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English version

Code of practice for implementing quality in mobility management in small and medium sized cities

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Foreword

This CEN Workshop Agreement has been drafted and approved by a Workshop of representatives of interested parties on 2009-09-04, the constitution of which was supported by CEN following the public call for participation made in July 2007.

The list of the individuals and organizations which supported the technical consensus represented by the CEN Workshop Agreement is provided below. These organizations were drawn from the following economic sectors: universities and consultancies:

- Austrian Standards Institute Development (Austria);
- Forschungsgesellschaft Mobilität – Austrian Mobility Research FGM-AMOR gemeinnützige Gesellschaft m.b.H. (Austria);
- Mobiel 21 vzw (Belgium);
- Traject sa (Belgium);
- Trivector Traffic AB (Sweden);
- University of Piraeus Research Centre (Greece).

The formal process followed by the Workshop in the development of the CEN Workshop Agreement has been endorsed by the National Members of CEN but neither the National Members of CEN nor the CEN Management Centre can be held accountable for the technical content of the CEN Workshop Agreement or possible conflict with standards or legislation. This CEN Workshop Agreement can in no way be held as being an official standard developed by CEN and its members.

The final review/endorsement round for this CWA was started on 2009-08-13 and was successfully closed on 2009-09-04. The final text of this CWA was submitted to CEN for publication on 2009-09-23.

This CEN Workshop Agreement is publicly available as a reference document from the National Members of CEN: AENOR, AFNOR, ASRO, BSI, COSMT, DIN, DS, ELOT, IBN/BIN, IPQ, MSZT, NEN, NSAI, NSF, ON, SEE, SIS, SFS, SNV, STRI, SUTN, UNI.

Comments or suggestions from the users of the CEN Workshop Agreement are welcome and should be addressed to the CEN Management Centre.

Introduction

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.

Mobility management is primarily a demand oriented approach to transport. Its aim is to support and encourage a change of attitude and behaviour to reduce single car use and to strengthen sustainable modes of transport. Cooperation between public and private institutions enable solutions which fulfil public as well as individual objectives in mobility and transport. The tools of mobility management are based on information, communication, organisation, coordination and require promotion.

The present CWA was prepared by CEN Workshop 37 "Quality Management in Mobility Management for smaller and medium sized cities - MOBIMA" the secretariat of which is held by ON. It was developed through close collaboration with experts from the MAX project "Successful Travel Awareness Campaigns and Mobility Management Strategies", supported by the European Union's Sixth Framework Programme. Work in this project was organized in four work packages.

The overall result of MAX are different tools aimed at practitioners who want to initiate mobility management or who want to improve their current practice. These different tools are connected with the quality management system which is described in this document and provide guidance for introducing quality into mobility management.

The quality management system described in this document, its implementation and continuous application were developed in MAX/WP C. The present CWA is based on research consisting of the following steps:

1. A clear (re)definition of the concept of mobility management and a categorisation of mobility management measures;
2. Setting up a prototype QM-system;
3. Assessment of this prototype by use of a questionnaire survey among mobility managers of 47 European cities, spread all over Europe;
4. A focus group discussion with five mobility management experts and two practitioners;
5. And finally, a demonstration of the quality management system in the city of Kortrijk, a Belgian medium sized city in the Dutch speaking region of Flanders.

All research steps undertaken refined the initial prototype towards the quality management system described in this CWA. In MAX/WP C and CEN Workshop 37 "MOBIMA" experts from universities, consultancies, public authorities and standardization bodies contributed to the work. The present CWA has received the support of representatives of these sectors.

1 Scope

This document provides a code of practice for defining, implementing and continually improving quality in mobility management in small and medium sized cities. Small and medium sized cities are cities with 20,000 to 200,000 inhabitants.

However, the same QM-scheme could be implemented by any city or municipality investing in mobility management irrespective of its size. The QMSMM presented could also aid private entities, agencies or companies – in this document called organisations – in defining a Mobility Management Policy.

The quality management scheme presented can be used as the basis for a self-declaration based on an internal auditing procedure or as the basis for certification by a competent third party.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN ISO 19011, *Guidelines for quality and/or environmental management systems auditing (ISO 19011:2002)*

3 Terms and definitions

For the purpose of this document the following terms and definitions apply.

3.1 mobility management (MM)
concept to promote sustainable transport and to manage the demand for car use by changing traveller's 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.

To give an impression what this means in practice:

In a city where MM is implemented:

- one would notice campaigns and promotions for walking, cycling and public transport;
- one could be offered personalised travel assistance to provide information where and how one might be able to reduce car use;
- an employer might pay for public transport tickets to encourage not driving to work;
- at home, one might have a car sharing service available nearby;
- at schools, there could be mobility plans organising safe walking for the children's trip to school;
- for leisure trips by public transport one would have the option of using the consulting services of the local mobility centre;

- building permits might be connected to certain requirements to minimise the mobility impact of the new development, for example the development of a mobility plan for employees, visitors, and goods transport around the building site or limiting the number of parking spaces provided.

Typically, mobility management measures are rarely isolated; instead they often come as a bundle of measures, i.e. information campaigns combined with infrastructure, pricing policy or regulations.

3.2

quality management scheme for mobility management (QMSMM)

system to direct and manage the processes and outcomes of an administration or organisation with regard to quality to ensure that:

- (new) mobility management measures can be easily and efficiently introduced;
- (existing) mobility management measures are effective;
- society, user and stakeholder needs and requirements are met;
- continuous improvement is incorporated and
- management of processes and outcomes is established and adequately maintained.

3.3

organisation

entity responsible for the definition and implementation of a mobility management plan

This entity could e.g. be a transportation or mobility department of a municipal or regional authority, a company, an educational institution or a transport service provider. In the first place, this QMSMM is built for (transport departments) of small and medium sized municipalities and cities; but it can be used as well by bigger cities, regional authorities, private organisations.

3.4

benchmarking

process widely used in management, particularly strategic management, in which organisations evaluate various aspects of their processes in relation to best practice, usually within their own sector or department

This then allows organisations to develop plans on how to adopt such best practice, usually with the aim of increasing some aspect of performance. Benchmarking should be treated as a continuous process in which organisations repeatedly seek to challenge their practices. The process of identifying and learning from best practices in other organisations is a powerful tool in the quest for continuous improvement and performance breakthroughs.

There are a number of ways in which an organisation can benchmark its performance, such as the organisation:

- evaluates its activities and sets goals for MM performance by determining the most useful benchmarking areas;
- identifies other organisations with similar activities and exceptional performance and initiates contact with them to develop a programme of comparison;
- evaluates performance of the target organisation(s) through the sharing of information (e.g. site visits) for comparison with its own performance;
- identifies and implements measures based on its evaluation of other organisations. This requires developing methods to apply results of benchmarking and pursue further involvement with other organisations. The organisation maintains ongoing “benchmarking cycles” and becomes a target for benchmarking by others. The organisation explores the possibility of mentoring other organisations.

4 Quality management for mobility management in small and medium sized cities

4.1 Introduction

The scheme described in the following clauses provides for an efficient and systematic implementation of a QMSMM. Adopting a systematic approach to MM:

- ensures that MM-policy and MM-measure(s) are clearly defined, understood and accepted by all stakeholders (local politicians, senior management, main internal and external private and public partners) and the target group or wider group of citizens;
- enables MM objectives to be clearly defined and closely integrated to the objectives regarding (sustainable) mobility of the city or organisation and aligned to the organisation's core business;
- allows responsibilities for different parts of the MM-policy to be understood, allocated and agreed on;
- allows to set up partnerships outside the own MM-organisation (e.g. with other departments, with public transport providers, schools, companies);
- promotes a logical approach to planning and encourages more accurate estimating (human resources, time and costs);
- provides a consistent means by which monitoring and evaluation can be effected and
- reassures senior management and stakeholders of the integral MM-approach; a possible reward such as a label can strengthen this.

4.2 Quality management scheme for mobility management

The QMSMM proposed for small and medium sized cities in this CWA is based on the process-based quality management loop described in EN ISO 9001, the EFQM Excellence Model [1], the BYPAD-model [2] and the model of Boon et al. [3]. It comprises the four logic components, each being concretised in a number of elements or quality criteria, in total in 12 elements:

- Component 1: Mobility Management Policy;
 - Element 1: User and society needs.
 - Element 2: Policy on paper.
 - Element 3: Leadership.

- Component 2: Strategy;
 - Element 4: Mobility management programme or plan.
 - Element 5: Internal and external partnerships.
 - Element 6: Human Resources.
 - Element 7: Budget.
- Component 3: Implementation;
 - Element 8: Categories of MM.
 - Element 9: Mobility Management supportive measures.
- Component 4: Monitoring and evaluation;
 - Element 10: User and society results.
 - Element 11: Stakeholder feed-back.
 - Element 12: Management review.

These 12 elements are key features for cities and organisations in order to start up mobility management measures and to continually improve MM performance. Information and discussion about the way these 12 elements are taken care of by the city or organisation provide input for an objective and periodic evaluation of the current MM-policy and the way and direction future improvements can be made.

The four logic components and 12 key elements of the QMSMM are presented through a wheel (Figure 1). The principles of the four QMSMM components and the 12 key elements or quality criteria are described in more detail in 4.4 to 4.7. For each element, a brief introduction is provided as well as a short overview of the main sub criteria.

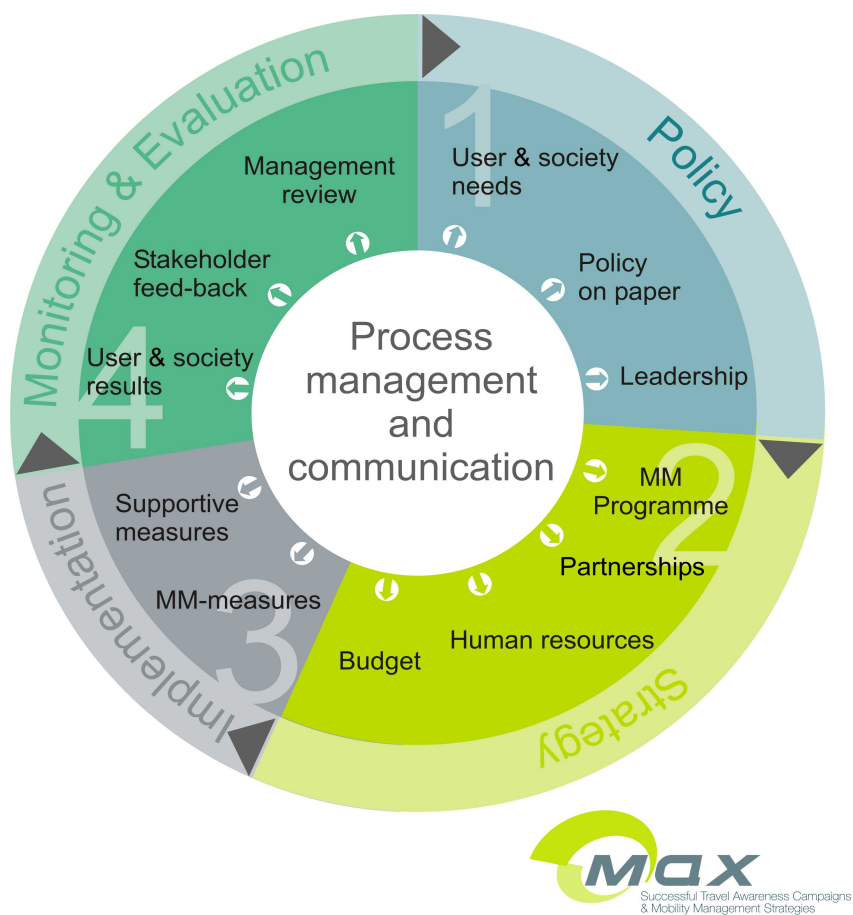


Figure 1 — Quality management scheme for mobility management in small and medium sized cities

4.3 Phasing in the process to quality improvement: The ladder of development

The QMSMM is not prescriptive. It requires a city or organisation to take an active role in examining and assessing their current practices regarding each of the 12 elements or criteria and then determine how changes in some of these elements could further improve mobility management. In order to examine and assess the current practice in each of these 12 elements, the quality management ladder of development is used as a rating mechanism to indicate what stage of development a city or organisation is at. Six different development phases are distinguished (Figure 2).

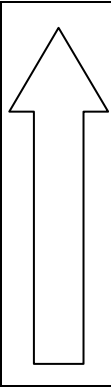
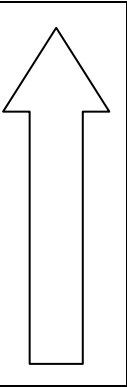
	Development phase 5: Total quality MM	
	Development phase 4: Chain oriented MM-approach	
	Development phase 3: System oriented MM-approach	
	Development phase 2: Process oriented MM-approach	
	Development phase 1: Activity oriented MM-approach	
	Development phase 0: No evidence of MM-approach at all	

Figure 2 — Development phases

The key characteristics of the five development phases are:

— **Development phase 0**

There is no evidence of a vision of a mobility management policy or on any MM-activities.

— **Development phase 1**

Ad hoc mobility management activities are in place with the emphasis on solving problems; quality is the result of individual efforts; there is however no common overall vision on the MM policy domain; there is short term planning only.

— **Development phase 2**

Needs and priorities are known; there is a common vision about the MM-policy domain but the main emphasis remains on individual projects; there are no integrated programmes; the city or organisation has some general agreements but with only limited commitment; there is no guarantee on continual support; limited coordination within the MM-team is in place; consultation within the team takes place in a cooperative way; there is a division of tasks and exchange of experience but also regular inadequacies happen.

— **Development phase 3**

Data are sufficiently available and there is a general shift in orientation from internal to external (learning municipality); binding written agreements are set up among partners; there is a systematic oriented approach focused on renewal and improvement; there is room for the promotion of expertise; duty charging are attuned to one another; organizational as well as professional harmony occurs regularly; leaders and assistants are engaged to a high degree.

— **Development phase 4**

Systematic analysis and evaluation of the working occurs regularly; quality indicators which serve as policy instruments are being used; systematic analysis of the problems occurs and this analysis is being monitored regularly; the way of working is oriented to the future and innovative; synergetic effects come into being inside and outside the organization (added value of teamwork and external orientation).

— **Development phase 5**

An external frame of reference with “best practices” is present; the applied quality criteria and performance indicators evolve positively; external cooperation is present on all relevant working domains; the city or organisation gains recognition as “good/best” practice through a third party; the city or organisation is trendsetting, the renewal of products and services has already been proven for years (e.g. by way of publications, taking part in debates).

By collecting and analysing evidence of each of the 12 elements (e.g. through a combination of document analysis, personal interviews and collective discussions with the MM team and with the main stakeholders), an assessment can be made of the current QM-status and actions for further improvement can be formulated. The active involvement of the MM-coordinator or manager within the organisation, the MM-team as well as internal and external key stakeholders in the review procedure encourages creative and relevant solutions from the organisation itself. The assessment or review procedure can be guided by an internally appointed auditor or by an external auditor (see Clause 5).

4.4 Component 1 – Mobility Management Policy

4.4.1 General

A mobility management policy defines the overall vision of a city or an organisation for the promotion of sustainable transport through adopting a demand oriented approach. It aims to support and encourage a

change of attitude and behaviour to reduce single car use and to strengthen sustainable modes of transport. Cooperation between different city departments and between public and private institutions enables solutions which fulfil public as well as individual objectives in mobility and transport. The tools of mobility management are based on information, communication, organisation, coordination and require promotion.

Three elements or criteria are defined that constitute the quality of the mobility management policy:

- Good knowledge of the mobility behaviour and needs of target groups and citizens as basis to build a MM-policy;
- The overall vision and aims of the mobility management policy written in a policy document (“policy on paper”);
- Good overall coordination and leadership of mobility management policy and processes.

4.4.2 Element 1: User and society needs

The aims of the city’s or organisation’s MM-policy should be built on a good insight into the travel behaviour and mobility needs of all target groups and the citizens in general. The demand-oriented nature of MM should be reflected in the MM-policy objectives. Moreover, the broader audience should be made aware of the aims and activities of the city regarding sustainable mobility through different communication and participation techniques in a way that it can lean on public support.

A city or organisation can take the topic of user and society user needs seriously in a number of ways e.g. by collecting information about the city’s modal split and by using it in developing the mobility management policy. Some cities invest in research towards specific or new target groups for mobility management (e.g. children, visitors, citizens, commuters, new residents). Secondary information sources can be analysed while drafting the MM-policy such as road accident figures, trends in public transport usage, air quality figures.

The following questions might be asked:

- Do citizens know about the city’s overall aims and ambitions about sustainable transport?
- Are citizens involved in the policy planning?

Different actions can be set up from door-to-door leafleting to organising public forums in order to inform and build public support for MM. More tailor made actions can be set up in order to communicate and convince decision makers and stakeholders about the importance and advantages of MM.

4.4.3 Element 2: Mobility management policy on paper

A MM-policy document or a specific section on MM in a policy document is developed and integrated into the overall local transport policy for the organisation or the city’s urban transport plan¹⁾. The MM-document or section in a document explains the organisation’s overall intentions and ambitions for the promotion of sustainable transport and the management of demand for car use through changing travellers’ attitudes and behaviour. This MM-policy document needs to be accepted by politicians, stakeholders and by the wider public. Consulting important stakeholders in the drafting phase of the MM-policy document might avoid rejection of the policy document afterwards. Communicating the MM-vision (campaigning-the-campaign activities) towards politicians and towards the wider public is important in order to gain political and public support right from the start.

It is important that the policy document expresses the intentions of MM and that these intentions are in line with the definition according to 3.1. It is as well useful to situate MM within the complete urban transport policy framework as MM-measures are rarely isolated. Instead they often come as a bundle of measures, i.e.

¹⁾ or a similar document for the other target groups, e.g. green commuter plan for companies, site mobility plan for event organizers.

information campaigns combined with infrastructure, pricing policy or regulations. The combination of mobility management (soft measures) and hard measures like infrastructural measures, pricing policy and regulations is more likely to have better outcome in terms of mode shift.

What makes MM distinct from other local transport measures:

- MM is demand oriented, instead of supply oriented.

Building new tram lines, new bicycle paths, new roads etc. are not considered to be MM, as these are all supply-side measures.

NOTE This is reflected, for example, in the policies of the Netherlands and Sweden, where it is in many cases obligatory to first look at the potential of MM before permission for supply-side measures like road building is given. It is also reflected in the fact that in the USA and some other countries MM is called Travel Demand Management (TDM).

- Infrastructure measures can be part of an overall MM-approach.

In many countries, MM is seen as mostly a site-based activity – connected to a traffic generating site such as a company, a school, or a tourist attraction. On sites such as hospitals or business parks, a negotiated MM-measure package might include infrastructure (typical supply measures such as bicycle parking, tram stops, car parking, bus shuttle services). They are considered as supportive measures for the MM-policy.

- MM does not necessarily have to be limited to a site.

City-wide, regional or even national appliances like car sharing, car pooling, mobility centres, new resident information packages, campaigns, integration of several services into one fare system are regarded as MM.

- Sustainable urban transport plans are not MM, but they should contain MM.

MM does not include the whole spectrum of traffic and transport planning. Transport plans are part of MM when they are site based, such as workplace travel plans or school travel plans. HOV-lanes, congestion charging, parking management and road tolling, whilst being typical demand oriented measures, are not MM, but can be supportive measures for MM. As parking management is often central to site based MM, parking management as part of a MM bundle of measures is considered to be an integral part of MM.

- Traffic system management is not considered part of MM.

However, components of traffic management that aim to influence demand and to change attitudes, especially if they make the use of alternatives to the car more attractive, e.g. by delivering the actual departure time of trains via mobile phone, internet, variable message signs or navigation systems, are considered to be MM.

- Travel awareness, mobility education, marketing of sustainable modes are regarded as part of MM.

These measures are the core of MM. Some MM-theoreticians regard these as being quite distinct. In practise, it is almost impossible to draw any boundaries.

- MM is considered to encompass goods transport as long as it is site based and the measures concerning goods are part of a mobility plan that also includes passengers. In any case it includes the transport of passenger luggage. If these conditions do not apply, organising goods transport is considered as logistics for which there already exists a highly specialised industry.

- Various legislation, pricing incentives and disincentives are part of MM, if they support concrete MM-measures that fall within the demarcation as described above.

A MM-policy document is only a good instrument if it is formally approved by the local decision makers regarding MM (e.g. head of the transport department, councillor responsible for MM, the city mayor), if it is regularly updated, in line with legal and regulatory framework and takes into account any environmental changes. A high qualitative MM-policy document looks also into policy domains other than transport and mobility (such as planning, environment, housing, economics, communication, tourism).

4.4.4 Element 3: Leadership

A strong overall co-ordination or leadership is necessary in order to lead the mobility management processes. One person (the mobility manager or MM-coordinator) or a team of MM-managers should take up the role to develop/confirm and disseminate the vision of MM, to convince relevant decision makers and opinion leaders of the use of MM and to coordinate the MM-partnerships and day-to day MM-activities. In practise, this leader can be situated at the local political level, e.g. the mayor of a city in person or the councillor responsible for transport could be the main initiator of MM, backed up by a MM-team at the administrative level. This leader could also be a person working at a city department (e.g. the transport, environmental or communication department). If this person is supported by the political level, this could work out fine as well.

Real MM-leadership is found where there is one key person or a group of persons who takes overall responsibility of MM-policy, who motivates the MM-team in their daily work, but who is also actively involved in writing the policy document on MM and who is consulted anytime important developments demand MM-measures and services. The person or group of persons is renowned in its role and takes part in regional, national and international networks to exchange experience.

4.5 Component 2 – Strategy

4.5.1 General

Within the framework of an overall MM-policy document explaining MM, its vision and ambitions within the context of the local transport context, which is known and accepted at the political level and based on public support, the team responsible for MM needs to design the MM-strategy to be followed.

- A concrete MM-programme needs to be developed where a mix of measures needs to be set up. This mix includes both MM-measures and supportive measures. The timing of these measures should be taken into account and prioritisation needs to be made. The mix of measures should fit into the overall city's sustainable urban transportation plan (SUTP) but also synergies need to be considered with other city departments.
- Partnerships need to be set up and formalized as far as possible. Communication with the partners needs to be set up and organised. These partnerships are particularly important for site based measures.
- The internal organisation needs to be in line with the programme and e.g. the following issues need to be addressed:
 - Is sufficient manpower available within the MM-team in order to realise the mix of measures?
 - Is the composition of the team as needed?
 - Are training possibilities offered?
- Budget needs to be planned.

4.5.2 Element 4: Mobility management programme

In order to achieve mode shift targets, emphasis should not be placed on only one mode of travel alone. Improvements must be made through a multimodal mobility management strategy to ensure accessibility for all. At the same time, not only one trip purpose should be focused on. The long term MM-programme of a city or organisation should embrace a combination of e.g. commuter trips, home-school trips and leisure trips. This means that different segments are targeted: citizens as well as visitors, commuters and employers, students and pupils with their parents; site based as well as city wide measures are taken into account. The overall scope of a MM-programme in the longer run should be multi-modal and multi segmented. However, in a shorter term planning perspective, limited resources might need to be focused on problem areas (addressing only one mode or one or a few key target groups).

It is important that the MM-programme is in line with the overall MM-policy and ambitions and the wider transportation strategy. Targets of MM-services should be in mutual support with targets of sustainable development in health, land use, local economics or other departments. The programme should be based on a consensus among all partners involved in the implementation. It should combine a mixture of short-, middle- and long-term MM-measures and the choice of the measures should be based on a review of the already existing MM-measures. A risk assessment and cost-benefit analysis might be needed as well to set up priorities for actions. Contacts with other cities or organisations with the same MM-programmes are helpful in order to exchange experiences and to set realistic targets.

4.5.3 Element 5: Partnerships

Planning and implementing mobility management services means also uniting local forces and stakeholders towards the central aim of realizing sustainable mobility within the city in the most efficient and effective way. Key stakeholders and therefore potential partners in the city's sustainable mobility might be:

- local public transport providers (bus, train, metro, on demand systems);
- local associations representing the needs and stakes of cyclists and pedestrians, car and public transport users;
- main transport generators in the city and their representatives or lobby groups (such as retail organizations, school community, private companies, hospitals, event organizers), organisations and associations representing citizens (e.g. senior and youth associations, resident's associations, different advisory boards);
- environmental, tourist and recreational organizations;
- transport authorities at a higher (regional or federal) level, local police, etc.

It is important to select the right partners, attribute the right tasks and manage the partnerships subsequently in order to make progress towards a more sustainable transport behaviour by all residents and visitors in the city. At regular intervals, an assessment should be done on the existing MM-partnerships by the MM-team of the city or organisation.

Partnerships regarding MM-services and MM-measures might be formalized within working groups with responsibilities and tasks of all constituting parties clearly specified, and a commitment of all being secured. A variety of tasks and roles within a partnership needs to be distributed such as providing input and feedback on planned MM-activities, offering manpower or in kind-support to implement the measures, provide finance or a mixture of these tasks. Transparent channels of communication are needed to exchange information between partners (e.g. meetings, IT-tools for communication) and to take care of conflicting interests between stakeholders.

4.5.4 Element 6: Human resources

The tasks and required skills of a city's MM-team are far reaching. The mobility management team needs to possess transport related skills as well as marketing and communication skills. As structural cooperation

between different city departments and with public and private partners outside the city administration are at the core of MM, also organisational skills are essential. The composition of the MM-team and the empowerment of the day-to-day mobility management team at the site or in the city are crucial for successful MM-output and impact.

In small and medium sized cities, there might even be no separate MM-team. It is more often the case that officials from the transport and mobility departments combine specific MM related tasks with tasks related to traffic management, such as infrastructure maintenance, regulations. In order to preserve in this context continuity in the MM-services and activities implemented, good human resources planning and management are important.

Managing human resources for MM embraces many issues. First of all, time and/or means should be sufficiently available to implement mobility management services planned in the MM-programme. The second issue is to preserve the continuity in the mobility management implementation with the current MM-staff. Thirdly sufficient know-how with respect to sustainability, traffic and transports, marketing and communication is required; if not available in the own city administration, it should be subcontracted for specific tasks.

4.5.5 Element 7: Budget

One of the characteristics of mobility management services and actions is that no large infrastructure investments are involved which need to be planned for very carefully and quite some time before building and implementing can start. Also typically, the budget for MM is composed of smaller parts stemming from different budget lines of different public and private partners involved. More over labour time often constitutes the major part of the costs of mobility management services and activities. Also the logistical costs, technological and in kind support of different city departments need to be planned for. Because of the diffuse composition of the MM-budget, less attention is given to the budget in the planning phase especially in the long term. Despite the diffuse picture of the total budget in the planning phase, it remains however very important to document the complete budget in order to calculate and assess cost-effectiveness of the MM-services and activities performed.

A relevant item regarding this element is whether the budget for the planned measures and services is sufficient. Furthermore, it has to be assured that all possible channels of finance have been explored and utilized, including subsidy lines outside the more traditional “transport” related ones (such as budgets for health, environment or the city’s communication). This might be a basis for a new partnership. The long term financial budget has to be taken care of. Logistical support is also a resource to plan for which is typical for MM-services. Communication and coordination measures – the core of MM-measures – also ask for the newest information technologies.

4.6 Component 3 – Implementation

4.6.1 Element 8: Different categories of MM-measures

Mobility management measures are “soft” measures. The following categories of “soft” measures were defined within the MAX project [4]:

- (1) Information measures,
- (2) Promotional measures,
- (3) Organisation and coordination measures,
- (4) Education and training measures,
- (5) Site-base measures and
- (6) Telecommunications and flexible time organisation.

These measures are focussing on the needs and are adapted to the characteristics of sites such as school and company travel plans. Each of these (groups of) measures asks for an implementation plan with objectives formulated following SMART-principles (according to 4.7.1), a clear task division, timing and budget. This is crucial in order to measure effects and to learn from it. Thorough planning and implementation of all individual measures including good documentation allows for benchmarking the results with similar measures adopted in other cities and/or sites.

The following clauses describe in more detail the categories of mobility management measures. Further information on the definition of individual measures is given in Annex A.

(1) Information measures

These measures are essentially driven by demand of the traveller. They provide the (potential) traveller with information and advice through a range of different media. Examples include:

- information and trip advice services of the local mobility centre;
- travel information, delivered via a range of technologies, pre- and during the trip;
- marketing of sustainable modes through advertising and the use of other marketing techniques, such as door to door leafleting.

(2) Promotional measures

Promotional measures have at their core the idea of encouraging voluntary behaviour change through awareness raising, promotion of alternatives to the car, and information provision. This means that this group of measures does not actually provide any additional alternatives to the private car, but rather includes raising awareness and encouraging the use of the alternatives that are already in place. The measures include:

- personalised Travel Assistance (PTA) to advise travellers, in relation to their own personal travel patterns, on how they may be able to travel using sustainable modes;
- advertising campaigns and other types of promotions (e.g. “European Car Free Day”) to encourage people to try walking, cycling and/or public transport (sometimes linked to health promotion);
- targeted promotion of alternative modes and trip reduction/chaining. This might include projects where public transport agencies run projects with schoolchildren, or approaching all households in a given area and offering them a variety of “resources” (e.g. local travel guides, local shopping guides), to help them think about ways to change their travel behaviour;

Real-life examples would include such things as the “bike to work” campaign as implemented on a large scale in Denmark, Germany (Cycling to work campaign²) and Austria, the “belgerinkel naar de winkel” (cyclists tinkling to the shops) campaigns in Flanders or the travel awareness and behaviour change programme for new residents as implemented in Munich.

(3) Organisation and coordination measures

This category offers, organises and coordinates various types of MM-services across an area to provide an alternative to sole occupancy such as:

- region- or area-wide car sharing services bringing together two or more individuals who are travelling in the same direction by car.
- area-wide car sharing (and flexible cycle hire) services providing an alternative to individual car (or bike) ownership by offering the hire of cars or vehicles at convenient locations within an area. By requiring pre-registration and often membership of some kind of club, these sharing arrangements then make the

²) more information can be found at: www.eltis.org

actual booking and hiring process a very speedy one that is normally carried out using the internet, and the car accessed by means of remote communications.

- on demand public transport services, sometimes also called paratransit, e.g. in Germany, Austria and Switzerland the “Anrufsammeltaxi”, in Holland the “Treintaxi” (railway-taxi).

(4) Education and training measures

These measures refer to the integration of MM into education, and the training of staff in MM issues. Examples include:

- training of, for example, hotel or shopping centre personnel to provide mobility information to customers;
- MM courses for target groups such as mobility centre staff, mobility coordinators or trade union representatives;
- mobility education, where mobility, and how to manage it to reduce car use, becomes a part of the educational curriculum in schools and elsewhere.

(5) Site-based measures

In many countries, MM is predominantly a site-based activity connected to a traffic generating site such as a company, a school, a concert venue, sports and leisure event venues, hospitals, entire administrations based in a number of locations, recreational sites. In these cases MM seeks to manage the way in which people travel to the site in question. A large number of measures falls into this category, e.g.:

- a school mobility plan is similar to other site-based MM activities, except that it typically includes a greater level of involvement of children and parents or employers and employees in both planning and implementation;
- site-based services and infrastructure – chosen to suit the nature of the site and the people who travel there – such as bicycle parking, on-site pedestrian facilities, tram stops, car parking, a bus shuttle service, works buses, strengthened service buses, park and ride or van pools.

(6) Telecommunications and flexible time organization

Certain measures can be taken by organisations and others to reduce the need to travel by substituting telecommunications for travel, or reorganising working practices, or both. Examples include:

- changing the number of times that patients have to come to hospital for a given procedure;
- changing the number of times that people must go to a government building in order to carry out a certain administrative procedure e.g. registering a birth, obtaining title deeds to a new house;
- shopping, working, socialising, and carrying out other services by telephone or on the internet from home, instead of travelling somewhere else to do them;
- changing the opening hours of certain organisations to reduce impacts on peak travel, introducing flexible working hours or compressed working weeks. In the latter case, employees work longer hours but on a shorter number of days per week or month, thus reducing overall travel.

4.6.2 Element 9: MM-supportive measures

These measures might not be implemented directly to manage mobility, but they can have significant impact on the effectiveness of MM. They can affect the cost of travel by car or other modes, or make the environment more conducive to the introduction of MM measures. These actions may not be seen directly by the end user but they will nonetheless have an impact on their travel behaviour. For these reasons they are referred to here as supportive actions.

— Parking management

in order to reduce parking supply and/or manage reduced supply, to influence the number of people choosing to travel to a site by car (pricing, rationing, limiting, cash-out) (see Annex A).

— Integrating MM into the planning process

In most countries, new development requires some form of permission from the public sector before it can go ahead. In some countries, this permission-giving process provides a leverage point at which time the public sector is able to require/encourage the developer of the site to implement MM measures. In other words, planning permission can sometimes (depending on member state planning law and practice) be connected to certain requirements on the developer, owner and/or occupier to minimise the mobility impact of the new development, by implementing one or more of the measures listed in the category “site-based MM measures”, for that development.

— Location efficient mortgages

where interest rates are lower if the house buyer chooses a location that reduces the dependence on car travel.

— Offering integrated fares

combining the use of different transport modes or combining an entrance ticket for an event with a PT-ticket).

— Multimodal cards/fares

car sharing membership provides a discount on public transport and vice versa; similar applications for paratransit and bicycle rental services (e.g. the public transport bicycle (OV-Fiets) in the Netherlands).

4.7 Component 4 – Monitoring and evaluation

4.7.1 Element 10: User and society results

Next to a sound implementation plan for each of the MM-measures implemented, a sound evaluation plan contributes to the overall quality of the mobility management conducted. This plan should contain the performance indicators to measure direct output of all measures and services (MaxSumo, also developed within the MAX-project, provides a tool for monitoring and evaluation of MM-measures). It should also define impact indicators which provide insight into the impact of measures regarding sustainable mobility such as modal shift, reduction of CO₂ and particulate matters, improving traffic safety (i.e. society results).

A set of performance indicators provides the basis of this element for a QMSMM-audit. To effectively determine actual performance under such a system, MM-targets should be established with specific time constraints and measurable performance parameters, namely, “SMART” targets. A smart target is

S	Specific	This means they are exact.
M	Measurable	The outputs can be measured and verified against the original target.
A	Attainable	This means the targets are realistic and not set at a level that is too ambitious or achievable with minimal effort.
R	Realistic/relevant	The target must be achievable in terms of resources available, and it must be relevant.
T	Time related	A time for achieving the target should be determined, and a review held within a specified time frame. All those involved should be aware of the time set and the review date.

Potential Indicators, e.g. for Workplace Mobility Plans:

- Commuting indicators:
 - increase in number of salary sacrifice cycle loans;
 - increase in proportion of staff commuting by sustainable modes of transport;
 - decrease in number of cars parked in workplace car park (where applicable) or decrease in number of (rented) parking spaces the company needs.
- Business travel indicators:
 - increase in the proportion of public transport-related expense claims;
 - increase in the proportion of cycle-related mileage claims;
 - reduction in the proportion of car mileage-related expense claims;
 - reduction in the proportion of flight-related expense claims;
 - reduction in inter-office travel.
- Other indicators:
 - increased rates of staff retention/reduced staff turnover;
 - improved perception of work/life balance as a factor in wider company practices.
- Outcome Indicators:
 - reduction in CO₂-emissions;
 - reduction in cost of company car park (e.g. company cars, optimization of pool cars).

Sufficient time and budget need to be planned to conduct all measurements, to collect information, to analyse and report.

Firstly, a city should define targets and performance indicators of the individual measures formulated following SMART-principles. An investigation of targets and achievements of similar MM-measures in similar organisations can help in this matter. Furthermore, a baseline measurement must be carried out and a monitoring system should be in place to collect all information about input, output and outcome indicators as well as to document all relevant background information that can have a positive/negative impact on the MM-results. Sufficient know how should be available in order to collect and analyse all the data, e.g. how to set up surveys, how to analyse databases, and a transparent reporting structure needs to be set up to present outputs and results.

4.7.2 Element 11: Stakeholder feed-back

Knowing output and impact makes only sense if it is being interpreted, discussed and used for further improvements. Therefore, the results need to be discussed within the mobility management team, fed back to all partners involved and communicated to the broader audience and to the political level. In the longer run, this transparency about the results of MM increases overall public support towards MM and sustainable mobility more in general and might save guard budget lines for MM in the longer run.

4.7.3 Element 12: Management review

At regular times, the functioning of the mobility management team needs to be assessed together with all involved parties. While taking some distance from project achievements and failures, it is useful to look at strengths and weaknesses of the current day-to-day practice and operational structures of the MM-team and main partnerships regarding policy, planning, implementation and evaluation. The aim is to define improvement actions to reach better quality.

Cities might have an audit system or management review system established which is adopted at regular moments in time. Results of the former management reviews are fed back into the policy, strategy, implementation and monitoring and evaluation. Different levels (senior management, political level, main partners and stakeholders) might commit themselves to co-operate in these regular management reviews. In some cases, a benchmarking exercise might have been executed with other comparable organisations/city's based on its own assessment report.

5 QMSMM assessment procedures

5.1 Introduction

Clause 4 describes the basics of the QMSMM, being a set of 12 elements or quality criteria and a ladder of development, as a rough indication of the different stages in achieving total quality. This clause explains how to combine these two elements within assessment procedures.

The main idea of these procedures is that they assesses the current practice of mobility management within the city in all its aspects and that it can be used as a guidance to make further improvements. Moreover, It should be both challenging, feasible and useful for cities, irrespective of the current status of their MM-application.

EXAMPLE 1 a city that has recently organised a successful car free day (with high participation rates of citizens and positive feed-back from politicians) but with little or no knowledge of the MM-concept, should after applying the QMSMM-audit get inspired by the whole range of other city wide and site based mobility management measures and get guidance on how to invest more systematically in MM.

EXAMPLE 2 a city, with a long tradition in mobility management – the concept of MM is known among the local politicians and city administrators – should be able to assess their current status in MM and benchmark their results with other experienced city's in Europe and be awarded for their good performance.

Therefore different audit procedures depending on the ambitions of the city, the perceived current status of the QMSMM, the level of political awareness about MM in the city and the feasibility in financial terms are defined.

The following clauses describe five different procedures starting from the least ambitious and least effort requiring and ending up with a very ambitious and more time and budget consuming one.

5.2 Internal assessment

5.2.1 Self assessment

This first procedure is a short, structured questionnaire which serves as a first and quick scan of the quality status of the mobility management in the city. The questionnaire consists of 24 questions which refer to the 12 elements of the quality management system for MM (according to Figure 1). After answering the 25 questions on a 5-point-scale – which can be done within half an hour – the respondent gets a first rough indication of the overall scoring of the city's quality status in mobility management. However, this overall rating is preliminary.

The main purpose of this questionnaire is to familiarize mobility coordinators of cities with the quality management criteria in an easy and fast way and to get as a result a rough global picture of the MM in the city touching upon the wider range of the 12 elements. In this way, the questionnaire acts like a first teaser for the real audit procedures described further. It might also be a means for the mobility manager/coordinator to

introduce the topic to other local stakeholders in MM, the MM-team, the main decision makers on MM and the main local stakeholders and to convince them to take part in an internal or external audit procedure. The questionnaire is presented in Annex B.

5.2.2 Small internal audit

This self-audit procedure is based on a questionnaire and a rating mechanism. The questionnaire is presented in Annex C. The people involved in this audit procedure are the city's MM-coordinator or manager and the MM-team. The MM-team is everyone within the city who has MM on his/her task description (either or not in combination with other tasks as will most likely be the case in smaller cities). The main MM-team staff will most likely be situated within the city's transport department. Public and private partners in MM, other stakeholders and the political level are not directly involved in this small procedure. In an indirect way however, they should best be informed about the audit exercise and its results as it might help the team to underpin and justify improvement actions proposed. Moreover, part of the improvement actions might be to get some stakeholders more involved as partners in MM-policy and practise. This leads to the internal audit procedure according to 5.2.3. The cost of conducting this procedure are minimal. Only the time investment of the city's individual MM-staff members to fill in the questionnaire and the time for two or more meetings to discuss findings. One staff member, the MM-coordinator/manager or someone else of the MM-team should take up the role of facilitator and reporter of the internal audit (see Annex D for a step-by step guide). The audit report that results from this procedure has only internal validity among the MM-team and MM-coordinator. There is no possibility to benchmark the city's performance with other cities and their MM-activities.

The main value of the audit result for the city is therefore to:

- measure own quality progress in MM-performance in time, assess the current practice in MM, set up a list of improvement actions based on this assessment and assess the results of these improvements again in a new audit one or two years later;
- give new input to the MM-coordinator and the team to take further steps in MM in the city, to make progress in raising awareness on the political level, and to be fully backed by all team members in doing this;
- give an opportunity to the MM-team members and their MM-coordinator to get actively involved in the MM-policy development of the city and to exceed the day-to-day project level of activities.

If the results of this small internal audit prove to be good or improvements on the ladder of development have been reached after several times of conducting the audit, the political level might get aware of the good performance and the MM-team might go for higher ambitions and adopt a more extended self-audit procedure involving more partners and be more externally oriented beyond the borders of the own transport department.

5.2.3 Internal audit

This internal audit procedure is based again on a questionnaire (see Annex E), a rating mechanism and collective discussions among the MM-team (as one voice this time) and the main MM-partners in the city. The range of people involved here is wider than in the small internal audit. The initiative of undertaking this type of audit should be taken by or should at least be supported by the political level responsible for mobility management. The requested engagement of stakeholders in the audit-procedure is bigger in terms of time investment. Also the validity of the output of this audit procedure goes further and the listed improvement actions as a result of the audit procedure involve a wider range of partners. The success and validity of the audit depends on the number and the standing of stakeholders who were involved during the audit procedure and who subscribe the assessments and improvement actions of the audit report. Therefore, the role of the internal auditor as facilitator of the audit-process is very important. Good guidance and transparency on how to compose the assessment groups most efficiently, how to facilitate the audit process, how to build consensus and write the audit report are key to success. Again, benchmarking possibilities with other cities and their performance are not possible and the main interest to adopt this audit is to compare performance of the city's MM policy in a time perspective.

The main value of the audit result is:

- to widen the perspective and ambitions of MM in the city from the transport department to other internal and external partnerships and;
- to validate existing partnerships in MM in the city and to look for new partnerships.

This procedure is of particular interest for cities which are well advanced in MM-practise in general (having in general an overall vision on MM-management) or are performing very well in some specific type of MM-measures and want to widen the scope towards other MM-measures on a site based or city wide level. The cost of this medium-procedure remain – apart from the time investment of all stakeholders – limited as no external auditor is involved.

5.3 External audit

If a city has adopted once or several times the procedure according to 5.2.3 in a smooth way, it might get interested to compare own MM-performance with other cities in Europe. In this procedure, the audit is conducted with an external auditor as facilitator. Again the same questionnaire is at the core of the audit-procedure but the collection, interpretation and assessment of evidence on the performance of the 12 different elements is coordinated by an external auditor. So, next to the vote of the MM-team (procedure according to 5.2.2) and the votes of the stakeholders (procedure according to 5.2.3), also the vote of the external auditor counts in the quality assessment of the 12 elements. It is also the external auditor who is responsible for writing the audit report.

This external auditor takes over the role of the internal facilitator of the procedure according to 5.2.3 and adds his/own expertise in adopting a QMSMM-audit to the overall validity of the audit report. Therefore, benchmarking the performances of the city's results becomes possible. Moreover the proposed improvement actions can gain from the knowledge and expertise of the external auditor on performance of similar actions adopted in other cities. A city might also choose directly this audit procedure as an external auditor gives more credibility to the audit process and its output towards the city's stakeholders in MM. The external auditor acts as an objective person who exceeds all possible internal sensitivities within the MM-team and/or between the MM-team and other partners in other departments.

The task of the external auditor could be described as follows³⁾:

- collecting evidence regarding the 12 different elements and checklist issues through bilateral contacts with the MM-coordinator and/or MM-team and analyzing documents and information of all procedures in place, reports, minutes, etc.;
- meeting with the MM-coordinator and the MM-team to get their quality assessment ratings as a baseline;
- attending a number of additional meetings (collective or bilateral; on average five meetings) with the main stakeholders in MM and ask for their assessment and input for refinement of improvement action proposals;
- a consensus meeting with MM-coordinator and MM-team;
- drafting the audit report and
- presentation of the audit report to the MM-team and main local stakeholders in MM.

The whole procedure would take about three to four months. The time investment of the external auditor during this period would be around 15 person days complementary to the time investment of the local actors in MM.

³⁾ Based on the experience of the demonstration of QMSMM in Kortrijk within the MAX project.

5.4 Certification and benchmarking

Within this procedure benchmarking becomes the central focus of the QMSMM-audit. The target group of city's for this type of audit, are cities that have reached level 4 – chain oriented MM-approach – on the ladder of development in different elements based on a former external audit procedure and that want to apply for the status of level 5 – total quality management in some of their performances.

The procedure here is completely led by a team of at least two external auditors. Their assessment forms the basis for handing over an MM-label to the city. These three auditors will analyse as a first step all evidence on MM-performance provided within a standard application form by the applicant city. This form is structured along the 12 elements and provides the main evidence. Because a number of elements are in the 4th level of quality development (systematic and chain approach), a lot of the evidence is available through documents and secondary material on outputs and impact.

The second step is a meeting between the two auditors on the one hand and the city's MM-coordinator and the local political responsible on MM on the other hand. The aim of the meeting is to have more background and explanation regarding the evidence provided through the application form.

In the third step, the auditors might consider to organize some additional bilateral interviews with key persons to verify the quality status and have a site visit.

The fourth step consists of a consensus meeting between the three auditors about handing over the MM-label to the city or not.

This label will remain valid for two years.

6 More details about the audit procedures

6.1 Use of questionnaire and rating mechanism in the audit procedures

In the procedures according to 5.2.2, 5.2.3, 5.3 and 5.4, the use of a questionnaire and a rating system is proposed in order to assess the quality of each of the elements. The questionnaire and rating scheme are provided in Annex C. Overall this questionnaire is made up of about 90 questions split up in 12 blocks or 12 elements. For each element between five to eight questions need to be answered on a 5 point scale referring to the ladder of development:

- “0” means that there is no evidence about this item at all; the city is not active in this particular field;
- “5” on the other end means that there is excellent evidence available in the city about this item; the city works in a systematic and innovative way and good results have been obtained compared to other organisations.

For each element, the respondent is invited to argue the answers as the aim of the QMSMM is not solely to control whether some standard procedures or documents are in place or not. This tool wants to assess whether these procedures also contribute in to process of enhancing quality in MM in the city. Therefore, next to gathering evidence through documents and procedures analysis, it is suggested to use the questionnaire as a tool to open discussion between the main actors in MM in a city. For a city with only little or no experience with MM, an open discussion between the MM-coordinator and the MM-team on 12 crucial elements could be inspiring to take next steps. For a city with a longer experience, this discussion is more relevant in a wider group of MM-team and other partners in MM. For a city with a longer lasting tradition in MM, benchmarking might be the aim.

The questionnaire and rating scheme are to be among the MM-coordinator and the MM-team members. They are requested to fill in the questionnaire individually. All individual answers are collected, compared and summarized. Within the first meetings in the procedures according to 5.2.2, 5.2.3 and 5.3, the group results are presented and differences in opinions are further discussed upon. The aim is to come to a consensus rating between 0 and 5 for all 12 elements. For each of the 12 ratings, a basic justification for this consensus

rates needs to be provided as well as a proposal formulated on how to further improve quality on that element. Justifications and ideas for improvement can be obtained from the best and worst rating subcriteria (or questions) within each of the elements.

In the procedure according to 5.2.2, the audit stops here (see step-by step guide in Annex D).

In the procedure according to 5.2.3 and 5.3, the assessment of the MM-coordinator and the MM-team are taken as a baseline assessment which is further cross checked in order e.g. to further refine the assessment in case there is no clear picture, opinions differ a lot or to further investigate possibilities for improvement. In this next stage, part of the elements are further investigated through individual or group discussions with stakeholders. This results in a refined rating of the 12 elements and adapted list of improvement actions (see step-by-step guide for this procedure in Annex E). In the procedure according to 5.3, this step is mainly done by the external auditor. In the procedure according to 5.2.3, this task is taken up by the internal auditor.

The next step is to come to an overall consensus with the MM-coordinator and his/her team on the overall quality assessment based on the extended information and to select a smaller number of improvement actions from the proposed list.

The last step is to communicate results to all stakeholders involved.

6.2 Audit reporting format

As an overall format the audit report should:

- follow the overall structure along the 12 elements;
- contain a main description of the evidence for each element;
- list the overall rating of the elements based on consensus between the audit group members;
- provide a justification of each rating and the description of the improvement action proposed;
- include a further elaborated shortlist of improvement actions based on a prioritising exercise.

6.3 Qualification of external auditors

External audits are conducted by external independent organizations. Such organizations, usually accredited, may provide certification of conformity with the requirements of this document. Guidance on conducting audits is provided by EN ISO 19011.

As the Qualification of external auditors is a key factor concerning the audit outcome it is strongly suggested that when assessing the conformity of an organisation to this document the external auditor(s) have a comprehensive background in mobility management and formal training as an auditor e.g. according to EN ISO 19011.

Annex A

(informative)

Definition and categorisation of individual mobility management measures

A.1 Introduction

Clause 4.6 provides a categorisation of MM measures. Where necessary, this section expands on the earlier brief definition based on [4].

A.2 Information measures

A.2.1 Mobility Centre

A Mobility Centre provides information and services on mobility, such as ticket sales, usually for several public transport modes (bus, metro, tram, rail) as well as for other modes (car parking, car sharing, car pooling). Sometimes a Mobility Centre also prepares mobility plans for traffic generating sites like schools, companies etc. When a Mobility Centre is located in a large company, it is sometimes called a mobility office.

A.2.2 Mobility Consultant

A Mobility Consultant is a person providing either personalised travel information (and is then often working for a Mobility Centre) or is a person developing mobility plans. In this role, they are also sometimes called mobility manager or travel/mobility coordinator, especially when they work for a specific site.

A.3 Promotional measures

Personalised Travel Assistance (PTA)

Personalised Travel Assistance (PTA) involves recruiting people who are interested in considering how they might change their travel behaviour. They may be recruited from workplaces, although most often this technique has been used in area-wide approaches to households (particularly in Australia, under the banner of TravelSmart). A letter about the Travel Awareness campaign is sent to all households in an area; this is then followed up with a phone call. Those households who express an interest are offered a range of resources, of which one may be Personalised Travel Assistance. In PTA experiments, the interested household will normally complete a diary of their travel over one week. They then discuss this with a travel advisor to find ways in which they may be able to change their travel patterns by more Car Pooling, use of cycling, walking and public transport, trip chaining or use of information technology.

A.4 Organisation and coordination measures

A.4.1 Car Pooling

Car Pooling is where two or more people share the same journey, using one of the participants' own private cars (in the UK this is called car sharing).

A.4.2 Car sharing

Car sharing is when people pay to use a car by the hour / day etc, and the car is owned by an individual company that runs the scheme on a commercial basis, and when the cars are not located in one central depot, but spread around the city or even several cities. Car sharing can also be organised within an organisation by a formal booking system (in the UK the former is called Car Clubs, the latter Car Pooling). Car sharing is distinguished from Car Rental in that using the car is possible for a very short time, that no personnel are needed to provide the car and that cars are available in many locations.

A.4.3 Van Pooling

Van Pooling is where a group of employees in a group run a minibus to and from work, sharing the cost of the vehicle and its operations. Sometimes this arrangement is subsidised by the employer; it may also be organised by a third party rather than by the employees.

A.5 Site-based measures

A.5.1 Mobility Plan

A Mobility Plan is a site based plan that aims to manage and, often, to change the travel patterns of the persons travelling to and from this site (for example employees of a company, customers at a shop, or pupils and teachers at a school). In many countries, this is called a travel plan or trip reduction plan. The mobility plan most often consists of a whole package of measures, especially when the site is very large. The mobility plan must be tailored to the needs of the particular site, so will include a range of measures selected from the following (which itself is not a completely exhaustive list):

- Promotion of different ways to get to the site so that people are aware of the alternatives that are available.
- Multi-modal information about how to reach the site (internet-information, signs for pedestrian routes, etc.).
- A Car Pooling Scheme to match regular travellers so that they can travel to the site together.
- Car sharing Scheme for a company (e.g. the company offers shared company cars for business use and sometimes for private use after work).
- Guaranteed ride home service so that people who Car Pool can get home if something unplanned occurs e.g. their children suddenly being taken ill.
- Compressed work weeks (working 9 days in 10, but for longer hours), or changing working or appointment hours to avoid congested periods and/or coordinate with public transport times.
- Allowing and helping staff to work from home some of the time, or facilitating home shopping – so the trip to the site does not have to be made.
- Re-organising and rationalising business trips and/or substituting telecommunications for some business trips to reduce travel on works business.
- Re-organising and rationalising deliveries by a company and/or by suppliers to reduce freight trips to and from the site.
- Changing allowances paid to staff for using their own vehicle on works' business to favour more environmentally-friendly vehicles and modes (e.g. for longer distance trips paying only the equivalent rail fare regardless of the mode used, not a per km rate for car use; higher reimbursement per km for cycle

use than car use). This aims to change the mode used for business trips as well as reducing the incentive to bring a car to work in order to have the opportunity to “earn” business trip allowances.

- Showers, changing rooms, lockers, irons, curling tongs and hairdryers for people who choose to walk, run, skateboard, skate or cycle to work.
- Secure cycle parking.
- Assisted/tax-efficient purchase of bikes and other equipment for slow modes of transport.
- Provision of company cycles.
- On-site free bicycle repair service at the start of the bike season.
- Safe and direct cycle and walking routes on the site linking buildings with all site entrances.
- Paying or negotiating with public transport operators to:
 - Run shuttle services between the site and nearby transport interchanges or park and ride sites (these may be public park and ride sites run by the municipality, or open only to users of the organisation to which they are linked).
 - Run existing services more frequently.
 - Run completely new services to link the site directly with areas where a lot of site users live.
 - Offer a ticket discount to site users.
 - Provide job-tickets, which are offered to commuters and reduce the price for regular public transport travel tickets.
 - Offer trial tickets so that people who do not normally use public transport can try it out for a week or a month at low or no cost.
- Selling public transport tickets on-site.
- Van Pooling, where employees group together to run a minibus to and from the site, sometimes with a subsidy from the organisation.
- Paying employees an incentive (on a daily basis) to use alternative modes to get to the workplace (this is usually only practicable with worksites).
- Employing a mobility consultant and running a mobility office on site.
- Providing facilities on-site to reduce the need to travel off-site at break times.
- Managing car parking on site (and sometimes, in conjunction with the local authority, off-site as well). Further details are provided below.

A.5.2 Car parking management

Car parking management is a powerful mechanism to influence how people travel to a site. In a situation where parking supply is less than demand, parking on-site can be managed as follows:

- All or certain users can be charged to use it, by the day, week, month or year, with a flat charge or charges varying according to criteria (e.g. employees’ income), or to the quality and location of the parking space.

- It can be rationed e.g. employees might be allowed to park four days in every five.
- The best spaces can be reserved for Car Poolers, for example, to give them an incentive to share their car to work.
- Spaces can be allocated according to certain criteria e.g. seniority, how long it takes someone to get to the site by car compared to public transport, caring responsibilities, and so on.
- Access can be time limited e.g. the car park in a shopping centre might not open until 10:00 to deter its use by commuters.
- Staff may be paid not to use their parking space (this is called parking cash-out).

In addition, a site with limited parking on-site and an excess of demand over supply may have to work with the local authority to manage parking on-street around the site to avoid “spill-over” effects.

A.5.3 School mobility plans

In school mobility plans, parents may help in the implementation of measures by, for example, running “walking buses” where children walk together to school, escorted by a number of parents. In addition, the development, operation and monitoring of the plan will often be integrated into the curriculum. Hence pupils and parents will see measures to offer them alternative means of transport to school, plus education about mobility, plus awareness and promotional activities. This might include:

- Mobility games combined with mobility surveys and perhaps including some kind of competition between children or groups of children for the best survey.
- Involving children in identifying areas around the school where they feel threatened by traffic and then helping to design measures to reduce these problems.
- Educational units on mobility (including excursions).
- Cycle training.
- Dedicated stops for dropping children off at school when they are brought by car.
- Parking prohibition in front of school.
- Organising Car Pools or walking buses for bringing children to school.

Annex B (informative)

Short QMSMM questionnaire for self-assessment

- 1) Are the mobility behaviour and the needs of your city's inhabitants and visitors well known? (for example information about modal split)

	0	1	2	3	4	5	
No information							Excellent information
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- 2) Are the intentions and ambitions of mobility management (MM) formulated into a policy document (separate document or as part of a Sustainable Urban Transport Plan or similar) and is the policy in line with the definition of MM?

	0	1	2	3	4	5	
No evidence at all							Excellent evidence
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- 3) Is the MM-policy mentioned and integrated in the overall transport policy and other relevant policies?

	0	1	2	3	4	5	
No evidence at all							Excellent evidence
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- 4) Do local political bodies, management of the transport department (or similar) understand and support the idea of mobility management?

	0	1	2	3	4	5	
No evidence at all							Excellent evidence
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- 5) Does anyone within the city's administration take up the overall responsibility of the MM-policy (either formalized or not)?

	0	1	2	3	4	5	
No evidence at all							Excellent evidence
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- 6) Are mobility management measures and infrastructure measure treated equally within the decision making process?

	0	1	2	3	4	5	
No evidence at all							Excellent evidence
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- 7) Is there a wide-spread knowledge in the city's administration of what MM is and what it can accomplish?

	0	1	2	3	4	5	
No evidence at all							Excellent evidence
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- 8) Do you have a programme or plan for the MM-process that is approved by the management of the transport department, local political bodies or similar?

	0	1	2	3	4	5	
No evidence at all							Excellent evidence (we are regularly reviewing it in a systematic way)
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- 9) Does the MM-programme or process include partnerships with important partners such as public transport authorities, road administration, schools, companies etc?

	0	1	2	3	4	5	
No evidence at all							Excellent evidence
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- 10) Does the MM-process involve a multimodal approach to ensure accessibility for all?

	0	1	2	3	4	5	
No evidence at all							Excellent evidence
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- 11) Does your MM-programme cover MM-measures towards a wider range of target groups or segments (according to inhabitant, tourists, commuters, pupils etc) ?

	0	1	2	3	4	5	
No evidence at all							Excellent evidence
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- 12) Does the city work with different categories of measures; information, promotion and awareness, organization and coordination, education and training, measures focusing on sites as schools and companies?

	0	1	2	3	4	5	Excellent diversity of measures
No measure at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- 13) Is there an organization and/or responsible division for MM (MM-team)?

	0	1	2	3	4	5	Excellent evidence
No evidence at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- 14) Is there a sufficient, regular and consistent funding for mobility management?

	0	1	2	3	4	5	Excellent evidence
No evidence at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- 15) Does the knowledge and competences of the MM-team cover what is required for the MM-process (for example marketing & communication, transport & mobility, sustainability)?

	0	1	2	3	4	5	Excellent evidence
No evidence at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- 16) Are time and money made available for training and exchange of knowledge and information with others (networking)?

	0	1	2	3	4	5	Excellent evidence
No evidence at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- 17) Does your city combine MM with physical measures to facilitate walking, cycling, public transport, etc.?

	0	1	2	3	4	5	Excellent evidence
No evidence at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- 18) Does your city use tax-incentives or similar in order to influence the number of people choosing to travel to the city or a site by car (for example congestion charging or parking management such as pricing, limiting, cash-out)?

	0	1	2	3	4	5	
No evidence at all							Excellent evidence
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- 19) Does the city require or encourage new developers of a site to implement mobility management ?

	0	1	2	3	4	5	
No evidence at all							Excellent evidence
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- 20) Are the results of the MM-process communicated to relevant stakeholders, senior management, local political bodies and presented for the public?

	0	1	2	3	4	5	
No evidence at all							Excellent evidence
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- 21) Do you monitor and evaluate the MM-measures in terms of outputs (services) and outcomes (system impact)?

	0	1	2	3	4	5	
No evidence at all							Excellent evidence
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- 22) Do you work with MM in a systematic and organized manner with reviews of the process and corrections in order to strive for constant improvements?

	0	1	2	3	4	5	
No evidence at all							Excellent evidence
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- 23) Does your MM-process show good results?

	0	1	2	3	4	5	
No evidence at all							Excellent evidence
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- 24) Is your city considered to be in the frontline of mobility management?

	0	1	2	3	4	5	
No evidence at all							Excellent evidence
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Annex C (informative)

Extended version of QMSMM questionnaire

C.1 Introduction

This checklist should be used as a self-evaluation form or as a part of a certification process.


C.2 Ladder of development

Level	Description
0	No evidence at all/We are not active in this field/We have no information
1	Very little evidence/We are planning to do this or we have done this sporadically or ad-hoc/We have some anecdotal information
2	Some evidence/We are implementing this and/or have done this a couple of times or at a small number of sites/We have information related to some areas
3	Rather strong evidence/We have implemented this and have done this regularly or at many sites/We have good information (if necessary divided into specific areas and target groups)/We check if we do things the right way
4	Strong evidence/We have implemented this and are regularly reviewing this in a systematic way (and adjust if necessary)
5	Excellent evidence/We work in a systematic and innovative way and we have good results (or more innovation) compared to other organizations

C.3 Component 1: Mobility management Policy


C.3.1 Element 1: User and society needs

The mobility behaviour and the needs of the users are important factors for determining the MM-policy. How does the city find out the needs of the users and how are they involved? The public support for MM and sustainable transports is also important.

	Questions element 1	Scores 0 - 5 ^a					
		No evidence		Excellent evidence			
							
1	Are the mobility behaviour and the needs of the city's inhabitants and visitors well known? (for example information about modal split, travel habit surveys etc)	0	1	2	3	4	5
2	Are the mobility behaviour and the needs of specific target groups for mobility management well known (e.g. children, youngsters, visitors, citizens, commuters etc.)?	0	1	2	3	4	5
3	Is the city's intention of MM communicated to the wider audience? (events, leaflets, articles in media etc)	0	1	2	3	4	5
4	Are legal and organizational contexts and the possibilities for action and support sufficiently known?	0	1	2	3	4	5
5	Does the city involve stakeholders and the broader audience in the MM-process, for example in the development of the city's MM-policy or in the design of services?	0	1	2	3	4	5
6	Are tailor made actions set up in order to communicate and convince decision makers, senior management and stakeholders about the importance and advantages of MM ?	0	1	2	3	4	5
^a See ladder of development (C.2) for more information on scores.							
Comments regarding society and user needs (element 1):							


C.3.2 Element 2: Policy on paper

The vision and mission of mobility management (MM) should be formulated into a policy with a demand-oriented approach. The policy should be integrated into the overall local transport policy and it is important that it is accepted and supported by the senior management and politicians.

	Questions element 2	Scores 0 - 5 ^a					
		No evidence				Excellent evidence	
							
1	Are the intentions and ambitions of MM formulated into a policy document with a demand-oriented approach? (separate or as part of a Sustainable Transport Plan or similar)	0	1	2	3	4	5
2	Is the MM-policy mentioned and integrated in the overall transport policy and other relevant policies such as planning, environment, housing, economics, communication, tourism?	0	1	2	3	4	5
3	Is the MM-policy supported and formally approved by management of the transport department, local political bodies or similar?	0	1	2	3	4	5
4	Is the MM-policy document a living document that is reviewed regularly (for example with respect to environmental changes)?	0	1	2	3	4	5
5	Is the MM-policy in line with legal and regulatory frameworks?	0	1	2	3	4	5
^a See ladder of development (C.2) for more information on scores.							
Comments regarding Policy on paper (element 2):							

C.3.3 Element 3: Leadership


In order to work with MM in a systematic way someone has to have the overall responsibility. To ensure success the commitment and leadership of the top management, head of transport department and local political body or similar, are crucial. MM-coordinator has a key role to play in building awareness and motivating the employees.

	Questions element 3	Scores 0 - 5 ^a					
		No evidence		Excellent evidence			
							
1	Does the local political body and the head of transport department or similar know what MM is and understands that it is important?	0	1	2	3	4	5
2	Is there a wide-spread knowledge in the city's administration of what MM is and what it can accomplish?	0	1	2	3	4	5
3	Does anyone within the city's administration take up the overall responsibility of the MM-policy (MM-coordinator, either formalized or not)?	0	1	2	3	4	5
4	Does the MM-coordinator motivate and support the MM-team in their daily work?	0	1	2	3	4	5
5	Are mobility management measures and infrastructure measure treated equally within the decision making process?	0	1	2	3	4	5
6	Is the MM-coordinator invited to take part in discussions with senior management and political level and is it possible for the MM-coordinator to put mobility management issues on the agenda?	0	1	2	3	4	5
7	Is the MM-coordinator (regularly) consulted in important strategic decisions, for example in planning new developments?	0	1	2	3	4	5
8	Is the MM-coordinator invited to take part in regional, national and international networks to exchange experience (i.e. is the MM-coordinator acknowledged outside the city)?	0	1	2	3	4	5
^a See ladder of development (C.2) for more information on scores.							
Comments regarding leadership (element 3):							

C.4 Component 2: Mobility management strategy


C.4.1 Element 4. MM-programme

An important part of planning is to identify mobility management measures, defining objectives and targets and establish a MM-programme.

	Questions element 4	Scores 0 - 5 ^a					
		No evidence		Excellent evidence			
							
1	Does the city have a MM-programme with MM measures that is approved by MM-team, senior management of the transport department and/or local political bodies?	0	1	2	3	4	5
2	Is the MM-programme in line with the MM-policy and the wider transportation strategy?	0	1	2	3	4	5
3	Does the MM-programme include a multimodal strategy with a mix of measures to ensure accessibility for all?	0	1	2	3	4	5
4	Does the MM-programme cover MM-measures towards a wider range of target groups or segments (according to inhabitant, tourists, trip purpose, age, transport mode etc)?	0	1	2	3	4	5
5	Does the MM-programme include the following: objectives and targets, indicators and monitoring data, time schedules, requirements concerning resources and responsibility?	0	1	2	3	4	5
6	Does the programme include short, middle and long term MM-measures?	0	1	2	3	4	5
7	Do you work with tailor made services for specific target groups based on knowledge, available statistics and/or specific surveys?	0	1	2	3	4	5
8	Is the strategy based on a review of the already existing MM-measures, if applicable?	0	1	2	3	4	5
9	Are the targets of the mobility management services in mutual support of the targets for sustainable development in health, land use, local economics and other departments?	0	1	2	3	4	5
10	Are priorities given to actions and measures with respect to feasibility in order to achieve pre-set goals?	0	1	2	3	4	5
^a See ladder of development (C.2) for more information on scores.							
Comments regarding MM-programme (element 4):							


C.4.2 Element 5: Human resource management

Continuity of staff, training, awareness and competence are key issues for a successful implementation of mobility management measures. The knowledge necessary for achieving the targets should be identified.

	Questions element 5	Scores 0 - 5 ^a					
		No evidence				Excellent evidence	
							
1	Has the city an organization and/or responsible division for MM (MM-team)?	0	1	2	3	4	5
2	Are human resources and funding available to implement mobility management services?	0	1	2	3	4	5
3	Is know-how available with respect to marketing and communication in order to deal with the targets groups (within the team and/or through subcontracting)?	0	1	2	3	4	5
4	Is sufficient know-how available with respect to transport and mobility planning (within the team or through subcontracting or cooperation with transport department)?	0	1	2	3	4	5
5	Is sufficient know-how available with respect to sustainability (within the team or through subcontracting or cooperation with environmental department)?	0	1	2	3	4	5
6	Are time and funding available for training and exchange of knowledge and information with others (networking)?	0	1	2	3	4	5
7	Is the continuity in the mobility management implementation assured with the current staff?	0	1	2	3	4	5
8	Is the MM-team committed to their mission and actively involved in the planning or design of mobility management projects?	0	1	2	3	4	5
9	Is the MM-team innovative ?	0	1	2	3	4	5
^a See ladder of development (C.2) for more information on scores.							
Comments regarding Human resource management (element 5):							


C.4.3 Element 6: Partnerships

Partnerships are important for an effective implementation of mobility management measures; does the MM-process include partnerships, with whom and how are they involved?

	Questions element 6	Scores 0 - 5 ^a					
		No evidence				Excellent evidence	
							
1	Does the MM-process include partnerships between important partners such as public transport authorities, road administration, schools, companies etc?	0	1	2	3	4	5
2	Are partnerships regarding MM-projects and measures formalized within working groups, charters, etc.?	0	1	2	3	4	5
3	Are responsibilities and tasks of partners clearly specified and is the commitment of all partners secured?	0	1	2	3	4	5
4	Are relevant partners involved to give input and feed-back on planned MM-activities?	0	1	2	3	4	5
5	Are relevant partners involved to offer manpower to implement the measures?	0	1	2	3	4	5
6	Are relevant partners involved to provide finance?	0	1	2	3	4	5
7	Are channels of communication established to exchange information between partners (meetings, IT-tool for communication)?	0	1	2	3	4	5
8	Are conflicting interests between stakeholders taken care of?	0	1	2	3	4	5
^a See ladder of development (C.2) for more information on scores.							
Comments regarding Partnerships (element 6):							

C.4.4 Element 7: Budget


A consistent long-term budget is crucial in order to sustain the continuity needed for achieving results of MM-measures. There should also be a budget for evaluation and monitoring of MM-measures.

	Questions element 7	Scores 0 - 5 ^a					
		No evidence				Excellent evidence	
							
1	Do you have a funding for mobility management measures?	0	1	2	3	4	5
2	Do you have an external funding for mobility management measures in order to buy the technology, equipment, products and consultants needed?	0	1	2	3	4	5
3	Is the funding for MM regular and consistent? (long-term budget, ear-marked money for MM)	0	1	2	3	4	5
4	Is there a funding for evaluation and monitoring of MM-measures?	0	1	2	3	4	5
5	Have different possible channels of finance been utilized?	0	1	2	3	4	5
6	Is effort put in searching for a long term financial planning?	0	1	2	3	4	5
7	Are contacts managed to dispose of facilities needed to implement the MM-services (e.g. technical/logistical support, police escort etc)?	0	1	2	3	4	5
8	Do you have the information technology needed to deliver high mobility products and/or services at your disposal?	0	1	2	3	4	5
^a See ladder of development (C.2) for more information on scores.							
Comments regarding budget (element 7):							

C.5 Component 3: Mobility management Implementation


C.5.1 Element 8: Categories of MM-measures

Mobility management measures should focus on the needs and be adapted to the characteristics of sites such as school and company travel plans. For each measure targets and monitoring data, responsibility, budget and timing is needed in order to measure effects and to learn from it.

	Questions element 8	Scores 0 - 5 ^a					
		No evidence			Excellent evidence		
							
1	Does the city provide information and advice about sustainable travel options to (potential) travelers through a range of different media?	0	1	2	3	4	5
2	Does the city organize awareness raising activities to promote and encourage the use of sustainable options in place?	0	1	2	3	4	5
3	Does the city offer, organize and coordinate various types of MM-services across an area to provide an alternative to sole car occupancy such as a car pooling and car sharing service, flexible cycle hire, on demand PT services, etc?	0	1	2	3	4	5
4	Does the city within the city administration provide an alternative to sole car occupancy such as a car pooling and car sharing service, flexible cycle hire, on demand PT services, etc?	0	1	2	3	4	5
5	Does the city integrate mobility management into education in schools?	0	1	2	3	4	5
6	Does the city integrate mobility management into training of staff (in the city administration)?	0	1	2	3	4	5
7	Does the city organizes site-based mobility management measures connected to traffic generating sites such as schools, companies, sports and leisure event venues, hospitals?	0	1	2	3	4	5
8	Does the city within the city administration adopt measures to reduce the need to travel by substituting telecommunications for travel, or reorganizing working practices?	0	1	2	3	4	5
9	Does the city work with MM-measures towards companies that include services to reduce the need to travel by substituting telecommunications for travel or reorganizing working practices?	0	1	2	3	4	5
^a See ladder of development (C.2) for more information on scores.							
Comments regarding categories of MM-measures (element 8):							

C.5.2 Element 9: MM-supportive measures


Supportive measures such as infrastructure improvements, tax incentives and legal requirements may not be implemented directly to manage mobility, but they can have significant impact on the effectiveness of MM. They can affect the cost of travel by car or other modes, or make the environment more conducive to the introduction of MM measures.

	Questions element 9	Scores 0 - 5 ^a					
		No evidence		Excellent evidence			
							
1	Does your city combine MM with (physical) improvements for public transport and bicycle?	0	1	2	3	4	5
2	Is there a development plan for bicycle and public transport improvements (and a positive trend for traveling by bike or public transport)?	0	1	2	3	4	5
3	Does your city have parking management in place in order to influence the number of people choosing to travel to a site by car (pricing, rationing, limiting, cash-out)?	0	1	2	3	4	5
4	Does the city require or encourage new developers of a site to implement mobility management?	0	1	2	3	4	5
5	Has the city tax changes in place to make the use of sustainable transport modes more attractive compared to sole car driving?	0	1	2	3	4	5
6	Are there location efficient mortgages where interest rates are lower if the house buyer chooses a location that reduces the cardependence?	0	1	2	3	4	5
7	Does the city have a congestion charging system in place, if relevant?	0	1	2	3	4	5
^a See ladder of development (C.2) for more information on scores.							
Comments regarding MM-supportive measures (element 9):							

C.6 Component 4: Monitoring and evaluation


C.6.1 Element 10: User and society results

The city should have a plan for monitoring and evaluation and thus enhance the quality of mobility management conducted. This plan should contain both output indicators such as services offered and outcome indicators to measure impact effects such as reduction of CO₂ and impacts on traffic safety (Tools developed within the MAX-project could be used for this purpose). Sufficient time and funding need to be planned to conduct all measurements, to collect information, to analyse and report.

	Questions element 10	Scores 0 - 5 ^a					
		No evidence			Excellent evidence		
							
2	Do you monitor and evaluate output indicators of the services provided?	0	1	2	3	4	5
3	Do you monitor and evaluate outcome indicators on change in mobility behaviour, impacts on CO ₂ and traffic safety?	0	1	2	3	4	5
4	Do you monitor and evaluate the public's awareness of MM, sustainable transports and environmental issues?	0	1	2	3	4	5
5	To what extent are the targets of the different MM-measures achieved in terms of outputs and outcomes? (i.e are the results good?)	0	1	2	3	4	5
6	Are the targets of the individual measures formulated following SMART-principles (Specific, Measurable, Accepted, Realistic, Time related) or similar?	0	1	2	3	4	5
7	Are you collecting process related information?	0	1	2	3	4	5
8	Is sufficient know how available in order to collect and analyze data with respect to input, output, outcome? (e.g. how to set up surveys, how to analyze databases, ..	0	1	2	3	4	5
9	Has a transparent reporting structure been set up to present outputs and results?	0	1	2	3	4	5
10	Do you use the results in order to improve specific measures, the MM-programme and/or the complete MM-policy?						
^a See ladder of development (C.2) for more information on scores.							
Comments regarding user and society results (element 10):							


C.6.2 Element 11: Stakeholder feed-back

Knowing output and impact makes only sense if it's being interpreted, discussed and used for further improvements. Therefore, the results need to be discussed within the own mobility management team, fed back to all partners involved and communicated to the broader audience and to the political level. In the longer run, this transparency increases overall public support towards sustainable mobility

	Questions element 11	Scores 0 - 5 ^a					
		No evidence		Excellent evidence			
							
1	Are results presented to the wider audience?	0	1	2	3	4	5
2	Are results communicated to relevant stakeholders (public transport authorities, road administration etc)?	0	1	2	3	4	5
3	Are results communicated and discussed with the day-to-day mobility management team?	0	1	2	3	4	5
4	Are results communicated and discussed with head of transport department or similar and political level?	0	1	2	3	4	5
5	Are results presented and discussed upon with the main partners?	0	1	2	3	4	5
^a See ladder of development (C.2) for more information on scores.							
Comments regarding stakeholder feed-back (element 10):							

C.6.3 Element 12: Management review

At regular times, the functioning of the mobility management team needs to be assessed together with all involved parties. While taking some distance from project achievements and failures, it is useful to look at strengths and weaknesses of the current day-to-day practice and operational structures of the MM-team and main partnerships regarding policy, planning, implementation and evaluation. The aim is to define improvement actions to reach better quality.

	Questions element 12	Scores 0 - 5 ^a					
		No evidence		Excellent evidence			
							
1	Are you doing management reviews of your MM-work?	0	1	2	3	4	5
2	Are you using the results of the reviews for corrections and continual improvements of the MM-process?	0	1	2	3	4	5
3	Do you have an audit system?	0	1	2	3	4	5
4	Have relevant levels (senior management, political level, main partners and stakeholders) committed themselves to co-operate in this regular management review?	0	1	2	3	4	5
5	Are the results of the management review communicated to the wider audience?	0	1	2	3	4	5
6	Do you benchmark with other comparable cities?	0	1	2	3	4	5
7	Is the city considered to be in the frontline of mobility management?	0	1	2	3	4	5
^a See ladder of development (C.2) for more information on scores.							
Comments regarding management review (element 12):							

Annex D (informative)

Step-by-step guide for conducting the small internal audits

Step 1: Prepare decision to conduct QMSMM-audit

- Make a short overview of all MM-measures conducted in your city in the past two to five years. Take the definition of MM from 4.6 (more information can be found in [4]).
- Make a list of all the stakeholders in MM in the city who are or have been directly involved in MM in the past two to five years.
- Who is the current MM-team in your city? Do they constitute enough critical mass in order to conduct the audit procedure (e.g. minimum three persons; it might be useful to invite former colleagues in MM)?
- Who else, in other city departments or outside the city administration is dealing with MM? Should you take some of them on board within the audit process, when and how?

Step 2: Choice of procedure, composition and commitment of audit group members (1,5 h to 2 h meeting)

- Organise an information meeting with your MM-team.
- Inform them about the audit plan, the MM-scope, aims, process, engagement asked for.
- Agree on the scope of audit procedure, composition of audit group (decide to limit or broaden the audit group) and get commitment of the participants at the audit process.
- Decide to either conduct a procedure according to 5.2.2 (limited to the MM-team) or a procedure according to 5.2.3 (extended to partners and other stakeholders)
- Appoint an internal auditor and define his/her tasks: invitation to meetings, moderate debates, collect more evidence whenever needed and reporting back to the audit group.
- Set up a time schedule for the whole procedure.
- Inform the senior management and MM-political responsible about your audit plan.

Step 3: Preparation first audit meeting (about two to three weeks of time between step 2 and 4)

- The internal auditor collects background information about all 12 elements regarding MM.
- He/she distributes the questionnaire forms to the audit group members (the whole MM team or a selection of people from the MM-team or the MM-team extended with some members), collects answers and makes overview of group results element by element, makes a list of all individual comments.

Step 4: First audit meeting (approximately 2,5 h meeting)

- The internal auditor presents the group results and raises points of discussions: substantial differences between individual answers to questions, etc .

- The audit group tries to achieve a consensus score (between 0 and 5) for each element: either keep the arithmetic (group) average or reconsider an up- or down grading based on arguments of individual audit group members.
- Next to the overall score, a justification is provided: what are the current strengths and the weaknesses in MM that motivate this overall score?
- For each of the elements, also a preliminary list of possible improvement actions is set up.

Step 5: reporting and preparation next meeting (two to three weeks in between step 4 and 6)

- The internal auditor drafts a report of the first audit meeting and sends to the audit group for feed-back.
- The internal auditor investigates some further points of discussion raised during the first audit meeting (he/she might collect some additional evidence).
- The internal auditor drafts a list of all improvement actions proposed in the first audit meeting and distributes the list of the audit group members.

Step 6: Second audit meeting (1 to 2 h)

- The draft audit report is presented to the audit group, discussed and approved.
- The audit group prioritises the list of improvement actions set up in the first audit meeting and keeps a shortlist of improvement actions based (three to a maximum of four actions).
- For this shortlist of actions, a more detailed planning is set up (timing, budget, roles, partners needed, etc.) and roles are distributed among the audit group members of who is elaborating which action.

Step 7: Finalising audit report and presentation of report to senior management and political responsible for MM (1 h meeting)

- The audit report is finalised by the internal auditor and approved by the audit group. It contains:
 - the overall result of the group assessment of 12 elements;
 - the justification for the ratings of the elements (in terms of strengths and weaknesses);
 - the prioritised list of possible improvement actions for each element;
 - the detailed planning about three to four improvement actions.
- The report is handed over and presented to the main local decision makers in MM.

Annex E (informative)

Step-by-step guide for conducting internal audits

Step 1: Prepare decision to conduct QMSMM-audit

- Make a short overview of all MM-measures conducted in your city in the past two to five years. Take the definition of MM from 4.6 (more information can be found in [4]).
- Make a list of all the stakeholders in MM in the city who are or have been directly involved in MM in the past two to five years.
- Who is the current MM-team in your city? Do they constitute enough critical mass in order to conduct the audit procedure (e.g. minimum three persons; it might be useful to invite former colleagues in MM)?
- Who else, in other city departments or outside the city administration is dealing with MM? Should you take some of them on board within the audit process, when and how?

Step 2: Choice of procedure, composition and commitment of audit group members (1,5 h to 2 h meeting)

- Organise an information meeting with your MM-team.
- Inform them about the audit plan, the MM-scope, aims, process, engagement asked for.
- Agree on the scope of audit procedure, composition of audit group (decide to limit or broaden the audit group) and get commitment of the participants at the audit process.
- Decide to either conduct a procedure according to 5.2.2 (limited to the MM-team) or a procedure according to 5.2.3 (extended to partners and other stakeholders)
- Appoint an internal auditor and define his/her tasks: invitation to meetings, moderate debates, collect more evidence whenever needed and reporting back to the audit group.
- Set up a time schedule for the whole procedure.
- Inform the senior management and MM-political responsible about your audit plan.

Step 3: Preparation first audit meeting (about two to three weeks of time between step 2 and 4)

- The internal auditor collects background information about all 12 elements regarding MM.
- He/she distributes the questionnaire forms to the audit group members (the whole MM team or a selection of people from the MM-team or the MM-team extended with some members), collects answers and makes overview of group results element by element, makes a list of all individual comments.

Step 4 : First audit meeting (approximately 2,5 h meeting)

- The internal auditor presents the group results and raises points of discussions: substantial differences between individual answers to questions, etc .

- The audit group tries to achieve a consensus score (between 0 and 5) for each element: either keep the arithmetic (group) average or reconsider an up- or down grading based on arguments of individual audit group members.
- Next to the overall score, a justification is provided: what are the current strengths and the weaknesses in MM that motivate this overall score?
- For each of the elements, also a preliminary list of possible improvement actions is set up.
- At the end of the meeting, it is decided in the group which stakeholders to involve in the next steps and why they should be involved. The selection of who and why might be based on the fact that
 - for some elements it is difficult to assess the current status because some crucial information is missing, e.g. it is not known how an important partner such as schools appreciates the city's efforts regarding MM towards pupils and parents.
 - no consensus about the quality status of some elements can be reached. More arguments and information or evidence from external partners might help in this matter, e.g. why was a certain decision made in the past?
 - brainstorming about important improvement actions started but there is uncertainty concerning feasibility. Some further contacts with current partners and new potential partners might be inspiring (consult someone from the environmental department about their aims and vision).
- First ideas are provided about the way how to involve each of them in the most efficient way (Have bilateral discussions? Have a group meeting with them?).

Step 5: Reporting and preparation of stakeholder meetings (two to three weeks in between step 4 and 6)

- The internal auditor drafts a report of the first audit meeting and sends to the audit group for feedback.
- The internal auditor makes a proposal about the stakeholder consultation with for each stakeholder a checklist containing:
 - What information exactly you want to know?
 - How you are going to collect the information: bilateral meetings, group discussions, ...
 - A time schedule and distribution of tasks: who contacts whom, when and how?

EXAMPLE In the MAX demonstration in the city of Kortrijk it was decided to contact three types of stakeholders:

- a) The school community.
Aim: to know how they appreciate the city's efforts towards pupils and parents (goals, school travel plans, communication, type of measures, etc.)
How: group discussion with a group of 10 persons representing the school community
- b) The current partners and future potential partners: a sustainability administrator from the environmental department, the police department, a representative of the regional government for public works,
Aim: get to know their current appreciation of the partnership with the MM-team, open discussion for future actions
How: bilateral face-to-face interview following a checklist
- c) The local decision makers on MM (head of transport department and alderman responsible for transport);
Aim: what is their overall vision regarding mobility management and transport; how do they appreciate the working of the MM-team, now and in the future.
How: bilateral face-to-face interview, more open interviews

Step 6: Second audit meeting (1 h meeting)

- Discussion and agreement on first draft audit report among audit group.
- Discussion and agreement on procedures for stakeholder consultation meetings.
- Agreement about task division regarding stakeholder consultations.

Step 7: Stakeholder consultation (might take 1 full month)

- The internal auditor coordinates the stakeholder consultations as agreed upon. The results of the stakeholder consultations are reported.
- The internal auditor drafts a new second draft of audit report including a proposal for refinement of the assessment scores and list of improvement actions based on the stakeholder consultations and sends it around to the audit group.

Step 8: Third audit meeting (1 h to 2 h)

- The new second draft report integrating the consultations of stakeholders is presented, discussed and approved among the audit group.
- The audit group prioritises the refined list of improvement actions - set up in the first audit meeting and further refined with the results of the stakeholder consultations - and selects a shortlist of improvement actions (three to a maximum of four actions).
- For this shortlist of actions, a more detailed planning is set up (timing, budget, roles, partners needed, etc.) and roles are distributed among the audit group members of who is elaborating which action.

Step 9: Finalising audit report and presentation of report to senior management and political responsible for MM (1 h meeting)

- The audit report is finalised by the internal auditor and approved by the audit group. It contains:
 - the overall result of the group assessment of 12 elements;
 - the justification for the ratings of the elements (in terms of strengths and weaknesses);
 - the prioritised list of possible improvement actions for each element;
 - the detailed planning about 3-4 improvement actions.
- The report is handed over and presented to the main local decision makers in MM.
- The report is communicated to the group of stakeholders consulted in step 7.

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