MAX – NEW TOOLS FOR MOBILITY MANAGEMENT EVALUATION

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ABSTRACT

This paper describes a set of tools developed to assist in the planning, implementation and evaluation of Mobility Management (MM) programs. The MAX project, co-funded as part of DG TREN's 6th Research Framework Programme, developed guidance in four areas, including: travel awareness campaigns, quality management, and integrating MM and land use planning. The fourth area of guidance, and subject of four new tools, was MM assessment and evaluation. The tools described include a decision-support system for prioritizing appropriate MM measures, a conceptual model for understanding stages of behaviour change, and tools that standardize monitoring and evaluation as well as provide a repository for their results.

Keywords: Mobility management, evaluation, sustainable transport, travel behaviour

EC PROJECTS ON MOBILITY MANAGEMENT

Mobility Management is becoming a principle strategy in urban areas to address congestion, environmental, and energy issues associated with pervasive car use. This paper presents some innovative planning tools that will help develop, implement and evaluation mobility management strategies. Background on Mobility Management and related European Research projects are presented. Next, a description of the most recent research project, MAX, is summarized. Then, the specific tools developed as part of Work Package B – Assessment Tools, will be presented. Finally, the dissemination and further use of the tools will be discussed, including suggestions for future research related to refinement and expansion of innovative tools for Mobility Management.

Mobility Management and Travel Demand Management

The European Platform on Mobility Management (www.epomm.org) provides the following definition of Mobility Management:



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-cost ratio. (EPOMM)

The relationship of Mobility Management (MM) to Travel Demand Management (TDM) is sometimes confusing. TDM is often defined as describing the set of incentives (e.g., HOV lanes) and disincentives (e.g., cordon pricing) that influence travel behaviour. A tradition view of TDM is narrowly focused on modal alternatives to commuting alone, whereas a more contemporary definition includes strategies to influence time choices (i.e., travelling outside of congested periods), location choices (e.g., working from home) or even route choice (e.g., real-time information on less congested routes). A definition provided by the U.S. Federal Highway Administration states: "in its broadest sense, demand management is defined as providing travellers with effective choices to improve travel reliability." (FHWA, 2006) The term "mobility management," as used in Europe, is more narrowly focused on measures such as information, marketing, partnerships, communications, and promotion of sustainable modes. Additionally, MM addresses the need to change traveller's attitudes, whereas the definition of TDM focuses on behaviour change. In a sense, mobility management might be viewed as a subset of measures within the broader U.S definition of transportation demand management.

EC Research Framework Programme and Mobility Management

The European Commission has co-funded large-scale projects in Mobility Management during the past three Framework Programmes. Of course, many other EC projects have explored various aspects of Mobility Management, such as travel awareness (TAPESTRY), communication tools (INPHORMM) and carpooling (ICARO), and others. However, several have been focused on the application of Mobility Management measures to various travel markets.

During the Fourth Research Framework Programme, two coordinated projects were implemented: MOSAIC (Mobility Management Applications in the Community) and MOMENTUM (Mobility Management in the Urban Environment). MOSAIC sought to better define the concept of Mobility Management and demonstrate methods to induce voluntary travel behaviour change through mobility centres and dedicated staff called mobility coordinators. MOMENTUM had largely the same focus and looked at new partnerships and targeting of measures to specific user groups.

The MOST project was funded under the Fifth Framework Programme. MOST (Mobility Management Strategies for the Next Decades) built upon the knowledge gained in MOSAIC/MOMENTUM and explored the application of MM to new travel markets, such as:



new developments, hospitals, schools, tourist sites, etc. It also continued research into the effectiveness of mobility centres and the mobility consulting process. MOST also worked to expand the demonstration of MM benefits in new member states. Of note to this paper, MOST created a new planning tool called the MOST Monitoring and Evaluation Toolkit (MOST MET). The MOST MET is a comprehensive framework and methodology for setting objectives and quantifying progress against those objectives, at various levels of impact. For more information on any of the precursor projects, visit the DG TREN's Transport Research Knowledge Centre and search for the name of the project of interest (www.transport-research.info/web/projects).

Parallel to the research projects was the introduction of CIVITAS. Also supported by DG TREN via the 5th and 6th Framework Programmes, The CIVITAS (CIty-VITAlity-Sustainability) Initiative aims at creating cleaner and better transport in cities. This is accomplished by encouraging cities to implement integrated packages of measures that combine soft (mobility management) and hard (technology) strategies in an environment of strong local political support. CITIVAS, now in its third phase (CIVITAS Plus), has involved almost 60 cities throughout Europe and focuses on eight key categories of sustainable transport strategies, including: clean fuels, traffic management, mobility management, public transport, and others. CIVITAS incorporates objective, independent evaluation of impacts and processes (www.civitas.eu).

At the end of the 4th and 5th Framework Programme projects in Mobility Management, the time for large-scale demonstrations was viewed as complete and focus turned to encouraging the up-take of MM in more urban areas. In order to encourage and support the dissemination of MM concepts and broaden the number of cities who would embrace MM, new tools were needed to assist with the effective adoption of more sustainable travel options and the change in attitudes necessary for their increased use. This was the genesis of the MAX project.

MAX - OVERVIEW

As part of the Sixth Research Programme Framework, the EC co-funded the MAX project. MAX is focused on "Successful Travel Awareness Campaigns and Mobility Management Strategies." As suggested above, the overall purpose of MAX was to conduct original research (as opposed to pilots at specific sites) in order to develop a new set of tools for Mobility Management. This would help cities that had not been involved in earlier EC-supported projects to readily access guidance in critical areas of MM. The MAX Consortium included 25 members and was largely comprised of research institutions from around Europe, as well as consultancies with considerable experience in MM and travel awareness.

MAX ran from 2006-2009 and was organized into four thematic areas, corresponding to critical planning, implementation and evaluation issues in MM. These four areas, depicted as Work Packages (WP) A-D in Figure 1, and the resultant tools included:



- 1. WP A Successful travel awareness campaign (broad initiatives to inform travellers of sustainable options), resulting in the MaxTag tool.
- 2. WB B Assessment Tools to help conceptualized, plan, and evaluate MM projects, including a host of tools (MaxSem, MaxExplorer, MaxSumo and MaxEva).
- 3. WP C Quality management approach for MM in small- and medium sized cities, resulting in the MaxQ tool.
- 4. WP D Integrated MM into the land development process, including development of the MaxLupo tool.

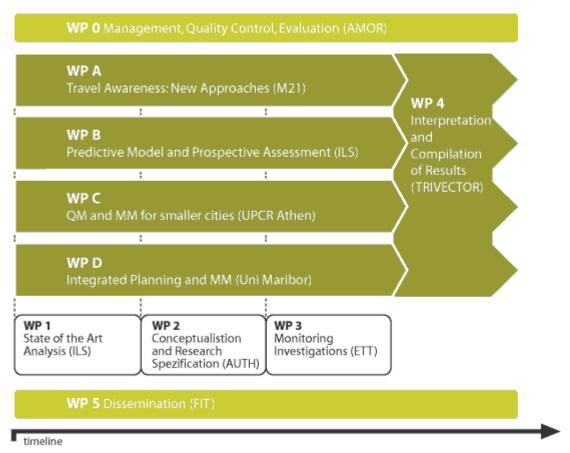


Figure 1 – MAX Overall Structure

The focus of this paper is the research and tools resulting from Work Package B, dealing with planning and evaluation processes. However, the other three components of MAX offer useful findings and resulting tools. The tools from these other three work packages (all found on the EPOMM website www.epomm.org on the MAX MM-Tools page) are described below.

MaxTag – A Travel Awareness Campaign Guide

A ten-step process for successful planning and conducting travel awareness campaigns was developed in the form of the MaxTag guidance tool. The ten-step are shown on Figure 2.





Figure 2 – MaxTag Travel Awareness Campaign Steps

The developers of the MaxTag guidance provide some key lessons learned from successful campaigns, some of which counter conventional wisdom from past research:

- 1. successful campaigns adapt a social marketing (rather than solely a marketing communications) approach.
- 2. far greater emphasis is given to the campaign planning stage and especially 'upstream' marketing to engage stakeholder support.
- 3. the design incorporates a continuous dialogue between the campaign team and target audience so that there's a clear understanding as to why people don't travel sustainably, i.e. the barriers to change.
- 4. increasing attention is paid to the campaign legacy-achieving longer lasting impact for your investment.

MaxQ - Quality Management in MM

Another output that was deemed necessary was a self-assessment tool for smaller cities to assess the "quality" of their MM efforts without the need for outside consultants or extensive studies. This tool, also called a "quality wheel" (shown in Figure 3) outlines the key components that need to be present in order to maximize the likelihood of successful Mobility Management initiatives. The quality management system for Mobility Management was tested in several cities and developed with the help of experts in quality certification. The desire is to not only assess quality management at a point in time and allow for improvements in the city's MM efforts, but also to institutionalize a quality management philosophy for the future.



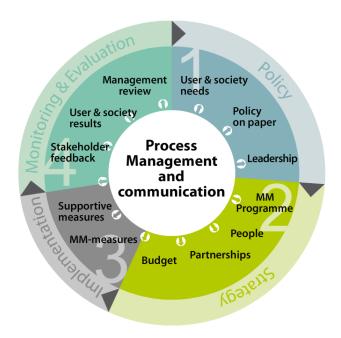


Figure 3 – MaxQ Quality Wheel

MaxLupo - Integrating MM into the Land Use Planning Process

MAX acknowledges that travel patterns are often large pre-determined by the nature of land development and how well sites support the car versus more sustainable modes. While a few European countries have some experience with the integration of MM into land use and the land development process, it is relatively uncommon in most countries. Therefore, MAX developed guidance, in the form of MaxLupo, that suggests ways to integrate MM at two crucial points in the process. First, the policy integration of land use planning and sustainable transport planning is covered, using examples of good practice and description of an effective process for realizing effective integration. The second, more focused set of guidelines, deals with the integration of MM into the site plan and building permit approval process. The first set of guidance deals with policies that better integrate sustainable transport as an objective of land use planning, while the second set of guidance provides specific MM measures that can be integrated into new developments to make them less cardependent. The guidance also includes extensive case studies, sample policies, and a methodology for running planning simulations.

The next section provides a more detailed discussion of Work Package B that focused on tools to predict, assess and evaluate MM measures.



MAX ASSESSMENT TOOLS

Towards a Prospective Assessment Methodology for MM in Europe?

One objective of Work Package B was to develop a prospective assessment tool, or predictive model, that would allow for the a priori forecasting of impacts of MM measures and packages of measures. Such tools have been developed in the U.S., largely to predict the mode shift impacts of employer-based TDM programs. However, during the State of the Art research that preceded the development of all tools, it was determined that insufficient empirical data was available within Europe with which to estimate such a model. In the U.S., the development of TDM models relied on large household travel surveys and the analysis of a large number of before and after (or time series) surveys of commuter behaviour at worksites that implemented TDM measures. Equivalent datasets are not available in Europe as MM is a somewhat newer phenomenon there and such data, on MM measure effectiveness, of a volume adequate for cross-sectional analysis, is not available.

However, MAX has taken several important steps toward this objective:

- 1. The research helped outline what such a prospective tool might look like, including functionality and key outputs.
- A theoretically validated and dynamic model of travel behaviour change was developed (MaxSem), which could be used as a theoretical basis for a prospective evaluation tool.
- 3. A standardized method for evaluating MM measures was codified in MaxSumo, providing for consistency and comparability across case studies.
- 4. A repository for evaluative data, including mode shift and other impacts, was created in MaxEva.
- Practitioners and planners were provided with an interim tool, MaxExplorer, a
 decision-support tool that is not predictive in nature, but helps users prioritize the
 most appropriate measures for a given situation.

These outputs are described in the following sub-sections.

MaxExplorer: Guidance on choice of MM measures

WP B developed *MaxExplorer*¹ as an online and interactive Decision Support Guide (DSG) in the field of Mobility Management to make use of existing knowledge and experiences with Mobility Management in Europe and present it in a user-friendly and quite simple way to the newcomers of MM. This tool guides decision makers and project leaders to suitable MM measures and is developed and designed to serve especially newcomers to the field of Mobility Management. Here a practitioner dealing with MM gets help for selecting the most



¹ MaxExplorer is accessible via: http://www.epomm.org

appropriate measures to his/her context at the beginning of an MM-related project. It will be most helpful for users who intend to start Mobility Management activities (single measures, MM programs or projects) but are not sure about which type of measures to select and implement. It points the users to the most suitable MM measures taking their situation into account. Based on expert judgement MaxExplorer provides a ranked list of measures (ranking is based on the expertise of the MAX project team) which relates to the answers regarding the user's organisational background and their target group (including size and location). For each measure (or group of measures) a brief description is given including available information about their effectiveness. A multi-criteria assessment gives additional information related to public policy goals achievements and possible barriers and drivers.

The main objective of MaxExplorer is to produce customised advice, in order to give users appropriate knowledge of the type of MM measures they could consider, as well as information on their possible impacts, main barriers and drivers, or costs. It also helps to select concrete examples through links to the existing internet databases and case studies. MaxExplorer covers a wide range of measures and situations, taking into account which organisation will support or implement the measures, what is the main target group, its size and location. It has to be seen as a first exploration of the world of Mobility Management (before benefiting from other MAX outputs or tools).

MaxExplorer is one component of a whole set of MAX-tools; the use of this DSG is seen as a first guidance step introducing to Mobility Management projects. The tool is designed to present brief information on a set of recommended measures and appropriate examples. Newcomers to Mobility Management, or users who are not sure about which MM options to implement, are the main target group for MaxExplorer.

A Model of Travel Behaviour Change

With the Max Self-Regulation Model (MaxSem) WP B2 developed an advanced integrative model of behaviour change, which combines both, the most important constructs and common assumptions of other more static (e.g., Theory of Planned Behaviour, Norm Activation Model) and dynamic models (e.g., Transtheoretical Model; TAPESTRY) (for a description of these models, see MAX (2007a)). MaxSem is based on the idea that behaviour change is a self-regulation approach, set within a dynamic motivational system of setting goals, developing and enacting strategies to achieve those goals, appraising progress, and revising goals and strategies accordingly. Self-regulation is also concerned with the management of affective responses, which are seen as crucial elements of the motivational system, and that are conceived of as intricately linked with cognitive processes. The model concentrates on the voluntary behavioural change and the personal (intrinsic) mechanisms that occur when people undergo a process of behavioural change. Model constructs, their connections, the postulated stages and thresholds between them are shown in the graphical presentation of the model in Figure 4.

 $page \ 8 \ / \ 17 \\ \hspace{2.5cm} \text{Successful Travel Awareness Campaigns} \\ \hspace{2.5cm} \text{\& Mobility Management Strategies}$

² MaxSem development was lead by Uni Gießen (S. Bamberg) and supported by WP B partners (main support by ENU, ILS)

The main assumptions of MaxSem are:

- MaxSem divides the process of behaviour change into four separate stages of behaviour change.
 - Pre-contemplation stage where the desire arises to change a behaviour recognised as problematic,
 - Contemplation stage where people select and validate different behavioural alternatives,
 - Preparation / Action stage where people initiated and executed the selected new behaviour,
 - Maintenance stage where they validate the experiences with the new behaviour and decide whether to continue with this new behaviour or not.
- These stages can be viewed as a series of steps, leading up to the final step of actual behavioural change. Although the steps are fundamentally different from each other and follow on from each other in a logical way, it is possible for some stages to be missed (e.g., pre-contemplators could move directly to preparation / action or maintenance stages). In order for people to progress from earlier to later stages, key threshold points (orange shaded in Figure 4) have to be 'satisfied'.
- MaxSem suggests a goal-directed approach, i.e. an individual's desire to reach a proenvironmental goal (reduce car use) is the central motivational force of behavioural intentions regarding modal choices.
- MaxSem assigns great importance to emotional/affective processes and selfevaluation standards, i.e. ultimately the desire to achieve an environmental goal is determined by the affective evaluation of knowledge about environmental problems (via activation of personal norms and the emotions anticipated with goal achievement).
- Critical threshold criteria must be satisfied for stage-progression to occur, i.e. for
 progression from pre-contemplative to contemplative stages individuals must set a
 goal (i.e. want to reduce car use) and/or perceive their intended goal positively (not
 negatively).
- MM interventions designed to 'trigger' specific constructs (shown in grey in Figure 4) will facilitate individual movement between stages and ultimately behavioural change (e.g., increase self-efficacy or goal desire).



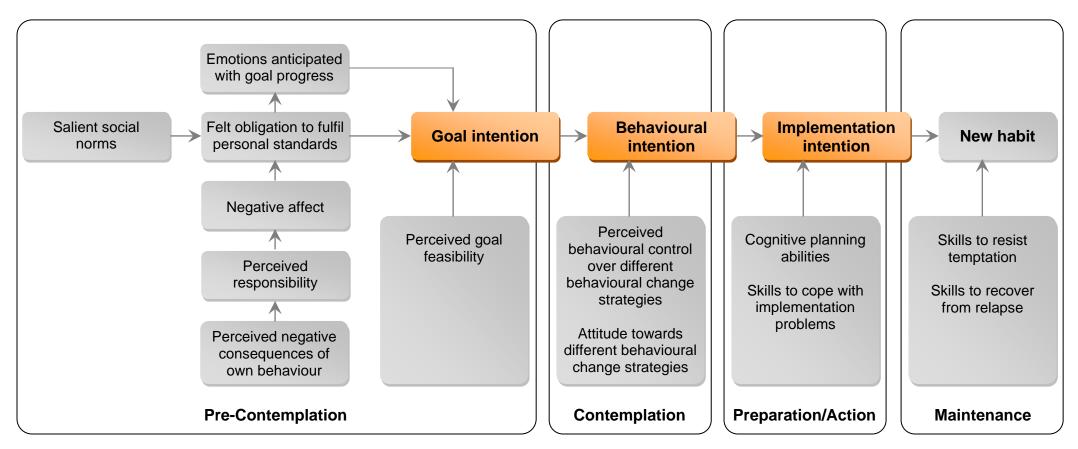


Figure 4: Overview of MaxSem constructs and stages

MAX – New Tools for Mobility Management Evaluation SCHREFFLER, Eric, RYE, Tom, CARRENO, Michael, HYLLENIUS, Pernilla, WELSCH, Janina

The MaxSEM model was validated using a cross-cultural survey in seven MAX partner countries; in particular, its constructs, and the number of stages in the model, were found to be valid. It was then used to design two MM interventions, in Munich and in London; the results of these are reported elsewhere, but they support the main contention of the model, which is that by using it to measure people's current position in relation to changing their travel behaviour, it can be used to design MM interventions that are targeted at the constructs that are most critical for them in changing their own behaviour.

Planning, monitoring and evaluating MM: MaxSumo

The gap between what is done in a mobility project and the target for system impact is often huge. The unique benefit of using MaxSumo is that this wide gap is divided into smaller steps that can actually be monitored and evaluated (Figure 5).

The design of MaxSumo is simple and the methods included are not significantly different from other guidelines for transport and public policy evaluations. However, MaxSumo is unique in how its targets, indicators, and results can be specified at different levels and, although the method is simple, it is based on a theoretical framework of how people actually change their travel behaviour and the impacts thereof. The different levels follow on from one other. The level-based system makes it possible to measure the effects of a project at an early stage or to measure projects that target attitude or behaviour changes at earlier levels. At all levels the user needs to decide what to measure, what indicators to use and how to measure these. The user can also decide to skip some levels – in some projects it is neither possible nor necessary to monitor all levels. The user may keep it as simple as she/he considers adequate. The idea is that MaxSumo provides a step-by-step path from project activities and services provided by the project, to the mobility option offered intended to achieve improvements and finally to system impacts. Each step is moving closer to the overall target, the impacts/effects on the system level.

The different assessment levels in MaxSumo are divided into four categories;

MAX – New Tools for Mobility Management Evaluation SCHREFFLER, Eric, RYE, Tom, CARRENO, Michael, HYLLENIUS, Pernilla, WELSCH, Janina

- Intervention assessment framework
- Services provided by the project or programme
- Mobility options offered through the services provided
- System impacts achieved by change in behaviour

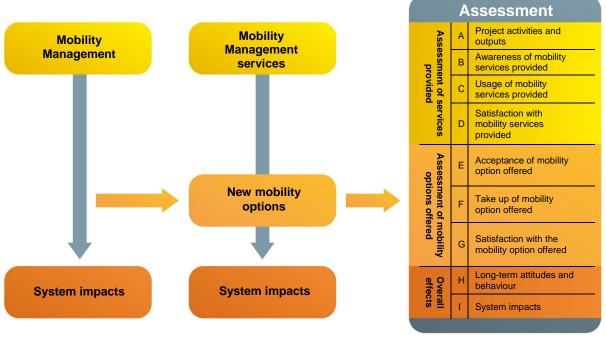


Figure 5: Illustration of how MaxSumo helps to divide the gap between what we do in MM and the impacts we want to achieve in the end.

Before using MaxSumo or starting a project it is important to understand and define the difference between the services provided by the project³ and the mobility option⁴ offered by those services. Some of the actual assessment levels might otherwise be mixed.

In Table 1, below, the MaxSumo assessment levels are briefly described. The two upper levels are a description of the background and preconditions for the measures. The subsequent levels in the table are measurable within different time perspectives. Level A, "Project activities and outputs," is measured within or directly connected to a project, while the others become measurable as the measures begin to have an impact. During the project, the results from the different levels are added on as these become available or are measured.

⁴ The **mobility options offered** are the travel behaviour the project aims to make people in the direct target group switch to. The mobility options define what the target group is supposed to adopt and do.

12th WCTR, July 11-15, 2010 - Lisbon, Portugal

³ The project **mobility services** are all the outputs and activities the project provides in order to promote change of travel behaviour. The services provided deals with what the project perform and does.

Table 1: The different assessment levels in MaxSumo

MaxSumo Assessment Levels		
Intervention framework conditions	External factors	
	A description of the external conditions for the measures. These are the same for all users.	
	Person-related factors	
	Information about the personal situation for different individuals, in order to divide them into target groups, etc. This includes both 'objective conditions' (such as distance home-to-work, access to public transport) and 'subjective conditions' (such as the individual's stage of behavioural change and the travel behaviour before the intervention).	
Assessment of services provided	Α	Project activities and outputs
		Describes the project effort invested in the measure to change behaviour, such as meetings, material distributed, data systems introduced, decisions on travel policy, etc, and the costs for this.
	В	Awareness of mobility services provided
		Describes the awareness of the project or the mobility services provided.
	С	Usage of mobility services provided
		Among those people that are aware of the services, this level describes the usage or the interest shown in the project or mobility services.
	D	Satisfaction with mobility services provided
		Measures how satisfied users are with the services provided.
Assessment of mobility options offered	Е	Acceptance of mobility option offered
		Describes the acceptance of the mobility option offered, by measuring the intent to change behaviour.
	F	Take up of mobility option offered
		Measures how many test the new mobility option offered i.e. try a new mobility behaviour.
	G	Satisfaction with the mobility option offered
		Shows if people that have tested the mobility option offered are satisfied with it (often a pre-condition if they are to make it a permanent behavioural change).
Overall effects	Н	Long-term attitudes and behaviour
		Measures how many users, due to the intervention, adopt new attitudes and ultimately change how they travel.
	1	System impacts
		These are the effects that the project or programme is aiming for at a system level e.g., effect on total traffic on an urban road network. It assesses e.g., how much vehicle mileage, emissions, energy consumption or accidents have changed as a result of the change in travel behaviour.

By developing MaxSumo a new, enhanced tool for planning, monitoring and evaluation of mobility projects has been achieved. The key improvements which the use of MaxSumo can bring to MM appear to be the follows:

12th WCTR, July 11-15, 2010 – Lisbon, Portugal

MAX – New Tools for Mobility Management Evaluation SCHREFFLER, Eric, RYE, Tom, CARRENO, Michael, HYLLENIUS, Pernilla, WELSCH, Janina

- The inclusion of recent research results about the behavioural change process in regards to modal choice and modal shift. The main instrument for enhancing the understanding of behaviour change and for including some of the core assumptions of MaxSem are the 'stage-diagnostic questions'. These questions offer a simple and practical application of the somewhat complex psychological model and have the great opportunity to show the more subtle effects of Mobility Management interventions, besides overt behavioural change.
- The inclusion of brief information about evaluation design and establishing causeand-effect, to raise awareness about the importance of evaluation per se and of the different evaluation designs.
- The inclusion of concrete examples about data collection, suitable questions and other methods (e.g., mobility-diary) gives guidance for monitoring and evaluation and is expected to improve the quality of evaluations, but also the comparability between different evaluations.

To summarise, MaxSumo aims to increase the number of evaluated Mobility Management projects and gives guidance on the most important aspects for a 'good' evaluation. It also helps in structuring the planning and implementation of a project in such a way, that monitoring and evaluation are an integrated part of the project. As MaxSumo is aimed mainly to practitioners (who not necessarily do the evaluation themselves) WP B aimed at keeping the text as short, simple and compact as possible. Therefore, information on special tasks such as statistical data analyses was not included. MaxSumo also creates the consistent evaluation approach necessary to undertake comparative analyses of results, of the type to be included in MaxEva and used to develop future prospective assessment tools.

MaxEva: database for evaluation results from MM projects

MaxEva is an interactive web-based database for collecting and comparing evaluation data of Mobility Management projects. It is especially developed⁵ for storing the type of data which is generated by using MaxSumo for evaluation and offers simple tables and boxes to be filled in. MaxEva is supported by EPOMM with the objective to achieve a widely accepted standard and to obtain data for a European database on Mobility Management projects. The main purpose of MaxEva is to allow MaxSumo users to add their own results into the database in the implementation process or when having completed a Mobility Management project. MaxEva can also provide guidance regarding the evaluation of Mobility Management interventions, when the users look at the kind of data which is required and offers additional information e.g., through extended list of MM measures and detailed definition of the target group. The user can also benchmark their projects with others that have been implemented elsewhere in Europe and have used the same evaluation method and entered their data in MaxEva. This allows for one type of assessment tool for those wishing to compare their projects and results to a comparative set of similar case examples.

12th WCTR, July 11-15, 2010 – Lisbon, Portugal

⁵ Development was lead by Trivector Traffic, Sweden and mainly supported by ENU, ILS and ESTC

MAX – New Tools for Mobility Management Evaluation SCHREFFLER, Eric, RYE, Tom, CARRENO, Michael, HYLLENIUS, Pernilla, WELSCH, Janina

Over time, MaxEva will accumulate data from a large number of Mobility Management interventions. The core result will then consist of an interactive database with reliable information on efficient MM measures and services in different contexts that may e.g., be used for research, comparison, benchmarking and the development of future predictive tools.

The structure of MaxEva follows MaxSumo. As in MaxSumo the complex process of behavioural change breaks down into smaller steps that can be monitored and evaluated successively. The database pages and the requested data reflect these different levels and sub-levels within MaxSumo. However, despite its setup according to MaxSumo process and assessment levels, the MaxEva as a tool stands on its own.

MaxEva is developed to evaluate single measures as well as mobility plans or programmes including a range of different measures. The fields of application of MaxEva can be summarised as:

- Compiling evaluation data in a standardised way;
- Giving the user additional information about the evaluation process and required data that should be monitored and evaluated;
- Showing obtained results;
- Calculating environmental effects;
- Benchmarking tool where similar projects and their achievements can be compared. In the future, MaxEva will allow:
 - Determination on what effects to expect from measures;
 - Identification of key performance indicators and pitfalls which can help decisionmakers prioritise their investments in Mobility Management.

MaxEva can be used to store data from most mobility projects (large or small) comprising either single or multiple measures. This includes the full range of Mobility Management measures.

GETTING THE MOST USE OF MAX TOOLS

Of course, tools are only as good as the use they get. Such is the case with MAX. MAX was carefully designed to have a lasting impact and, above all, to be used! First, some of the tools have already been used and adopted in the field. MaxSumo is rapidly being accepted as the standard for MM monitoring and evaluation. It has been used to plan and evaluate MM projects and company mobility plans in Sweden, the Netherlands, and elsewhere. Likewise, MaxEva is being acknowledged as the repository for MM results as practitioners and researchers alike see the benefits of inputting results into a centralized database.

But MAX is also intended to live on via other EC-supported initiatives. While the documentation of the MAX project resides on its own website (www.max-success.eu), the

12th WCTR, July 11-15, 2010 – Lisbon, Portugal

tools developed from MAX will be available and maintained on the website of the European Platform on Mobility Management (www.epomm.org). EPOMM is a network of countries with an interest in MM and is partially supported by the EC. EPOMM allows the tools to be accessed and also provides limited assistance in answering questions. Additionally, the next phase of CIVITAS, called CIVITAS Plus, includes substantial emphasis on networking, training, and dissemination and the MAX tools will be available for those efforts as well.

The tools are also meant to evolve and help develop a next generation of guidance tools. For example, as the MaxEva database is populated with case examples and evaluation findings, cross-sectional analysis will be possible, creating the factors that might help estimate a truly predictive model, of the type available in the U.S. Likewise, MAX guidance might also be replicated for new uses. For example, the MaxLupo tools on land use and sustainable transport policies could be tailored to a specific country, or even urban area, in the form of targeted guidance on how to apply the MAX principles to a given policy context and political framework.

In conclusion, there is growing interest in Europe (and around the world) in strategies to influence travel behaviour to more sustainable modes. For the over 10 years, the European Commission has supported research and demonstrations in the field of Mobility Management. In order to accelerate the adoption of good MM practices throughout Europe, the MAX project culminated in a set of innovative, user-friendly, and scientifically sound tools. These tools help cities to create better travel awareness campaigns, integrated MM into the land use planning process, assess the quality of their management processes and organizations, as well as plan, assess and evaluate MM measures in a defensible and robust manner. Much of the history of MM is based on case study and anecdotal evidence. Many implementing agents experience the same pitfalls and face the same barriers as their predecessors. With sound guidance and practical tools, MM can shed some of its persona as a set of soft measures by providing sound structure to the planning, implementation and evaluation of strategies to influence travel behaviour.

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