

Policy formulation and implementation

PORTAL
TRANSPORT TEACHING MATERIAL

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For the use of the following material:

The aim of PORTAL is to accelerate the take up of EU research results in the field of local and regional transport through the development of new education and training courses and teaching materials. The beneficiaries of the project are higher educational institutions.

Due to the size and (in some cases) the number of individual projects, it is not possible to explain each single result in detail and include it into these written materials.

The following set of material should rather act as a PORTAL and facilitate the access of single projects and detailed results by the lecturers.

Therefore the material in hand doesn't lay claim to completeness.

Since the expectations of the lecturers regarding these materials are quite diverse - the expectations run the gamut from 'providing a survey of the result of the EU-research to a specific topic' to 'providing special results of a single research-project in detail' -, the attempt has been made to make a compromise and (more or less) come up to the expectations of all user groups.

The following compendium contains results of EU research-projects and complementary results of national research-projects. PORTAL thanks the partners and collaborators of the following projects. A complete list of the projects, consortia, and cited literature is given at the end of the material.

This material of project results for the topic **“Policy Formulation and Implementation”** was compiled by Sandra HANZL, Michael MESCHIK and Gerd SAMMER (Institute for Transport Studies, University for Bodenkultur Vienna) in 2001 and adapted after a workshop with lecturers in 2002.

MAESTRO

REFLEX

TENASSESS

TRANSLAND

TRANSPRICE

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1. Introduction

1.1 Definition of Policy Formulation & Implementation

Policy Formulation stands at the top of the transport planning process. It is a strategic planning process leading to a general concept, usually a “Transport Masterplan”. Such a masterplan is a political decision. It includes a set of measures aimed at the future developments of the transport system. A consensus has to be found on which scenario or group of measures out of different scenarios and bundles of measures is apt to fulfil the intended goals in the best way. This overall concept normally is a legally-binding framework for more detailed plans and concepts for a longer period of time.

Policy Formulation is most important at higher strategic levels but has to be considered at each level of a transport planning process:

- *Strategic policies* in transport cover a larger area and include long-term strategies. These policies have to be far sighted and consequently implemented.
- *Regional and local transport policies* are applied on regions and small areas (towns, villages, etc.), following the overall principles of a general concept – however on a smaller scale.

The differences between the various levels - national, regional, local – appear in the allocation of authorities and competence and in the extent of impacts and effects.

Participation and information of all involved parties should be regarded as an important aspect to gain accepted goals and accepted policies. One problem of environmentally sound policies is that the measures to achieve transport systems heading towards sustainability are in most cases unpopular.

All transport policies should basically have common features such as:

- inclusion of all affected parties (transport operators, transport users, politicians, etc.);
- inclusion of all affected aspects (transport, modes of transport, health, environment, social policies, economics, etc.);
- approval of a majority (voters, experts, etc.);
- strategic view, logical and consistent layout and implementation over longer periods;
- possibilities to (re)adjust the policies based on feedback and evaluation, etc.

Implementation is normally regarded as a vital and often neglected phase of strategic planning. *“The implementation encloses all actions that take place during the realisation of the plans, i.e. budgeting, construction of infrastructure and the undertaking of necessary institutional changes for policy measures (TENASSESS 1999, Annex II)”*.

It is essential that implementation also comprises the analysis of social and political acceptability of measures and the sensibility of citizens, politicians, journalists and experts for objectives and programmes before, during and after implementing transport measures. Public awareness and information campaigns as well as the installation of a permanent marketing procedure may help to enhance the acceptability of transport plans or single measures.

Quality control – concerning acceptability as well as functionalism of implemented measures – provides the possibility for readjustment, improvement and reaction.

Figure 1 gives an overview on the dependencies of policy formulation and implementation and emphasises the definition of this key topic. Figure 2 exemplifies a planning process – from policy formulation to implementation – with a parallel communication and participation process.

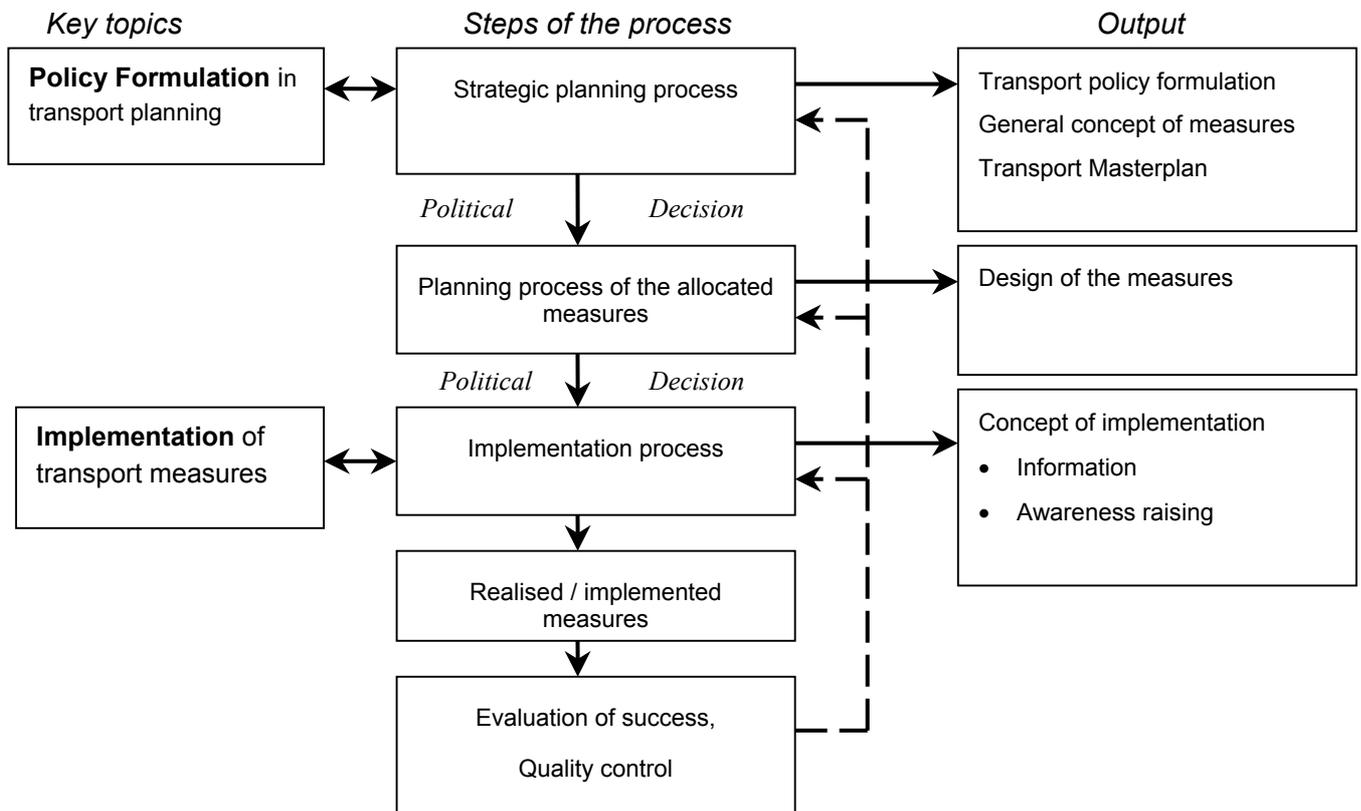


Figure 1: Overview from the strategic planning process to the implementation in local or regional transport policy (BOKU-ITS)

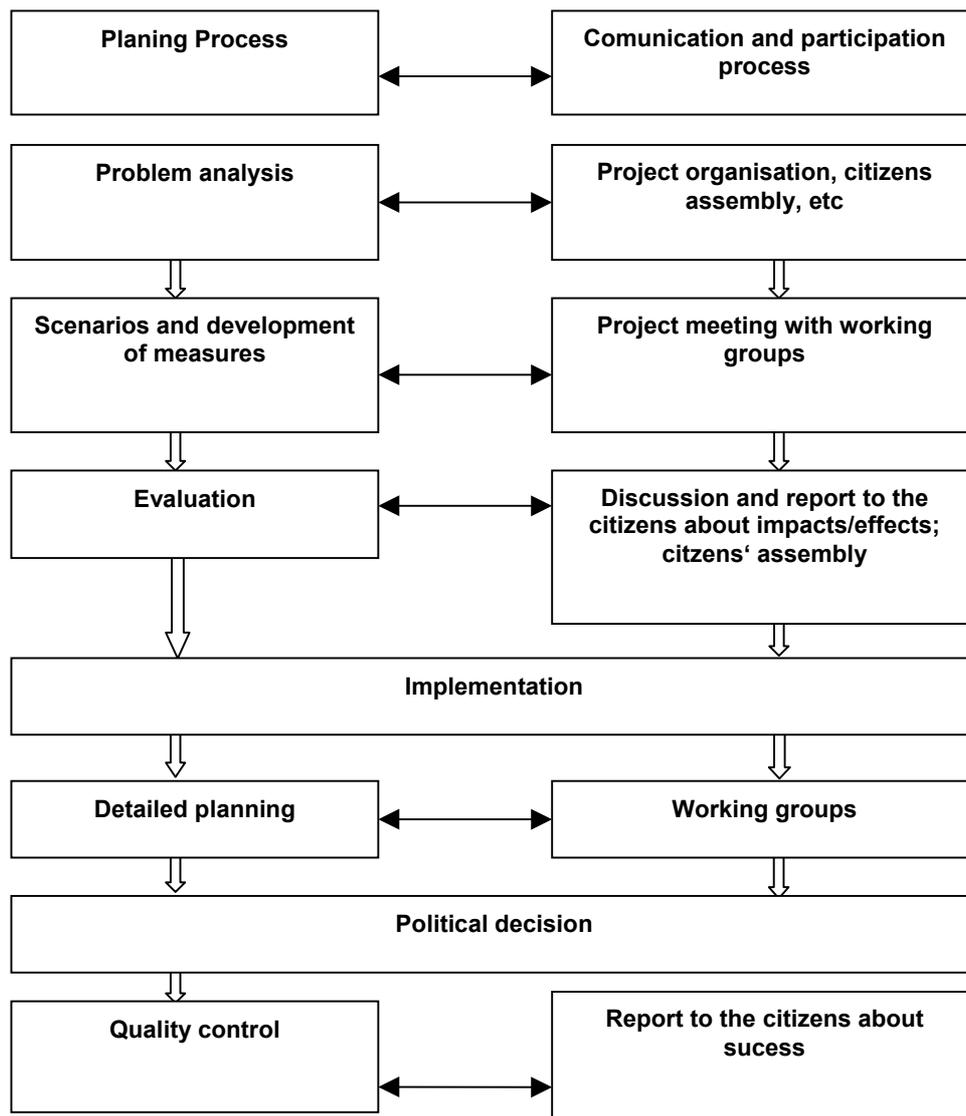


Figure 2: Example of policy formulation leading to a political decision and to implementation (SAMMER, ROESCHEL 2000)



Figure 3: Detailed planning as one part of the whole transport planning process.

The basic structures and the important ingredients of Policy Formulation and Implementation processes in transport planning are shown in figure 4.

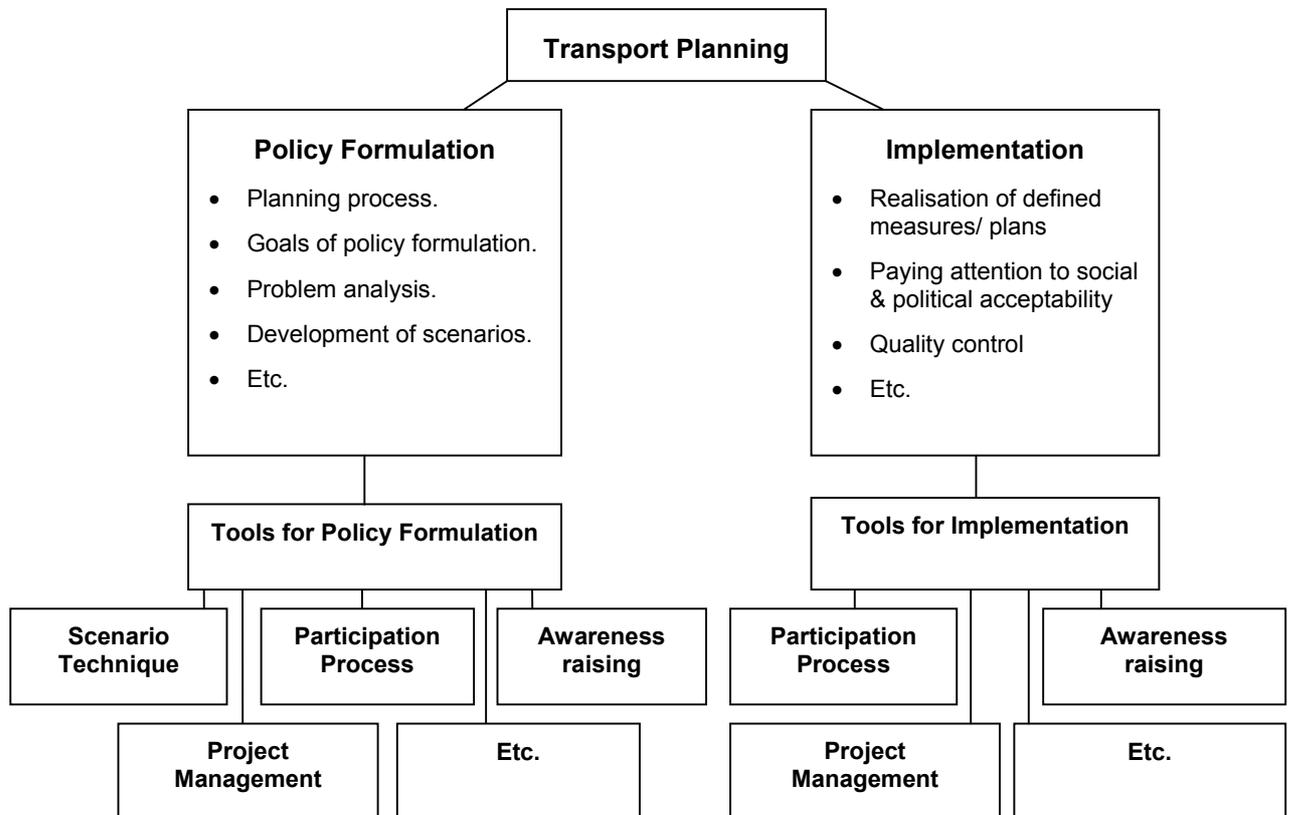


Figure 4: Structure / contents of Policy Formulation and Implementation (BOKU-ITS)

1.2 Objectives and skills

The main objective of this key topic is to show the important position of policy formulation and implementation within the planning process, their interdependencies and the importance of participation and communication during policy formulation processes as well as during the implementation phase.

The students should gain basic knowledge of:

- the steps of policy formulation and implementation processes embedded in the planning processes on basis of structured charts, practical and concrete examples;
- the importance of formulating strategies and goals in transport policies;
- tools and instruments in the planning process;
- different measures in transport policies apt to influence the transport situation and traffic behaviour;

- participation processes in transport planning (policies) and awareness raising;
- scenario technique and the importance of prognoses;
- project management and evaluation of the grade of achievement of the goals.

1.3 Challenges

Policies to reach defined aims are well known and documented – the main problem is their implementation – not in terms of building a road or enacting a new law – but to convince the involved parties, mainly the citizens, and to gain their awareness and acceptance. To define accepted goals which comprise accepted measures is the main challenge politicians and planners are facing. The focus of this studying material is therefore on planning, sociological, political and organisational issues. Awareness raising plays an important role, too. Technical, financial, legal and regulatory subjects are dealt with casually.

1.4 Link with EU policies

The White Paper of the European Union on European transport policy (COMMISSION OF THE EUROPEAN COMMUNITIES 2001) forms the framework for transport policies in the member states. It is based on a long-term strategy with the overall target of developing a sustainable transport system - an ambitious objective considering the growing problems in transport, like worsening congestion, damage to the environment, isolation of some regions, etc. caused by the increasing demand for motorised mobility.

Such a long-term strategy takes time and the aid of numerous measures and policy instruments. The White paper gives a proposal about 60 specific measures which should be implemented by 2010 to redirect the common transport policy towards meeting the need for sustainable development.

The analysis in the White paper stresses:

- the risk of congestion on the major arteries and regional imbalance,
- the conditions for shifting the balance between modes,
- the priority to be given to clearing bottlenecks,
- the new place given to users, at the heart of the transport policy,
- the need to manage the effects of transport globalisation.

The focus thereby is not only on transport policies – an integrated approach taking into account consistent measures in the context of other policies like economic, urban and land-use planning, social and education, budget and fiscal policies is more promising – provided the member states decide to accept the need of change and do not stick to the status quo.

The choice for a sustainable development will require the adoption of pro-active measures, some of them difficult to accept, as well as the implementation of new forms of regulation to channel future demand for motorised mobility. This course, the EU is pursuing, has to be continued by the member states, from the national to the local authority, being aware of the challenge and responsibility they are facing for the future development in Europe.

Beside the White Paper, which mostly intends to give recommendations and directions, the EU-project TENASSESS (1999) provides a good insight into transport policy in Europe.

1.5 Description – summary of the contents

Policy Formulation and Implementation are both central parts of the strategic planning process. Whereas policy formulation stands at the top and builds up the framework, implementation is a direct consequence of the decisions so to speak of the output of policy formulation.

Several tools exist for both parts which assist in achieving their goals and which support the forthcoming and success of the process. Scenario technique is the vital one for policy formulation, control of success the one which provides the necessary quality of implementation. Both share the tools participation, awareness raising & public relations and project management. Project management ensures a consistent course of events, whereas participation and awareness raising target at the overcoming of political and especially social barriers and at guaranteeing success of transport projects, plans, implemented measures, etc. under the aspect of acceptance.

The structure of the studying material follows this approach. Policy formulation and implementation as the cornerstones are described and explained particularly, the three mutual tools (participation, awareness raising & public relations and project management) are dealt with in individual chapters each. Each chapter can be used as a module and can be supplemented by the others.

2. Policy Formulation

Policy formulation in the field of transport planning is a process to:

- develop,
- discuss and
- settle

the strategy and goals of a transport policy. It therefore:

- is one of the most important parts of the planning process;
- reflects the system of values the society has towards the status of transport, environment, etc.;
- is a precondition for the evaluation of transport measures and transport investment.

Strategic planning is imperative to upper levels of transport policy where guidelines for lower planning levels are given. Yet it should be considered at all levels of the planning hierarchy, at regional, local and urban transport policy. Strategic transport policy includes general ideas and principles and is therefore easily based on a consensus. It should, however, include goals which are to be met in the future as well as a set of measures to achieve these goals. Further, it should comprise indicators at which the level of achievement can be measured. The more concrete (and smaller) the planning area gets, the more detailed will the transport policies become, and in the end strategic guidelines will lead into concrete and detailed measures - this is the local level where the policies mutate to implementation.

The future development of the benefits and of the impacts of transport have to be estimated under the given environmental restrictions as well at local levels and at global level (e.g. the Kyoto protocol). It is important to develop different scenarios of possible future developments. The desirable scenarios are usually those that show distinct improvements compared with the trend scenario, which is also known as “BAU”-scenario (business as usual) (figure 5).

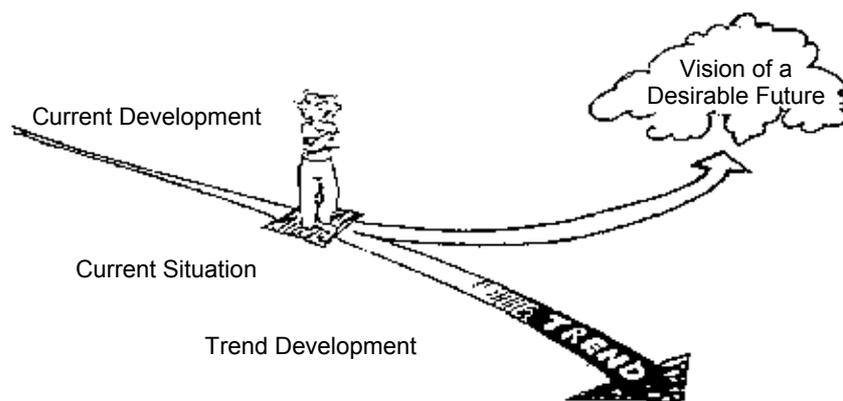


Figure 5: Future development dependent on present transport policy formulation.

Source: Drawing Dietiker, looser 1985

How can Policy Formulation be presented to the public?

Future transport scenarios can be complex models, which are not easily comprehensible to the public. It is therefore essential to break the structure down into smaller parts, which are easier understandable, and to present the main contents to the public:

- Model (Leitbild) of the transport policy for a city, community, region, etc;
- Strategic goals of transport policy;
- Hierarchical system of goals of transport policy;
- Quantitative goals, e.g. the target of changes in the modal split for a reference year;
- Recommendations for transport policy;
- Etc.

Detailed strategic goals and policies for different transport sectors are listed in MAESTRO (1999, Guidelines, Annex A – Annex G).

Institutionalised levels of authorities

The political, legal and institutional conditions form the framework for transport policies respectively policy formulation (and implementation). The different levels of authorities – at international, national, regional and local level (table 1) – represent a hierarchy, which has to fulfil the requirements of co-ordination and interaction (TRANSLAND 1999).

- International (EU) – White Book on European Transport Policy.
- National – National Transport Plans.
- Regional – Transport Plan of a Federal State.
- Local – Plan for regional development (comprising transport issues).

Table 1: Policy formulation at different institutionalised levels of authorities

Tools for policy formulation

The following tools are vital for the process of policy formulation (and also in implementation, see chapters further below):

- Scenario technique
- Participation of stakeholders of transport policy
- Information and awareness raising
- Project management

Policy Formulation and the transport planning process

Different modules have to be worked out before a transport policy can be evolved (figure 6).

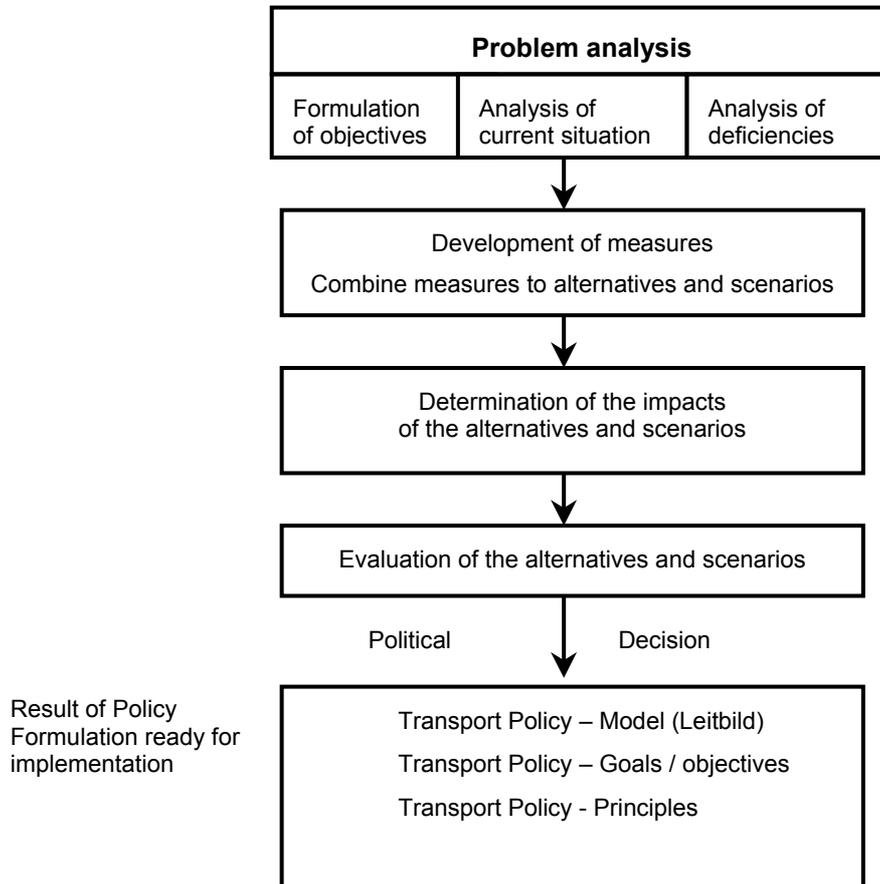


Figure 6: The process of policy formulation in the transport planning process (BOKU-ITS; adapted from RVS 2.1, 1984)

The steps of this process are described in the following chapters. Some tools which are essential for the process of policy formulation are included in chapters of their own (see “participation” and “awareness raising and public relations” respectively). See also MAESTRO-Methodology (MAESTRO 1999) and methodological recommendations of FATIMA (1999).

2.1 Problem analysis

The problem analysis stands at the beginning of most planning processes. The results form the basis for all following steps. The main parts of the problem analysis are the:

- formulation of objectives and goals
- analysis of the current situation
- analysis of deficiencies

Figure 7 gives an overview on these three parts. The details are described below.

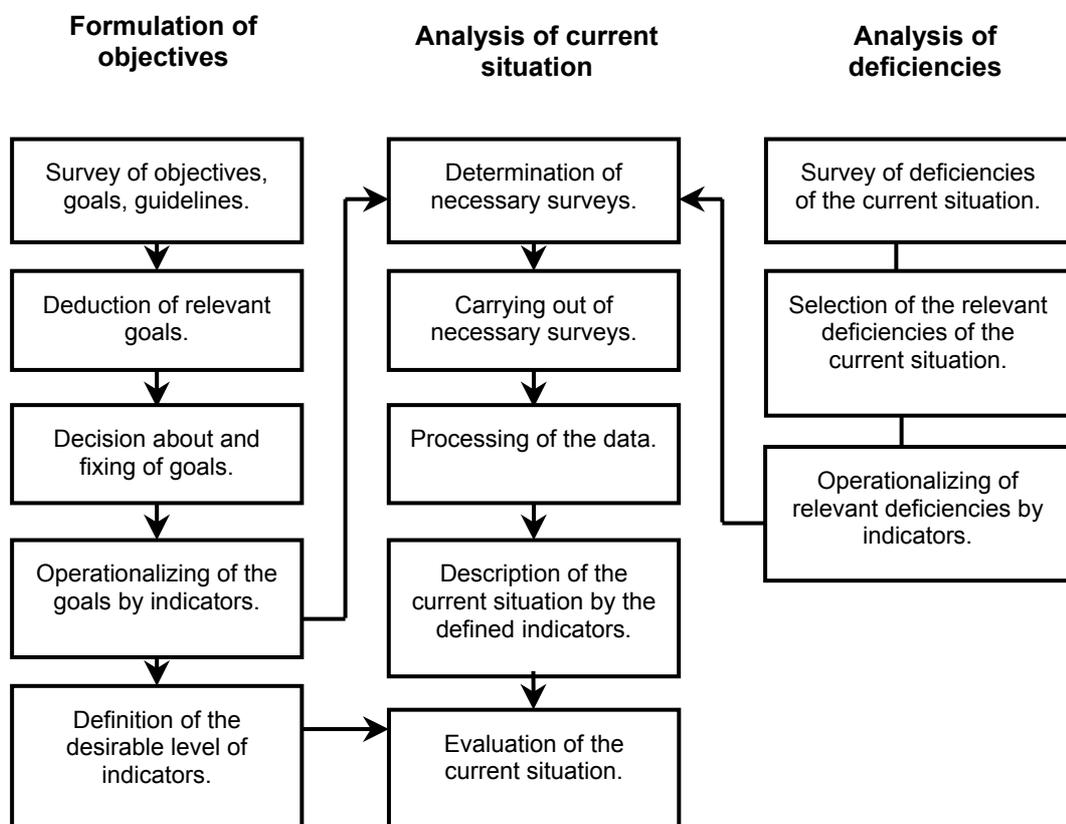


Figure 7: Flow chart of the problem analysis (BOKU-ITS; adapted from RVS 2.1, 1984)

Objectives and Goals

Goals and objectives can be seen from different points of view, depending on the stakeholders. Main goals of a transport policy might be (some examples):

- Sustainable development of traffic;
- Handling of traffic in a socially and environmentally friendly way;
- Good accessibility for all users of all modes;
- City of short distances;
- Participation of citizens in all planning processes;
- Etc.

In an environmentally friendly scenario four sets of goals (principles) could be set up (table 2):

To avoid	To shift	To improve	To support
Unnecessary traffic→Slowing down the increase in motorised traffic.	Necessary traffic to other modes with comparative small negative effects (concerning passenger and freight transport).	Conditions for all modes of traffic. Accessibility Supply for sustainable modes. Road safety.	Sustainable modes like cycling and walking. Reasonable mobility.

Table 2: Goals in an environmentally friendly scenario (BOKU-ITS)

Some examples of goals and their respective indicators are included in the following table 3, representing operators, users and the general public as stakeholders in a transport planning process (extracted and summarized from MAESTRO, 1999).

Stakeholders	Goals	Indicators
Operators	Minimal expenses.	Capital costs, operating costs.
	Maximum revenues.	Transportation fees, taxes/tolls.
Users	Minimal travel time.	Travel time.
	Minimal travel costs.	Travel costs.
	High quality of traffic supply.	Level of service, travel comfort, frequency of service.
	Maximum road safety.	Accident rate, costs, accident density.
General Public	Minimal environmental damage.	Threshold values of emissions of noise and pollutants (→ Effects on climate, water, soil, people).
		Number of persons harmed by emissions of noise and pollutants.
		Demand of area.
	Optimal regional planning.	Accessibility – Distance to the centre, bus stop, etc. for all modes. Effects on population structure (e.g. number of persons past 60).
	Minimal economic costs of all impacts	Total economic costs.

Table 3: Goals, objectives and indicators from the stakeholders' point of view (BOKU-ITS; extracted and summarized from MAESTRO, 1999)

A detailed list of goals, objectives and indicators can be found in the EU-project MAESTRO (1999, Guidelines).

Deficiencies

A current situation can be characterised by comparison with standard values. It is useful when goals have been laid down in an earlier stage. By the extent of fulfilment of the agreed goals – measured by indicators – deficiencies as well as levels of fulfilment can be determined. Table 4 shows an example of such a catalogue of possible deficiencies.

Goal	Example of a deficiency
Traffic supply for pedestrians.	Missing crossing aids.
Traffic supply for cyclists.	Dangerous junctions.
Traffic supply for Public Transport.	Insufficient bus schedule.
Traffic supply for private vehicle traffic.	Congestion.
Road safety.	High risk sites.
Emission of exhaust gases.	Heavy pollution on main roads.
Immission of noise.	Exceeding of the threshold value of noise in residential areas.

Table 4: Possible deficiencies of a current situation (BOKU-ITS)



Figure 8: Does this picture show any obvious deficiencies?

Indicators

Indicators are being used to quantify the status of a project or the progress / failure in accordance with a set time-schedule (see also “Implementation”).

Definition: An indicator describes the quantitative or qualitative impact of the current transport situation and of transport measures. It can be used to describe the strength of deficiencies of the current situation and the performance of measures towards desirable goals etc. It should therefore have a unit to allow comparisons on an agreed level ([cars/h], concentration/m³, [numbers/km], etc.).

Application: An indicator can be used to describe the strength of deficiencies of the current situation and the performance of measures towards desirable goals etc.

Examples of indicators and possible units shows table 5:

Indicator	Unit
Traffic volume for different modes	[Trips/24h]
Modal Split	Modal choice [%]
Traffic volume	[Cars/24h]
Accessibility of the city centre for all modes	[m or min]
Road safety for private vehicle traffic, pedestrians and cyclists	Accident rate
Demand of area for parking lots	[m ²]
Noise nuisance	[numbers of people affected by dB (A)]
Exhaust gas load	[t/d]

Table 5: Examples of indicators (BOKU-ITS)

The EU-project SESAME (1998) provides a selection of relevant indicators of transport, traffic, land use and relevant externalities for transport and land use planning.

2.2 Measures

Measures are the modules of transport (master)plans. They represent the goals and their success can be measured by indicators which were both fixed in a previous step of the policy formulation. Note that the goals that should be achieved have to be chosen before the measures are developed. Measures can be small or big, individual or global. Measures in transport can be structured in different groups.

- Transport infrastructure (hardware)
- Organisational transport measures (software)
- Information and awareness raising
- Accompanying measures outside the transport field

Table 6 gives an overview on groups of transport measures, which can be arranged to bundles of measures mutually to correspond with the chosen scenarios.

Transport infrastructure (Hardware)	Organisational transport measures (Software)	Information and Awareness raising	Accompanying measures outside the fields of transports
Development of: Footpath network Bicycle network PT-network Road network Parking facilities etc.	Access restrictions Mobility management Traffic calming Speed limits Parking space management Pricing policies (road pricing, fuel tax, vehicle tax, impact fees, parking charges)	Individual marketing to change travel behaviour Information and Awareness campaigns Mobility events Public relations	Environmental protection measures Land-use measures Urban development

Table 6: Overview on transport measures (examples) (BOKU-ITS; extracted and summarized from MAESTRO, 1999)

The EU-project MAESTRO (1999, Guidelines) provides a list of measures distinguished to the different transport sectors (e.g. road sector, urban transport sector, etc.).



Figure 9: Transport infrastructure: Public Transport

2.3 Scenarios and alternatives

Some EU-projects, which initially have not been allocated to this field of research, deal with the development of scenarios (POSSUM 1998 and SCENARIOS 1998). In the EU-project ASTRA (2000) the developed strategic policy assessment has been tested by means of different scenarios for analysing the long term impacts of European policy decisions. REFLEX (1999) and TRANSPRICE (2000) use different policy packages for detailed comparisons of options and for impact assessment.

This chapter describes the combining of measures to form scenarios, the main features of scenarios and their use within the process of policy formulation.

From measures to scenarios

The developing of scenarios is included in most traffic projects and should definitely be part of the policy formulation process. The goals included in a scenario are normally represented by a bundle of measures. Accordingly the latter have to be set up before the scenarios can be chosen (figure 10).

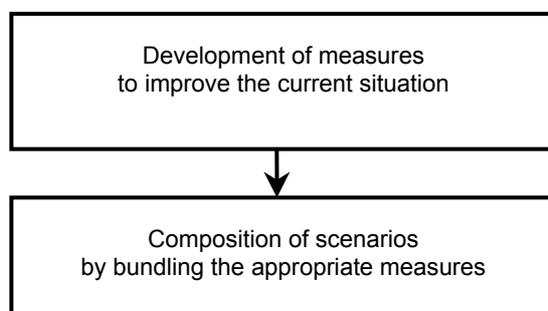


Figure 10: Development of scenarios and alternatives (general structure) (BOKU-ITS)

Scenarios are a helpful tool to show and predict (future) results of alternative developments in traffic. Usually the comparison is made at present time, depending on data availability, and in the future, which includes also prognostic tools. The trend scenario (BAU) and the future developments of this scenario must be included to allow serious comparisons. Out of numerous possibilities, some extreme scenarios are chosen so that the characteristics of possible future developments evolve and can be seen clearly by all parties involved in the policy formulation process. Instead of scenarios also “alternatives” or (bundles of) “measures” can be addressed. Comparisons between different scenarios help to fix goals for the future (figure 11).

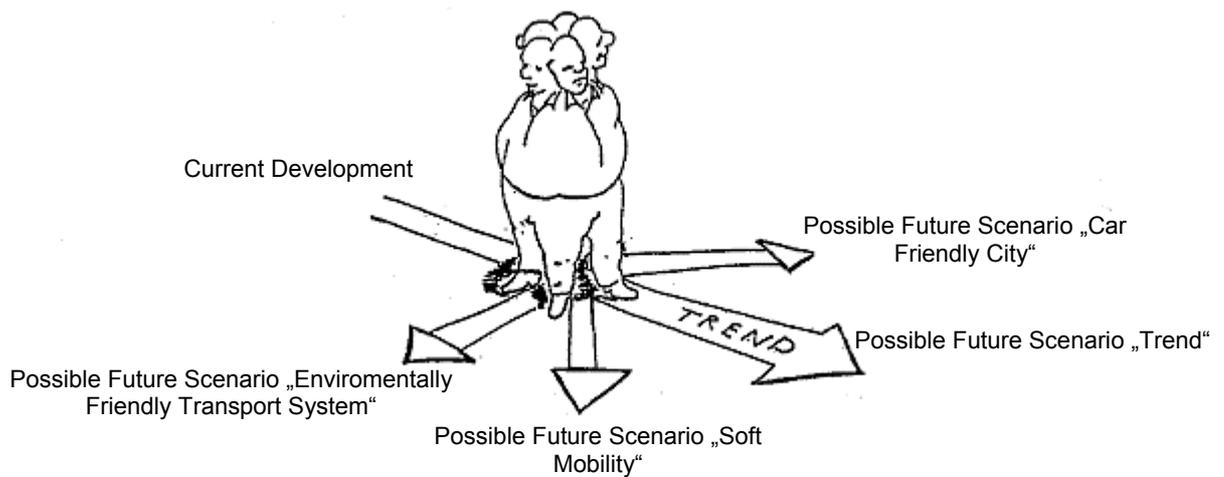


Figure 11: Different scenarios characterise different possibilities of future developments (SAMMER, ROESCHEL 1995).

Important:

One important aspect that must be addressed is that the future development in transport can be influenced. For example the prognoses of increasing traffic volumes in the future are often based on assumptions of “business us usual”- strategies, which normally is a “motorised-traffic-friendly” transport policy. The trend scenario can be changed into a different scenario when suitable measures are implemented consequently. There are numerous examples where consistent strategies led to more environmentally friendly inner-city traffic. Otherwise big differences in the modal split of European cities cannot be explained.

How to use scenarios

Using scenarios means that certain steps have to be made before the result can be found. Figure 12 is a flow chart of the needed steps when applying the scenario technique.

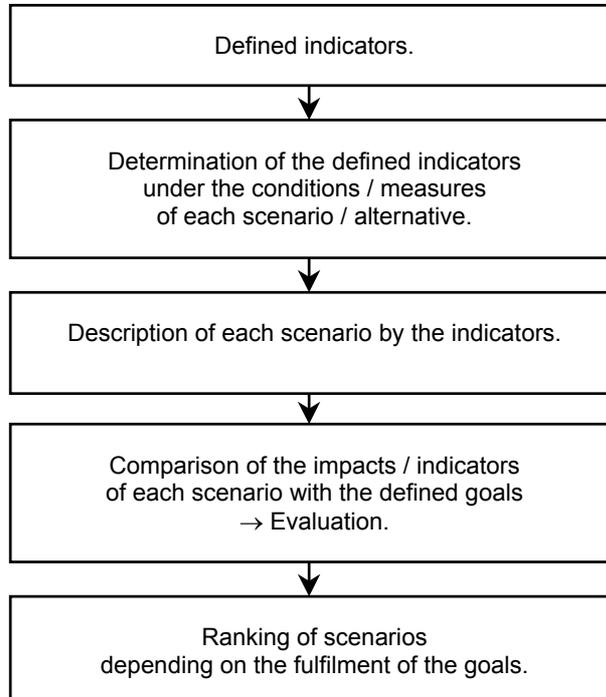


Figure 12: Alternatives and scenarios – determination and evaluation of the impacts (BOKU-ITS; adapted from RVS 2.1; 1984)

Grouping of measures leads to scenarios. For each scenario the measures will show effects which are described by the indicators of each measure. The evaluation is made by summing up all the effects of each scenario. The last step is the ranking of the scenarios. This ranking is made according to the intended outcomes. Scenarios are not only applied to evolve a transport plan but also to specific steps of the planning process, for example to compare single measures or policy packages (EU-projects REFLEX 1999 and TRANSPRICE 2000).

Contents of scenarios

Different effects of traffic are compared in the scenarios. The individual focus of a planning process determines the set of measures and indicators to be used in the scenarios. Transport policies which normally result in a transport masterplan must include all the basic characteristics of traffic and the resulting effects. By means of selected indicators the estimated effects for each scenario can be assessed (table 7):

<ul style="list-style-type: none">• Volume of vehicle traffic.• Modal split.• Vehicle kilometres.• Exhaust gas emissions.• Carbon dioxide emission.• Road safety.	<ul style="list-style-type: none">• Noise nuisance.• Demand of area.• Capital costs for infrastructure.• Operating costs for transport companies.• Economic development.• Regional development.
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Table 7: Effects of traffic dealt with in the different scenarios (SAMMER, ROESCHEL 1995)

Determination of the impacts

With the help of the indicators, which were defined at the beginning of the policy formulation process, each scenario can be described.

The impacts of each indicator in each scenario are determined and documented (shown in a matrix, with figures, etc.). In the next step the respective impacts of all the evaluated indicators can be summarised in an evaluation of each scenario. In the final step the comparison of the resulting effects of each scenario leads to the final evaluation: a ranking of the scenarios .

Evaluation tools

Different assessment tools have been developed for the evaluation of the scenarios or alternatives. Some examples of the most important are:

- CBA – Cost Benefit Analysis
- CEA – Cost Effectiveness Analysis
- MCA – Multicriteria Analysis
- SIA – Strategic Environmental Impact Assessment
- EIA – Environmental Impact Assessment
- Etc.

SIA and EIA can be included in policy formulation processes. They are evaluation procedures focused on environmental impacts and they use different evaluation tools on their own, also including CBA, CEA, MCA etc..

MAESTRO (1999) gives an overview on these conventional evaluation tools. A new impact assessment tool was designed in TENASSESS (1999).

Examples of efficiency

The assumption that efficient transport measures are less accepted by the public than non-efficient policies has been confirmed by the EU-project REFLEX (1999). The fuel savings of energy consumption reducing packages have been evaluated first (figure 14) and have been compared with the attitudes of the stakeholders afterwards. Figure 13 show this correlation of efficiency and acceptability.

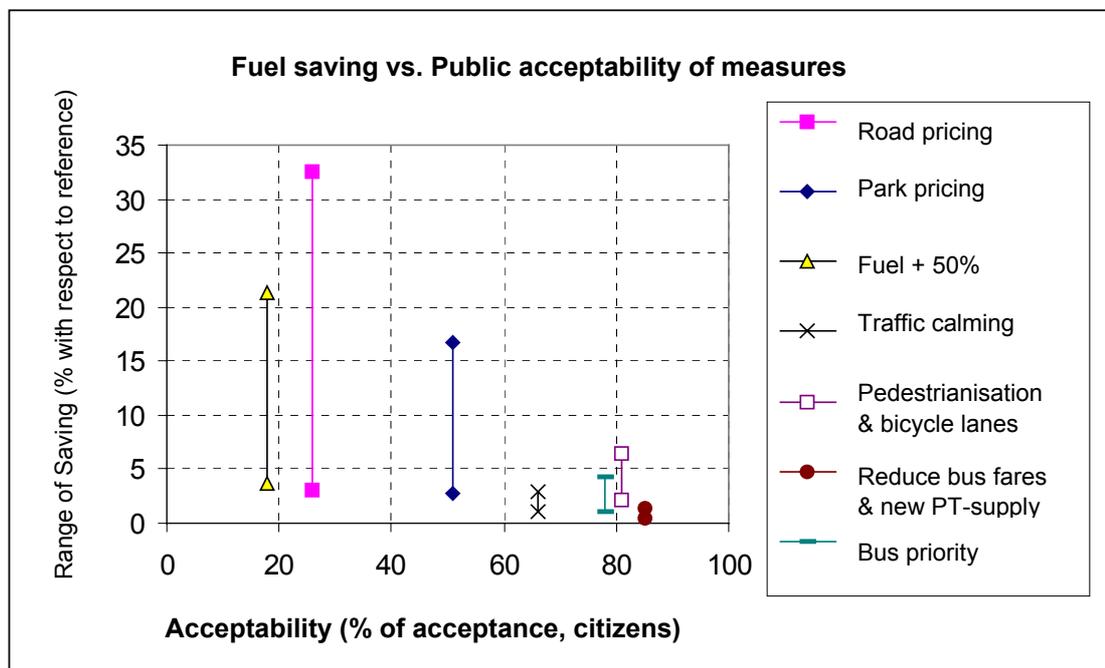


Figure 13: Acceptability vs. efficiency of fuel saving measures (EU-project: REFLEX 1999)

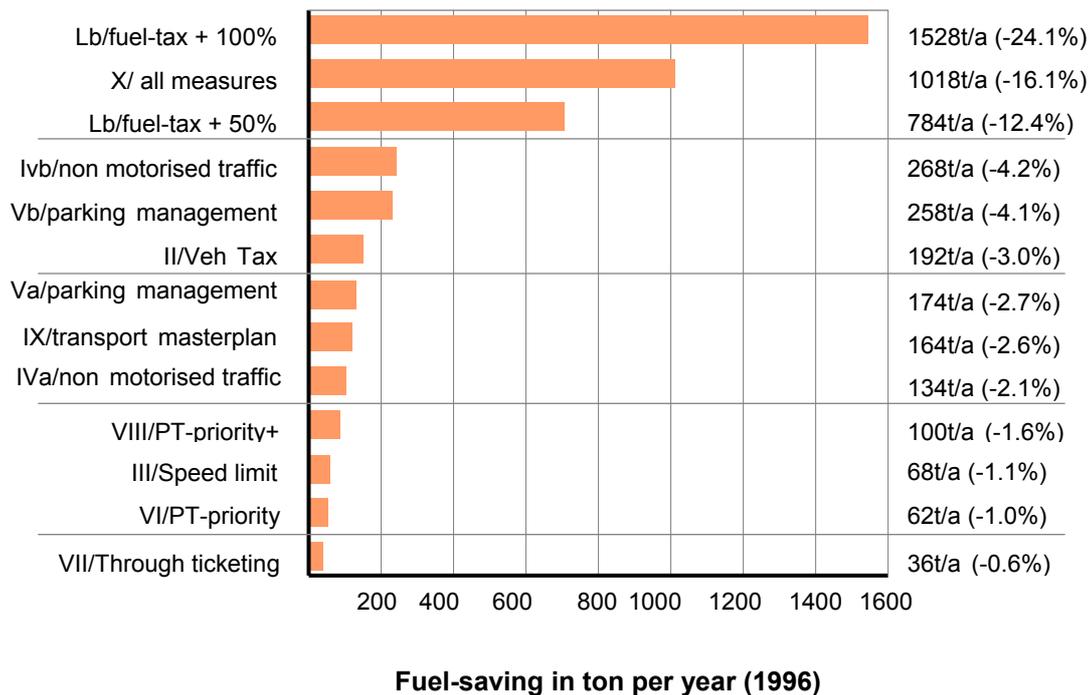


Figure 14: Fuel savings of the ER (energy consumption reducing) packages – different scenarios for Wr. Neustadt/Austria (EU-project REFLEX 1999)

Examples

The following examples are taken from a practical project (the planning process for the city of Salzburg in Austria) to demonstrate contents and outcomes of the scenario technique. Table 8 shows different scenarios which have been developed for the city of Salzburg (SAMMER, ROESCHEL 1995).

Scenario	Characteristics
“Trend”	Tolerance of the increasing car traffic (+21%)
“Soft mobility”	Promotion of cyclists (+26%), pedestrians (+12%) and PT (+24%), some restrictions for car traffic (-2%)
“Car friendly city”	Extreme promotion of car traffic (+26%), massive expansion of road networks (PT -26%)
“Environmentally friendly transport system”	Extreme Promotion of non-motorised traffic and PT (+38%), strong restrictions for car traffic (-17%)
“Equally supporting all modes”	Promotion of all modes (Car traffic +15%, PT +3%)

(All figures are the differences in the numbers of trips of the respective modes in the particular scenarios in 2010 compared with the figures of 1994.)

Table 8: Different scenarios for the city of Salzburg and their main characteristics and consequences (SAMMER, ROESCHEL 1995)



*Figure 15: Scenario “Soft Mobility”:
Promotion of cyclists*

The trend scenario - when nothing is done – will result in the developments shown in table 9.

Increasing car ownership rate (+21%);
Rising numbers of resident population (+5%);
Rising vehicle numbers (+27%);
Rising number of commuters (+50% from 1971 to 1991 → continuing trend)
Increasing traffic volumes [Cars/24h] (up to 170% at access roads, up to 74% at motorways))
Changing Modal Split for the benefit of private car traffic (motorised vehicles +21%, PT -3%, cyclists +2%, pedestrians +4%).

Table 9: Developments in the trend-scenario for the city of Salzburg (SAMMER, ROESCHEL 1995)

The following figures show more details of the effects of the different scenarios and comparisons between the different scenarios. It can be seen that the trend scenario leads to substantial environmental impacts which can be partially avoided by favouring environmentally friendly transport modes (figure 16 to figure 19). The city of Salzburg has decided to implement a kind of Soft Mobility Scenario with improvements for cyclists. This resulted in an increase of bicycle-trips to 19% in the today’s modal split of Salzburg (figure 16).

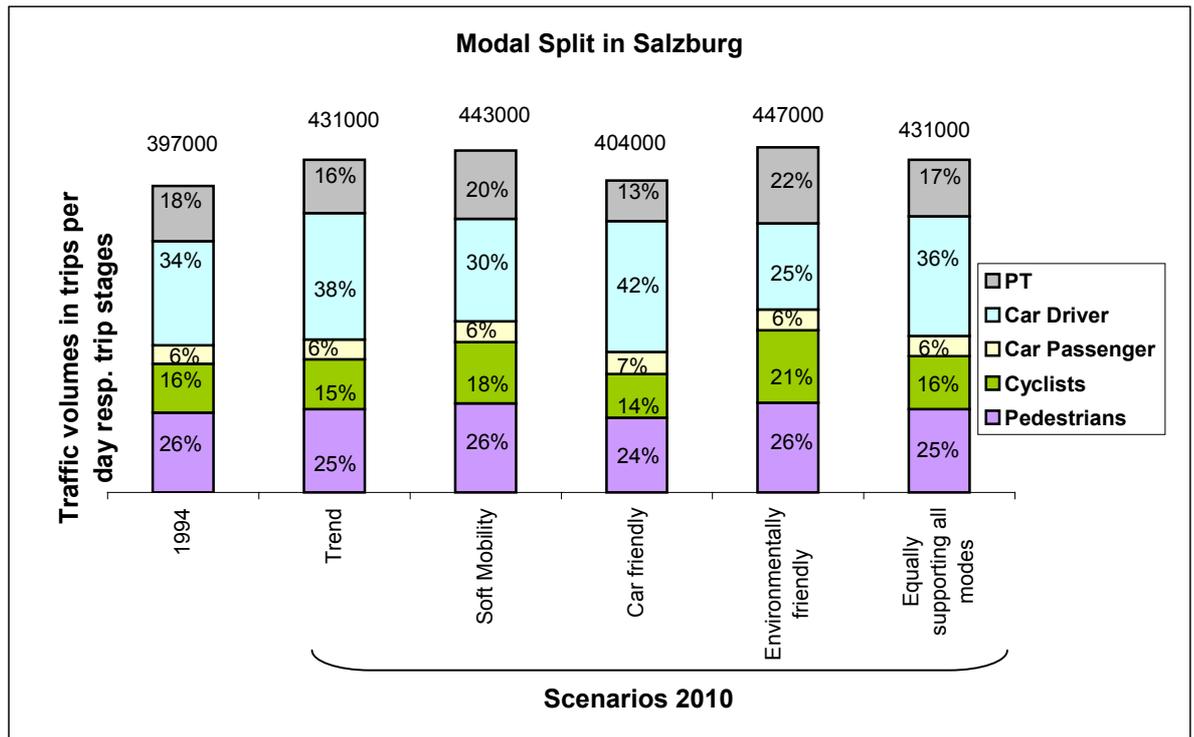


Figure 16: Modal split - developments in the different scenarios for the city of Salzburg (SAMMER, ROESCHEL 1995)

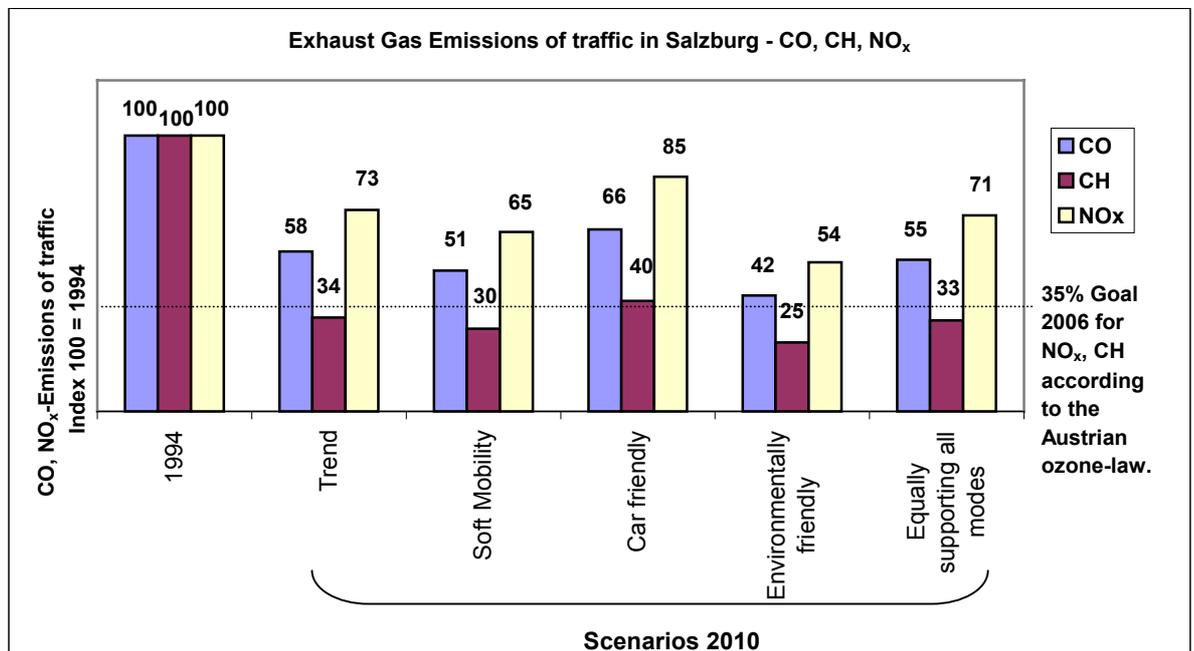


Figure 17: Exhaust gas emissions - development in the different scenarios for the city of Salzburg (SAMMER, ROESCHEL 1995)

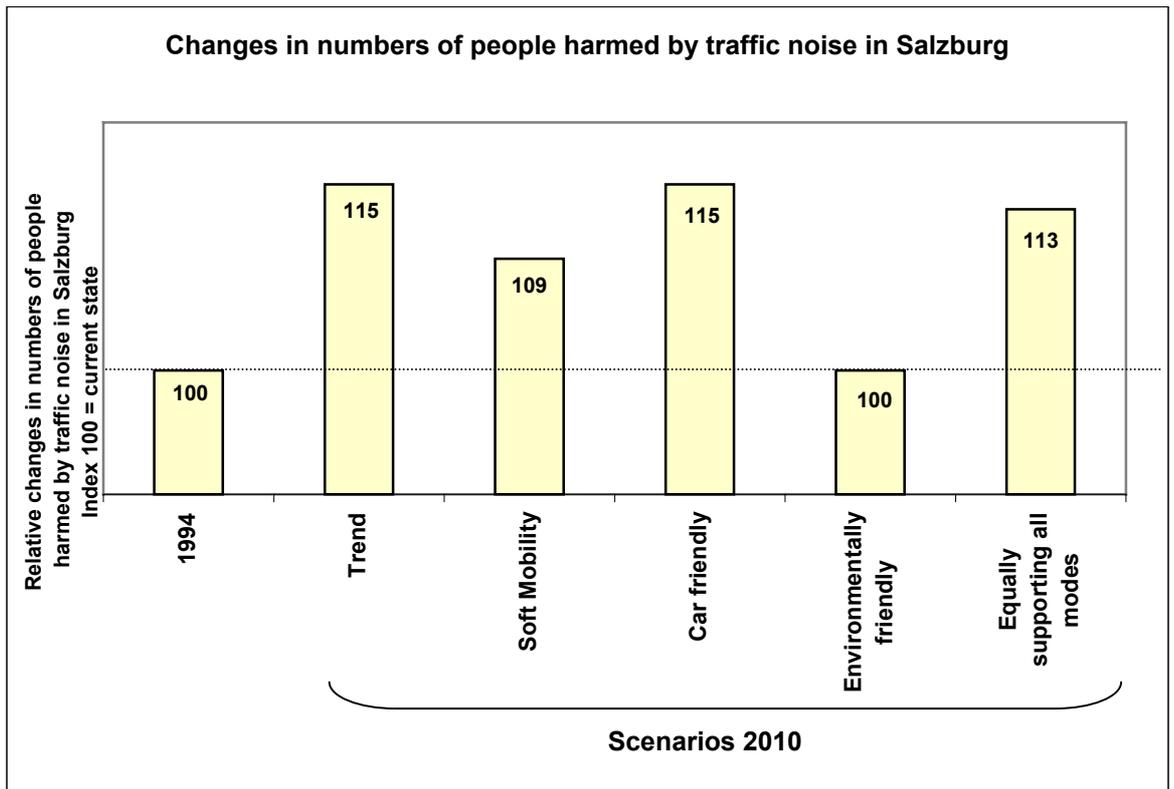


Figure 18: Noise nuisance - development in the different scenarios for the city of Salzburg (SAMMER, ROESCHEL 1995)

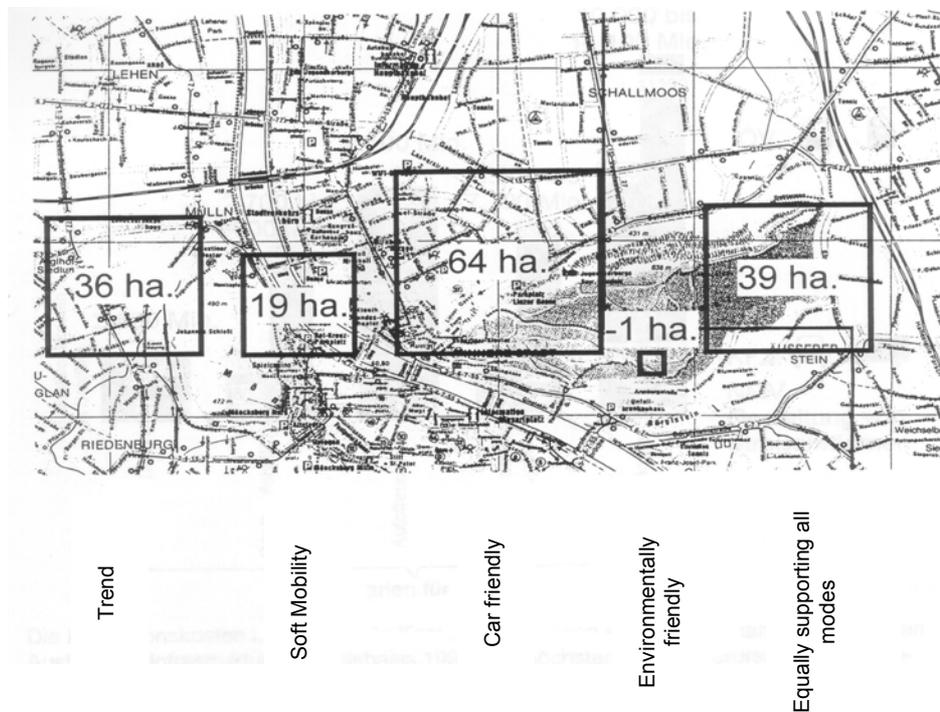


Figure 19: Demand of areas for traffic infrastructure (1 ha = 10 000 m²) - development in the different scenarios for the city of Salzburg (SAMMER, ROESCHEL 1995)

Table 10 shows the effects of the different scenarios for Salzburg on the economic development of the city.

	Trend	Soft Mobility	Car friendly city	Environmentally friendly transport	Equally supporting all modes
Accessibility of the city centre with all modes	-	+	-	+	0
Strengthening of the shops in the city centre	-	+	-	++	0
Strengthening of urban tourism	-	+	--	++	0
Exodus of companies from town	+	-	+	-	0
Car oriented shopping centres out of town	+	-	++	--	+

Changing effect: ++ strongly increasing, + increasing, 0 neutral, - decreasing, -- strongly decreasing

Table 10: Economic development due to different scenarios for the city of Salzburg (SAMMER, ROESCHEL 1995)

3. Implementation

The implementation is the final stage of the planning process; actually it is the operational phase, where the plans/projects are realised. The political decisions legitimise this realisation of defined transport masterplans/ concepts/ measures, budgeting, construction of infrastructure, institutional changes, etc. During that phase quality control has to be granted to provide an opportunity of making necessary adjustments.

Implementation is a key problem of today's transport policy, as we have numerous success-promising instruments leading towards a sustainable transport development, but we have a great deficiency of their implementation.

The instruments and tools for implementation are similar to the instruments in the policy formulation process. The emphasis, however lies on:

- Project management
- Participation
- Public relations and awareness raising

All three are also essential for the process of policy formulation and are dealt with in individual chapters.

The best transport masterplan can be useless when it cannot be put into practice. Some of the most common reasons for the failure of an implementation process are:

- Insufficient awareness of the problem among decision makers;
- Insufficient persuasive power of traffic experts;
- Too little acceptance by authorities and the public;
- No awareness of the problems among media representatives;
- Gap between attitudes and real behaviour of transport users (attitudes are dominated by social values, personal behaviour is dominated by personal interests);
- Lack of acceptance for unpopular, but necessary measures/ transport policies for an environmentally friendly and sustainable transport development.

The following chapters give hints how to circumvent these obstacles.

3.1 The process of implementation

The political decision to implement a transport masterplan or a similar guideline stands at the beginning of the implementation. The individual steps are shown in figure 20.

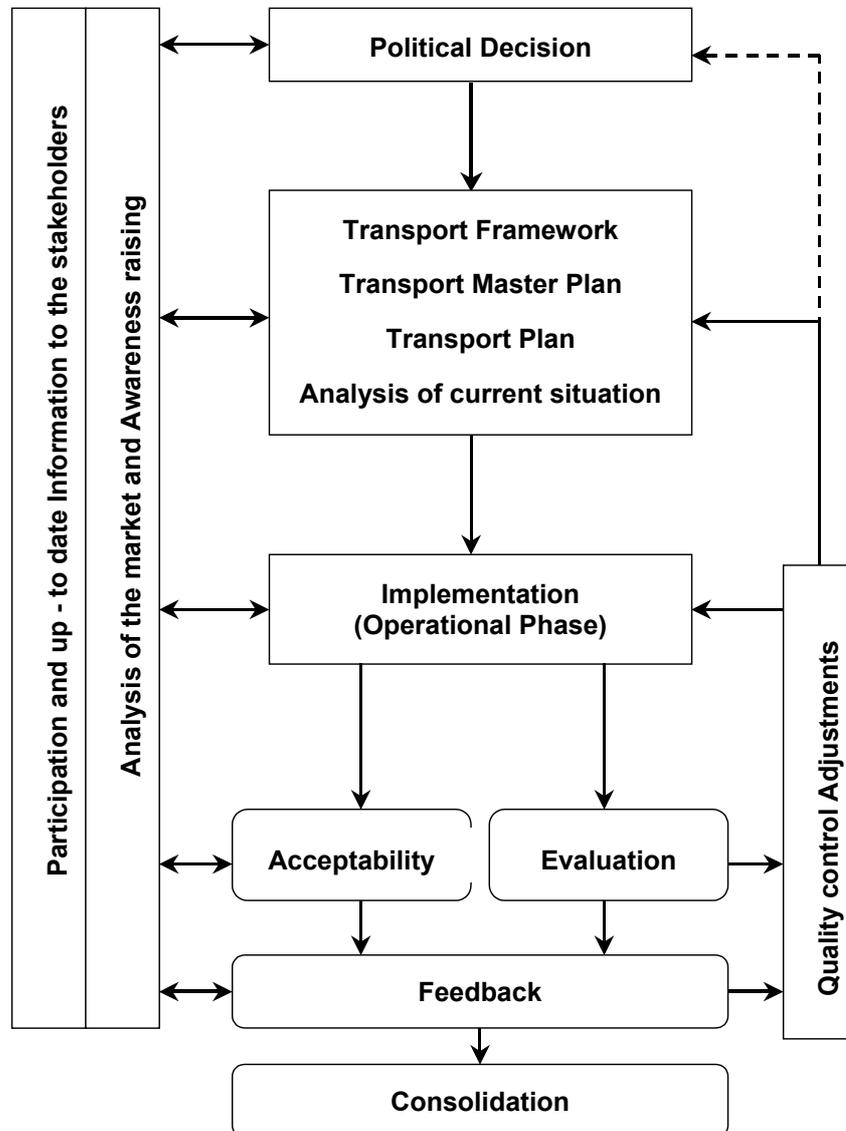


Figure 20: Individual steps in the flow of an implementation process (BOKU-ITS)

Participation, the flow of information and awareness raising play an essential role assuring the acceptability by the citizens and simultaneously enhancing the effectiveness of the project. An example of an implementation process shows figure 21.

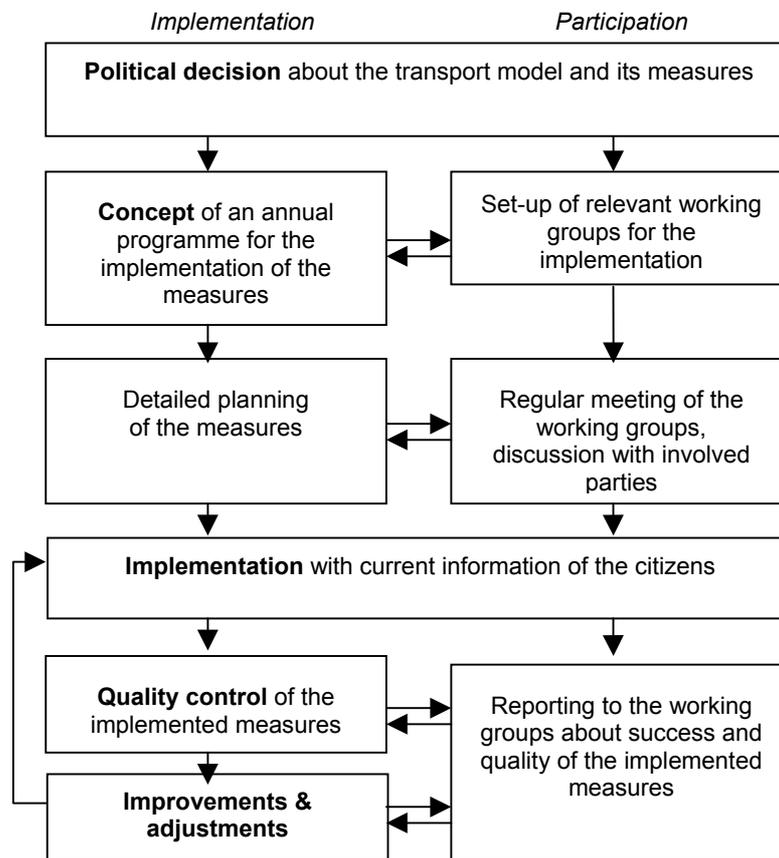


Figure 21: Structure of the implementation process of a transport masterplan (SAMMER, ROESCHEL 2000)

3.2 Measures

Individual measures are used in the implementation process after being chosen during the policy formulation phase (see chapter 2.2). Examples of different grouped measures are shown in the following tables 11 and 12.

Groups of measures/ instruments of transport policy				
Fiscal instruments	Educational instruments	Infrastructure instruments	Regulatory instruments	Instruments with a change in legal framework
Road Pricing	Public Awareness Raising	Improvement of PT-infrastructure	Regulations for noise and pollutant emissions	Ecopoint system for freight transport
Parking Management	Mobility Management	Extension of rail infrastructure	Reduction of the number of parking lots	Integration of environmental oriented transport and land use planning
Ecotax-Reform	Public Participation	Promotion of research	Etc.	Etc.
Etc.	Etc.	Etc.		

Table 11: Examples of measures/ instruments of transport policy from the OECD Project “EST” – Final report for Phase 3 – Austria (E-S-T – OECD PROJECT 1999).

Groups of measures/ instruments of transport policy				
Investment & Services	Planning	Information & Informal Policies	Regulation	Pricing
Transport infrastructure network	Improvement of the PT network	Information & awareness campaigns	Access restrictions for motorised traffic	Subsidies
Co-ordination of different transport modes	Combination of environment friendly transport modes	Mobility management	Parking space management	Restrictive pricing policies – vehicle tax, fuel tax, parking charges, road pricing, impact fees
Transport system operation	Co-ordination of transport planning with urban development	Etc.	Parking licenses linked to car ownership	Etc.
Rationalisation of PT	Etc.		Speed limits	
Etc.			Traffic calming	
			Vehicle manufacturing & emission standards	

Table 12: Examples of measures/ instruments of transport policy (EU-project TRANSLAND 2000)

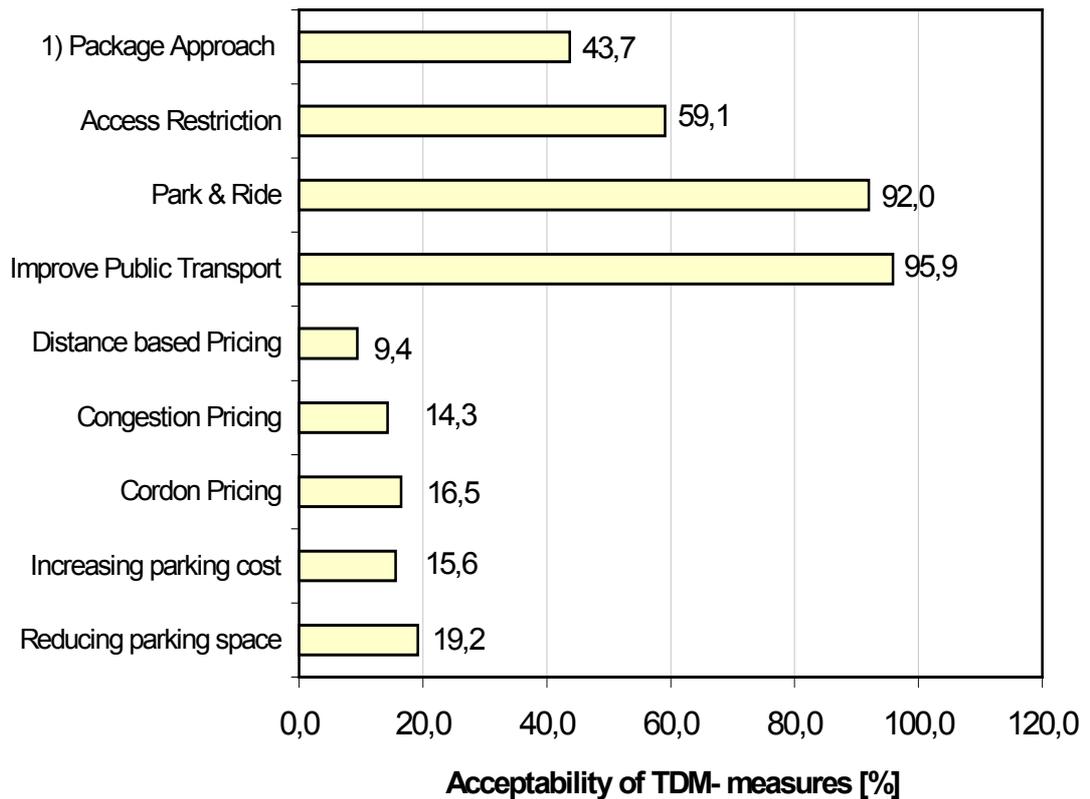


Figure 22: Pricing policies: Fuel tax

MAESTRO (1999) provides lists of measures split up to the various transport sectors (Road sector, Intermodal sector, etc.)

3.3 Barriers - Acceptability

It is needless to say that measures are easily accepted, when they do not affect the individual interests. Accordingly the NIMBY (not in my back yard) – approach is quite common. As soon as measures are bound to hurt anybody, the acceptance declines strongly. An example of public acceptability on traffic demand management (TDM) measures shows figure 23.



Transport pricing package

Figure 23: Acceptability of TDM-measures by transport users in six European cities (EU-project TRANSPRICE 2000)

Different groups of barriers can be identified:

- Resource Barriers (material, financial);
- Institutional Barriers (lacking co-ordination between different organisations or levels of government);
- Social/Cultural and Political Barriers (lacking social and political acceptability, equity and social selectivity, lacking problem awareness, different interests of the stakeholders);
- Legal Barriers (legal requirements, law);
- Side Effects (transcending the original problem).

A detailed table of possible barriers during the implementation process is given in the EU-project TRANSLAND (1999) (Table 13).

Policy type	Policy	I	L	S	R	E
Investment and services	Transport infrastructure network	o	o	x	x	x
	Co-ordination of transport modes	o	o	x	x	x
	Transport system operation	o	-	-	o	o
Planning	Regional transport plan	x	o	o	-	-
	Municipal transport plan	x	o	o	o	-
Regulation	Transport infrastructure approval	o	o	x	-	-
	Car-use regulations (speed/access limits)	o	o	x	-	x
	Travel demand management	-	-	o	-	o
	Trip reduction ordinance	-	o	o	o	-
	Parking regulations (licenses, restriction)	-	-	x	-	x
	Vehicle, emission standards	o	o	x	x	-
	Transport corridor	x	o	o	o	-
Subsidies	Transport infrastructure funding	-	o	-	x	o
	Subsidising transport fares	-	-	-	x	-
Restrictive pricing	Vehicle tax, fuel tax	o	-	x	-	o
	Parking charges	-	o	x	o	x
	Road-pricing	-	o	x	o	x
	Impact fees	o	o	x	x	-
Information	Information campaigns, education	o	-	-	o	-
	Car-sharing	-	-	-	-	-

I Institutional barriers

L Legal barriers

S Social/Political barriers

R Resource barriers

E Side Effects

x Barriers with strong effects on the policies

o Barriers with medium effects on the policies

- Barriers with low effects on the policies, or the policy is indifferent to barriers

Table 13: Barriers to implementation of transport policies (EU-project TRANSLAND 1999, Deliverable 2b, p. 69).

Only participation and information from the beginning of a planning process on can achieve acceptance. The following suggestions to enhance public acceptability of pricing are taken from the EU-project TRANSPRICE (2000):

- Objectives reflecting public concerns, positive aims;
- Perceived traffic problems;
- Perception of pricing policies as effective solutions;
- Package approach – providing alternatives;
- Trust in the proposed measures and in the use of the revenues;
- Guarantee of equity;
- Freedom of choice;
- New cognitive image of the mobility situation.

4. Planning & project management

This chapter aims at giving some basic information on how to run a project successfully. It is not intended to go into details.

Project management should always clarify the following points at the start of the project, be it in policy formulation or in the implementation phase (figure 24):



Figure 24: Contents of project management during a transport planning process (BOKU-ITS)

The different steps and measures in an implementation process have to be planned carefully. It can be vital for the success of the implementation to install a strategic instrument of a “meta-planning” which plans the main steps of the process, such as:

- Analysis of problems/barriers
- Determination of stakeholders involved in the implementation process
- Analysis of information levels and attitudes of the stakeholders
- Development of a suitable implementation process
 - Organisational structure (project management)
 - Participation of stakeholders, lobby groups, etc.
 - Suitable tools
 - Time schedule
 - Quality control and monitoring

- Accompanying public relations and awareness raising
- Selection of an experienced, suitable and accepted project co-ordinator
- Etc.

Management structures

All of these points are essential for success. The following figure 25 shows a recommended organisation of the management-structure for successful planning decisions. Figure 26 gives an example for a successful implementation of a package of measures in an Austrian project.

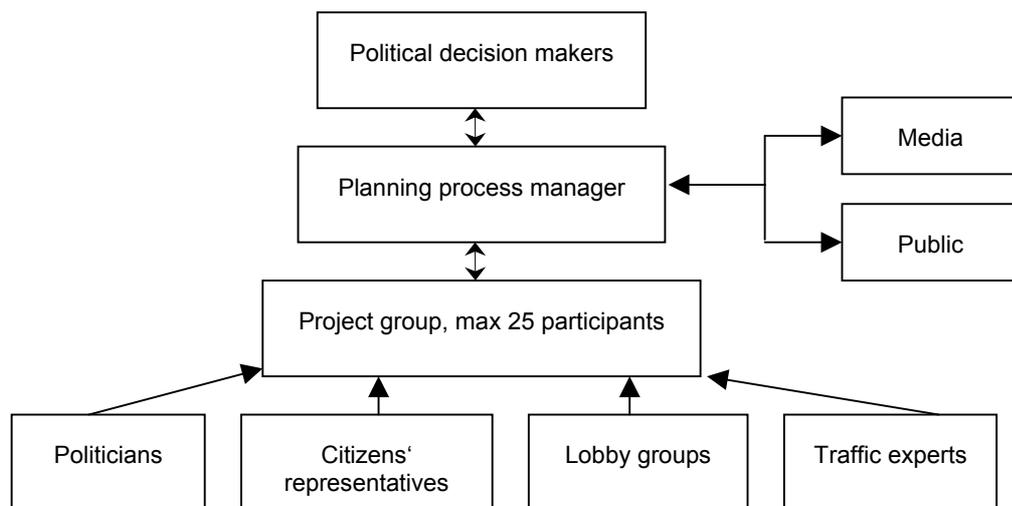


Figure 25: Recommended organisation of the management-structure for successful planning decisions (BOKU-ITS)

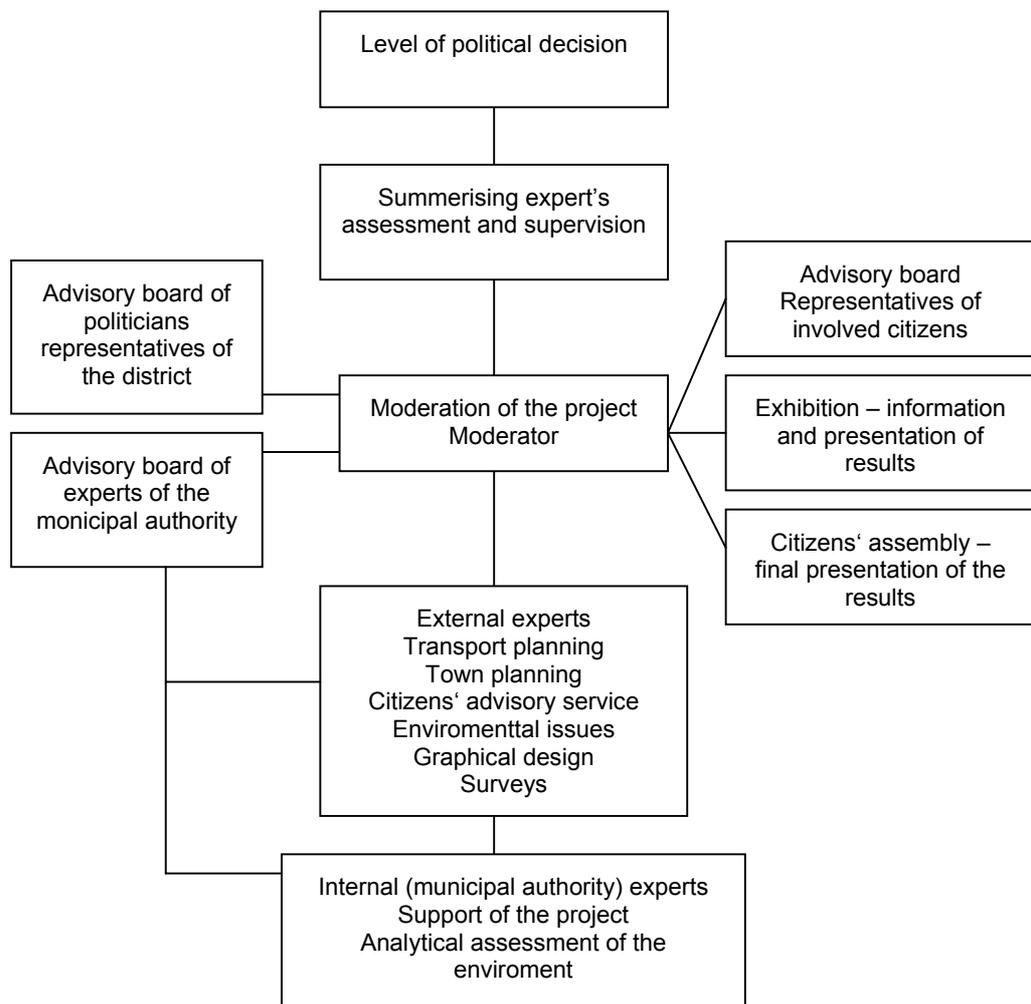


Figure 26: Organigram for the successful implementation of an inter-modal package of measures for the national road B3 in Vienna (SAMMER et al. 1998)

Project groups

A project management group should consist of representatives of all stakeholders. Furthermore it should include experts and members of the different departments (for example of a city council) responsible for vital decision processes. This can speed up the implementation. A rough recommendation how to compose a project group for a local transport programme is given below.

Project-management-group for the implementation of local transport-programmes with public participation, spanning different departments of a city council:

- Maximum number: 25 persons
- Internal experts of all relevant departments (interdisciplinary co-operation)
- Extern experts as consultants
- Representatives of:
 - the police
 - retailers
 - other lobby groups
 - politicians

Work-packages and time-schedules

The division of work into sub-tasks (work-packages, etc.) is apt to organise even complex tasks in smaller manageable units. The progress of a project can be monitored with a time-schedule.



For each sub-task the progress, deviations or alterations can be seen clearly.

Problems appear clearly, changes, which are sometimes vital for the success of the project, can be made in time. The following figures 28 and 29 show examples of a work-package structure and of a time-schedule from an EU-research project.

Figure 27: Project group

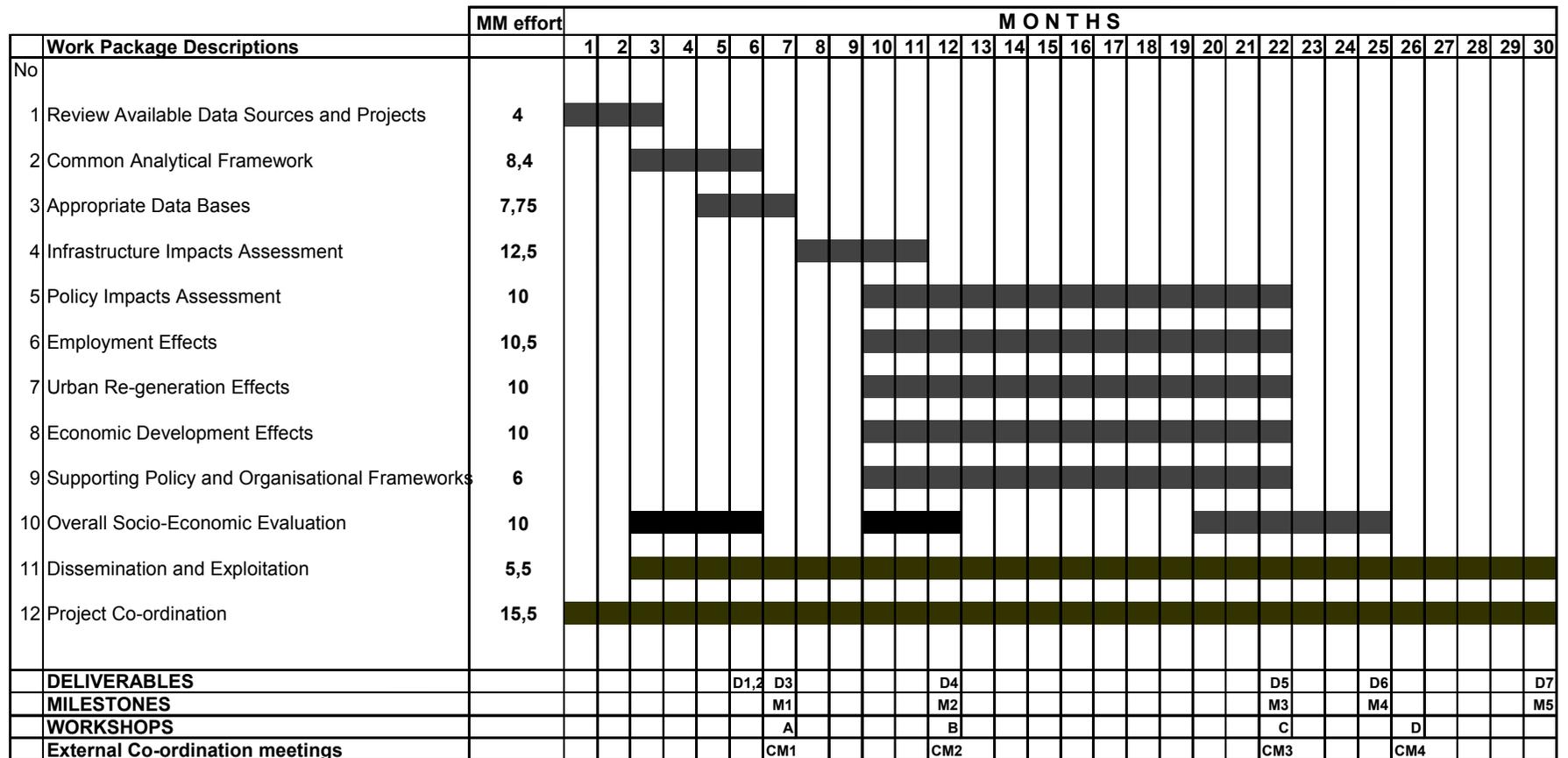


Figure 28: Example: work-packages and time-schedule of an EU-project

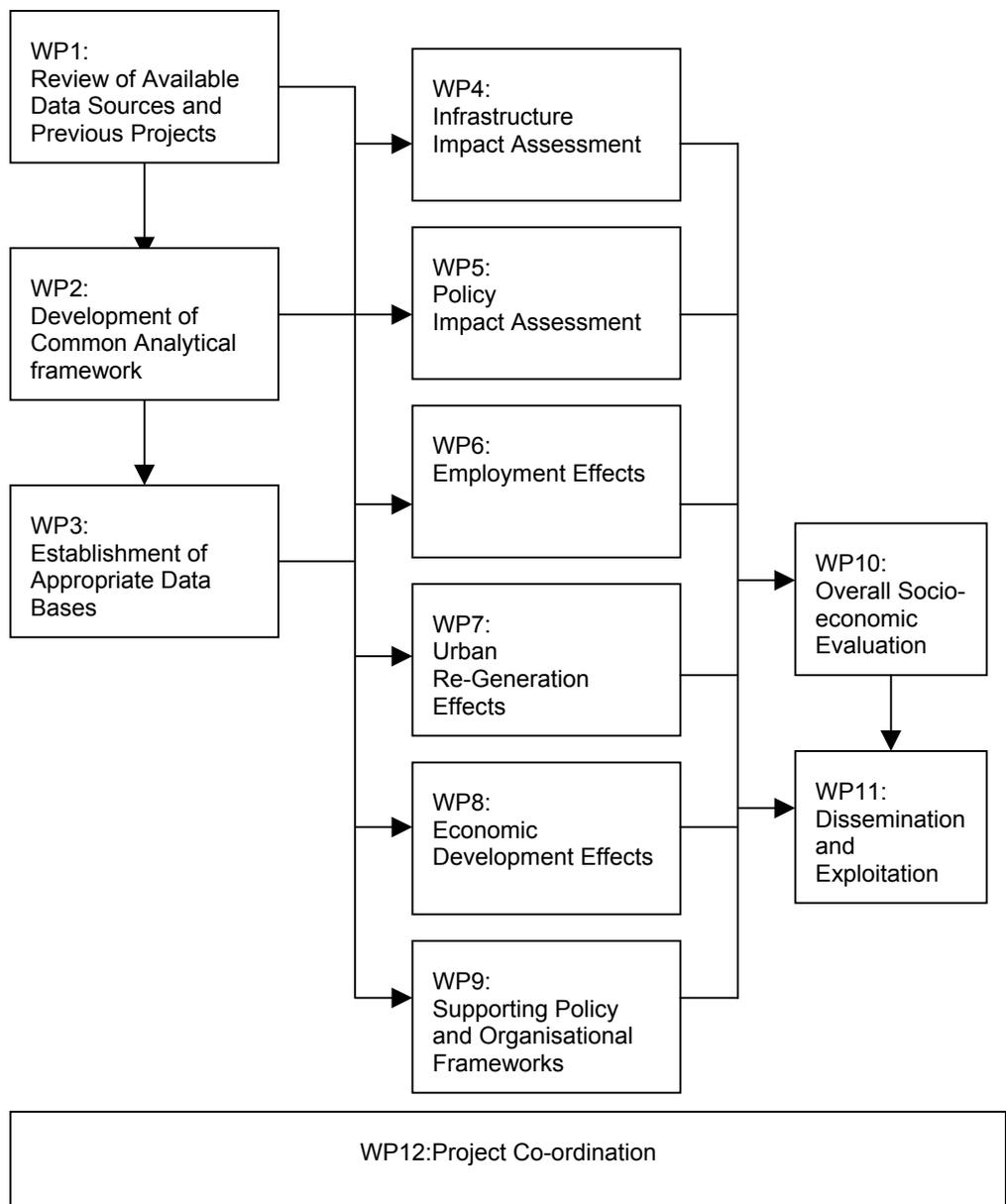


Figure 29: Example: work-package flow-chart from an EU-project

5. Participation

Participation is vital for policy formulation as well as for implementation processes. It is a civilised way of bringing different intentions to a compromise and it gives all people involved the fair possibility to be heard and to achieve improvements. Figure 30 gives a snapshot of such a meeting.

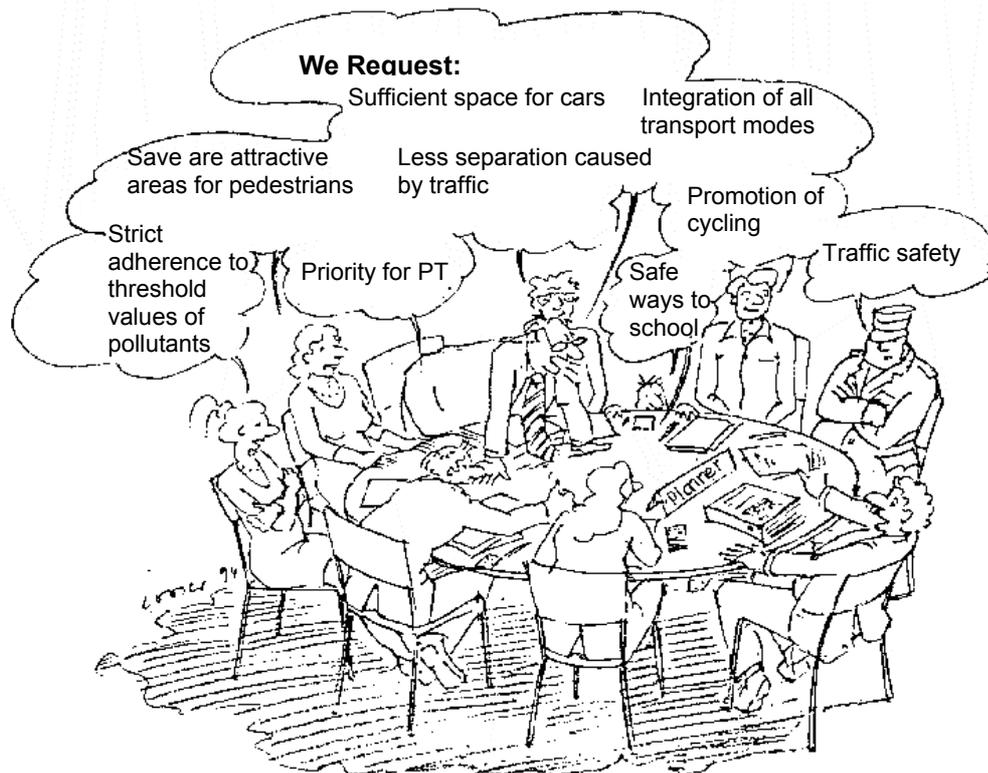


Figure 30: Snap-shot of a participation workshop (SELLE 1996)

In the EU-project TENASSESS the importance of public acceptance of transport policies is emphasised and a few examples of participation processes in Europe are presented very shortly (TENASSESS 1999, final report p. 61-72).

5.1 Goals and principles in the planning process

The following **goals** should be reflected in a participation process:

- Inclusion of all stakeholders
- Planning as a joint process
- Identification of the stakeholders' needs
- Information of the stakeholders about the planning process
- Creation of trust between decision makers, planners and stakeholders

- Gaining consensus by balancing of interests during the planning process
- Participation as a democratic principle to raise awareness and acceptance of decisions
- Mediation and conflict management
- Harmony between individual interests and social values (awareness raising helps to harmonise both)

Similarly, the following **principles** should be applied:

- Design the participation process carefully
- Start the participation process at an early planning stage
- Establish trust among the participants
- Provide comprehensive and complete information
- Notify the participants of the time schedule right at the beginning of the planning process
- Handle participation as a communication process – It is not a one-way information procedure
- Achieve willingness to co-operate, fight NIMBY (not in my back yard)-positions
- Stick to communication culture during discussions, etc.

5.2 Preparation

A thorough preparation in interaction with a time-planning is essential. The key questions to be answered are:

- Who should get which kind of information, when and how?
Who should communicate what, with whom, when and how?
- Who are the relevant participants (see “stakeholders”)?
- Is a neutral person as a responsible moderator available?
- Can the participation procedure plan stick to a time schedule and an organisation structure?
- Can a professional management be financed during the whole participation process?

5.3 Participants

The following participants should be invited into and included in a planning process (cp. chapter 4 “Management structures and Project groups”):

- Politicians
- Transport planners, traffic experts
- Representatives of
 - Citizens
 - Local / regional tradespeople
 - Media
 - Interest and pressure groups
 - Transport related organisations (traffic police, PT-operator, etc.)



Figure 31: Moderator in a participation process.

A neutral person has to be installed as a responsible moderator/ mediator of the participation management. The tasks between those, who are responsible for the participation process and those, who are in charge of the policy formulation process have to be defined and divided clearly.

5.4 Communication and information

Both elements are vital for the participation process. A communication and information strategy has to decide, which materials, events and contents are suitable for which target group. A time-schedule has to be put up parallel to launch each information event at the appropriate time – that is when the best positive effect can be expected. The following table 14 gives an overview on target groups and events.

Target groups	Contents/materials/events						
	Time schedule of planning procedure	Preparation & discussion of goals & scenarios	Evaluation and discussion of effects/ impacts of allocated measures	Political decision	Detailed planning of measures	Implementation	Quality control
Politicians	Leaflet, periodic newsletter	Closed meeting/ session	Meeting with working groups	Announcement by a periodic newsletter	Discussion with citizens	Periodic newsletter	Feedback about problems/ success
Tradespeople	Leaflet, periodic newsletter	Meeting in the evening	Leaflet, periodic newsletter	Periodic newsletter	Discussion with local business people	Periodic newsletter	-
Media representatives (TV, radio, press)	Press conference	-	Reports, articles	Press conference	-	Media report	Report
Citizens	Media coverage reports	Citizens' assembly, working groups	Working groups, citizens' assembly	Pamphlet for promotion	Working groups	Exposition of plans	Report, leaflet, newsletter (success/ necessary improvements)

Table 14: Analysis (matrix) of communication and information strategies during a planning process - Who? What? and How? (BOKU-ITS)

Another possibility is to allocate different materials to the possible target (groups) as shown in table 15:

Stakeholders	Information materials and events						
	Leaflet	Periodic newsletter	Press conference	Audio-visual media (TV/radio)	Exhibition	Workshop	Citizens' assembly
Politicians	X	X	X	X	X	X	X
Citizens	X	X	-	X	X	X	X
Tradespeople	X	X	-	X	X	X	X
Media people	-	X	X	X	-	-	X
Transport operators	-	X	-	X	-	-	X

Table 15: Different information materials and events for different stakeholders (BOKU-ITS)

Different tools are used in the participation process. They can be structured as shown in table 16:

Tools to collect information for planning	Tools to inform people	Tools to communicate (planners & public)	Consultancy tools
Opinion polls	Written information materials, leaflets	Open council, working group	Advisory board
Surveys of attitudes of the stakeholders	Bulk mail – targeted mailings	Discussion, hearing	Ombudsman
Surveys of problems, goals	Interviews	Workshop, forum, brainstorming	Consultant on special problems
Etc.	Exhibitions, excursions	Excursion to study existing solutions	Citizens' advisor (Volksanwalt)
	Press coverage	Conference with external experts	Etc.
	Presentation of solutions by external experts	Etc.	
	Etc.		

Table 16: Different tools used in the participation process (BOKU-ITS)

5.5 The process

An example of a participation process-flow is given in figure 32.

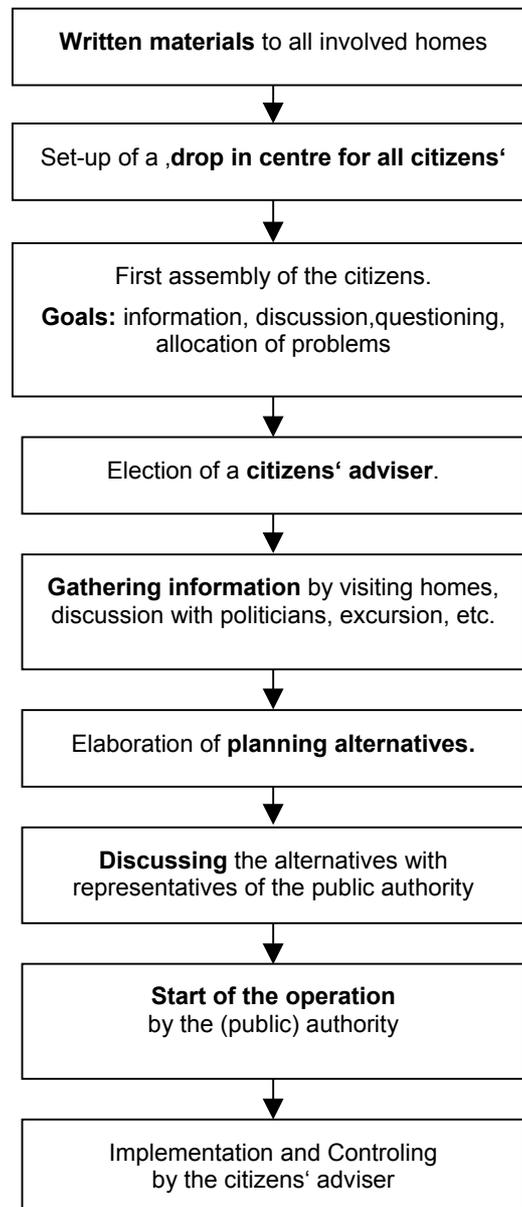


Figure 32: Example of a participation process-flow (KIENAST 1988)

More details of a participation and communication process are given below.

- Invitation to the first citizens' assembly with an enclosed questionnaire for the citizens – containing questions about problems, wishes and goals for the traffic
- Realisation of the first citizens' assembly in the first stage of planning
- Invitation to the second citizens' assembly with an enclosed short-presentation of measures
- Preparation and implementation of a planning-exhibition with a presentation of the measures
- Implementation of the second citizens' assembly as a conclusion of the planning-exhibition
- Realisation of a closed planning-meeting with project-accompanying working groups (2 – 4), depending on the progress. These working groups involve representatives of all political parties, lobby groups, tourism, citizens' initiatives, schools, the police, the federal road administration, the federal railway administration, regional planners, etc.
- Social empirical survey of all stakeholders (citizens, guests, politicians, lobby groups, etc) concerning their attitudes towards transport policy and awareness raising. These results are important for exposure of information deficits and useful for opinion-leading.

Numerous conflicts arise during a participation process. This is normal, as sensitive subjects might be addressed and individuals sometimes overreact. The use of different means of transport goes far beyond rationality . It can therefore be expected that emotions override reasoning. Conflicts should be resolved in an early stage.

Four principles form a successful conflict-solving strategy:

1. Separate the people from the problem
2. Focus on interests, not on positions
3. Invent options for mutual gain
4. Insist on objective criteria



Figure 33: Assembly of the citizens

6. Awareness raising & public relations

This topic has also been dealt with in “Mobility Management and Travel Awareness” prepared by FGM-AMOR.

The following chapter mainly provides the basics of Awareness raising & public relations and gives examples of estimations and attitudes of stakeholders, whereas chapter 3 “Contents on Travel Awareness” in the Mobility Management draft goes into detailed strategies and tools. Both sections are complementary.

6.1 Goals

The best concept is useless, when it is locked away in a closet. It is indispensable to raise awareness of problems and to promote good solutions. Coming solutions in transport policy will often have to be unpopular at the first look to achieve major steps in the direction of sustainability; popular solutions are mostly useless.

The following goals should be included in all awareness raising and P&R considerations:

- Achieving conditions in transport policy as prerequisites of environmentally friendly traffic
- Raising acceptance among the citizens for unpopular but necessary measures (e.g. road pricing)
- Changing travel behaviour (switching to environmentally friendly modes)

6.2 Information and messages

The subjective situation biases the perception and assessment of the objective situation. Within an awareness process the structure of the interpretation of a situation and the information exchange and message transfer can be assumed similar to figure 34 and 35.

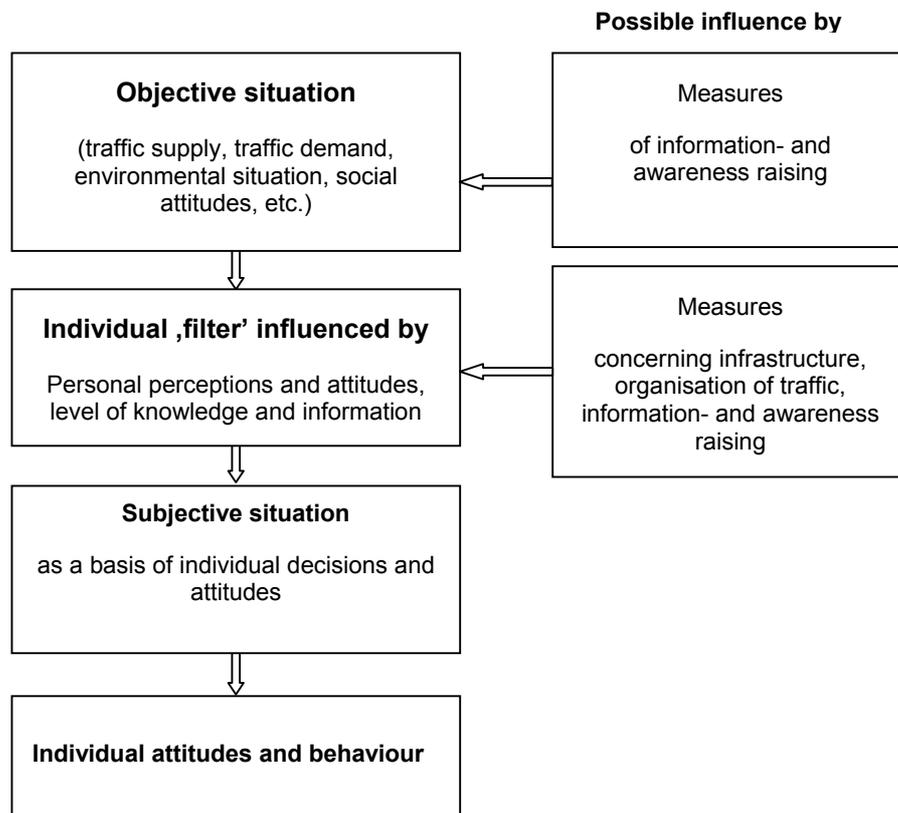


Figure 34: Basic structure of information filters in a awareness-raising process (BOKU-ITS)

Message transfer

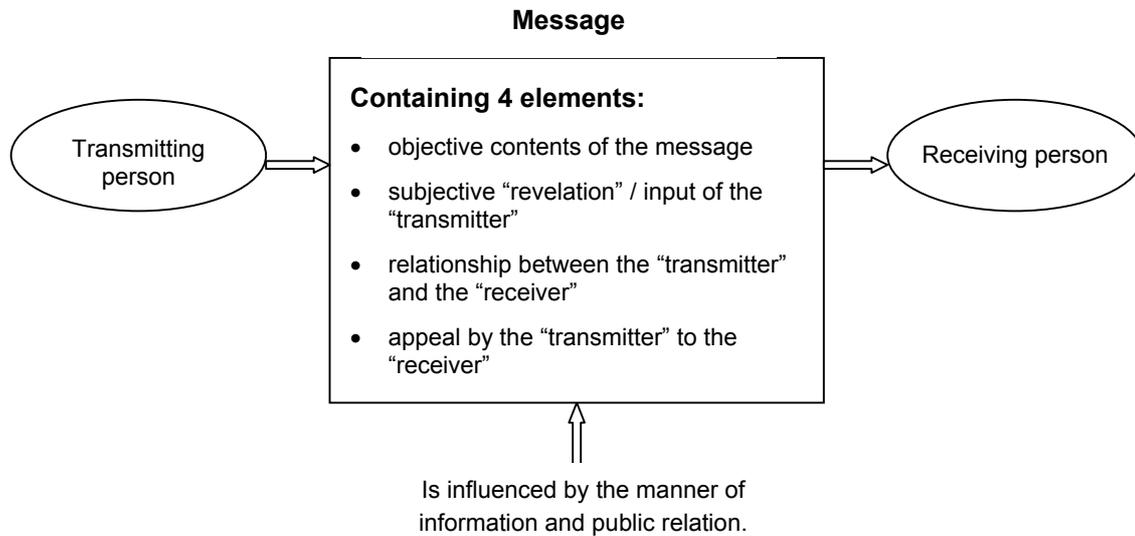


Figure 35: Process of information exchange and message transfer in a awareness-raising process (BOKU-ITS)

The following principles should be taken into account to phrase successful messages and information:

- **Principles:**
 - Act always upon the needs of the "receiver" and on the options of the "transmitter".
 - Empirical field-studies of possible alternatives may improve the efficiency and prevent failures.
- **Objectives:** Messages should be objective, easily understood and clearly cognisable.
- **Subjective:** Prevent arrogance – the "receiver" is intelligent enough to draw the right conclusions.
- **Relationship:** Co-operation, in partnership with the "receiver". (We are in the same boat, together we can achieve fundamental solutions for traffic problems.)
- **Appeal:** Should be formulated emotionally, socially and coherently.

This contents of a message are shown in an example: A message of a cyclists' lobby group:

- **Message:** "Use the bicycle more often, because it is cheap in use, environmentally friendly and saves road space".
- **Objectives:** "Cycling is more reasonable in the city than driving a car."
- **Subjective:** "We have found the philosopher's stone! We are the Gurus of transport planning!"
- **Relationship:** "You need to be informed!"
- **Appeal:** "Change from car-use to the bicycle!"

6.3 Target groups

It is important to address the target groups with reasonable messages at the right time. It is recommended to start with the information of opinion leaders in the first step and to focus on the general public later on.

- 1st step: Institutional persons

Politicians, opinion leaders, transport experts, media representatives, etc. → "Snowball-effect"

- 2nd step: Citizens, the public

6.4 The process of awareness raising

A flow-chart illustrating the process of public relations and awareness raising is shown in figure 36.

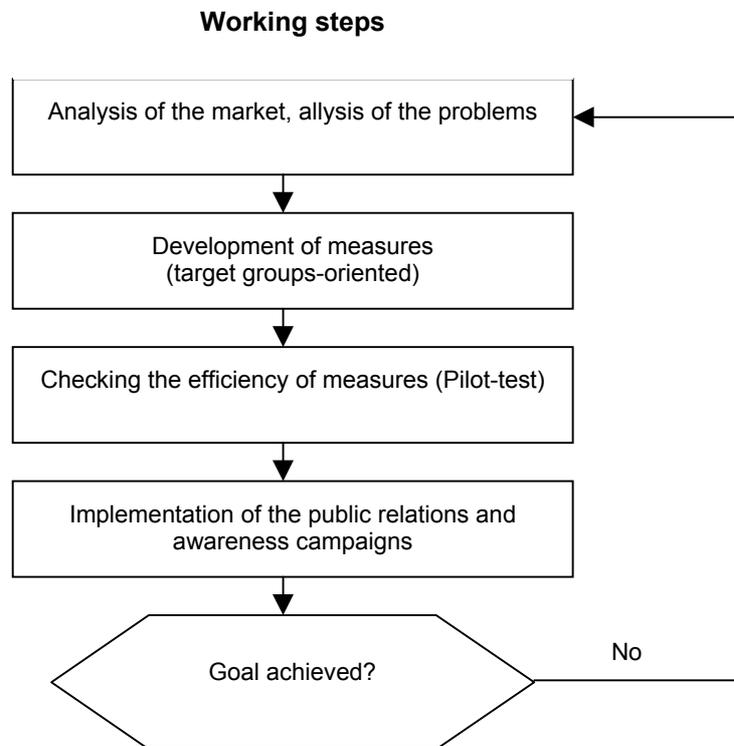


Figure 36: The basic structure of a public relations and awareness-raising process (flow-chart) (BOKU-ITS)

The beginning should always be an analysis of the market and of the current problems to avoid a jump into the cold water. This step has to be planned and can be divided into subtasks.

- Definition of goals and of the target groups
- Concept of the analysis of the market for the defined target groups
 - Attitudes of the target groups towards transport policy
 - Level of information of the target groups, revealing of information deficiencies (e.g. concerning effects of 30 kph-zones)
 - Estimation of attitudes of other groups towards transport policy, revealing of wrong estimations
- Realisation of the market-analysis by a survey of the target groups
- Analysis of the survey's results

Figure 37 shows different attitudes of target groups/stakeholders towards proposed sets of measures in transport demand management (REFLEX 1999).

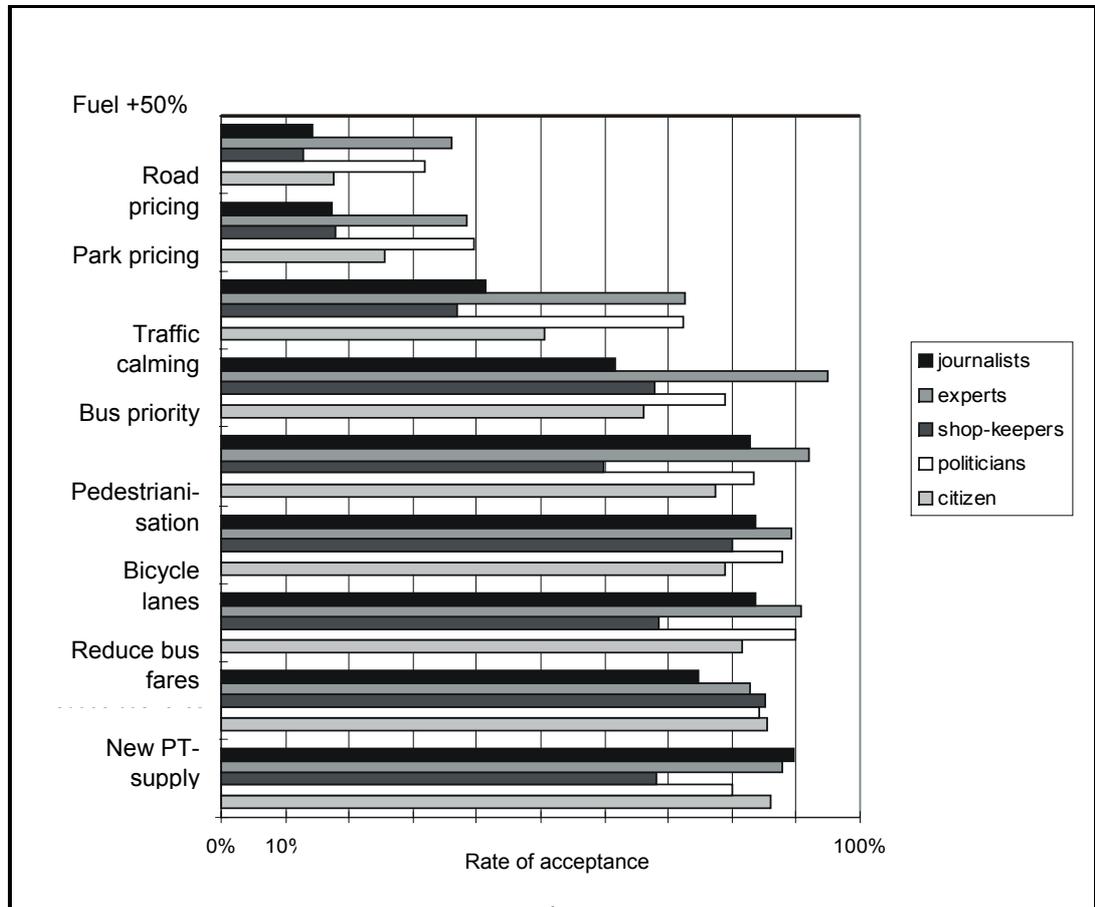


Figure 37: Attitudes concerning concrete measures in transport demand management of all target groups, cross site comparison of the four tested European cities in REFLEX (1999)

An example of deficiencies of information of the citizens of Graz concerning the effects of city-wide 30 kph-zones on congestion shows figure 38.

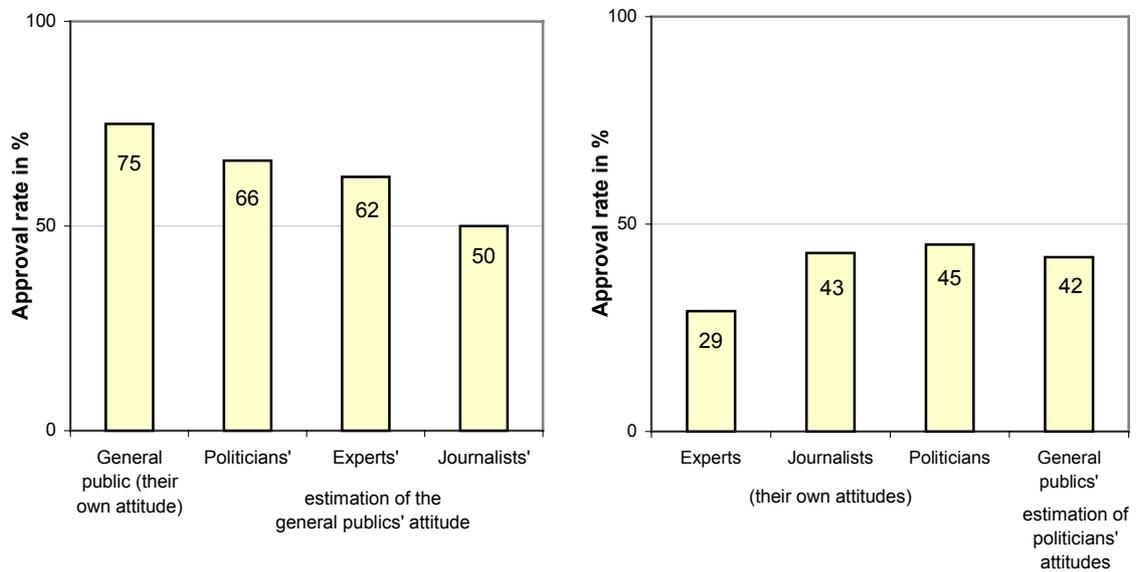


Figure 38: Deficiencies of information of the citizens concerning the effects of 30 kph on congestion. Approval rates to the question: "The implementation of 30 kph in the minor road network will lead to congestion." Graz 1992 (SAMMER, ROESCHEL 1998)

This example shows that measures have to be targeted specifically to be both effective in terms of awareness raising and in terms of cost-efficiency. To development measures oriented at target groups effectively, the following questions have to be answered:

- Who needs what kind of information at which time in order to develop awareness?
- What kind of media is suitable for the specific information and communication purposes?
- Concept of the measures in alternatives

The efficiency of the intended measures should be checked in a pilot-test (pre-test). Selected groups are confronted with the draft of the intended procedures, measures, events, etc. Their reactions are valuable input for the finalisation of the coming events. The following recommendations are given:

- Goals:
 - Raising vigilance
 - Preventing failures
 - Reducing of costs

- Testing effects of alternatives of the designed measures concerning the information material (e.g. logos, slogans, folders, posters, etc.)
 - How is the message picked up?
 - Are the goals going to be achieved?
- Methods:
 - Field-study with only a small sample size (20 – 30 persons per target group)
 - Focus-groups
 - Etc.

Figure 39 shows, how the same measure was advertised with two different slogans. This resulted in substantially diverse acceptance rates.

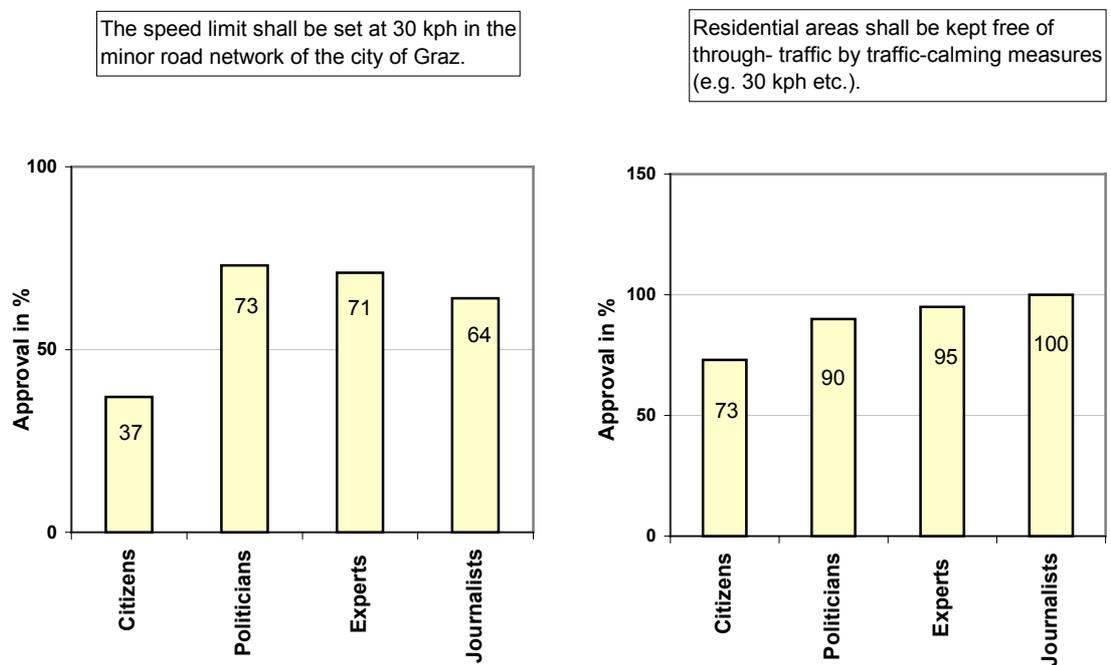


Figure 39: The introduction of city-wide 30 kph-zones was tested for acceptance in a field study with two different slogans resulting in different acceptance rates (Graz 1989, different target groups) (SAMMER, ROESCHEL 1998)

6.5 Measures and instruments

Different media, instruments and tools can be distinguished for public relations and awareness raising. Examples in two groups are given below (table 17). Please note that there are “one-way-information” tools and others allowing communication in both directions.

Information possibilities (“one way”):	Communication activities (“two way”):
Leaflets for politicians, experts, representatives of lobby groups	Individual marketing, telephone hotline
Folders for citizens' information	Talks with citizens, assemblies
Fliers and stickers for car-drivers, pupils and associations	Mobilisation of opinion leaders
Posters and banners for streets, shops, schools, firms, etc.	Information events with citizens, associations, parties, lobby groups, in firms, schools, etc.
Current press information	On-street exhibitions, information stands at markets or squares
Advertisements with objective contents	Discussions on radio/ TV
Etc.	Etc.

Table 17: Information possibilities and communication activities for awareness raising (BOKU-ITS)

6.6 Strategies

Strategic recommendations for awareness raising and public relation efforts in transport planning are as follows:

(1) Stages

- 1st stage: Achieve general awareness of the transport and environmental problems
- 2nd stage: Create personal concern
- 3rd stage: Present general goals and solutions (in alternatives) (showing examples of use, etc.), gain social acceptance
- 4th stage: Offer concrete measures as solutions
- 5th stage: Stabilise the acceptance

(2) Rules

- Choose a value system, where the advantages and general acceptance are obvious
- Use arguments, which have the greatest possible approval (→ Survey of attitudes of the stakeholders, knowledge of the market)
- Present these arguments with self-confidence

- Tell the majority (e.g. users of PT and non-motorised road users – compared with car drivers), that they are a majority (→ Survey on travel behaviour, knowledge of the market)
- Tell the minority (e.g. speeding car drivers), that they are a minority (→ knowledge of the market)
- Reveal false estimations, which single person groups (e.g. politicians, experts) might have of others (e.g. citizens). Expose them at first to opinion leaders and - if practical - to the public (e.g. Politicians often assume that citizens reject “30 kph-zones”.)
- Stir up interest for the problems and understanding for the attempts for solutions.
- Tell the people, what they should do and how. Make them believe, that the suggested solutions are their own ideas.
- Discuss goals in detail, but no measures. – They are the logic outcome of goals.

The following figures show examples of the awareness raising process accompanying the introduction of city-wide 30 kph-zones in the city of Graz, Austria. It can be seen that:

- different stakeholders had different perceptions towards and attitudes of the measures;
- most groups misjudged the attitudes of the other group(s) significantly;
- corrections of these misjudgements concerning other groups’ attitudes could be achieved;
- the attitudes have changed generally during time.

It is easy to imagine that misjudgements concerning other groups’ attitudes lead to totally wrong perceptions of a situation and – what is momentous – also to wrong decisions based on this information deficit.

Figures 40 and 41 show false estimations of stakeholders concerning the attitudes of the other groups.

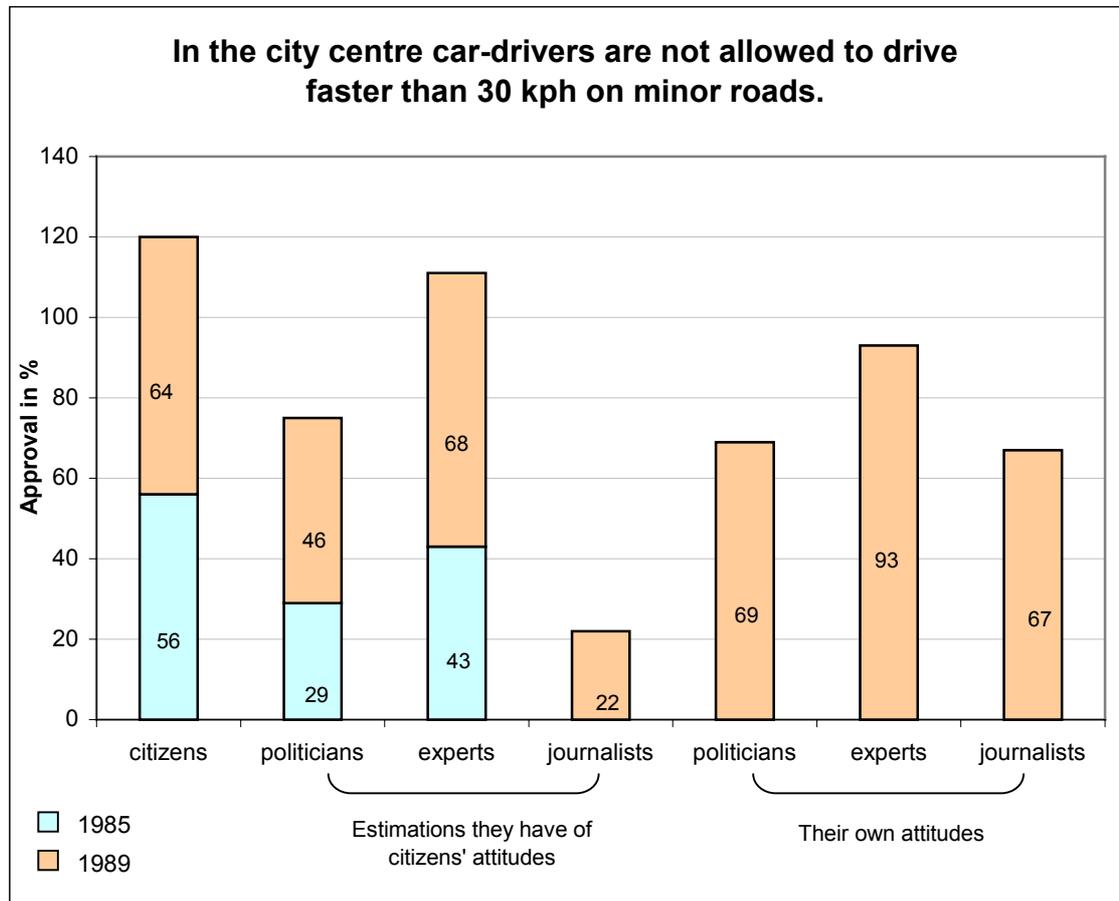


Figure 40: False estimations which opinion leaders (politicians, experts, journalists) had of citizens' attitudes concerning the introduction of city-wide 30 kph-zones in Graz. Politicians and experts were informed about the attitudes of citizens after the 1985 survey. This led partly to a removal of false estimations 1989 (SAMMER, ROESCHEL 1998)

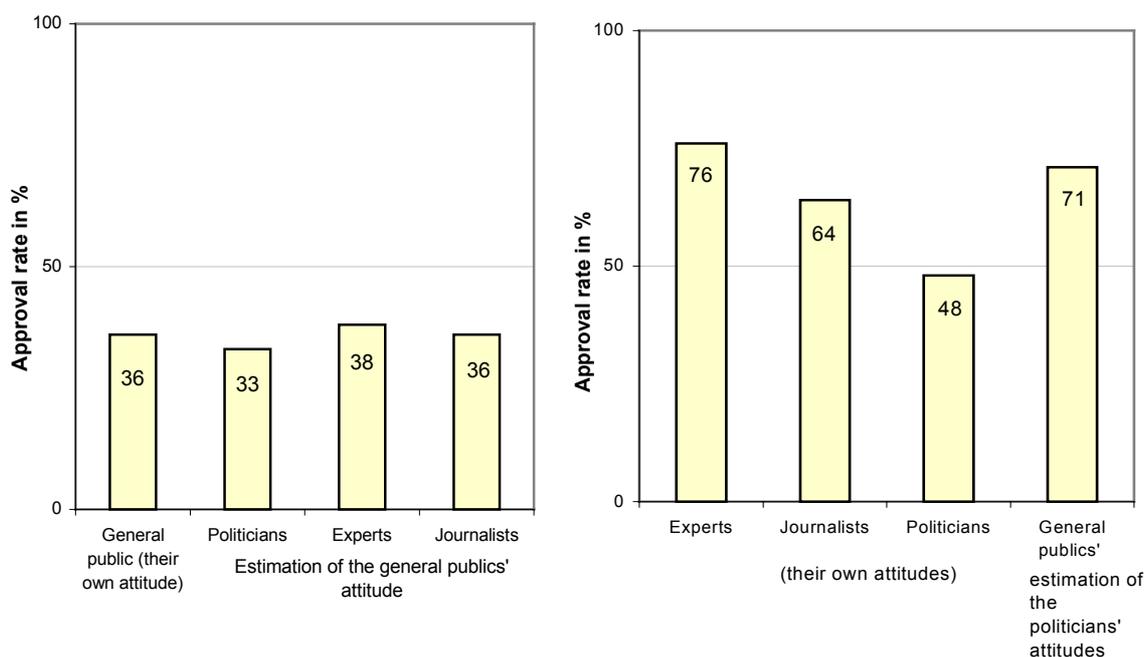


Figure 41: False estimations which citizens have of politicians' attitudes concerning the question of a survey: "Money for the promotion of PT should be raised by a tax on petrol reserved for this purpose." (Graz 1992) (SAMMER, ROESCHEL 1998)

Figure 42 and 43 show how false estimations concerning attitudes of other groups of stakeholders could be corrected in the awareness raising process, figure 44 shows how the information deficits of the general public could be removed with a field test.

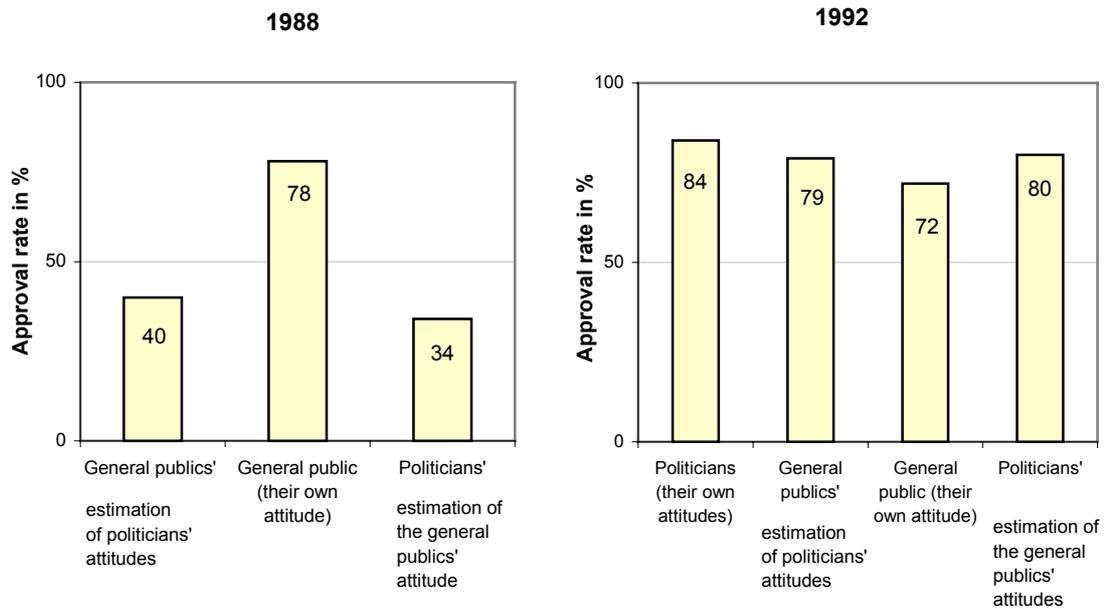


Figure 42: Successful correction of false estimations which politicians had of citizens' attitudes concerning "Priority of non-motorised modes over car-traffic in cases of conflict" (Graz 1988 and 1992) (SAMMER, ROESCHEL 1998)

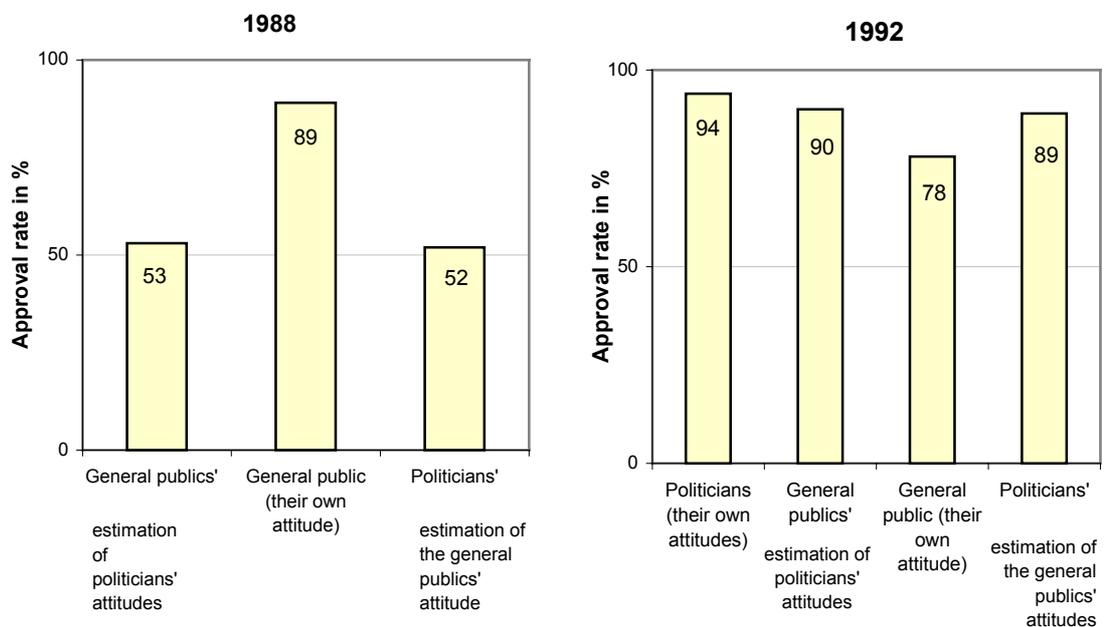
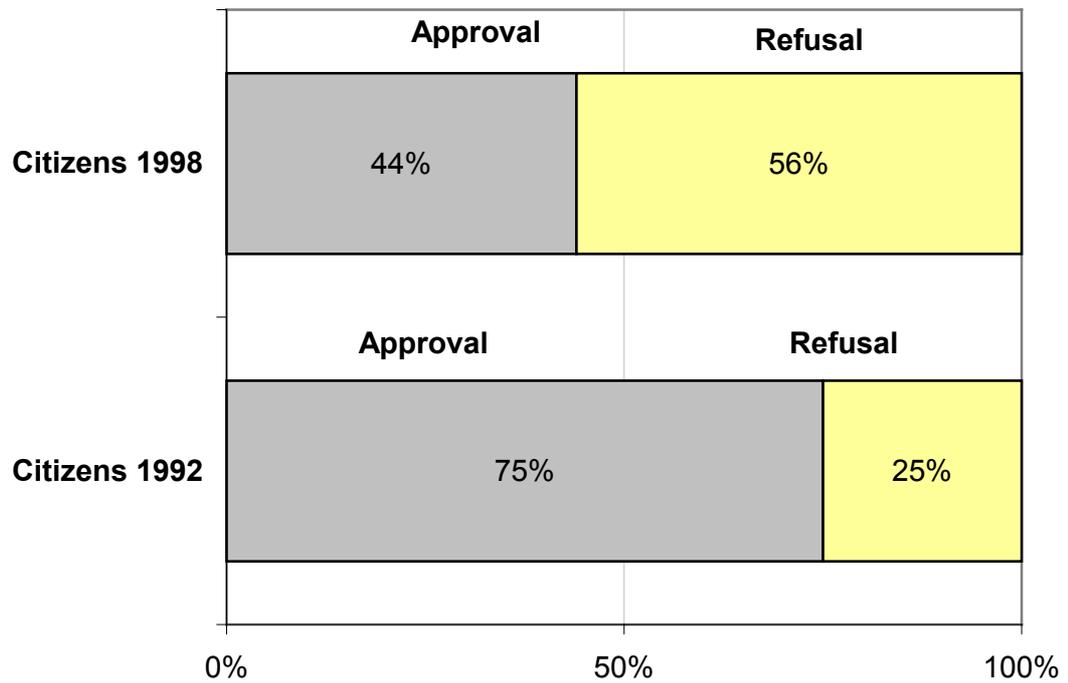


Figure 43: Successful correction of false estimations which politicians had of citizens' attitudes concerning "Priority of PT over car-traffic in cases of conflict" (Graz 1988 and 1992) (SAMMER, ROESCHEL 1998)

1998: “30 kph in the minor road network has led to congestion.”



1992: “30 kph in the minor road network will lead to congestion.”

Figure 44: Successfully removing citizens' information deficits concerning “Effects of 30 kph on congestion” in a field-test (Graz 1988 and 1992) (SAMMER, ROESCHEL 1998)

7. National Differences

Differences in national law, distribution of responsibilities, political decisions, participation processes, etc. certainly exist in the various member states.

The EU-project TENASSESS provides summaries of transport policies (TENASSESS 1999, final report) and gives detailed insights in the 'Europeanisation' of transport policy.

Transferability of Policies (EU-project TRANSLAND 2000, final report)

The transferability of a policy or policy package (related to the case studies of TRANSLAND) depends on the country's specific legal, administrative, political and cultural framework. A policy, which has successfully been implemented in one country, cannot simply be transferred to another country.

Measures of high transferability:

The following measures are easily transferable since they are not dependant on legal or institutional frameworks. Important for the successful implementation of the following measures is the need for supportive measures.

Investment measures (hard policies):

- Expanding bicycle paths,
- Promoting walking by building attractive footpaths,
- Extending light rail, tram, underground and bus lines,
- Increasing public transport stations,
- Intermodality – public transport modes linked at intermodal transport modes.

Supportive Measures (soft policies):

- Marketing/information campaigns,
- Public participation in planning and implementation process,
- Communication between decision-makers, investors and citizens,
- Public-Private partnerships to complete construction of projects in a timely and less expensive manner,
- Mobility Management, for instance car-sharing projects.

Measures of good transferability:

The following are mainly restrictive measures to reduce car traffic. These measures can be applied to any country, but are considered a bit more difficult to transfer since restrictive measures are not always accepted by the public and investors and require the right political environment.

- Restricting car use in city centres,
- Traffic calming zones/speed limits,
- Small-scale car free zones,
- Car free areas,
- Car free housing,
- Supplying Park and Ride Facilities.

Measures which might be difficult to transfer

The higher the level of government is responsible for implementing a planning policy, the less transferable such a policy is to other countries.

8. Conclusions and recommendations

- Policy Formulation and Implementation are the “cornerstones” of the planning process.
- Policy Formulation aims at defining goals, allocating appropriate measures and presenting scenarios of a possible future development.
- Implementation is the realisation of policy formulation (of masterplans, projects, etc.).
- Success of the planning process can be gained by
 - setting up a professional project management
 - supporting a parallel participation process
 - organizing an accompanying awareness campaign.

For further reading the following literature (EU-projects) is recommended:

MAESTRO:	- Guidelines www.europjects.ie/maestro/
REFLEX:	- Final Report
TENASSESS:	- Final Report www.iccr-international.org/projects/
TRANSLAND:	- Final Report - Deliverable 2b www.inro.tno.nl/transland/
TRANSPRICE: -	Final Report gridlock.york.ac.uk/transprice/

9. Exercises

The following suggestions can be taken for students' exercises:

- Participation : Role-playing : Participation-Meeting – each student has to play a defined role (involved citizen, mayor, representative of the project management, etc.) in a discussion on a topic which could be a current or a fictitious transport project/discussion.
- Students Research (internet, TV, newspaper articles) on actual transport projects and on political attitudes of the various parliamentary parties towards transport policies → discussion on the findings.
- Design of information / implementation campaigns by the students.
- Design of information materials (folders/ flyers, posters, etc.) with important issues and contents on a chosen current or fictitious transport project/discussion.
- Development of structured goals and indicators for a given transport project.
- Design of a transport (master) plan for a given area (small town municipality) and/or a specific topic (bicycle infrastructure, PT-network, pedestrian network, etc.)

10. Literature

EU-projects

ASTRA – Consortium (2000): ASTRA – Assessment of Transport Strategies. Final report. Funded by the European Commission, 4th Framework RTD Programme, Karlsruhe 2000.

www.iww.uni-karlsruhe.de/ASTRA/

FATIMA – Consortium (1999): FATIMA – Financial Assistance for Transport Integration in Metropolitan Areas. Final Report. Funded by the European Commission, 4th Framework RTD Programme, Leeds 1999.

www.its.leeds.ac.uk/projects/fatima/

MAESTRO – Consortium (1999): MAESTRO - Monitoring Assessment and Evaluation Scheme for Transport policy options in Europe. Guidelines. Funded by the European Commission, 4th Framework RTD Programme, Oxford 1999.

www.euoprojects.ie/maestro/

POSSUM – Consortium (1998): POSSUM – Policy Scenarios for Sustainable Mobility. Final Report. Funded by the European Commission, 4th Framework, RTD Programme, London 1998.

No project-homepage available. CORDIS homepage: <http://dbs.cordis.lu/>

REFLEX – Consortium (1999): REFLEX - Reversible and Flexible measures for energy saving in transportation management. Final Report. Funded by the European Commission, DGXVII for Energy, SAVE II, Milano 1999.

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SCENARIOS – Consortium (1998): SCENARIOS – Scenarios for trans-European Network.. Final Report. Funded by the European Commission, 4th Framework RTD Programme, Arcueil 1998.

No project-homepage available. CORDIS homepage: <http://dbs.cordis.lu/>

SESAME – Consortium (1998): SESAME – Derivation of the relationship between land use, behaviour patterns and travel demand for political and investment decisions; construction of an European database. Final Report. Funded by the European Commission, 4th Framework RTD Programme, Lyon 1998.

No project-homepage available. CORDIS homepage: <http://dbs.cordis.lu/>

TENASSESS – Consortium (1999): TENASSESS - Policy Assessment of trans European networks and common transport policy. Final Report. Funded by the European Commission, 4th Framework RTD Programme, Vienna 1999.

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TRANSLAND – Consortium (1999): TRANSLAND - Integration of Transport and Land Use Policies: State of the Art. Deliverable 2b. Funded by the European Commission, 4th Framework RTD Programme, Dortmund 1999.

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TRANSLAND – Consortium (2000): TRANSLAND - Integration of Transport and Land Use Planning. Final Report. Funded by the European Commission, 4th Framework RTD Programme, Dortmund 2000.

TRANSPRICE - Consortium (2000): TRANSPRICE - Trans-Modal Integrated Urban Transport Pricing for Optimum Modal Split. Final report. Funded by the European Commission, 4th Framework RTD Programme, London 2000.

gridlock.york.ac.uk/transprice/

Other projects and literature for further reading

Commission of the European Communities (2001): White Paper “European transport policy for 2010: time to decide”. Commission of the European Communities, COM (2001) 370, Brussels 12/09/2001.

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E-S-T - OECD Project (1999): E-S-T. Environmentally Sustainable Transport, Phase 3, Case Study “Alpine Region”-Austria. Final Report. By order of Federal Ministry for Environment, Youth and Family Affairs, Vienna, Division of Transport, Mobility, Regional Planning and Noise, Vienna 1999.

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Thaller O. (1999): Impact analysis of urban road-use pricing on travel behaviour, the environment and the economy. Thesis. University for Bodenkultur Vienna, Institute for Transport Studies, Vienna 1999.

11. Glossary

Citizens' Participation: Involvement of citizens in the transport planning process.

Green Paper: Draft of a (European Community) guideline on (transport) policies.

Implementation: Realisation of a transport plan or project reverting to a variety of instruments.

Indicator: An Indicator describes the quantitative or qualitative impact of the current transport situation and of transport measures.

Masterplan: General concept of a long-term strategy for the future development of a transport system, ratified by a political decision.

Model: Listing of strategic goals of transport policy of the chosen scenario for a city, community, region, etc.

Scenario: Batch of measures, representing a certain political direction.

Scenario technique: Tool in the planning process. It means to draw a prospect on future development of traffic in case of implementing a batch of measures targeted at a certain political direction or goal.

Stakeholders: Participants resp. involved parties in a planning process: citizens, politicians, local/regional tradesmen, transport planners/traffic experts, representatives of media, representatives of interest and lobby groups, representatives of transport related organisations.

Transport Policy: Strategy of transport planning due to a certain political direction.

Transport Policies: Transport measures to fulfil defined goals.

White Paper: Strategic guideline on European (transport) policy.

12. Policy Formulation and Implementation – The consortia of the projects

MAESTRO - Monitoring Assessment and Evaluation Scheme for Transport policy Options in Europe

Consortium:	
Transport & Travel Research Ltd	UK
University of Leeds	UK
Barcelona Tecnologia S.A.	ES
AEA technology PLC	UK
Systems Planning and Management Consultants S.A.	GR
Università degli Studi di Roma "La Sapienza"	IT
Industrieanlagen Betriebsgesellschaft mbH.	DE
ARISE - European Economic Interest Grouping	BE
Gestionnaires sans Frontieres Romania	RO
Beratung und Planung im Verkehrswesen GmbH.	GR
European Transport and Telematics Systems LTD.	IR
Salford University Business Services Limited	UK
Center of Interdisciplinary System Research	GR
University of Twente	NL
Technical Research Centre of Finland	FI
Netherlands Economic Institute B.V.	NL

TRANSLAND - Integration of Transport and Land-use planning

Consortium:	
Transport Research Foundation	UK
ISIS –Istituto di Studi per l'Integrazione dei Sistemi	IT
Universitaet Dortmund - Institut fuer Raumplanung	GE
Centre d'Etudes sur les R_Seaux, les Transports, l'Urbanisme et les Construction S Publiques	FR
SOCIALDATA - Institut fuer Verkehrs- und Infrastrukturforschung GmbH	GE
Centre d'Etudes Techniques de l'Equipment du Sud-Ouest	FR
Netherlands Organisation for Applied Scientific Research	NL

TENASSESS - Policy Assessment of Trans-European Networks & common transport policy

Consortium:	
The Interdisciplinary Centre for comparative Research in the social Sciences	AT
Institut National de Recherche sur les Transports et leur Sécurité	FR
Transporti e Territorio SRL	IT
Technical University of Denmark	DE
Foundation European Rail Research Institute	NL
Planco Consulting GmbH	GE
Gruppo Clas S.R.L.	IT
Systems Planning and Management Consultants S.A.	GR
Halcrow Fox and Associates LTD	UK

TRANSPRICE - Trans modal integrated urban transport Pricing for optimum modal split

Consortium:	
EURO TRANS Consulting Limited	UK
Polytechnic of Milan	IT
University of York	UK
Helsinki University of Technology	FI
Leeds City Council	UK
Technische Universitaet Dresden	GE
Stadt Graz	AT
Technical University of Graz	AT
Comune di Como	IT
Unipass LDT	UK
University of Leeds	UK
Chalmers University of Technology AB	SW
Athens Area Urban Transport Organisation (OASA)	GR
York City Council	GR
Consorcio Regional de Transportes de Madrid	ES
University of Dublin -Trinity College	IR
G. Papavasileiou - C. Bistis and Associates, Anysma	GR
Universidad Politecnica de Madrid	ES
Viatek LTD	FI

REFLEX - Reversible and Flexible measures for Energy saving in transportation management

Consortium:	
Politecnico di Milano	IT
EuroTRANS	UK
Universitaet fuer Bodenkultur Wien	AT