluation data in a systematic and standardised way.
- You get to know what you need to measure
- MaxEva guides you through the process of using MaxSumo.
- MaxEva provides you with an easy and quick overview of the results of your project.
- MaxEva calculates the environmental effects of your project.
- You can use MaxEva as a benchmarking tool and compare similar projects and their achievements.
- You are able to determine what effects you can expect from specific Mobility Management measures.
- MaxEva helps you to identify key performance indicators and pitfalls – which can then help decision-makers to prioritise their next investments in Mobility Management.

#### Who can use MaxEva?

Anybody who can use MaxSumo (see previous chapter)

# Summary of main points

MaxEva helps you to:

- Collect data and evaluate your Mobility Management project.
- Calculate the environmental effects of your project.
- Learn from the results obtained.
- Compare the results obtained with similar projects and with the targets set in the beginning of the process.

# The future European database on Mobility Management projects

Depending on its usage, MaxEva will hopefully soon fill up with many projects. The more projects available the more useful MaxEva will become as benchmarking and planning tool. In the future, it will for example be possible:

- to compare the results of company mobility plans of a similar type between different countries or between differing sizes of company
- to determine with more accuracy the factors that make projects successful (or not)
- to get an accurate indication, the success rates that are to be expected from differing types of mobility management measures
- to assess with some certainty the levels of emission reduction, congestion reduction or modal shift that can be expected per Euro invested and thus to see how the money for mobility management can best be used
- and, following from the last point, to be able to show mobility management is in very many cases much more cost-effective than investment in other traffic and transport measures.

All Max-tools aim to effect a behaviour change. In the next chapter we describe a model that explains this change, MaxSem. It allows you to understand the behaviour change process and to segment your target group accordingly.

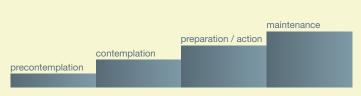
# MaxSem: A New Model of Behaviour Change

Mobility Management aims to change people's choice of travel mode. To be effective here, it is very helpful to understand the behavioural change process. The MAX-project developed a new psychological model "MaxSem". It shows that behavioural change moves through stages. MaxSem provides stage-diagnostic questions that can measure the readiness to change of the target group. This helps to analyse and segment the target group and thus to choose and design the most appropriate and effective Mobility Management measures for them.

#### What is MaxSem?

MaxSem (Max SElf-Regulation Model) is a new theoretical standard model of behavioural change. It was developed and validated via a cross-cultural survey of cardrivers in seven European countries. Max-Sem utilises the most important constructs of 'static' psychological models of behavioural change, such as norms and goal feasibility. It interlinks those with the temporal dimension of the process of change by incorporating four key 'stages' of behavioural change:

The aim of mobility management must be to address all stages and to move the persons to the next "higher" stage and to prevent lapses back into a "lower" stage. You must be aware that you should try either to address all stages, or if that is not possible, to select the stages that are most important in your location. MaxSem can help you to find out what the situation is in your target group so it is easier to decide what to do.



#### Stage 1: Pre-contemplative stage

Persons in this stage are habitual car drivers who have no intention to reduce their current car use. The aim here is to make this group think of possible change.

#### Stage 2: Contemplative stage

Persons in this stage are thinking about reducing their current car use: they have formed a personal car reduction goal. The aim here is to present to this group attractive options for changing their behaviour.

#### Stage 3: Preparation/action stage

Individuals in this stage have selected a concrete behavioural strategy for reaching their car reduction goal (e.g. using the bike instead of the car to go to work) or they have already occasionally tried the new behaviour. The aim here is to have the group actually try out new behaviour and to facilitate the maintenance of this new behaviour.

#### Stage 4: Maintenance stage

Individuals in this stage have adopted the new behaviour and have formed a new habit. The aim here is to reward the new habit and to prevent relapse to the old behaviour.



The previous chapters have given an overview over the main tools developed by MAX. But the project is much more than a collection of tools. See on the next pages what other resources MAX can deliver to you.





# Other resources in MAX and EPOMM

The research process and research results

# A large consortium involving many cultures

Max was a large research project: the partners of MAX represented 16 European countries including four new Member States (Poland, Lithuania, Slovenia, and Estonia). The partners were universities, consultants and cities. The wide spread of cultures was very important, to incorporate broad experience and views on how to introduce MM in different contexts. This was extended through the involvement of many experts and practitioners – either as test sites, or through direct interviews and workshops. In this way, experience from most European countries as well as from North America was assured.

#### The research phases

(see graph on next page)

MAX consisted of four main groups (called workpackages), that worked on the four themes: campaigns, evaluation and modelling, quality and integration with land use planning. These groups worked together and in parallel and all went through three research phases.

In the preparation phase, the state of the art in each field was researched, and over 300 case studies and projects were analysed. The state of the art served as a basis for identifying the research gaps and for developing a research plan. It became necessary to write a common definition of Mobility Management and Mobility Management measures – to provide a common basis for the work.

In the main phase, in-depth investigations were carried out according to the research plan. All groups constituted task forces (subgroups) that researched special topics. For example in the group covering campaigns there was a task force called campaigning the campaign – investigating how to best "sell" a campaign to a decision maker. The management coordinated the

work of the various groups to stay on target to achieve integrated coordinated results. The research served as basis for developing the tools. These were tested on test sites (called demonstrations). The **interim** results of this phase are laid down in the task force reports and demonstration reports – often only as annexes to research reports. These are useful if you want to find out about the research from which tools and guidelines were developed.

In the finalisation phase, all the results were brought together and integrated in a final report per workpackage as well as in two overall final reports – one for general publication and one for the Commission.

The main products – of most use to practitioners – are the tools that are described in this brochure, as well as training materials and the website.



#### Web

The Max-website www.max-success.eu was set up for the purpose of providing information about the project and publishing interim results over the lifetime of the project. The tools and most other final project results are now available on the main mobility management website in Europe, that is www.epomm.org. The site is alive and regularly updated. Moreover, some parts are available in many other European languages. If your country is an EPOMM-member state, you can ask for specific information and request translations, training sessions and workshops.

The website provides:

- Access to all MAX reports
- Several online tools as developed by MAX, most notably MaxExplorer and MaxEva
- Access to all guidelines
- Access to all case studies
- Access to all training materials

#### Training materials

11 Universities were partners in MAX. Everyone of them developed one or even more courses. Each workpackage also developed one or several Powerpoint presentations and a model training course. All this material is available on epomm.org.





#### Case Studies

EPOMM started collecting case studies in 2000; since 2006 it has been cooperating with ELTIS. Since then, all case studies have been transformed into the easy to read, standardised ELTIS format. Currently (Sep. 2009) there are about 430 case studies in the field of Mobility Management alone. In its research process, MAX has analysed

In its research process, MAX has analysed a wealth of cases and examples and carried out some demonstrations of the MAX tools. All these will be available in the handy ELTIS format and will be referenced in appropriate places in the MAX-tools and throughout the EPOMM sites. From the case studies in ELTIS format it will also be possible to access the authors and more in depth information as researched by MAX.

# The code of practice on quality in Mobility Management

The CEN Workshop MOBIMA was initiated with the help of MAX to provide a normative document, a so called CEN Workshop Agreement (CWA), titled "Code of Practice for Implementing Quality in Mobility Management in Smaller and Medium Sized Cities". CEN is the European Committee for Standardization that, through its 30 National Members, develops voluntary European Standards. This code of practice is thus a first step towards a European Standard. It is available on www.epomm.org and will be available on the CEN-website www.cen.eu.



# Continuing with MM

If you like the contents of this brochure, you might want to do more with Mobility Management. Of course there is www.epomm.org. But here are some other possibilities:

Mandania -	Owneries a westerland as their in a section FDOMM will assist you
Workshops	Organise a workshop or a training session – EPOMM will assist you
EPOMM- Membership	In order to get stronger support from the national level, EPOMM membership for your country might be beneficial. If it already is a member, you might contact the national network, which EPOMM is helping to build up. Contact info@epomm.org to get more information.
Networking	EPOMM is all about networking: it helps to build up national networks, it organises thematic workshops for these networks, it organises the yearly ECOMM (European Conference for Mobility Management) and the yearly EMMNET (European Mobility Management Network Meeting).
E-update	You might subscribe to the EPOMM e-update, a monthly newsletter providing specific information on a Mobility Management topic – and thus also on news on the MAX tools.
allinx	allinx is a unique networking site especially made for professionals working in the field of mobility management. We invite you to become a member of allinx too: to connect with colleagues, share files and resources, and participate in groups and discussions. Join www.allinx.eu





www.allinx.eu - European Community for Mobility Management

MAX Partners	
Austrian Mobility Research, FGM-AMOR (project leader) –	Mobiel 21 – Belgium
Austria	
ILS Institut für Landes- und Stadtentwicklungsforschung	Eric N. Schreffler, Transportation Consultant – USA
gGmbH – Germany	
Equipo de Tecnicos en Transporte y Territorio, ETT - Spain	FIT Consulting – Italy
Lyle Bailie International Limited – United Kingdom	synergo – Switzerland
Timo Finke Consult Aachen – Germany	Traject – Belgium
Austrian Standards Institute – Austria	Trivector – Sweden

MAX University Partners	
University of Piraeus Research Centre - Greece	University of Maribor, Faculty of Civil Engineering - Slovenia
Cracow University of Technology - Poland	Aristotle University of Thessaloniki – Greece
University of Lyon – CNRS-LET – France	Edinburgh Napier University – United Kingdom
University of Central Lancashire – United Kingdom	Vilnius Gediminas Technical University – Lithuania
University of Giessen, Institute for applied and empirical social research – Germany	Otto-von-Guericke-University of Magdeburg – Germany

MAX Demonstrators			
Almada Municipal Energy Agency, AGENEAL - Portugal	Almada Municipality – Portugal		
Lazio Transport Company COTRAL – Italy	Kortrijk Municipality – Belgium		
Tallinn Municipality – Estonia	Munich Municipality – Germany		

Imprint Concept and design: FGM-AMOR, Schönaugasse 8a, 8010 Graz, AUSTRIA, www.fgm.at | Photos: FGM, www.sxc.hu (Andrew Bissky), Harry Schiffer, www.hetnieuwerijden.nl, City of Kortrijk, www.sinlicity.ch | Published by FGM-AMOR on behalf of the MAX-consortium, October 2009 FGM-AMOR Austrian Mobility Research



Neither the European Commission, nor any person acting on behalf of the Commission, is responsible for the use which might be made of the information contained in this publication. The views expressed in this publication have not been adopted or in any way approved by the Commission and should not be relied upon as a statement of the Commission's views.