
# Shaping Sustainable Transport Patterns in European Cities

**Final Report (November 2014)**

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| Shape-IT | Shaping Sustainable Transport Patterns in European Cities |
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# Foreword

In various European countries the policy is to make mobility and transportation of goods more sustainable. The environmental questions are: “How to reduce $CO_2$ emissions?” and “How to reduce the air and noise pollution caused by traffic and transportation?”

Important transport-related questions are: “What kind of measures do we have to take to change travel behaviour to a more sustainable way of transport?” and “How can we realize these measures in order to make them more effective?”

Some countries participating in the Era-net Transport Network have started working together by financing common research in the sector “How is the implementation of Sustainable Mobility in several countries carried out in practice?” and “Why are these measures successful in one case and not in the other case?” The research goal is to facilitate and to provide policy makers with tools on how to implement mobility management at local and regional level in a successful and sustainable way.

This has led to the trans-national program “Stepping Stones”, financially supported by Germany, Sweden, Poland, Great Britain and the Netherlands. The main focus of Stepping Stones was on an effective and efficient (combinations of) measures for more sustainable mobility patterns, and the process to implement these measures. Selected from a call for tenders three consortia were chosen consisting of 12 research organizations in total: SHAPE-IT, Step-by-Step and GPS.

Mid 2013 the three consortia started working with these research questions, each project from a different specific scope. In total more than 60 mostly successful cases in various European cities have been examined. Leading research questions have been “What were the measures to influence mobility behaviour?”, “How were these measures implemented” and “What were the results?” The experts involved in these cases were queried, the findings analyzed and linked with the findings from other cases.

Each of the three consortia has delivered a comprehensive report with important conclusions and recommendations. In addition to the description of each measure including the WHAT question, also the HOW and the WHY questions have been addressed. HOW were these measures implemented and how were the process steps for implementing the measures successful and WHY have these measures been successful or not at the end.

The recommendations of the projects are linked to each other. From these comparisons the most important steps have been derived to achieve a successful sustainable mobility project and a recipe to make mobility patterns more sustainably developed. The goal is to help policy makers to change mobility behaviour to a sustainable way and to provide them with the necessary tools and tips to make significant steps forwards. Not only to reduce $CO_2$ emissions but also to play a major role in the realization of a healthy living environment.

I would like to invite the policy makers and implementers at local and regional level to use these recommendations and to put them into practice. These recommendations go beyond mobility issues alone. It is an inspiration to work together with other policy areas and to look for unique opportunities and to share knowledge and co-operate beyond existing boundaries. A challenge is to use the new and expanding knowledge on mobility behaviour and to not forget the period after the completion of the project. “How do you go 0fl?” Monitoring of the project from beginning onwards and evaluation is important to allow time for adjustments to achieve the goals in the project.

I wish you every success in realizing promising and effective (policy) actions towards a more sustainable mobility behaviour.

On behalf of the Stepping Stones participants from Germany (Federal Ministry of Transport and Digital Infrastructure - BMVI), Sweden (the Swedish Transport Administration), Poland (National Centre of Research and Development NCBR) and the United Kingdom (Department for Transport)

André van Lammeren,

Director Mobility and Infrastructure,

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# Contents

# 1. Background

In response to growing concerns about air pollutant emissions, greenhouse gas emissions, public health and traffic congestion, for decades governments have tried to encourage their residents to adopt more sustainable transport behaviour. To achieve this, cities have implemented policies and measures to encourage:

- increased bicycle or public transport use, instead of private motorised transport (alternative transport modes);
- trips to other locations (alternative and/or closer destinations);
- travel at other times (avoidance of peak periods);
- working at home a few days a week (telecommuting, teleworking) instead of commuting every day (fewer trips);
- the use of cars for only part of the journey (park & ride, park & shuttle) or increase car occupancy (car pooling); and
- the use of alternatively-fuelled cars and eco-driving.

The success of these measures differs greatly; measures in some cities/regions and at some times have been met with great success, others less so, while some have failed outright.

# 2. Shape-IT

Shape-IT, along with *GPS* and *Step-by-Step*, make up the *Stepping Stones* research initiative from ERA-Net transport. Stepping stones aims to answer what, how and why questions around successful sustainable transport (policy) measures and the underlying mechanisms behind their success, including social & psychological factors.

The Shape-IT project builds on implemented policies on sustainable transport and goes beyond existing analysis to identify the role of policy processes and policy integration in minimising rebound effects and fostering the effectiveness of measures to influence behaviour towards sustainable mobility. Shape-IT examines cases in Germany, Poland, the Netherlands and Sweden and will draw conclusions on the effectiveness of sustainable transport solutions. The deeper understanding of the interrelation between behavioural issues and policy processes and measures will influence future policy making on the local, regional, national and European level. The cases have been analysed in detail on the basis of qualitative and quantitative data, expert interviews and workshops.

The cities involved in the project (Krakow, Lund, Munich, Stockholm and Utrecht; covering all four funding partner countries of the Stepping Stones programme) have shown a high level of interest in the project's approach and in the exchange of experience with their counterparts in other European countries. A better understanding and exchange of different approaches to policy development and participation fosters policy effectiveness in the participating countries and throughout Europe.

There are a number of European projects upon which Shape-IT builds, in particular the ELTIS platform of policy case studies and OPTIC, which focuses on policy packages in transport and policy processes. A number of other projects also provide an input such as SNOWBALL, QUEST, ADVANCE and SMART-Cities. This project also builds on the policy analysis and methodologies for transferability developed in projects, such as CiViTAS, NICHES, NICHES+ and several other national and regional projects. In several subareas within sustainable planning an "implementation gap" with respect to different measures has been identified. Shape-IT will contribute to a better understanding of the relevance of different key success factors with respect to the policy and implementation processes.

To ensure a high level of transferability and to disseminate the findings of the project as widely as possible, the project works closely with the selected and other cities in the respective regions, and is working closely with European and international networks, such as Polis, the European Conference of Transport Research Institutes and the International Transport Forum. The case studies and the guidelines developed in the project are intended to be used widely to contribute to a better understanding of behavioural aspects of sustainable transport policy.

## 2.1 Consortium

The project consortium brings together organisations with various perspectives and expertise on a variety of measures and policy environments. The consortium represents all four funding countries, while the partners' expertise ranges from policy analysis and evaluation (Wuppertal Institute, WI), policy transferability and implementation (Rupprecht Consult, RC), mobility management and technology (Swedish National Road and Transport Research Institute, VTI) to electro-mobility (Energy Research Centre of the Netherlands, ECN) and local governance research (Cracow University of Technology, CUT).

The Wuppertal Institute coordinates the consortium (lead: WP1 and 6), applying its experience with behavioural issues, rebound effects and systemic perspectives as well as its particular expertise on evaluation methodologies, non-motorised transport and soft measures. The Institute has carried out similar analyses for several policy measures/packages at municipal, regional, national and EU level.

Rupprecht Consult leads the development of the SUMP guidelines (WP5) and will develop two comparative cases that will contribute to the trans-national character of the project. Rupprecht Consult can draw upon a wealth of knowledge analysing transport innovations and their transferability, and years of experience in close cooperation with policy practitioners across Europe.

VTI contributes its knowledge of mobility management measures and its experience in the evaluation of their effectiveness. In addition to leading WP2, they also contribute wider transport-policy competence - vital to the understanding the effect of possible trade-offs and co-benefits on policy measures' effectiveness - to the consortium.

ECN is a leading expert in the field of transport policy analysis. In addition to leading WP3, ECN contributes experience from a range of national and European projects in this area.

CUT is one of the leading technical universities in Poland. Its transport research centre collaborates intimately with city officials on urban transport. CUT will host the European roundtable (WP4), with which it can build on its experience in several national and EU projects.

## 2.2 Main research question and sub research questions

In the first instance, Shape-IT aims to explain why urban-transport policies are successful in one place but not in others. The project is split into two parts. The first part, policy integration, examines the role of the extent of policies' integration in and interaction with the specific policy and institutional conditions in the relevant cities on their effectiveness. The second part, policy processes, examines the factors, which influence policies' successful development and implementation, and the role of public participatory elements on policies' acceptance and implementation. Additionally, the project examines the potential of *Sustainable Urban Mobility Plans* (SUMPs) to improve policies' success by examining their potential to improve both policy integration and policy processes.

**Policy integration**

Policies and measures do not operate in a vacuum. They are (almost) always introduced into a policy environment with an existing set of policies and implementing institutions, in both cases at the local/municipal, regional, state, national and sometimes supranational (e.g. EU) level. The same applies to the other relevant local conditions, such as geography, industrial, social and economic conditions. To study the effect of the interrelationship between policies and the framework conditions, the following research question is addressed in the Shape-IT project:

*Does the integration of policies in their local frameworks affect their effectiveness, and if so, how?*

**Policy processes**

In the same way that policies do not operate in vacuums, they also do not appear from them. Instead, they result from the (broader) political process, and as such, there are a multitude of factors, also potentially from local to supranational, which may influence their development and implementation. Of the many potential influential factors, one has been singled out for particular attention: public participation, and its effect upon the acceptance and implementation of policies. As such, Shape-IT's second part will endeavour to answer the following research question:

*What factors influence the successful development and implementation of effective sustainable transport?*

## 2.3 Case studies selected for analysis

In total, eight policies from five cities have been chosen for further study as part of the Shape-IT project (see Figure 1 and Figure 2).

The cities and policies/measures were selected considering a wide range of factors. Firstly, the case studies were selected as they represent innovative policy measures, packages and processes. Secondly, they build upon existing relationships and networks, and previous projects in the participating countries. Thirdly and finally, as the project's results are intended to have a high level of transferability, for which reason the case-studies have been selected to capture a wide range of comparable aspects that are relevant for a large number of other cities.

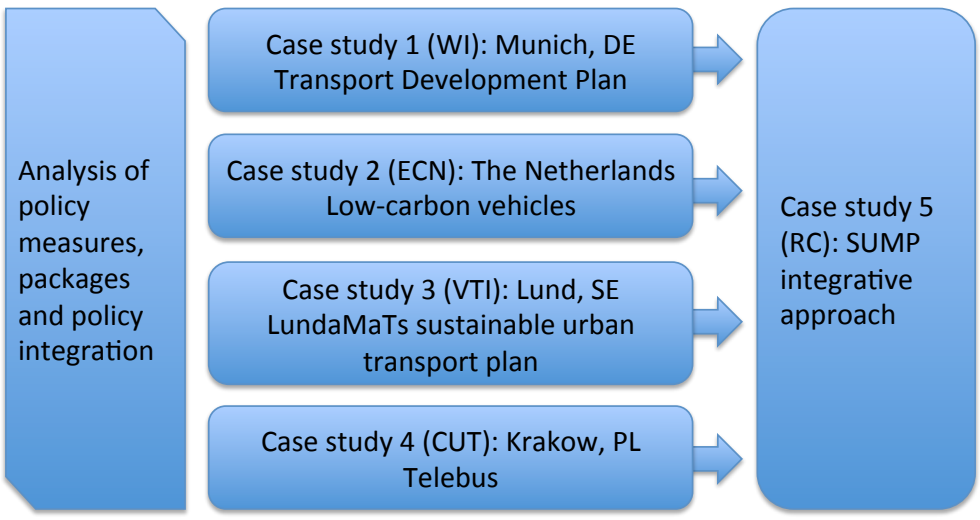


*Figure 1. Policy integration case studies (1 – 5)*


*Figure 2. Policy process case studies (6 – 10)*

**Policy integration**

- Munich, Germany
  - Policy/measure: transport development plan
  - Partner: Wuppertal Institute (WI)
- The Netherlands
  - Policy/measure: integrating national low-emissions vehicles policy within EU laws
  - Partner: Energy Research Centre of the Netherlands (ECN)
- Lund, Sweden
  - Policy/measure: LundaMaTs - sustainable urban transport plan
  - Partner: Swedish National Road and Transport Research Institute (VTI)
- Krakow, Poland
  - Policy/measure: Telebus (on-demand bus service)
  - Partner: Cracow University of Technology (CUT)
- General
  - Policy/measure: Sustainable Urban Mobility Plans (SUMP)
  - Partner: Rupprecht Consult (RC)

**Policy processes**

- Munich, Germany
  - Policy/measure: Radlhaptstadt München (Engl. *Cycle Capital Munich*) cycling promotion campaign
  - Partner: Wuppertal Institute (WI)
- Utrecht, The Netherlands
  - Policy/measure: Utrecht Electric
  - Partner: Energy Research Centre of the Netherlands (ECN)

- Stockholm, Sweden
  - Policy/measure: toll system/congestion tax
  - Partner: Swedish National Road and Transport Research Institute (VTI)
- Krakow, Poland
  - Policy/measure: Mobility Forum
  - Partner: Cracow University of Technology (CUT)
- General
  - Policy/measure: Sustainable Urban Mobility Plans (SUMP)
  - Partner: Rupprecht Consult (RC)

## 2.4 Methodology

Asking a question and being able to answer it are two different things. The first step in answering the two research questions was to agree upon a common definition for the many terms and concepts contained within the research questions, which are subject to a wide range of interpretation (success, integration, effectiveness etc.).

To do this, a catalogue of indicators was developed in collaboration with the project partners, taking into consideration the local conditions and aspects pertaining to the policies in question. Based upon these, a catalogue of guiding questions was developed (see Policy integration guiding questions and Policy processes guiding questions), which was used as a basis for the research.

**Policy integration**

> *Does the integration of policies in their local frameworks affect their effectiveness, and if so, how?*

Transport policy is affected by and affects a wide range of areas beyond the transport sector itself. Thus, ensuring sustainable outcomes involves looking beyond the primary goal of providing infrastructure and services for the movement of people and goods. Instead, a broader approach is required, including the three pillars of sustainability: economic, environmental and social aspects.

Additionally, transport sector policy is interdependent, sometimes heavily, with other policy areas, such as land use and spatial planning, social services, health, energy, education, enforcement and policing. As such, changes to policies in any, or many, of these fields are likely to have at least some effect upon the transport sector, and vice-versa. Thus, Shape-IT will also consider the effect of policies integration with other areas (horizontal integration).

In a similar way, transport policies interact with transport – and other – policies in other areas. At the same governmental level, policies in neighbouring areas interact with one-another. Shape-IT will thus also consider this interaction (horizontal

integration). Finally, transport policy from various governmental levels also interacts, for which reason Shape-IT will examine these interactions (vertical integration).

These many interactions can result in both positive and negative outcomes. On the positive side, policies have mutually-reinforcing positive effects (synergies and co-benefits). On the other side, policies may also have negative trade-offs, whereby some positive effects may be offset by negative effects on particular social groups, other geographical areas, within the transport sector (i.e. other modes) or on other policy areas, either unintended or knowingly.

Shape-IT will attempt to discover if there is a correlation between policies' integration and their effectiveness, particularly in terms of co-benefits, synergies and trade-offs.

Effectiveness indicators

Additionally, Shape-IT will also attempt to determine the effectiveness of the policies in question via as many as possible of the factors defined in Table 1.

| Aspect | Explanation |
|---|---|
| Modal share | Modal shares for cars, public transport, cycle and pedestrians |
| Travel demand | Distance travelled ( $\Sigma$ pkm/yr, km/cap/yr) |
| Travel demand | Number of trips |
| Public support/satisfaction | Proportion of the public who supports or is happy with the measure and/or its effects |
| Traffic safety (accidents) | Numbers (or costs) of accidents (fatalities, injuries) |
| GHG emissions | Total, per capita, per pkm etc. |
| Noise | Measured and/or perceived noise level |
| Air quality/pollutant emissions | Total pollutant emissions, number of days above EU limits etc. |
| Distributed effects | Particularly affecting (only) particular social groups or geographical areas |

*Table 1. List of SHAPE-IT effectiveness indicators*

**Policy processes**

*What factors influence the development and implementation of effective sustainable transport policies?*

Finding answers to the above question requires many things. Firstly, the factors which influence the political process must be defined. Here, Shape-IT will draw upon the work of Martin Jänicke and his *Capacity Model (The Political System's Capacity For Environmental Policy)* of the factors which influence environmental policy change (Jänicke 2002). The model prescribes five categories of influential factors (actors, strategies, systemic conditions, situational factors and the (nature of) problems themselves). Shape-IT will combine actors and their strategies as one, but consider policy brokers/veto players (also actually actors) as a separate category.

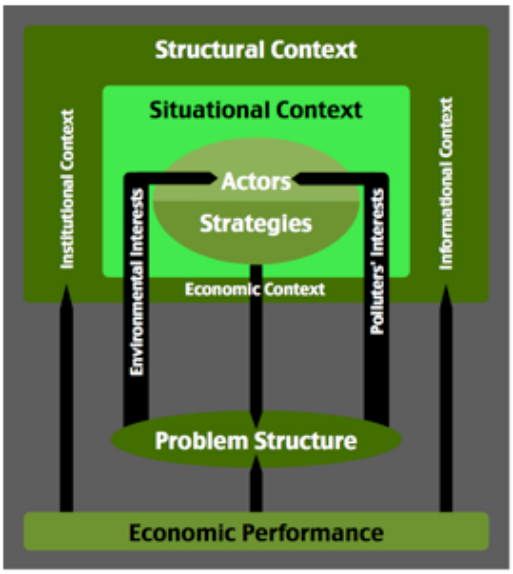


*Figure 3. Based on the Jänicke 2002 Capacity Model*

Sustainable measures will be successful only if understood and support by a majority of residents, however. If the city has a set of broad goals, developed with residents, measures working toward them are more likely to be successful. If residents cannot be included in defining these goals, they should at least be actively informed of the process and its results.

Shape-IT also wishes to explicitly test the effect of public participation on the policy process. For this reason the presence and effectiveness of any public participatory processes will be included as an influential factor.

| Aspect | Explanation/rationale |
|---|---|
| Actors (stakeholders, institutions, political parties, NGOs etc.) | Presence of actors' coalitions and their actions/strategies |
| Policy brokers/veto players | Presence of individuals who, or organisation which facilitate/block a policy |
| Public participation | Presence and extent of public participatory processes |
| Institutional structures | The effect of institutional structures on the proposed policy |
| Situational factors | Specific events which opened/closed windows of opportunity |
| Nature of the problem | Changes in the state of knowledge of the problem at hand |

*Table 2. List of SHAPE-IT influence factors.*

### *2.4.1 Data gathering*

The Shape-IT consortium utilises multiple sources of information to complete the project.

Firstly, official information from all relevant governmental levels is being examined. These provide a wide range of (general) information, such as the basic characteristics of the relevant policies (both the central policies, but also those effecting or affected by them) and basic information about the cities (population, wealth, modal share etc.). Official sources also provide information on the municipalities' transport sector (and other) targets, the relevant administrative/institutional structures, and can also be a valuable source of indirect information on the performance of policies (air pollution levels, public transport ridership, costs, noise etc.).

Official sources are less useful, however, in providing information on the finer details of policies' development and implementation. For this, experts' opinions are indispensable, for which reason the Shape-IT partners have conducted interviews with relevant experts from the various cities (from inside and outside the administration). With this, Shape-IT is able to take advantage of their in-depth knowledge of the finer details of the respective policy development processes and their implementation, along with knowledge of the important actors and their actions during these processes. Additionally, experts are able to fill gaps in knowledge where information is not available from official sources. For the interviews, the consortium developed a standard interview guideline for all interviews to ensure the comparability of the results.

| Location | Interviewee | Role | Organisation |
|---|---|---|---|
| Munich | Georg-Friedrich Koppen | Head of Unit for Transport | Munich City Department of Urban Planning and Building Regulation |
| | Wigand von Sassen | Coordinator of "Radlhauptstadt München" | Munich City Department of Traffic and Transport Management – Cycling Marketing |
| | Paul Bickelbacher | Councillor | Munich City Council |
| | | Urban planner | |
| | | Board member | ADFC Bavaria |

*Table 3. Interviewees for Shape-IT (2013)*

Information from non-official sources is also used, especially to crosscheck information provided by official and expert sources.

### *2.4.2 Implications of selected methodology on validity of results*

Much of Shape-IT's data will be qualitative in nature, making comparison of the various policies more difficult than if the data were quantitative. Where quantitative data is available, it is not necessarily available in all of the relevant cities. Also, as the policies being studied are in multiple countries, the data will, if available at all, not necessarily be of the same quality, or have been collected or calculated using the same methodology, making comparison difficult.

Furthermore, a significant proportion of the data required for the analyses will be provided by interviews with experts. Shape-IT's goal of discovering the important factors behind policies development and implementation requires examining processes which typically take place behind closed doors. Thus, the interviewees chosen must necessarily have taken part in these processes or been party to them. Unfortunately, however, these people are rarely impartial observers. This presents several difficulties. The interviewees have their own interests, preconceptions and biases, all of which may influence their statements. Also, there is some selection bias in the interviewees: those who consent to interviews may be those with an axe to grind, or a score to settle etc. In converse, because the decisions about the policies examined were made in the relatively recent past (≈10y ago), many actors involved are likely to still be in office, which may jeopardise their own ability/willingness to discuss the finer details of the compromises made and with whom they were made, or for others to do so about them. Finally, because of the limited number of appropriate interviewees, there is limited scope to cross check interviewee's answers with one another. All this applies to policies which are considered successful by

some measure; finding people willing/able to discuss unsuccessful policies will be more difficult again.

Operationally defining the subjective concepts contained within the research question (e.g. successful, integration) is another area of difficulty. These must be general enough to allow their application, but specific enough to still be meaningful.

Another area of difficulty is the range of policies from a range of countries, which makes the aforementioned difficulties greater than they would be if applied to policies from a single country. In practice, the methodology applied will be generally similar for all case studies, i.e. the evaluations are mainly based on existing, published evaluations that may be complemented with interviews. On a more detailed level, however, the evaluations may differ in several respects, such as the scope and the degree of insight into the processes studied. Also, the fact that several different consultants and researchers analyse the different case study increases the risk of the analyses having different focuses and/or interpretations. These possible (risks for) disparities will be minimised by addressing and discussing the results of the case study analyses in common seminars/workshops within the project.

# 3. Background information on the case-studies

## 3.1 Case-studies 1 & 6: Munich

Munich and its outlying districts are experiencing a phase of rapid economic growth; resulting in more jobs and population growth, all of which complicate the city's transport situation. The city's policies and actions must account for this population growth and rising transport demand, while limiting the development of unsustainable behaviour (i.e. individual car use), which, once established (along with the supporting infrastructure), may make a subsequent shift to a more sustainable transport system difficult.

The municipal administration does not have a single transport department or agency to deal with all issues relating to transport and transport infrastructure. Instead, five departments have remits which include some aspect of transport administration, all of which must be included in and/or consulted on transport-related decisions, significantly complicating the decision-making process (Interview, Koppen). The absence of a transport department means there is no department which is tasked solely or primarily with administering this area, instead transport is one of the many aspects of the five departments work, of greater or lesser importance to them. This has the consequence of complicating setting long term, holistic and comprehensive goals and implementing the policies necessary in meeting those goals.

The problem of distributed responsibility manifested itself in the development of Munich's Transport Development Plan being much more complex than would have been necessary with simpler institutional arrangements.

## 3.2 Case-studies 2 & 7: Utrecht & The Netherlands

**The Netherlands – electric vehicles**

In 2013 a multitude of Dutch parties signed and 'Energy Agreement for sustainable growth', directed by the Socio-Economic Council (SER) aiming to provide a robust and future-proof energy and climate policy. For the area of mobility and transport, parties have agreed on a reduction of $CO_2$ emissions by 60% in 2050 compared to 1990 and an intermediate reduction to a level of 25 Mt $CO_2$ (-17%) by 2030 (Cuelenaere et al. 2014).

These ambitions for the Netherlands are largely in line with the EU transport policies for clean, safe and efficient transport. Overall, the EU intends to reduce GHG emissions by 80–95% below 1990 levels by 2050. Commission analysis shows that while deeper cuts can be achieved in other sectors of the economy, for the transport sector a reduction of at least 60% of GHGs by 2050 compared to 1990 levels is feasible (EC, 2011a; EC 2011b). Furthermore The Commission aims to halve the use of 'conventionally fuelled' cars in urban transport by 2030, phase them out from cities by 2050 and achieve essentially $CO_2$-free city logistics in major urban centres by 2030. To this end, the Commission encourages electro-mobility in several ways: with generic policies, such as $CO_2$ emission limits for cars, as well as with the Renewable Energy Directive and the Fuel Quality Directive. In addition, the Commission encourages joint public procurement for low-emission vehicles in commercial fleets (delivery vans, taxis, buses etc.).

Similarly, the Netherlands encourages the roll-out of electro-mobility with a range of incentivising measures, including: an EV promotion team, fiscal incentives including zero purchase taxing, (temporarily) zero or very low road tax, and fiscal benefits for lease cars.

**Utrecht Electric**

Utrecht is the capital of the province of Utrecht and has more than 300,000 inhabitants. The Utrecht region is also one of the "hubs" of the Dutch economy. The inner city of Utrecht, has a centre with canals, many historical buildings and narrow streets. Utrecht's ambition is to be the number one in clean city mobility in the Netherlands. Even so, it is still an important objective to maintain accessibility by road. This is essential to the vitality, attractiveness and competitiveness of the city.

One of the pillars to achieve these ambitions is the programme *Utrecht Electric*. *Utrecht Electric* aims to foster electric transport in order to make motorised transport

in the city as clean as possible and to enhance sustainable transport in general. The three main ambitions for the roll-out of electric vehicles are:

1. To establish a network of 200 charging points for electric vehicles.
2. To electrify the city's own car fleet (about 60 cars and scooters).
3. To expand electric transport through cooperation with businesses and citizens.

*Utrecht Electric* focuses on passenger cars, scooters and commercial vehicles, although the programme also mentions trucks and buses as key vehicles to introduce electricity. Main target groups are the drivers with the largest share of driven kilometres (and associated environmental impact) in the city. This basically concerns daily (business-)drivers within the city, such as real estate agents, home care institutions, general practitioners, real estate agents, taxis and delivery light duty vehicles/vans and scooters.

## 3.3 Case-studies 3 & 8: Lund & Stockholm

**Lund**

The municipality of Lund has about 110,000 inhabitants in total with about 80,000 in the central city area. Lund is situated approximately 20 km from Malmö in southern Sweden within a growth area with a profile of higher education and research. Commuting is intense within the municipality as well as between municipalities in the region (Lund municipality 2007, Lund municipality 2010).

In 1996, aiming to create an environmentally sound transport system, Lund's Municipal Executive Board decided to develop an environmentally adapted transport plan, LundaMaTs, followed, in 1998-1999, by the initiation of a number of activities to promote sustainable transport. Among the initiated activities were the public transport route Lund Link (Lundalänken), a large number of bicycle promotion measures and the activities of the Mobility Office (Trivector 1998). In 2007, LundaMaTs II, an updated version of LundaMaTs, was developed, in which the vision was widened from an environmentally adapted transport system to sustainable development of the transport system covering all three sustainability aspects (environmental, economic and social).

**Stockholm**

Traffic in Stockholm has been an issue subject to public and political debate for decades (Table 4). With the aim of reducing traffic congestion, the Stockholm City Council in 2003 adopted a majority proposal to conduct a trial implementation of congestion charging of the inner city of Stockholm. The formal decision on implementation was made by the Swedish Parliament, issuing The Congestion Tax Act (2004: 629) on the 17th of June 2004 (http://www.stockholmsforsoket.se/templates/page.aspx?id=183). The aim of the so-

called Stockholm Trial was to reduce traffic and congestion, to cut journey times, and to improve environmental conditions.

Sustainable urban mobility planning establishes the principle that the public should be involved from the very beginning of the transport planning process and not only when the plans are largely completed and only minor amendments can be carried out. This makes it necessary for public authorities to open-up a highly specialised and complex subject area for debate and prepare for participation as part of the planning process. The trial was initiated in August 2005 with the extension of public transport routes. In January 2006 the trial implementation of a congestion tax started, with both being concluded by 31 July 2006. The trials have been evaluated continuously from a number of different perspectives and were summarised in a report in early summer 2006. A referendum on the continued implementation of congestion charging was held in conjunction with the general election on 17 September 2006, in which the inhabitants of Stockholm voted narrowly in favour of the congestion tax, and a permanent system was implemented on 1 August 2007.

| Date | Step |
|---|---|
| 1970s | Various proposals of measures to improve the flow of road traffic in Stockholm |
| 1980s | Continual debate on road charging in Stockholm |
| 1990s | Attempts to introduce road tolls in Stockholm (part of the so-called Dennis Agreement) |
| 02/1997 | Collapse of the Dennis Agreement |
| 08/1997 | Public inquiry on introduction of road pricing in Stockholm |
| 2000s | Continual debate on road charging in Stockholm |
| 2002 | Stockholm City Council set up an organisation to introduce congestion charging |
| 2002 -2003 | The Stockholm Commission was commissioned to investigate setting up of congestion charging |
| 10/2002 | Declaration of intent to introduce congestion charging in Stockholm after a several-year full-scale trial (agreement between the Social Democrats, the Left Party and the Green Party) |
| Spring 2003 | Setting up of the Environmental Charge Secretariat (to plan, implement and evaluate the charge trial) |
| Autumn 2003 | Commence of actual work of the Environmental Charge Secretariat |
| 06/2003 | The City of Stockholm Council voted for the introduction of congestion charging and for procurement of an appropriate technical and administrative system |
| 2003 summer | The Government Office of the Ministry of Finance assumed responsibility for the congestion trial |

| | |
|---|---|
| 2003 July | Complaints against the Stockholm City Council's decision on procurement of the technical system for the congestion-charge trial |
| 2003 autumn | The Environmental Charge Secretariat prepared procurement of technical system for the congestion trial |
| 2003 autumn | Local referendums on the trial arranged by 12 suburban municipalities |
| 2004 Feb. | Bill on a congestion tax |
| 2004 winter--spring | Planning for reinforced public-transport facilities to cope with anticipated increase in demand following the congestion trial |
| 2004 summer | Discussions on receivers and use of congestion charge fees |
| 2004-06-16 | Law on congestion tax passed by Parliament |
| 2004 July | Responsibility for planning congestion-tax trial taken over by Swedish Road Administration |
| 2004-07-09 | Decision by the Swedish Road Administration to award the contract on the technical system for the toll to one of the competitors |
| 2004 July | Appeal against the procurement of technical system for the trial |
| 2004 Dec | State budget granting state coverage of congestion-tax trial costs passed by Parliament |
| 2005-01-01 | Opening of a customer-service centre to disseminate information on the trial |
| 2005 May | Intense information on the trial |
| 2005 summer -- autumn | Intense information campaigns on the trial |
| 2006-01-03 | Start of congestion-tax trial |
| 2006-07-31 | End of congestion-tax trial during which traffic volumes decreased much more than expected |
| 2006-09-17 | Regional referendum in Stockholm and 14 of the neighbouring municipalities resulting in a Yes to congestion tax by voters in Stockholm and a No in neighbouring municipalities |
| 2007-08-01 | Reintroduction of congestion tax (permanently) |

*Table 4. Policy steps for the Stockholm congestion charge (from Gullberg & Isaksson (2009)*

The Stockholm Trial has, along with the introduction of the congestion charging system in London, been referred to as a successful example of how "mobility management" can be used to bring about significant decreases in congestion and travel times in big cities (Gullberg & Isaksson 2009). Overall the trial had a significant effect and reduced congestion to a level that was actually noticeable by ordinary citizens.

## 3.4 Case-studies 4 & 9: Krakow

Krakow's transport system is developing rapidly, mainly driven by European Union finance and the public authority's awareness of the advantages offered by public and eco-friendly transport. However, the new developments must be understood and supported by citizens. For this reason, Krakow's municipality has made a political commitment to improve the communication with and involvement of the public and important stakeholders in transport-planning decision-making. The Krakow Mobility Forum, under the remit of the Mayor of Krakow, is the first official platform in Poland to test the effects of better communication with citizens and public involvement in this process.

**Telebus**

Despite the development in Krakow's public transport system, there are still many problems, mainly in suburban areas. In contrast to the buses and trams operating in the city, in some suburban areas or in areas with low population density, the public transport service is deficient (long waiting times, large distances to stops). In response, the Krakow municipality decided to implement a new service for low-density areas where the regular public transport service would be too expensive: Tele-Bus. Tele-Bus is an example of DRT (Demand Responsive Transport), or on-demand "many to many" public transport (PT) service with fixed stop points but flexible routes and timetables which operates every day in the south-eastern area of the city during defined operating hours using 2 small buses. The Tele-Bus service was launched in summer 2007 after several months of preparation and close co-operation between the CARAVEL project partners Genoa (Italy) and Krakow.

A primary goal of implementing Tele-Bus in this area is to make it easer for inhabitants to reach modal interchanges, and to test and evaluate demand-responsive lines in view of future development of the service in residential and industrial areas with low population density; where a conventional PT service is insufficient and characterised by a low frequency of bus runs.

To manage the demand-responsive system, Krakow has used similar technology and software to the existing demand-responsive public transport service in Genoa. The daily DRT service operation is managed by the Transport Dispatch Centre, part of MPK (Miejskie Przedsiebiorstwo Komunikacyjne – the PT operator in Krakow). DRT clients contact dispatchers by phone using a dedicated free telephone number. Dispatchers collect the information from passengers, input data to the system, the system plans routes and output information is given to Tele-Bus drivers. The only limitation from the passengers' point of view is fact that an order must be placed at least 30 minutes before the planned start of the trip. The communication between TDC and drivers is based on mobiles phones and private radio network.

Implementation of this service was preceded by many stages. It included the work on operational design, preparation of marketing campaign, service model designing, software adaptation, installation and training, start of the transport dispatch centre and finally the start of the service operation (first bus run). However, the success of this service was dedicated to the participation with few policy integration documents and cooperation among the municipality units.

**Mobility forum**

Krakow's Mobility Forum is a series of meetings designed for better communication between municipality and citizens/users of Krakow's transport infrastructure which works under the lead of the Mayor of Krakow, and includes at least the following groups: municipal departments, public transport companies, associations of public transport passengers and bicycle users, quarter councillors and commercial associations.

Forum is not a body of public authority, but opportunity for citizens to express an opinion. The Mobility Forum meets at least twice a year and publishes the outcomes of each meeting. Each time, depending on the subject, different groups are invited. The Mobility Forum is mainly dedicated to solving the transportation problems in the city. The Mobility Forum's usually includes: an introduction to the problem, then the legislative and municipal aspects, and then a public discussion with all participants. The subject of the meeting and agenda is prepared by Mobility Forum organiser (Polish Association of Engineers & Technicians of Transportation), but also could be proposed by others (citizens, other organisations, etc.).

One of the first objectives of the Mobility Forum shall be to support the development of a Charter for Public Transport Passengers' Rights.

The solutions discussed during Mobility Fora are usually the preliminary solutions which have been accepted by the municipality. The main results of the Mobility Forum mainly concern determining participants' points of view, and to reveal previously unconsidered aspects.

Within the forum activities conferences, seminars, workshops on the different items are organised. These special events take place in schools, high schools and in colleges (Jagiellonian University, Krakow University of Technology, AGH University of Science and Technology).

The innovative aspects of the measure are:

- **New conceptual approach –** The Mobility Forum should be a platform to discuss specific solutions which are going to be implemented in the transport system development in Krakow. It is always better to find common solutions

early. For Krakow, the Mobility Forum is a completely new approach for stakeholder meetings and gathering opinions about the city's transport system development.

- **New official document -** Charter for Public Transport Passengers' Rights, which was developed from collection of rights to more declarative version.

## 3.5 Case-studies 5 & 10: SUMP

A Sustainable Urban Mobility Plan is a strategic plan designed to satisfy the mobility needs of people and businesses in cities and their surroundings for a better quality of life (Rupprecht Consult, 2014). It builds on existing planning practices and takes due consideration of integration, participation, and evaluation principles.

The key characteristics of a Sustainable Urban Mobility Plan are:

- Long-term vision and clear implementation plan
- Participatory approach
- Balanced and integrated development of all transport modes
- Horizontal and vertical integration
- Assessment of current and future performance
- Regular monitoring, review and reporting
- Consideration of external costs for all transport modes

The SUMP approach does not only consider the development of plans and strategies but also looks at the planning processes behind them. Such sustainable urban mobility planning processes can be part of the plan development and the implementation of transport policies and measure packages.

SHAPE-IT focuses on two essential components of sustainable urban mobility planning: policy integration and policy processes (with special emphasis on participation). Sustainable urban mobility planning requires integration of policy-making horizontally across sectors, vertically at multiple authority levels, and territorially across administrative boundaries. There is a great need for institutions to progress from a 'silo mentality' – where departments isolate their specialised knowledge and decision-making processes from each other – towards a more open, collaborative and interconnected institutional structure. Policy integration has been espoused by national and international organisations such as the European Commission, the EU Expert Group on the Urban Environment, and the United Nations, and is stipulated in the Amsterdam Treaty.

There is now also momentum building for a new approach to strategic sustainable transport planning across Europe that incorporates public participation as an integral element. In particular, transport planning and transport relevant measures are often

the subject of controversial discussions within the urban community. The concept of sustainable urban mobility planning establishes the principle that the public should be involved from the very beginning of the transport planning process and not only when the plans are largely completed and only minor amendments can be carried out. This makes it necessary for public authorities to open-up a highly specialised and complex subject area for debate and prepare for participation as part of the planning process.

Success factors derived from SHAPE-IT's case studies for policy integration include the following:

- Alignment of the local policy with regional, national and EU-level frameworks and goals
- Integration of the policy into a broader local-level plan
- Openness to the take-up of solutions that originate from departments not directly involved with transport
- Policies that encourage complementary transport modes
- Creating complementary push and pull measures
- Clearly defined roles for cooperation across departments and for interaction at various scales of government
- Capacity building for collaborative policy development
- Thinking, planning and acting as a wider urban area
- Policy implementation plan which ensures continued accountability across departments
- Re-evaluation of the policy at regular intervals

The SHAPE-IT criteria for a successful policy and participation process are as follows:

- Political commitment and engagement in participatory processes
- Development of a communication and participation strategy
- Clear institutional roles and leadership for participation
- Participation routines and clear structures for active involvement
- Thorough identification of stakeholders and analysis of their constellations
- Early engagement with local supporters and potential veto players
- Appropriate integration with decision-making
- Clear management and leadership structures for policy development and implementation
- Capitalising on support from key proponents
- Local partnerships and cooperation with private sector actors
- Test period for measures – a real-life "look and feel" for citizens and stakeholders

- Communicating the message – branding, marketing and working with the media

# 4. Policy integration case-studies

## 4.1 Case-study 1: Munich's *Transport Development Plan* (TDP)

The seeds of Munich's *Transport Development Plan* (TDP) were sown in *Perspektive München* (Perspective Munich), the city's overall urban development concept, passed by the city council in 1998. Perspektive München was written with the guiding principles 'compact – urban – green' in mind, and as such proposed denser, mixed-use urban development clustered around public transport stations/stops (Interview, Koppen). Additionally, Perspektive München provided for five further key projects. One of which is the TDP (City of Munich 2001), whose development was led by the municipal *Department of Urban Planning and Building Regulation*, otherwise known as the *'Planning Department'* (*Referat Stadtplanung und Bauordnung*, Kurztitel 'Planungsreferat')(ibid.).

The TDP lays down the city's (major) policies and measures to shape local personal and goods transport, including specific commitments for each transport mode (City of Munich 2006). The plan is seen as an integral part of the urban planning process, and crucially, it is considered binding by the relevant public authorities.

A transport demand forecast for the year 2015 laid the groundwork for the TDP. This included a projection for trip numbers and their distribution based on forecasts of Munich's and the surrounding region's population, workplace distribution, urban development and considerations of socio-economic factors influencing mobility behaviour (Interview, Koppen). Moreover, the model incorporated the effect of a number of planned infrastructural measures which aim to shift traffic from private motorised and public transport to cycling and walking (such as bicycle parking).

The forecast was then complemented by three different "test scenarios". The first test scenario was based on the assumption of increased private motorised transport, the second assumed expanded public transport infrastructure and the third was based upon the promotion of "conscious" mobility, i.e. campaigns for pedestrian and bicycle traffic as well as mobility management.

Finally, the TDP stipulated a strategy which includes measures from the basic transport forecast, some measures to foster public transport (from test scenario 2) and additional measures to promote conscious mobility (from test scenario 3). In the following section, a selection of the policies stipulated for the various modes are listed.

**Motorised private transport**

- Completion of the road network, installation of junctions
- Expansion of the ring-road from 2 - 3 to 3 - 4 lanes in each direction
- Spatial and temporal variation of parking fees
- Expansion of urban areas with fee parking
- Car-park routing systems
- Resident-only parking areas
- Dynamic road traffic management.

**Public transport**

- Measures to increase commuter railway frequencies
- Construction of new and extension of existing lines
- Extension of underground lines
- Extension of existing and opening of new tramway lines
- Infrastructural measures to increase bus schedule speed
- Park-and-ride and bike-and-ride schemes, mostly at the city boundary in order to make commuting more convenient

**Non-motorised traffic, soft and integrative measures**

- Extension of bicycle route network (primarily radial and concentric), incorporating age and gender-adjusted measures
- Improvement of bicycle-public transport interchanges
- Cycling maps, marketing campaigns
- Designing attractive urban public spaces to stimulate walking
- Measures to increase social safety
- In-trip information for individual and public transport
- Mobility management, including:
    - Advisory measures
    - Internet-based information dissemination
    - A public transport failure contingency plan

The mobility management package includes classic measures to increase the whole transport system's efficiency, however, without explicit targets, as no political consensus could be found for them (Interview, Koppen).

### *4.1.1 The TDP's integration*

To ensure the TDP's integration, Munich's Planning Department (which, as previously mentioned, led the TDP's development) widely consulted with and invited participation from various government bodies in and around the city and surrounding municipalities during the plan's development (city of Munich 2001), through the following measures:

- Informing the public of the TDP on advertising hoardings, in newspapers, and in brochures and Flyers
- Actively informing various agencies:
    - Other offices and agencies within the Department of Urban Planning and Building Regulation
    - Other municipal departments and public agencies
    - The Mayors of Munich's surrounding communities
    - District councils from the surrounding region
    - The regional planning association's Planning Committee
    - The regional-planning working-group (AKREM)
- An internet forum where residents could discuss the TDP
- Six local events for residents, along with one specifically for children, youths, senior citizens and disabled people.
- A series of debates/discussions, *Mobility in Munich* (*Mobilität in München*), in which experts from the *Sueddeutsche Zeitung*'s (Munich's largest newspaper) so-called *Traffic Parliament* (*Verkehrsparlament* - itself a discussion forum), discussed four topics:
    - Public transport – rail and air
    - Traffic management – road and commercial traffic
    - Pedestrian and cycle transport – advice and marketing
    - Summary and conclusions

This process was well received, with 230 responses to it considering the TDP to be a "balanced substantiation" of *Perspektive München* (the urban development concept), with those responses representing a wide range of backgrounds (for example 50% of them came from residents, 15% from surrounding municipalities and 10% from district communities) (ibid.).

One aspect which did not work well in this process, however, was target setting. The original intention was to include modal-share targets within the TDP, and the planning department made suggestions for these: reducing the modal share of private motorised vehicles (cars, motorcycles etc.) from 35-40% to 30-35% and increasing cycling's share from 10-15% to 15-20% [both 2000 to 2015, respectively] (City of Munich 2001), but the political level could not find a consensus, so the specific targets were omitted (Interview, Bickelbacher). Additionally, one interviewee criticised the TDP for not affording public transport enough attention, which, in turn affects regional integration (ibid.).

For more detailed aspects of the TDP's development, the Planning Department worked closely (daily) with the departments responsible for spatial planning, social and economic planning. Indeed the Planning Department was obliged to consult any offices effecting or affected by transport development (Interview, Koppen).

The final responsibility for transport development (modal use/change, reducing car usage) lies with the Transport Planning Dept. Others departments must consult with them on their projects, the Transport Planning Dept. maintaining the right of reply and tasked with checking if the proposal is consistent with the TDP (Interview, Koppen).

Aspects from higher levels also played a part in the TDP. The plan is part of the city's urban development concept, Perspektive München. This, given its guiding principles 'compact – urban – green', set the stage for an ambitious transport development plan. Also, German Federal Government funding for public transport, road and cycleway infrastructure is first allocated to so-called middle agencies, in this case the *Upper Bavarian Regional Government*, who then allocate the funding to lower government levels. When the subsidy issuers are assessing measures to fund, they commonly wish to be informed of the broader concept in which the individual measure fits; here local authorities can refer to the TDP (Interview, Koppen). Another factor from above which had to be integrated in the TDP was parking fees, on which the Regional Government imposes a price cap (ibid.).

A specific case of multi-sectorality is presented by the project *Long-term Settlement Development (langfristige Siedlungsentwicklung, Lasie)*. This project, initiated as a result of Munich growing faster than forecast in the TDP, examines whether entire settlements and developments can be densified and whether commercial/industrial areas could/must be converted to residential use (Interview, Koppen).

### *4.1.2 Policy interactions*

**Potential for synergies and co-benefits**

Of the specific measures listed in the TDP, there a raft of them which are likely to synergise with one another to make the city's transport system more sustainable, such as the expansion of areas with parking fees and the special and temporal variance of the fees, the many measures to improve the public transport system and those to improve cycling and walking.

**Risks of trade-offs**

While the measures proposed may lead to positive synergistic effects, some also carry the risk of unintended effects, or trade offs. Park-and-ride schemes and expanding infrastructure for motorised traffic increase travel speed for motorists, while improving the public transport does the same for its users, impeding the shift to even lower impact modes (public transport and walking/cycling respectively). Moreover, increasing the speed of long distance mode decreases journey times, and thus may induce longer distance commuting.

### 4.1.3 Effectiveness

Figure 4 shows the modal distributions for trips made in Munich according to various surveys.

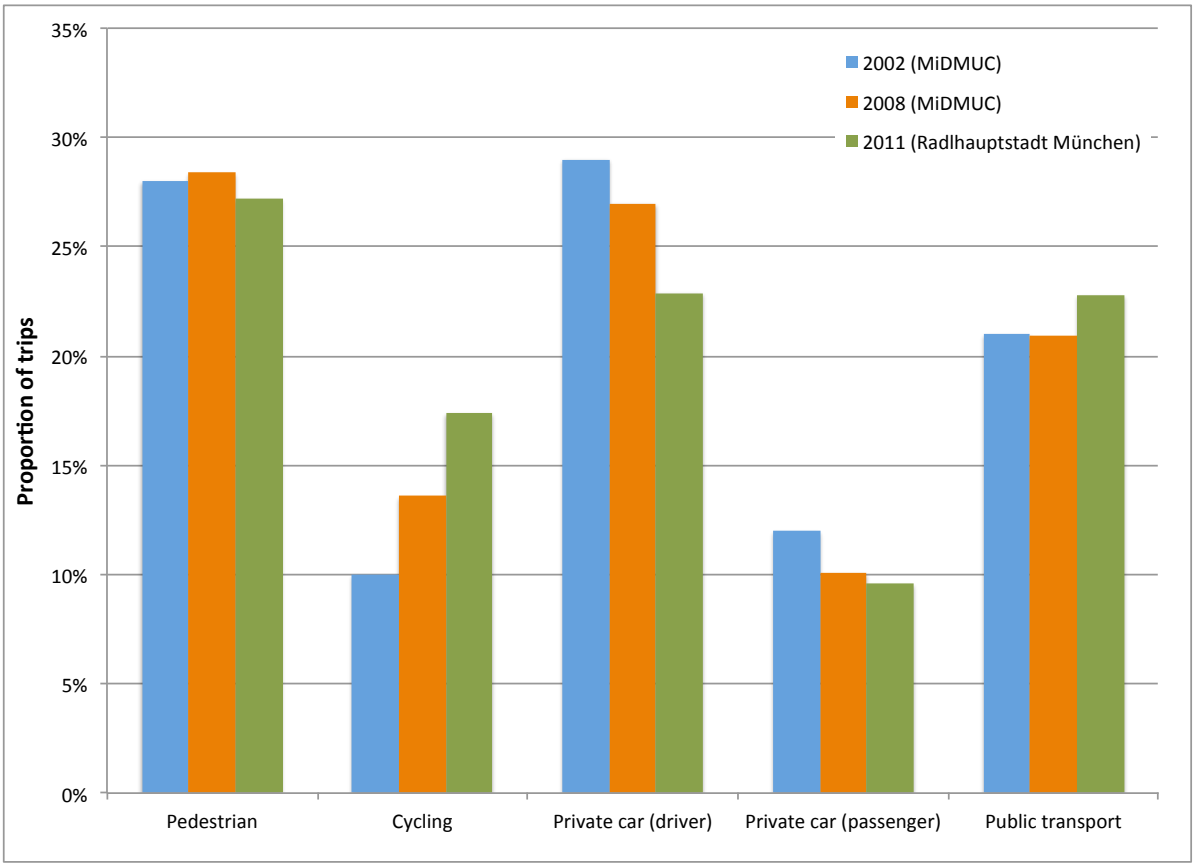


*Figure 4. Table showing modal share in Munich (2002-2011). Own representation of data from Raumkom/Wuppertal Institut (2012).*

The data used for Figure 4 comes from studies in 2002, 2008 (both Munich-specific studies supplementary to the large scale, national *Mobilität in Deutschland* studies) and 2011 (completed for the official evaluation of Radlhauptstadt München). As the TDP was passed in 2006, it is unlikely to have strongly affected the modal distribution between 2002 and 2008. The 2002 figures have been retained however, as they provide valuable context for the changes.

The most significant changes shown in the graph occurred for cycling and passenger cars. Cycling grew strongly and steadily throughout the time shown, from 10% to 17.4% (+7.4%), while the total passenger car share steadily dropped from 41% to 32.5% (-8.5%). Public transport use jumped in the final study shown, but as this study was from a different source, and the change is relatively small (+1.8%), this should be interpreted with caution. Interestingly, the modal share for pedestrians changed by amounts bordering on the insignificant (28%, 28.4% and 27.2%). The

key finding is the increase in cycling over this time, which appears to be de to passenger car users switching to cycling.

Despite it being very difficult to attribute changes to a specific policy or measure, some information on the reasons for these developments was given by Mr. Koppen. He noted both the total use of private motorised vehicles and modal share had decreased, these results are more due to changing conditions (rapidly increasing population and jobs) than to the measures mandated in the TDP: Munich's inner-city traffic has been stagnating for years due to those roads running at full capacity (Interview, Koppen). An additional explanation for the decreased private motorised traffic is the parking measures, particularly the residents' parking restrictions.

In order to better assess the results of transport policy in the city, the contract for the TDP also contains provisions for the development of a standardised evaluation and monitoring scheme; as yet not complete (ibid.). When completed, this will be a valuable tool enabling stakeholders and others to observe changes in the city's transport system and steer further developments as/if needed.

### *4.1.4 Linkages to policy processes*

The Munich Planning Department enacted various measures to ensure the TDP was integrated in the relevant vertical and horizontal frameworks. These represent a clear link to the *policy processes* side of Shape-IT, as the Planning Department's efforts could equally well be described as stakeholder participation, part of the focus of the policy processes section. According to Mr. Bickelbacher, the TDP was of primary importance to the administration, for whom it was binding, however for politicians, it was largely irrelevant; if it supported their ideas, they would cite it, if not, they would ignore it (Interview, Bickelbacher). He goes on to say, however, that the process of creating the plan was important as a catalyst for consideration of transport topics and the goals for the system (ibid.).

## 4.2 Case-study 2: integration of Dutch LEV laws with EU laws

### *4.2.1 Influence of the various policy levels in fostering electro-mobility*

The interviews with the city of Utrecht (see Case study 7) indicated the crucial role of cities in facilitating the roll-out of electric transport. In addition the interviews with the city of Utrecht indicated that policies for electro-mobility at the local, provincial, national and EU-level are not always optimally aligned with each other. This finding is the starting point of case study 2, that aims to examine how the success of local initiatives for electro-mobility is influenced by national and EU-policies, and what lessons can be learnt for future improvements. In this way, synergies and trade-offs between the different policy levels will be identified, which can be used for improvements in the future.

The alignment of policies at the different administrative levels was evaluated by first compiling and extensive overview of relevant policy measures at the administrative levels local, provincial, national and EU. Next this policy overview was used as a starting point for a series of interviews with 1-2 key stakeholders at each administrative level involved. The interviews focused on: (1) for each administrative layer identifying their (perceived) role and associated key actions towards fostering electro-mobility; and (2) their vision on the role and actions of the other administrative levels involved.

The next section discusses the main similarities and differences of the policy makers at the different administrative levels, taking the local situation in the City of Utrecht as a starting point (see also Case study 7).

### *4.2.2 Local level – City of Utrecht*

First of all, the roll-out of electro-mobility has to take place at the local level. Local key players are crucial, which is a common finding among the four different policy layers. According to the local actor, the main key conditions for successful roll-out are:

- Involve relevant local key players/businesses
- Seek ways to integrate comply with their needs and interests
- Create long term commitment
- Deliver flexible, tailor made solutions
- Be creative: out-of-the-box thinking
- Communication is crucial

Although these local key conditions need to be present, policy measures at the other administrative levels might be required or can facilitate the roll-out of electro-mobility. This is indicated by the main outcomes of the interviews with the other administrative layers in the next sections.

### *4.2.3 Provincial policies' impact on local electro-mobility roll-out*

Policy measures from the provincial level play a minor role for the city of Utrecht; the city operates more or less independently from the province. Nevertheless, for smaller cities, the province might play a facilitating role. Furthermore, both national and EU policy makers address the importance of regional roll-out for electro-mobility. For the province of Utrecht this is currently observed in the involvement in the Metropolitan Region of Amsterdam (the larger area around Amsterdam encompassing the provinces North-Holland and Flevoland, and 36 municipalities).

### *4.2.4 National policies' impact on local electro-mobility roll-out*

At the national level several incentives have been initiated in order to develop and speed up the market implementation of electro-mobility. The national government wants the Netherlands to become a frontrunner in electro-mobility. Nevertheless, policy makers at the national level mention that they are still trying different approaches to effectively facilitate the roll-out of electro-mobility. Sometimes measures are successful in themselves, but the achieved effect is lower than expected (such as for PHEV-fiscal advantages, where consumers drive a less than expected number of electric kilometres with their PHEV). Although flexible measures are required for the local level, the national policy maker aims to provide a long term and stable policy for electro-mobility. In addition, some clear different viewpoints on several measures were observed in the various interviews:

A good example is the programme of 'Living Labs' in which the local (Utrecht) policy-maker mentions that – regarding the situation in the city of Utrecht – these Labs came too early and that more guidance/cooperation with/from the national level would have been preferred. The national policy-makers, however, mention that it was supposed to be a pilot project and up to local partners to contribute to development. Furthermore, it was mentioned to develop the technology, so 'learning-by-doing' (and inevitably finding failures).

Another policy measure which was explicitly addressed in most of the interviews is the 'Green Deal Charging Infrastructure', which is currently being developed. The local (Utrecht) and provincial level mention that the Green Deal (and additional finance – at least to some extent from the national government) is required to develop the required charging infrastructure. The national policy level mentions that the market has to take up the establishment of the charging infrastructure and that the national level is not able to fully deliver the financial demand of local/provincial governments.

In addition, it was observed that policy makers have different viewpoints on the operation of the so called 'Focus Area Platform'. Although the national actor mentions that this is an important platform to improve cooperation and communication between various local policy makers, according to the local (Utrecht) actor the true effectiveness of this platform is rather low.

In the final stage of the interview sessions, an interview was held with the chairman of the so called "Formule E-team". As we are speaking about the gap between the different layers, this "Formule E-team" might play an important role in bridging the gap between and within the different levels. An important aspect, and also addressed by the city of Utrecht, is that discussions should not only focus on financial support, but to look for 'out-of-the-box'-solutions for the roll-out of electro-mobility.

### *4.2.5 European policies' impact on local electro-mobility roll-out*

At the EU-level the air quality target turns out to be a main driver for local, provincial and national policies for the roll-out of electro-mobility. In contrast, according to the city of Utrecht, the EU-subsidy programmes do not always meet the flexibility required at local level. The long review time of EU-subsidy frameworks and rigid conditions causes inability to swiftly react on new situations and opportunities. According to the city of Utrecht, the Life+ subsidy could not be used/did not have the effect it could have on Utrecht Electric. It is observed that the EU has a different perspective on its role and their flexibility. In addition the EU mentioned that their new framework programme 'Horizon H2020' already delivers more flexibility at the local level.

A third, an important way in which the EU might play a role in fostering the roll-out of electro-mobility is the development of the Directive on the deployment of alternative fuel infrastructure. However, also different viewpoints have been observed in member states to this Directive. The EU-level mentions that the national countries should consider also the required EU-wide approach for development of charging infrastructure. However, the Dutch national government does not want a target for charging poles. Reason for this is that the market will ask the government for subsidies if they know that the government needs them to reach the required target.

## 4.3 Case-study 3: Lund's *LundaMaTs*

The 1996 LundaMaTs plan for transportation in the municipality of Lund, Sweden, included an evaluation of state-of-the-art regarding traffic and environment, environmental goals, strategies, and a work plan. Consultations with different groups were made and the plan was evaluated at meetings with a planning council, including representatives from retail, industry, police, environmental protection, public transport, school, county administration, and bicyclists/pedestrian organisations. Also, a political steering group and an expert group were involved in the development of the plan and supported the working group.

Five strategies were identified:

- Reduced traffic (including urban planning measures
- Coordination between transport modes
- More efficient transport
- Technical measures (vehicles and fuels)
- Measures regarding infrastructure development and maintenance

Also, the need for a holistic perspective was acknowledged, and cooperation within the municipality was identified as highly important as well as regional cooperation

with industry and NGOs. Further, political support, the project organisation, and funding were identified as highly important.

Five main reform areas were identified:

- Urban planning
- Bicycle city
- Development of public transport
- Green car traffic
- Transport of goods

These were complemented with two additional reform areas: IT and inhabitants' travels outside of Lund as well as supporting reforms: information, consultation and marketing.

The work within LundaMaTs was proposed to be organised with a steering group with representatives from urban planning, transport planning, and environmental administration, a workings group, and the Mobility Office. The political steering would be done through the existing transport committee and planning council.

In 2007, LundaMaTs II, an updated version of LundaMaTs, was developed in which the vision was widened from an environmentally adapted transport system to sustainable development of the transport system covering all three sustainability aspects (environmental, economic and social). LundaMaTs II envisions the direction and the desired conditions for 2030 for the municipality of Lund. This vision is completed with eighteen targets such as increasing the average speed of city buses, increasing the length of walk- and cycleways, increasing the number of walking and cycle trips, decreasing the number of people killed or injured in traffic, etc. (http://www.eltis.org/index.php?id=13&study_id=1626).

LundaMaTs II from 2007 was created in collaboration with different actors who contributed through work in theme groups and a reference group, and who participated in seminars and several discussions. In order to reach the formulated sustainability targets, LundaMaTs II includes eight reform areas:

- Urban planning
- Pedestrian and bicycle traffic
- Public transport
- Road transport
- Commercial transport
- Mobility management
- Management system

In these reform areas there were 42 different project proposals.

The LundaMaTs II Strategy from 2007 is still very project and transport oriented and provides limited guidance regarding the planning process and integrated planning although one of the reform areas is urban planning (Lund municipality 2006) and ambitions to develop an attractive city are stated. Also the LundaMaTs annual evaluations are very transport oriented, although in the 2011 evaluation, an extended interview-based evaluation focusing on the planning process was included (Aretun 2011, Lund municipality 2011).

The ambitions regarding urban development are indicated in LundaMaTs but are more clearly stated in other documents/strategies such as for example a handbook for planning for reduced car use from 2005 and the master plan from 2010 (Hrelja & Nyberg, 2012). According to the handbook the physical planning should focus on developing a dense and mixed functions city with short distances and planning that promotes walking, bicycling and the use of public transport (Lund municipality 2005).

In Lund there is a long tradition of using the bicycle for local trips. About 40 % of the trips within the city of Lund are made by bike (Lunds kommun 2010c cited by Hrelja & Nyberg 2012 p. 27). According to the master plan new development areas should be localised so that bicycle distances are below 5 km, and the possibilities for increasing density and mix of functions should be used to reduce car traffic (Lund municipality 2010).

The governance of Lund has a long and strong tradition of political unity and wide support for LundaMaTs. This seems to be linked to a tradition of dialogue being characteristic of municipal governance in Lund (Hrelja & Nyberg 2012 p. 31) and is most likely an important factor for the long-term perspective in urban and transport planning, and therefore also for the work within LundaMaTs. In this work, there were also politicians representing the parties at power and in the opposition in the City (Aretun 2011 p. 6). Another contributing supporting factor seems to be the long tradition of active engagement in societal and spatial planning by the citizens of Lund (Hrelja & Nyberg 2012 p. 29).

### *4.3.1 LundaMaTs's integration*

The responsibility for LundaMaTs is primarily held by the Municipal Assembly of the municipality of Lund, secondarily by the Technical Services Committee (and to some extent also the Building Committee (Aretun 2011 p. 7). The planning and implementation of LundaMaTs II was, however, largely the responsibility of the Technical Services Department, which resulted in a dominating focus on traditional traffic issues. This may have resulted in a somewhat narrow range of identified

measures to address problems pertaining to the transport system rather than such arising from urban development and societal activities (Aretun 2011 p. 19).

The organisation of the municipality of Lund is characterised by a common proliferation between sectors; traffic issues are managed by the Technical Services Department and spatial planning is managed by the Building Committee (Aretun 2011 p. 19). The municipality of Lund, however, diverts from what is commonly found in Swedish municipalities in that the municipality has retained the public transport in its own organisation. Public transport in the municipality of Lund is thus the responsibility of the Technical Services Committee, which is also responsible for other traffic issues as well the road and street infrastructure in the municipality (Hrelja & Nyberg 2012 p. 31).

Aside from the fact that urban and transport planning are the responsibilities of different departments, the municipality of Lund has a long tradition of collaboration between traffic planning and building planning/urban planning. There is since long a strong common ground on the long-time goals for building and traffic planning (Hrelja & Nyberg 2012 p. 29). This facilitated the development of LundaMaTs. Also, LundaMaTs seems to have strengthened the collaboration between the two sectors (Hrelja & Nyberg 2012). The high status of LundaMaTs II has been acquired partly thanks to finding a balance between LundaMaTs II goals and goals of other municipal sectors interrelated with the transport system (Aretun 2011 p. 14).

According to the municipal comprehensive plan, additional dwelling areas are to be located within 5 km cycling distance from working places and the city centre. In order to reduce travelling by car, opportunities of land-use densification in combination with a mix of societal functions shall be used (Lunds kommun 2010a cited by Hrelja & Nyberg 2012 p. 28). The fact that politicians largely share a common view on traffic and building planning and stand up for the agreed goals makes the ground for continuity of officials' daily work. Also, this common view facilitates the continuity of officials' work from one term of office of the politicians to the other (Hrelja & Nyberg 2012 p. 31). Likewise, there is general agreement and adherence concerning the common goals among officials (Hrelja & Nyberg 2012 p. 30). The work with updating of LundaMaTs seems to have been a means of upholding and strengthening the political consensus (Hrelja & Nyberg 2012 p. 42). Further means of strengthening this consensus was the continual development of common knowledge gained, among other things, by common study trips (Hrelja & Nyberg 2012 p. 43).

The Technical Services Department has co-operated closely with various levels of the Urban Planning Department in order to implement LundaMaTs II. LundaMaTs II has been integrated in the work of the Urban Planning Department with the municipal comprehensive plan and Municipal Executive Board (Aretun 2011 p. 15). It is also

integrated in the municipal goal-steering and in day-to-day work of the City administration (Aretun 2011 p. 13). A background report for the transportation strategy was sent for referral to NGOs, authorities and neighbouring municipalities (Aretun 2011 p. 6). Being well known and having a high status, LundaMaTs II is being viewed as a resource in the City management's external marketing (Aretun 2011 p. 14).

In the planning and implementation of LundaMaTs II, it was also possible to strike a balance between environmental goals and market interests thanks to recurring dialogue and co-operation between leaderships of Technical Services Committee, the Building Committee and the Executive Committee of the Municipal Executive Board (Aretun 2011 p. 20).

The "greater Lund area" can be characterised by Lund itself developing many working places whereas there is a rapid population growth in surrounding municipalities with a relative deficiency of working places. This pattern causes increasing commuting to the city of Lund (Aretun 2011 p 22). There is political support for developing the regional public transport system to improve the commuting conditions for people living outside Lund City and in the surrounding municipalities (Hrelja & Nyberg 2012 p. 27). The public transport in Lund city has limited capacity to meet a potential demand from commuters to Lund, however (Aretun 2011 p. 22).

Although wide support and sectorial integration, he full implementation of LundaMaTs II is still to some extent hampered by the fact that transportation interacts with many types of development and action outside the reach and responsibility of the Technical Services Department (Aretun 2011 p. 22). According to the so-called municipal monopoly, land use within the boundaries of a municipality is at the discretion of the municipality itself. Priorities of municipalities neighbouring Lund need thus not harmonise with those of Lund. Other obstacles to full implementation of LundaMaTs include national rules concerning allowance for commuting travels by car, competition with other objectives at regional level and unclear interactions between municipal, regional and national levels when it comes to planning models as well as financing (Aretun 2011 p. 23).

### *4.3.2 Policy interactions*

The governance of Lund is characterised by sustainability being strongly influential on developments in, e.g., spatial planning and traffic planning (Aretun 2011 p. 20). Spatial planning in Lund has a long tradition of being influenced by strivings that support sustainable transport (Aretun 2011 p. 21). There is a strong collective view of prioritising pedestrian traffic, biking and public transport over private-car traffic (Hrelja & Nyberg 2012 p. 29). The work with LundaMaTs II and the policy itself have a good

reputation outside the organisation and also in municipalities outside Lund (Aretun 2011 p. 21).

Some issues and difficulties were, however, identified by Hrelja & Nyberg (2012) who found that access to public transport and retail was not provided in and coordinated with a new development and there are also conflicts between densification and requirement for space and park areas. There is, however, a general agreement on the long-term goals which has developed through the development of handbooks and policy documents. Potential for further development has been identified regarding cooperation between the technical committee, the urban planning committee, the municipal board, industry, and other stakeholders.

### *4.3.3 Effectiveness of the policy*

Data on the share of cycling and public transport in regional and local traffic would be a sensible indicator for this purpose. The share of cycling for local trips in the city is high (Lunds kommun 2010c cited by Hrelja & Nyberg 2012 p. 27). Further, the long tradition of biking and the broad public engagement in building planning and traffic management in Lund greatly enhance the planning and implementation of LundaMaTs.

### *4.3.4 Linkages to policy processes*

The planning and implementation of LundaMaTs has been greatly enhanced by the consensus on the strivings towards a sustainable transport system among both politicians and municipal officials as well as a pronounced commitment and adherence to agreed goals among officials. This commitment to agreed goals on sustainability among politicians as well as municipal officials in Lund seems to have greatly facilitated cooperation concerning LundaMaTs.

The planning and implementation of LundaMaTs II was highly governed by politicians' goal-steering. The planning of LundaMaTs II was characterised by many political initiatives being taken. There was also a high degree of broad involvement concerning visions and goals. To a great extent, key politicians were keen on finding consensus on action plans, reform areas and concrete measures. This can be described as a professionalisation of the politicians, which, however, was prone to degradation caused by the term of office coming to an end (Aretun 2011 p. 15).

Operationalisation and implementation of intentions and decisions were, although a high degree of political involvement, primarily left to the municipal departments with their professional staff of civil servants. These therefore had a strong position towards the politicians who were dependent on the civil servants to implement politicians' intentions (Aretun 2011 p. 15-16). Furthermore, municipal-department staff often used the results they had achieved to promote their department and to

provide the politicians with stuff that could produce short-term political good-will (Aretun 2011 p. 16). This can also be seen as a consequence of variable political involvement experienced by the civil servants (Aretun 2011 p. 16).

## *4.4* Case-study 4: Krakow's *Telebus*

The methodology of the creating the TELE BUS system in Krakow was mainly based on the very strong support from the existing policy documents, which concern the transport and spatial aspects. The regulations concerning the transport and environmental protect aspects are considered on the national level (as a legislative document) and local level (not only a legislative documents, but also as a guideline documents).

On the other hand the success of the TELEBUS system depended from the cooperation among few public institutions, mainly gathered in the EU Caravel projects. The policy documents integrations and cooperation of the public partners was the main reason for the start of the TELEBUS service. The main key factors of TELEBUS service success are:

- The regulations in the national policy documents concerning transport and environmental protect which support the innovative transport solutions in cities
- The policy documents on the local level: Transport Policy for the city, Long-Lasting Development Plan in the city level, Development Strategy for the City, which support the sustainable transport aspects and allow to implement the detailed solutions (e.g. as TELEBUS service)
- Very good cooperation between Caravel project partners – The exchange of experience between Italian and Polish partners was very helpful. The access to best DRT technology and support from the practitioners of flexible services made it feasible to launch the Tele-bus in short times and without any technological problems.
- Support from the City and District Council – the representatives of the local society (and also decision makers) did a good job while organising meeting with inhabitants of the chosen Tele-bus area.
- Very well prepared corporate design for the Tele-bus service – the special image of the Tele-bus system elements (vehicles, bus stops, etc.) distinguishes them from conventional PT and consequently it is easer for potential users to remember and recognise the service.

When the TELEBUS service was on the first step of the creating, the main adversities and the key factors of failure were:

- Significant changes in the management system during implementation process: in Krakow, the responsibilities of PT planning and operation were

split between two entities: MPK (since August 2006 - only the PT operator) and Public Transport and Road Authority (established for PT planning and representing the City in the contract for PT services provision). The establishment of PT & RA and the preparation of a clear agreement regarding the responsibilities in the realisation of DRT services were time consuming therefore the implementation of the service was a bit delayed. The problem of the payment for service availability had to be solved as well.

- Lack of social acceptance for partial limitation of regular PT with simultaneous introduction of flexible better customised transport service. The introduction of the Tele-bus service was based on the assumption that two of the regular bus lines would be limited i.e. would only operate during the peak time. Unfortunately, inhabitants of the target area couldn't see additional value of the new flexible service - a possibility to be served exactly at the time they need without adjusting their trips to fixed schedules. They perceived the proposal only as an attempt to reduce the City costs and to take away PT service. Politicians decided to take into account the public complaints and keep conventional PT unchanged during the pilot phase. Such a decision, inconsistent with the assumption made in preparation stage, has its influence on chosen economy indicators, which in fact are difficult to be measured.

However, those adversities didn't influence on the Tele-Bus service thought and rather got the additional experience how to solve those problems in the future, where the new innovative solutions will be implement.

In Poland, there are separate institutions that take up the transport problems. On the country level the transport planning is managed by the Ministry of Infrastructure. The Ministry prepares the planning transport documents "Transport Policy for the Country". It collects the transport problems and diagnoses trends and problems in transport issue, defines policy transport aims, shows regulations in policy scope, frames of development trends in all transport systems – roads, rail, air, water, etc.; document raises also environmental issues in transport system; defines also implementation instruments and monitoring rules. It presents the main objectives for the public transport service in industrial areas and describe the main benefits from the public transport friendly cities. Despite of the country and common level, this regulation can influence on the transport planning in the cities. Mainly on the transport policy shape on the local level.

On the regional level, in fact there are no any specific administrative units which can influence the public transport system. The main units responsible for the transport in region are: Transport Department, Transport, Economy and Infrastructure Office. However, they are responsible for the main aspects of the transport. The official

documents with were preparing for the regional level are: Local Development Plan for Region, Long-Lasting Development Plan and Development Strategy.

On the local level the policy documents have the strong effort on the public transport development in the cities. On this level, there are few units which consider the transport aspects in the industrial areas. We can point the following administrative units: the city infrastructure department, transport department, environmental protect department, city development department and the urban development department. All this units can cooperate together with solving the transport problems in the city. The President of the city prepares also the policy documents concerning the urban and transport problems, as follows:

- Urban Development Plan – determines the rules of shape policy development by the self-governance units and administrative authorities, scope and proceeding possibilities in land use and transport purpose for defining aims and also for determine rules of development, taking into consideration all spatial and transport orders and sustainable development as a basic rule. In Krakow, the transportations aspects in dispersed housing area are praised, so this document could support the innovative transport solutions on the suburban areas. One of the main role of this document is creating the cohesive city, without dispersed housing area, which couldn't be serve by public transport. However for those parts of the city, where the density of population is low, whilst the area is develop by single-family housing, the city want to provide the public transport service based on the TELEBUS service. This document defines the spatial and transport development as integrated actions, which enforce the innovative solutions as TELEBUS service.
- Development Strategy – takes into consideration main aims and development determinants of particular territorial area in horizontal time (10 – 15 years), including all changes in internal/external social/economy conditions, with active participation of public/private institutions. They share with creation of the best regulation and plans in these documents and are the most important participants of this strategy. Development strategy is a development plan of the future actions, which can support also an innovative transport solutions, as TELEBUS.
- Local Revitalisation Plan - planning document; diagnoses situation in the city and determines quarters where the revitalisation is necessary, e.g. on the suburban area where the public transport service is unattractive; this document must be connecting with others planning/financial documents taking into account all its set actions.
- Long-lasting Investments Plan – it contains a list of all planning investments in the future with a material and financial schedule on the particular years (for 4 –

6 years). Hierarchy objectives are connecting with development strategy; document is a base of preparing budget in investment part in particular year. It's a guarantee to ensure financial means for investments in the future, mainly for the innovative transport solutions which could reduce the transport congestion (as TELEBUS service).

- Transport Policy – document which defines main transport problems, diagnoses transport/roads preconditions, proposes solutions between harmful causes of transport and citizens health. The main document which could create the innovative transport solutions for reducing the transport congestion and increase the public transport share (by creating the innovative public transport service as TELEBUS).

All those documents are policy context and can be helpful in creation of the innovative transport solutions as TELEBUS service. In Krakow, thanks of those policy documents, the TELEBUS service was possible to implement and function till now.

## 4.5 Case-study 5: SUMP policy integration

### *4.5.1 Policy integration in sustainable urban mobility planning*

Policies which aim to solve mobility challenges and create a more integrated, sustainable transport system require a holistic approach of multi-sectoral (horizontal), multi-level (vertical) and cross-territorial cooperation. Integration goes beyond simply comparing policy frameworks and coordinating sustainable urban mobility planning activities across departments and along hierarchies; it involves active group communication, knowledge sharing, joint work and ultimately shared decision making and accountability for the policy.

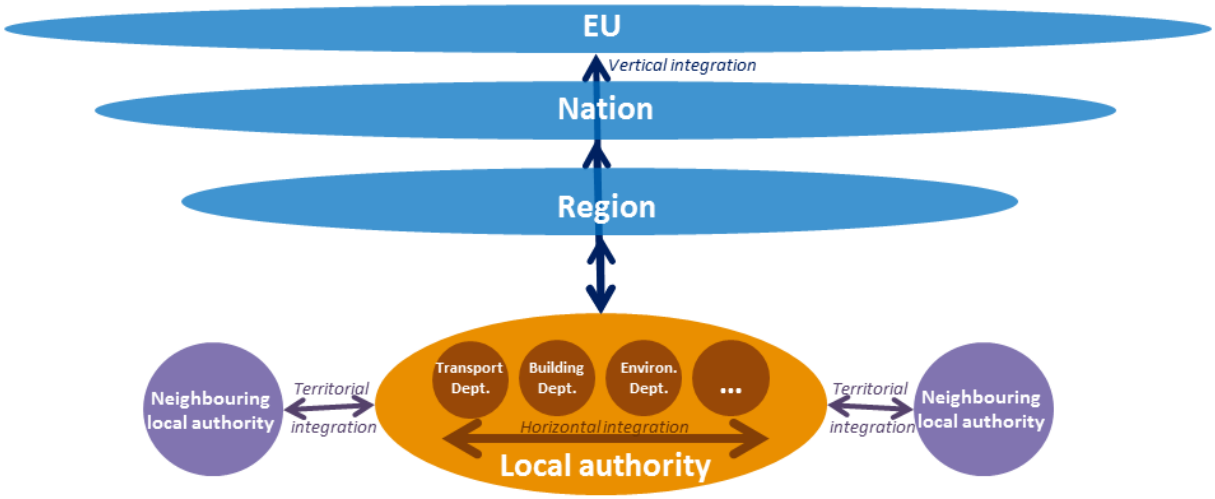


*Figure 5. Policy integration framework (source: SHAPE-IT)*

**Vertical integration**

Vertical integration involves aligning local policies with supportive or complementary policies and priorities held at the regional, national and EU levels. In order to do this, it is important to gain an understanding of how the policy is embedded in the wider planning frameworks of these higher levels of government; the existing structures at higher authority levels determine to a certain extent the possibilities for local governments to implement sustainable transport policies. Therefore, it is important for local governments to first determine the degree to which the various levels of government provide a supportive environment for them to reach their objectives, and to take advantage of such support. For example, available funding and the funding structures have a direct impact on the scope of a policy's implementation. Regulations and policy frameworks also have direct implications for the development of complementary policies at the local level.

**Horizontal integration**

Horizontal integration occurs at the local level, where departments across multiple sectors (e.g. building and land use, urban planning, transport, environment, energy, etc.) combine their expertise by working together to develop a policy. In parallel, the involved departments should also ensure that their existing policies and policy frameworks are synergistic and mutually beneficial, thereby fostering the measure's development and implementation. Routinely engaging in interdepartmental cooperation is essential to effectively integrate policies horizontally across sectors. Ultimately, horizontal policy integration means that each involved department directly contributes to, benefits from, and takes some degree of co-ownership of the policy.

The integration ladder proposed by Preston (2012) (see figure 6) helps to conceptualise integrated transport policies in terms of a logical progression from tangible on-the-ground measures (rungs 1-6; more closely associated with territorial integration), to the horizontal integration of transport policies across sectors (rungs 7-9). Sectors involved in policy integration at the horizontal policy level include land use, education, health, social services, as well as environmental, social and economic policy concerns. Integrated and sustainable transport is successfully achieved once the transport policy is integrated with the 'triple bottom line' of environmental, social and economic policy.

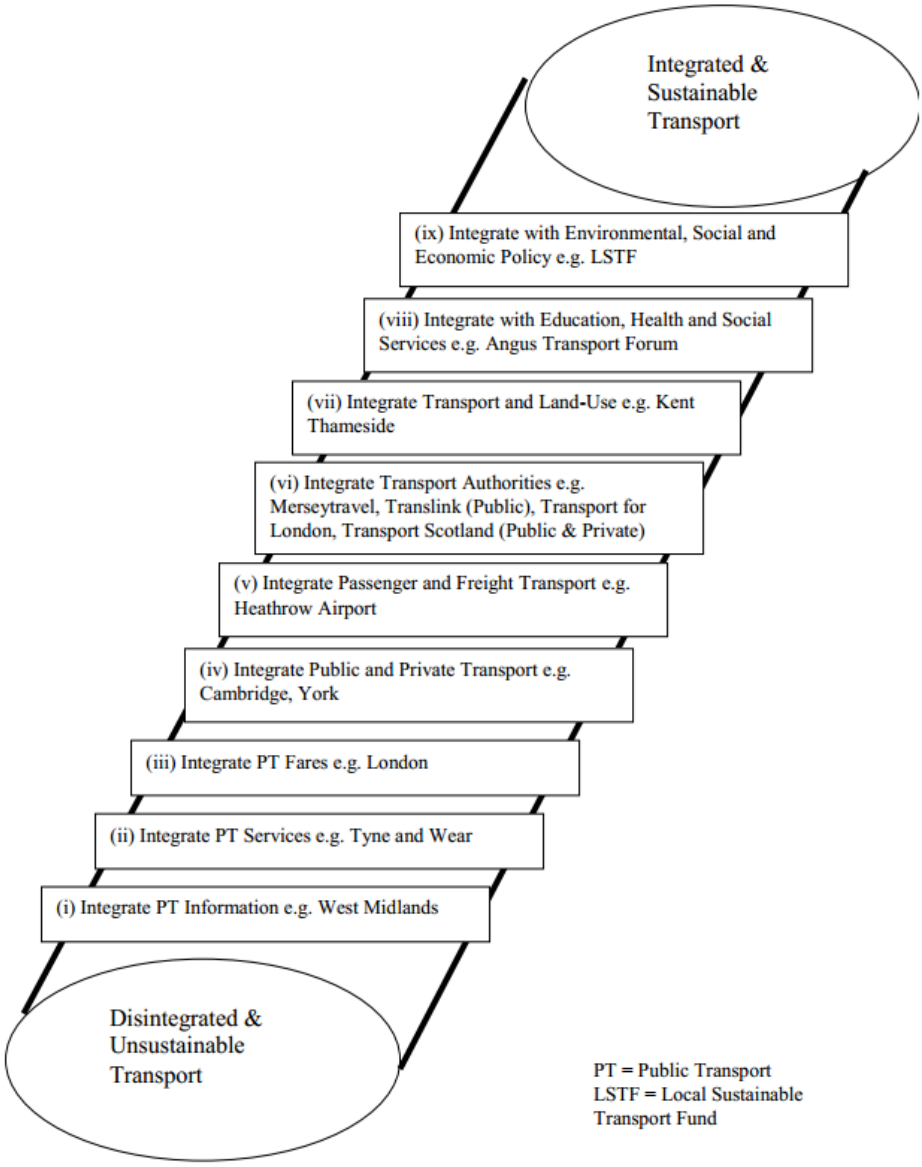


*Figure 6.: The Integration Ladder (Preston 2012)*

**Territorial integration**

Territorial integration can be seen as a further form of horizontal cooperation in which the local authority ensures that a policy is in accordance with policies of neighbouring urban and peri-urban areas, and involves these authorities in the development of a wider regional policy as appropriate. This relates directly to the scale of the measure's implementation on-the-ground, and the degree to which neighbouring areas (e.g. municipalities, local authorities, communities, districts, etc.) hamper or foster the measure's implementation.

Factors with a direct impact on territorial integration include ownership of the transport system(s) and the policies and policy frameworks of neighbouring areas. The extent to which neighbouring authorities are able (and willing) to create synergies and co-benefits between their policies largely determines the success of

the measure's implementation at the local (city) and regional level. Successful territorial integration happens when the activities of neighbouring areas are coordinated in such a way that they support the measure's implementation.

As previously mentioned, territorial integration of the policy measure is achieved within the first six rungs of the integration ladder. Policies or policy packages which incorporate these six factors help local authorities to realise the goal of sustainable and territorially integrated transport.

**Effects/benefits of policy integration**

Policy integration balances decision-making while providing a solid knowledge basis on which to make decisions. The United Nations Economic Commission for Europe (2008) states that policy integration can have the following benefits:

- promote synergies and win-win solutions between sectors;
- reduce duplication in the policy-making process, thus saving time and money;
- promote consistency between policies in different sectors and at different levels of decision making;
- improve achievement of goals and objectives;
- give more focus to the achievement of a government's overall goals, thus supporting its overall steering role;
- help to promote innovation in policy development and implementation;
- encourage greater understanding of the effects of policies on other sectors;
- help overcome financial constraints.

In order to reap these benefits, it is important to recognise that vertical, horizontal and territorial integration are not mutually exclusive; each one can act as a driver or a barrier to the other aspects of policy integration. Successful policy integration across all three areas can result in co-benefits which strengthen the policy process, thereby mitigating conflicts between sectors, as well as between the local authority and the public. Based on the CIVITAS METEOR (2006) methodology, influencing factors for policy processes have been further developed in SHAPE-IT in order to identify the key factors of success as outlined in the next chapter (see Table 5).

| Category | Subcategory | Interpretation as a Barrier | Interpretation as a Driver |
|---|---|---|---|
| Politics and strategy | Opposition/ commitment | Lack of political will based on political and/or strategic motives; Lack of sustainable development agenda or vision | Commitment of key actors based on political and/or strategic motives; sustainable development agenda /vision |
| | Conflict/ coalition | Conflict between key political actors due to diverging material interests and expectation of redistributive losses | Coalition between key political actors due to shared/ complementary material interests and expectation of redistributive benefits |
| | Veto players/policy brokers | Key individuals opposing the policy and preventing successful implementation | "Local champion(s)" motivating actors and catalysing the process |
| | Problem pressure | - | Severity of problems to be solved (e.g. congestion, air pollution) |
| Involvement of actors and citizens | Stakeholder involvement | Failed or insufficient partnership arrangements and limited involvement of key actors | Constructive partnership arrangements and open involvement of stakeholders |
| | Citizen engagement | Insufficient or poorly performed consultations with and involvement of citizens; no/limited acceptance of the measure | Broad consultations with and involvement of citizens; overall acceptance of the measure |
| | Information | Insufficient information of key stakeholders and citizens; lack of awareness raising activities | Information of key stakeholders and citizens; awareness raising activities |
| | Resources | Lack of personnel and financial resources to carry out a proper involvement process | Sufficient resources reserved for involvement tools and the organisation of a participation process |
| | Participation culture | Low interest and awareness of citizens ('consultation fatigue'); lack of participation tradition in a country | Citizens and stakeholders are used to take actively part in planning processes; long experience in participatory planning |

| | | | |
|---|---|---|---|
| Institutional structures | Administrative structures and practices | Hampering administrative structures, procedures and routines | Facilitating administrative structures, procedures and routines |
| | Interdepartmental cooperation | Interdepartmental and interpersonal conflicts; lack of cooperation routines; lack of communication between departments | Facilitating cooperation procedures and routines; regular inter-departmental exchange and communication |
| | Vertical cooperation | Failed cooperation between administration and higher level authorities/ other political bodies | Constructive cooperation; measure/policy is in line with higher-level strategies and policies |
| | Spatial cooperation | Conflicting interests and policies between local authority and neighbouring communities; lack of cooperation and communication | Joint regional planning approach increasing the effectiveness of measures |
| Policy integration | Vertical integration | Hampering planning documents, laws, rules, regulations and their application on regional, national or supranational level | Facilitating planning documents, laws, rules, regulations and their application on regional, national or supranational level |
| | Sectoral integration | Conflicting policies or policy frameworks of other sectors (land-use, environment, energy, etc.) hampering measure implementation; risks of negative trade-offs | Policies or policy frameworks that create synergies and co-benefits thus fostering measure implementation |
| | Territorial integration | Conflicting policies or policy frameworks of neighbouring areas (local authorities, communities, districts, etc.) hampering measure implementation | Policies or policy frameworks of neighbouring authorities that create synergies and co-benefits thus fostering measure implementation; stimulation of a joint planning approach |
| Situational factors | Specific events and local conditions | Specific events or local conditions influence the policy negatively and close windows of opportunity. | Specific events or local conditions contribute to successful policy implementation opening windows of opportunity. |

*Table 5. Overview of barrier and driver categories*

### *4.5.2 The SHAPE-IT criteria for successful policy integration*

As outlined in Table 5, in addition to facilitating or hampering policies held at the various levels of government, institutional structures and practices play a major role in the development of an effective policy. The SHAPE-IT analysis, which also included interviews with representatives from the project cities, revealed the following ten criteria were found to be crucial to the success of integrated sustainable transport policies in a number of cities.

*Bringing the policy into line with broader priorities*

1. **Alignment of the local policy with regional, country and EU-level frameworks and goals**

Local level policies can greatly benefit from being developed in such a way that they create synergies with higher level policies. A clear understanding of how the existing financing structures, planning models and overall objectives held at higher authority levels will influence the policy's development is essential so that local authorities can determine their possibilities for mutually beneficial interaction (Rupprecht Consult, 2014). The policy also gains credibility and weight due to its association with higher level policies, and is therefore easier to justify to local stakeholders. At the same time, the local level policy helps to meet the goals and objectives held at the regional, country and EU levels. The most successful policies, such as the LEV laws in the Netherlands, not only align themselves with higher-level frameworks and goals, but they create an even more progressive policy measure which helps to reach higher-level goals more quickly.

**Examples:**

<u>The Netherlands</u>

By integrating its LEV policies with EU-level laws, the Netherlands case highlights the structural opportunities for synergies between EU-level laws and country-level laws. A combination of regulations and subsidies at the EU-level influenced the subsidies and taxes developed at the country level, which in turn has had a direct impact on the take-up of electro-mobility in Dutch cities. For example, the EU's Air Quality Directive obliges local authorities to reduce their transport emissions, while its Life+ subsidy granted the Netherlands a total budget of 8.5 million Euros for environmental policies. The result in the Netherlands was the development of a package of financial incentives for electro-mobility. These included subsidies and tax exemptions for LEVs and taxes for higher emission vehicles. The Netherlands case shows that the country level can play a significant role in stimulating the take-up of sustainable transport measures at the local level.

Krakow

In Krakow, the Telebus project also gained support for implementation from national policy documents concerning transport and environment which encourage innovative transport solutions in cities. At the same time, the Telebus project directly met the aims of the EU level and gained its support through cooperation within the EU-funded CARAVEL project. Effective cooperation on an international level between the Polish partners and the Italian partners in Genoa facilitated the transfer of knowledge and technology, which largely helped to make the Telebus project a success.

**Risks if not considered:** Conflicts between the policy and priorities held at higher authority levels may become apparent at a later stage in the policy's development and implementation, resulting in the need to take several steps backwards in order to revise the policy. The policy may also be seen by public and private stakeholders as unnecessary or invalid to varying degrees.

2. **Integration of the policy into a broader local-level plan**

A broader comprehensive plan relating to transport, environment, sustainability or urban planning offers a window of opportunity for relatively seamless horizontal policy integration. Integrating a complementary transport policy into a broader local-level plan can help to encourage a more holistic vision for the city's urban planning agenda. It also encourages the various related departments to work together to create a cohesive package of policies which balance and reinforce each other.

**Examples:**

Munich

Munich's TDP was part of its overall urban development plan, Perspektive München. The broader plan provided for five further supporting projects, one of which was the TDP. Consequently, the TDP is considered binding by the relevant public authorities and is seen as an integral part of the urban planning process. This also ensures that the policy is seen as a legitimate and integral part of the city's overall sustainability plan, thereby contributing to a holistic vision for the city.

Budapest

In order to revitalise Budapest city centre, traffic calming measures were implemented through the Heart of Budapest programme. The programme is the third element in the policy ladder of the Mid-Term Urban Development Strategy of Budapest, called the Podmaniczky plan. Furthermore, the plan was vertically integrated by matching the EU's budgeting period of 2005-2013.

Rostock

Rostock's (Germany) E-mobilitäts-strategie is currently being integrated into the city's SUMP, the Rostock Mobilitätsplan Zukunft MOPZ (mobility plan future). The larger

plan emphasises electromobility as an important component of the city's future transport system. Therefore, the E-mobilitäts-strategie was developed to answer the larger plan's call. The strategy is being developed in parallel to the SUMP, taking into account the SUMP's objectives. Once approved

**Risks if not considered:** Policies which operate outside of broader local level plans risk losing political support at the local and regional levels. They may also contradict the broader local level plan in terms of the policy's goals or the means of reaching the goals.

*Supportive environment at the local level*

3. **Openness to the take-up of solutions that originate from departments not directly involved with transport**

Some transport problems may not always originate from a transport-related issue. Likewise, some transport solutions may have unforeseen consequences that extend beyond the transport department's primary focal areas. In order to avoid wasting resources on reactive policymaking, cities can benefit from a more proactive approach which involves a wider spectrum of departments during the transport policy's development. The first – and often the biggest – step is for specialists and political leaders at the local authority level to be open to receiving input and knowledge from departments outside of the transport and urban planning departments. For some local authorities, this openness may already be part of the institutional structures and practices. If it is not yet an integral part of departments' day-to-day work, however, it will require a conscious effort to get to that point (see success factor "Capacity training for collaborative policy development"). For further information on how to approach this measure, see Activity 2.2 in the SUMP Guidelines (Rupprecht Consult, 2014): Strive for policy coordination and an integrated planning approach.

**Examples:**

Lund

Lund consulted with a variety of departments and sectors when creating its successful LundaMaTs plan, and later the LundaMaTs II plan. The city recognised the need for a holistic approach and actively facilitated cooperation within the municipality: in addition to carrying out a thorough participatory process with public and private stakeholders in the municipality and surrounding region, several cross-sectoral working groups were formed. Lund applied its participatory approach to policymaking internally, with representatives from the departments of Urban Planning, Transport Planning and Environmental Administration as well as the Mobility Office coming together to shape LundaMaTs.

Munich

Munich also took an inclusive yet somewhat less structured approach to multi-sectoral involvement (compared to the LundaMaTs). When developing its TDP, Munich's Department of Urban Planning and Building Regulation consulted with any departments affecting or affected by transport development in order to gain further insights into the plan's situation within the broader city context. While Munich did not create working groups, steering groups or expert groups as they did in Lund, Munich still fostered policy integration by creating a process which obliged the main responsible department to analyse how the policy impacts and is impacted by other departments, and to invite them into the policy's development process to contribute their views and knowledge of related policies.

**Risks if not considered:** Openness to considering input from a comprehensive variety of departments is crucial for policy integration. Without it, local authorities risk creating a one-dimensional policy which has unforeseen negative impacts on other areas of urban life, in addition to conflicting with neighbouring authorities' policies. Reactive policymaking may be necessary down the road in order to correct for the policy's oversights.

*Striking a balance in the policy measure(s)*

4. **Policies that encourage complementary transport modes**

Finding the right balance between modes means ensuring that the policy is not inadvertently tipping the balance at the expense of even lower impact modes, and that it does not have negative impacts on related social, environmental and economic aspects of urban life. For example, policies should encourage complementary modes such that those already using lower-impact modes (e.g. cycling and walking) do not then switch to comparatively less sustainable modes (e.g. public transport). This highlights the importance of coordination between policies and organisations. The SUMP Guidelines (Rupprecht Consult, 2014) advise local authorities to:

- Acknowledge the interactions between changes in urban structures (density, functions, socio-economic patterns, ecosystems) and mobility;
- Ensure that linkages between different transport modes are considered rather than addressing them in isolation;
- Establish the planning of mobility and transport as a shared policy domain, truly serving the different needs of society - economic, social, environmental - and not as an end in itself.

**Examples:**

Munich

Munich's TDP was created with the aim of shifting away from passenger cars and towards increased cycling. It accomplished this by including specific commitments for each mode, backed up by a thorough consultation process with several departments and neighbouring authorities. While it is always challenging to prove the extent to which a single policy has an impact on modal split, the results of several surveys show that cycling grew strongly while passenger car use decreased after the TDP's implementation.

Lille

Lille's Plan de déplacements urbains (PDU) is a comprehensive document comprised of six axes which together promote a balance between sustainable modes. In addition to investing in public transport, the agglomeration of Lille will redistribute road space in favour of sustainable modes, particularly in terms of walking and cycling. Lille will also develop micro-PDUs for certain neighbourhoods. Throughout the PDU, specific measures are in place to ensure that the environment and the health and safety of citizens are protected.

**Risks if not considered:** Trade-offs and unintended effects may result from a lack of consideration for encouraging complementary transport modes. For example, giving more priority to increasing the speed of public transport without also implementing measures to increase the user-friendliness of cycling and walking paths may hamper the shift to the lower impact modes.

5. **Creating complementary push and pull measures**

Push and pull measures tend to have a multiplier effect, meaning that they work more effectively in combination through mutual reinforcement compared to implementing only one or the other. There may already be a "push" measure at the local, regional or country level (e.g. a higher standardised rate for on-street parking) which could have a corresponding "pull" measure (e.g. policies which earmark revenues from parking fees for improving the public transport network or cycling infrastructure). Appropriately paired push and pull measures help authorities at all levels to meet their broader transport goals more effectively through the creation of co-benefits.

**Examples:**

The Netherlands

Promoting the take-up of electric vehicles is a goal in the Netherlands which will help them to reach EU-level targets for emissions reductions in cities. Nation-wide subsidies, taxes and tax exemptions are in place to encourage this shift to lower emissions vehicles. The 'push' measures include the Motor Vehicle Tax and the

Private motor Vehicle and Motorcycle Tax for vehicles with emissions of 110 g/km or greater. These are paired with tax exemptions for LEVs. Further complementary 'pull' measures include subsidies for the roll-out of plug-in hybrids and battery electric vehicles as well as the purchase of electric vehicles.

Congestion charging in London and Milan

The congestion charging schemes in London and Milan are two of the world's most notable, and both mandate that a certain portion of the revenue goes towards funding sustainable modes. In London, it is the law that all net revenue from the charge must be reinvested in the city's transport network. The City of Milan raised 10 million Euros for public transport improvements and 3 million Euros towards a bike sharing scheme. London and Milan illustrate the benefits of pairing push and pull measures, which can improve public acceptance of the potentially controversial push measures.

**Risks if not considered:** Public support for certain push measures in particular may be significantly lower if there is no incentivising pull measure which provides an alternative option. At the same time, pull measures are often less effective on their own because they do not have enough "pull" to encourage, for example, a notable shift from personal cars to public transport, cycling or walking.

*Facilitating integration through cooperation*

**6. Clearly defined roles for cooperation across departments and for interaction at various scales of government**

The success of a policy's integration and implementation depends greatly on the establishment of clearly defined, complementary roles early in the process. It is important for those involved to know who does what and when. At the local level, identification of the department(s) primarily responsible for leading the policy's development and those departments which have complementary supportive roles allows horizontal and territorial cooperation to be facilitated more effectively. To support this process, the SUMP guidelines recommend creating a work plan document which indicates all necessary milestones for developing the policy or policy packages. This creates "security" and ensures transparency for the planning process. Overall, defining clear roles for cooperation and interaction reduces the number of barriers encountered, prevents the development of conflicting policies and makes optimum use of the available resources.

**Examples:**

Lund

In Lund, several cross-sectoral cooperative groups were created, namely a working group (primary responsible, comprised of the Municipal Assembly of the municipality of Lund and secondarily by the Technical Services Committee and the Building Committee) which was supported by a political steering group (comprised of the

Transport Committee and the Planning Council) and an expert group (comprised of representatives from urban planning, transport planning, and environmental administration). LundaMaTs was successful because of the clearly configured roles for interdepartmental cooperation. However, the value of clear and cooperative interactions between the municipal, regional and country levels also became apparent: planning models and financing structures at and between these levels were unclear and proved to be a barrier to the policy's full implementation.

Munich

Munich also demonstrated clear roles for cooperation across departments. More of a leading role was given to the Planning Department, while the departments responsible for spatial planning, social and economic planning were consulted for the political steering of the TDP. The Planning Department worked closely with these departments, consulting with them almost daily. Also, as previously mentioned, the Planning Department was obliged to coordinate its decision making with any other offices affecting or affected by transport development.

Leeds

In an effort to improve connectivity between residential areas and employment sites in the Leeds city region, a working group comprised of West Yorkshire Metro, Bradford Metropolitan District Council, Leeds City Council (including the public health department), Tour de France Legacy team, Sustrans and the national cycling charity CTC is working on a 23 km cross-city cycle superhighway project called CityConnect. The plan links the city centres of Leeds and Bradford. The bid (which originally called the project "Highway to Health") was submitted to the Department for Transport's (DfT) Cycle City Ambition Grant fund, thereby making use of funding structures at higher levels of government. CityConnect is also part of the region's 10 year strategy called the West Yorkshire Local Transport Plan.

An active Working Group has a clearly stated goal to improve health outcomes and access to employment in the region. The project will benefit from an existing multi-agency Advisory Board in West Yorkshire called the Travel Choices Board, which has representation from all district councils in West Yorkshire, including transportation and health, Metro, bus and rail operators, and Sustrans. The Programme Board will have representatives from Leeds City Council and Bradford MDC and Metro, and its Senior Responsible Officer will be Metro's Director of Passenger Services. There will also be three Project Direction Teams which will deliver various aspects of the project (Leeds infrastructure works; Bradford infrastructure works; and Encouragement/Engagement activities). For further information about the project's organisation and management, see Metro (2013).

**Risks if not considered**: Defining clear roles for collaborative efforts is the essential first step for local authorities to effectively take up solutions from multiple departments. In the absence of clearly defined roles, collaboration lacks the crucial elements of structure and accountability. Without a leader for the policy, collaboration can prove to be disorganised and can take longer than necessary. Ultimately, the quality of the policy could be degraded.

### 7. Capacity building for collaborative policy development

Collaborative approaches to policy development require certain skills and capacities which, if not already part of the local authority's institutional structures and practices, must be actively developed and maintained through capacity training workshops. Communication is a central component of cross-sectoral collaboration. Clear and constructive communication helps knowledge sharing between experts to go more smoothly which then helps to form a solid knowledge base on which to make decisions during the policy's development. Many tools exist which can be used to facilitate effective communication between departments and sectors, such as mind mapping and moderated dialogues. The goal ideally should be to build capacities for intersectoral cooperation into daily workflows even outside of periodic group meetings.

**Examples:**

Lund

Lund's working groups provided a forum for departments to work together regularly. Over the years, the municipality has developed a working culture which relies on cooperation across departments for various projects and policies. This cooperation has been made an integral part of their everyday work. Consequently, departments have learned how to work together effectively, and have developed the necessary communication skills to facilitate this co-work. Lund's case highlights the fact that capacity building for collaborative policy development takes time and should ideally be developed for more than just one single policy or policy package; it should be a larger goal for the local authority to create better integrated policies in the future.

Vienna

For the development of its mobility strategy, the City of Vienna involved multiple departments in a clearly structured collaborative process. To ensure that the engagement process was efficient and that communication between departments was clear and constructive, the city hired a moderator. The moderator facilitated dialogues during working group meetings, helping to guide departments through an effective process for collaborative interdepartmental work. The Vienna case shows the value of moderating interdepartmental work when this process is not yet a smooth flowing, integrated part of the work culture.

**Risks if not considered:** Without establishing routines and communication skills for interdepartmental collaboration, important knowledge may not be shared and incorporated effectively into the policy's development. There is an increased risk for frustration and misunderstandings between departments which could prevent future collaboration.

### 8. Thinking, planning and acting as a wider urban area

Early in the planning stage, thorough consideration should be given to the impacts of the policy on neighbouring authorities (municipalities, districts, and even other cities), as well as the benefits to the public if the policy were to be up-scaled to a more regional level. Opportunities may exist for the affected/affecting authorities to become involved such that it increases the impact and effectiveness of the policy compared to limiting the policy to a smaller geographic area. Potential conflicts with neighbouring authorities' policies also must be addressed. In such cases, a cooperative working relationship should be established with the appropriate departments of the neighbouring authority, e.g. through working groups and allocating responsibilities across regional boundaries in ways which create synergies within the wider urban area. As previously mentioned, territorial integration is simply a further form of horizontal cooperation, and its active facilitation can allow the policy's development – and later its continued implementation – to go more smoothly.

**Examples:**

Krakow

Krakow's Telebus is a prime example of a local authority thinking as a wider urban area. The city identified the need for several of its semi-independent suburban districts to be incorporated into the main public transport system, thereby providing residents with increased regional mobility. The Telebus replaced conventional public transport in these lower density areas. This tailor-made solution benefitted the suburban districts and helped the wider local authority and its public transport authority to optimise the allocation of resources in the area.

Aachen

The Aachen region (StädteRegion Aachen) and its 10 municipalities began planning its SUMP in January 2013. Throughout the process, the goal was for these municipalities and their communities, transport authorities and other stakeholders to be actively involved and to reach a consensus for the region's sustainable mobility vision and implementation. The regional SUMP is also closely linked to the City of Aachen's existing SUMP (ELTIS, 2014). To create a participatory culture within the region for this project, StädteRegion Aachen created a regional mobility advisory board which supported the process. It included a steering committee with representatives from the ten cities, a project management and coordination team, and a commission tasked with discussing interdisciplinary issues, comprised of the

public transport authority, the public transport provider, the state road works firm, a car-sharing service and the Chamber of Commerce. The Aachen case shows the benefit of creating an organisation for regional stakeholders to have constructive dialogue, which gets them to think, plan and act as a wider urban area.

West Yorkshire

The SUMP Guidelines (Rupprecht Consult, 2014) identify the Local Transport Plans (LTP) in England as prime examples of institutional cooperation. LTPs are required by law in England ever since the Transport Act 2000. An LTP does not need to follow administrative boundaries, so it is quite flexible for taking into account commuter flows and other travel patterns. The Strategic Transport Authority is responsible for the LTP, and may be a County Council, Unitary Authority or Integrated Transport Authority (ITA). The West Yorkshire Local Transport Plan Partnership is a prime example of institutional cooperation in sustainable urban mobility planning. The West Yorkshire Integrated Transport Authority and West Yorkshire Passenger Transport Executive produced the plan together with the five West Yorkshire District Councils of Bradford, Calderdale, Kirklees, Leeds and Wakefield. The highway, land use and economy departments from all five districts advise the Councils on the LTP. Further, the plan reflects national policy from Central Government and the Leeds City Region Transport Strategy and regional geographical and economic priorities.

French Agglomeration Plan de déplacements urbains (PDU)

By law, all French agglomerations over 100,000 inhabitants must create a PDU, which is the French equivalent to a SUMP. The urban transport authority (Autorité organisatrice de transport urbain (AOTU)) – which is often a metropolitan authority, a public transport authority or an individual municipality – is responsible for developing these mobility plans, and the scope is limited to the area served by public transport. About 80% of the PDUs are developed and managed by a metropolitan authority (Rupprecht Consult, 2014).

**Risks if not considered:** Conflicts with neighbouring authorities may arise later on during the policy's development and implementation, which could prove to be a barrier to the policy's realisation. On the other hand, the policy may prove to be much less effective if consideration is not given to implementing it on a more regional scale, resulting in a missed opportunity for greater success and potential recognition from higher authority levels.

*Ensuring accountability during implementation and follow-through*

**9. Policy implementation plan which ensures continued accountability across departments**

The spirit of collaboration needs to be seen through to the final step for the policy: implementation. To the extent that a department has been directly involved in the

development of a policy, they should take on a clearly defined and binding role for the policy's implementation as well as monitoring and evaluation, where appropriate. This also allows those responsible for the actions to justify where money was spent for implementation (Rupprecht Consult, 2014).

**Examples:**

Munich

Munich's TDP sets forth binding goals and steps for involved departments to take action. Transport development is ultimately the responsibility of the Transport Planning Department, and any departments which propose transport development-related projects after the launch of the TDP must consult with them to check if the proposal is consistent with the TDP. This ensures further policy integration and accountability across multiple departments for transport policies.

Lund

In 2007, the departments involved in developing the LundaMaTs plan reconvened to update it and create the LundaMaTs II plan. The process of updating the plan not only ensured continued accountability across departments and sectors for the implementation, but it also strengthened the political consensus for the goals and objectives.

French agglomeration PDUs

Monitoring and evaluation is a mandatory part of the process of developing a PDU to ensure that the plan is reaching its targets and is compatible with other plans and strategies relating to urban development, air quality and climate protection, territorial development, higher level transport and road development schemes, access for the disabled and the equality act, and mobility management/commuter plans (ELTIS, 2012). An evaluation and review of the PDU is required within five years of the plan's approval, which is often carried out by a committee tasked with ensuring that the PDU is on track to reach its goals.

**Risks if not considered:** Without a shared accountability for the policy, departments may later create conflicting policies. If departments are not bound to implementing certain parts of a policy, the policy may prove to be ineffective due to factors outside of its control.

### 10. Re-evaluation of the policy at regular intervals

As the social, environmental and economic situation changes and priorities at all authority levels evolve, policies which once were integrated horizontally, vertically and territorially may no longer be effective. For this reason, it is necessary for departments to reconvene every few years to jointly re-evaluate the policy and

examine the need for a new policy or supporting projects to address changes or challenges that have been encountered.

**Examples:**

Lund

A little over one decade after launching its LundaMaTs plan, Lund rolled out LundaMaTs II, which widened the plan's vision from an environmentally adapted transport system to the sustainable development of the transport system, taking into account environmental, social and economic concerns. They did this because they saw a need to take a more holistic approach to LundaMaTs in order to account for the interconnectedness of these three 'pillars' of sustainability.

Munich

In Munich, the follow-up project Long-term Settlement Development (langfristige Siedlungsentwicklung, Lasie) was created once it became clear that the city is growing faster than forecasted in the TDP. Like the TDP, this project was created through multi-sectoral cooperation, and examines the need for further densification and conversion to residential use in certain areas.

**Risks if not considered:** Policies which once were effective under certain socio-political or environmental conditions may become lose relevance and become less effective over time. This may undo some of the policy's previous accomplishments, and old problems may re-emerge. New, unforeseen problems may also emerge which need to be addressed.

# 5. Policy process case-studies

## *5.1* Case-study 6: Munich's *Radlhauptstadt*

With the passing of the city's Transport Development Plan (Verkehrsentwicklungsplan) in 2006, the city council set out its goals and vision for the city's traffic system for 10-15 years (City of Munich, 2004). This set the ball rolling for cycling in the city; setting out policies and measures to promote "conscious mobility", including the aim of fostering cycling.

"Radlhauptstadt München" (Cycling Capital Munich) is a cycling promotion campaign financed by the Munich city council. It was established in 2010 with a total budget of €2.6m (10-20% of the entire budget allocated to cycle traffic) (Interview, v. Sassen) for an initially planned duration of three years as one of the measures implemented in order to meet the city's goal of increasing the share of the bicycle traffic to 20% by 2015 from 14% in 2008 (City of Munich 2010, 4). The campaign has been adjudged a success (Raumkom/Wuppertal Institute, 2012), and its duration has since been extended another three years, and is now financed until 2015.


*Figure 7. Radlhauptstadt München logo (Radlhauptstadt München website).*

**Radlhauptstadt München's approach:**

"Behavioural change can only be brought about if the desired behaviour (more cycling, more mutual consideration in traffic) is valued by the populace. In order to increase cycling's considered value and to fulfil the motto "With, rather than against one another", the campaign has the following goals (City of Munich, 2010):

- Create visibility, attention & awareness for cycling
- Improve residents' identification with cycling
- Enable public involvement and participation

**Overarching plans and strategies**

Radlhauptstadt München's central goal is to motivate Munich's residents to more frequent bicycle use and to establish a cycling culture in the city (City of Munich, 2010). To achieve this, the campaign consists of, amongst others, the following activities:

- Events allowing exclusive use of road infrastructure for bicycles
- Bicycle safety checks, rider education

- Bicycle-specific signage, maps and brochures
- A city statute demanding and facilitating construction of bicycle parking facilities

### *5.1.1 Key factors in Radlhauptstadt München's passing*

**Actors**

The process through which the Radlhauptstadt München campaign was born is characterised by an absence of much concerted opposition to the policy. Instead, the actors involved can be divided into those in favour, those ambivalent to it and those weakly against.

Pro

Radlhauptstadt München was originally an initiative from the head of the municipal Traffic and Transport Management section, Martin Schreiner (see also Policy brokers/veto players, below), and was adopted by the Green Party for their 2008 election campaign manifesto (Interview, v. Sassen, Interview, Bickelbacher). A further significant action from the Green's was their initiation of the 2007 *Velo City* conference (see Situational factors, below).

Two further actors in favour were the largest Munich-based environmental organisation, *Green City e.V.* and its commercial event-organisation, campaigning and consulting agency, *Green City Project GmbH* (Interview, v. Sassen); active since 1990 in the field of environmentally friendly transport policy (Green City website). These organisations were brought on board from an early stage in the campaign as contracted partners, which gained the campaign access to the organisations' wide network of actors and earned the campaign more acceptance (in some circles) than would have otherwise been the case (Interview, v. Sassen, Interview, Bickelbacher).

Crucially, the campaign received support from Munich's mayor (SPD) and his two deputies (SPD, Greens), who, early in its life, strongly advocated it and helped advertise its events and activities (Interview, v. Sassen). Particularly Hep Monazeder (Greens), the second deputy mayor, has taken an active role, including taking up patronage of the campaign (Radlhauptstadt München website). Also, the support of the mayors was crucial when the *Safety Joker* (described in Situational factors, below) was under fire from the media and opposition (Interview, Bickelbacher).

Ambivalent to supporting

Regarding the national cyclist's federation, ADFC, Radlhauptstadt München makes a point of positioning itself in such a way as to not be competition with the ADFC in its core areas of expertise, instead aiming to complement them (Interview, v. Sassen). Nevertheless, and somewhat surprisingly, the federation, who might be expected to support such a campaign, was and is lukewarm toward it (ibid., Interview,

Bickelbacher). Their initial position on the campaign was that it was “nice to have”, but that its funding would be better invested in cycle lanes; only upon further questioning from the media did the organisation’s position change to supporting the campaign (Interview, v. Sassen, Interview, Bickelbacher). Perhaps as a result of this initial position, the ADFC did not seek contact with the campaign. Instead, the campaign approached them because their participation was seen as essential for large cycling events. Whilst it participates, it does so in a limited fashion; maintaining an independent presence at most of the large events. These events do, however, at least offer the opportunity for informal exchanges between members of the two organisations (Interview, v. Sassen).

The representatives of local enterprise, the local *Chamber of Industry and Commerce* (IHK) and local Retailers Association are said to be “neither active nor counterproductive”. In recent years, however, individual businesses have started to approach the campaign in order to participate in the campaign and sponsor its events (ibid.). The campaign welcomes these and wishes more involvement from the representative organisations.

The local Police force has changed from being an actor which tended to be unhelpful to one with which the campaign works well. Previously, the Police performed biannual extensive campaigns in which cyclists and their behaviour would be intensely policed. These campaigns were used by the media to shed a bad light upon cycling and cyclists, and the situation was worsened by disadvantageously worded Police press releases (ibid.). Since then, the campaign has approached the Police with an offer to cooperate, resulting, so far, in a mutually-worded brochure (Radlhauptstadt München website) - paid for by the campaign and distributed by the Police to cyclists - along with a Police presence (in the positive sense) at the campaign’s safety inspections.

Weakly contra

At the time of the original city council decision in favour of the campaign, other, more important, issues overshadowed the Radlhauptstadt München decision, diverting opposition parties’ attention (Interview, v. Sassen). Eventually, the opposition did come to criticise the decision for such a “senseless measure” (ibid.), and favouring further spending on cycling infrastructure (Interview, Bickelbacher). This view was also shared by some in the media, though this was tempered by a dose of curiosity in the campaign (Interview, v. Sassen). Indeed, the strongest opposition was directed at a small part of the campaign, the *Safety Joker* (Interview, Bickelbacher).

A significant factor regarding the actors was the decision on which consortium would be awarded the contract to carry out the project. This was decided by a jury consisting of many relevant actors, including representatives of the local public

transport agencies, BMW and the ADFC (Interview, Bickelbacher), who voted unanimously in favour of the winning consortium.

**Policy brokers/veto players**

A significant individual in the establishment of Radlhauptstadt München was Martin Schreiner. The seeds for the idea of establishing a cycling promotion campaign in Munich were sown by Mr Schreiner, who, as head of the municipal Traffic and Transport Management section in 2003, began advocating 'soft measures' (including promotion/marketing) as a way to increase the use of non-motorised and public transport (Interview, v. Sassen).

Mr. Schreiner was also the Greens' transport policy spokesman; in this capacity he was able to have the idea of a cycling promotion campaign included in the Greens' manifesto for the 2008 municipal election and then approved in the subsequent coalition agreement (ibid.).

The policy field in which Radlhauptstadt München was passed was not marked by the presence of veto players, or if it was, they were not active in hindering the campaign's establishment. Both the IHK and car manufacturer, BMW, are potential veto players, however the latter was included in the jury which selected the campaign consortium.

**Public participation**

There was and is little public participation in internal political aspects of Radlhauptstadt München. Nonetheless, the campaign is explicitly aimed at marketing cycling to the public, so the public are involved to some degree, if only as recipients of information. Also, the campaign organises public events, which serve as fora for informal exchanges between stakeholders and members of the public. As such, the campaign could be considered to indirectly contribute to pubic participation in the city's cycling policies and regardless, as discussed in 5.1.2, the campaign has been well received by Munich's residents.

**Institutional structures**

The Munich City Council is made up of 12 departments: three cross-sectoral and nine with specific fields. Significantly, there is no department concerned with transport exclusively, let alone cycle transport. Because of this, cycle-transport related decision-making must be done in collaboration with the five departments concerned with cycle transport topics (Interview, v. Sassen). In 2009 the City Council passed a decision of principle (Grundsatzbeschluss), establishing the idea of marketing as part of the city's overall cycling strategy, and also the establishment of seven working groups in which the five departments concerned with cycle transport gather to discuss and vote on relevant issues and activities.

This institutional structure, with its complex decision-making structures, could be used by the five departments, each with their own interests to defend, to resist new and (initially) unpopular ideas (e.g. a cycling marketing campaign), if only to maintain the level of their own budgets. With this in mind, the decision of principle was important for Radlhauptstadt München for two reasons. Firstly, by anchoring the idea of marketing in the city's overall cycling strategy, and secondly, by establishing the institutional structures (the working groups) in which Radlhauptstadt München would take part, the decision gave the campaign a solid basis from which to start without having to fight for its existence.

Radlhauptstadt München did indeed experience departmental resistance initially, due to the other departments' concern that the campaign's (quite large) budget would erode their own (Interview, v. Sassen). However, since then, the other departments have realised that they too can benefit from the campaign's activities (ibid.). Also, the presence of an ally of the campaign within the administration is significant in minimising this resistance, as it lessens the feeling that the campaign is an 'imposition' from the political arm of the government. Indeed, now the other departments have embraced the campaign and its positive image to the point that they use the campaign's corporate design in their own communications regarding cycle transport issues (Interview, v. Sassen).

**Situational factors**

2007's 'Velo City' conference in Munich, an initiative of the Green Party, was a significant event in the establishment of Radlhauptstadt München. The conference came at a fortuitous time, and crucially promoted the effectiveness of cycling promotion campaigns. These two factors combined help strengthen the idea of a marketing campaign on the local political agenda. Additionally, the public and expert recognition for the administrators' work in preparing the conference was crucial in gaining their support, but also in forcing them to work together under time pressure, which established working relationships which would be used late during the campaign (Interview, Bickelbacher).

Another key group of events for the campaign came during and in the wake of the first public event organised by the campaign. The event itself was a success, with around 4000 attendees. Problematic however, was the attendance of the 'safety joker': an actor dressed as a joker who was intended to highlight traffic safety issues to the public in a relaxed and humorous manner. This aspect caused the campaign to be ridiculed in the media and by the opposition. Crucially, however, the Mayor and his second deputy Mayor (Ode, SPD and Monatzeder, Greens), stood behind the campaign at this time (Interview, v. Sassen), albeit with the condition that the joker be discontinued (Interview, Bickelbacher).


*Figure 8. The 'safety joker' (Radlhauptstadt München website).*

### *5.1.2 The policy's results*

As part of the campaign, the municipality also commissioned an evaluation of the Radlhauptstadt München after a year of operation (Raumkom/Wuppertal Institut, 2012), based upon interviews with the public and stakeholders. According to the study, the campaign can broadly considered a success. The campaign is recognised by around 60% of those questioned, 80% of whom consider the campaign to be "good" or "very good" (on a four point scale from "not at all good" to "very good"). Additionally, over 65% of respondents are more motivated to cycle and 15% claiming to cycle more carefully as a result of the campaign.

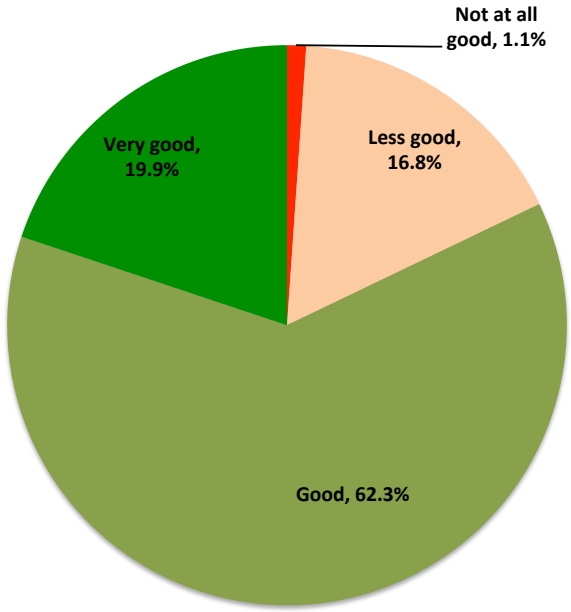


*Figure 9. Public opinion of Radlhauptstadt München's work. (Own representation from Raumkom/Wuppertal Institute, 2012).*

While attributing changes in travel behaviour to a single policy is fraught with difficulty, least of all when the policy is one of many changed at one time, modal-distribution figures for 2008 and 2011 bear out the increase in cycling, with the share of trips made increased from 14% to 17% over that time period (ibid.).

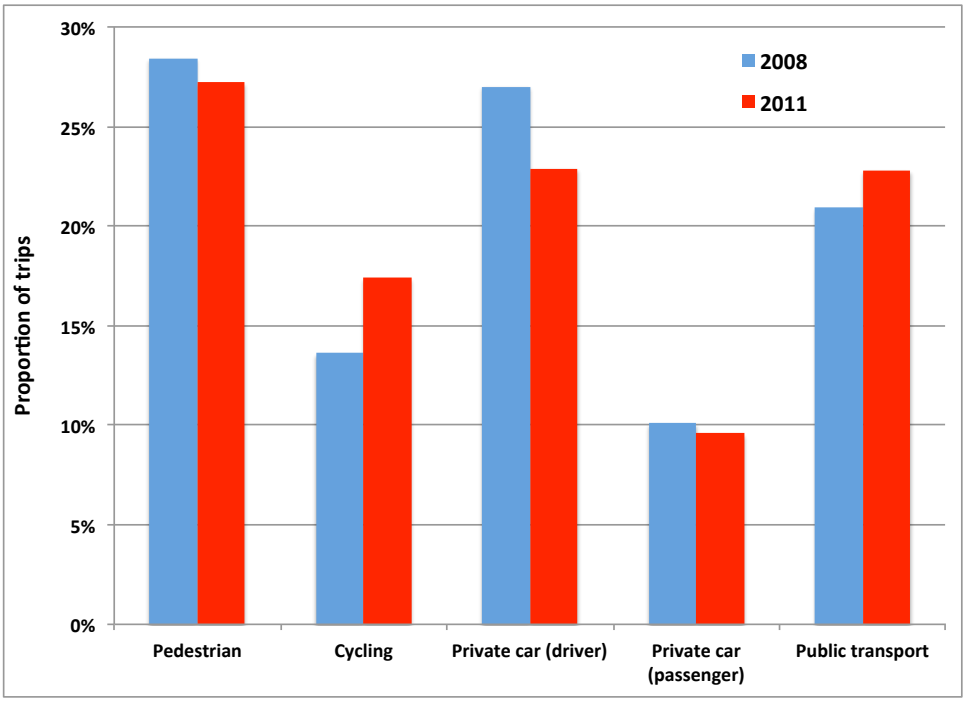


*Figure 10. Modal shares in Munich in 2008 and 2011. (Own representation from Raumkom/Wuppertal Institute, 2012).*

### *5.1.3 Linkages to policy integration*

As mentioned previously (in Case-study 6: Munich's *Radlhauptstadt*), Radlhauptstadt München was introduced as part of the city's *Transport Development Plan* (Verkehrsentwicklungsplan, VEP). As such, there is a clear link with policy integration; the campaign is embedded within a plan including many other measures to move residents toward more environmentally friendly modes of transport. For more information, see this report's twin on policy integration.

### *5.1.4 Summary*

Key to Radlhauptstadt München's establishment were two factors. Firstly, the efforts from Martin Schreiner to champion the idea, and secondly, the lack of a concerted opposition to the idea, aided by including actors which might have opposed the campaign in its decision-making process.

From a city council point of view, the history of the council may provide some explanation for the lack of opposition: the Munich City Council has been dominated by the SPD (Social Democratic Party) since 1946, leading the Council in all but a few cases since then. In the lead up to and since the Radlhauptstadt München's establishment, the SPD has led a coalition government with the Green Party as partner. Thus, the council opposition is not historically strong.

Additionally, the campaign was helped by the timing and content of the Velo City conference held in Munich, held at a time which helped cement the idea's position on the political agenda.

The final key factor was political support from the mayors at key times. Namely, after the first event when the campaign was under close scrutiny because of the safety joker.

## *5.2* Case-study 7: Utrecht's *Utrecht Electric*

Utrecht is one of the a key cities in the Netherlands endorsing electro-mobility, for which reason the city has launched "Utrecht Electric", a programme to facilitate the roll-out of local electro-mobility.

Improving air quality and reducing greenhouse gas emissions from transport are focal points of Utrecht's municipality. To that end, it encourages the use of bicycles and public transport. Also, it aims to make the remaining cars, scooters and freight vehicles as clean as possible, for which it has chosen to encourage electric vehicles through the promotional program Utrecht Electric. The programme promotes electric vehicles by creating a network of charging points, cooperating with business partners and residents on their own electro-mobility encouragement initiatives, and greening the municipality's own vehicle fleet. Within these three pillars, incentivising measures,

knowledge development, communication and education play an important role for the municipality.

**Actors involved**

The main actor is the local government of Utrecht, which initiated the programme. A key official involved in this project was interviewed in this study, resulting in the key findings summarised below.

- Local key players and businesses are crucial: involve relevant companies and seek ways to integrate/comply with their needs and interests. As an example, the U15 company platform is important because of their "$CO_2$-performance ladder" also incentivises electro-mobility.
- Long-term commitment is more effective than once-only start-up support. As an example the company 'Lease Express' delivered many electric scooters to courier services. This was enabled by the City based on a 3-year commitment to bridge the gap with a conventional scooter. It is difficult to attract more (SME-)key players right now.
- Communication is crucial to make things happen. The city plays an important communication role: towards companies and key players, but also towards citizens (about intended plans and establishment of charging points).
- Flexible and continuously adapted tailor made solutions are required to make things happen.
- Out of the box thinking: see/look for opportunities/things that others do not yet see (shared interests, solving hurdles, creating commitment etc.)
- The pilot project 'Greencab' came too early, also with respect to the available techniques. Also: substantial barrier and lack of cooperation between the city and the companies.

Local incentives for electro-mobility

Currently within this programme, the local government has set up the following main incentivising measures for electro-mobility:

- Two incentives comprise subsidies for charging points: a charging point either at semi-public property (max. subsidy €2500) or private property (max. subsidy €500). However, from 2014 onwards the subsidy for a charging point at private property is no longer available at the website.
- Two other incentives are subsidies for e-scooter riders: e-scooters for companies with a minimum annual driving range of 3000 km (max. subsidy €1500) or e-scooters for commuter traffic with a minimum annual driving range of 2000km (max. subsidy €1000).
- In addition, the community also delivers an additional subsidy of €2500-3000 for light duty vehicle and cabs (interview Aart Meijles, 2013).

- Next to these subsidies, a “Green Deal Utrecht Energy (B-126)” has been signed in June 2012 between the local government of Utrecht and the Ministry of Economic Affairs and the Ministry of Infrastructure & Environment (Ondernemend Groen, 2012a). Part of this Green Deal aims to achieve that companies take mobility measures (such as cleaner or less cars in their fleet) in order to reduce their $CO_2$-footprint.
- Furthermore, two of the nine national ‘Proeftuinen’ (Living labs) were represented in the city of Utrecht between 2010 and 2012: “Proeftuin Greencab Prestige Cab” and “Proeftuin Greenwheels”. These two measures are discussed in more detail in section 2.3, as part of the general description of the national “Proeftuinen” project.

## 5.3 Case-study 8: Stockholm’s toll/congestion charge

**Actors**

The responsibility for the planning of the introduction of a congestion charge was initially with the Stockholm City Council. Although much concern on the obvious legal complications and the many-facetted questions on responsibility sharing were raised, the government carefully avoided intervention in the process (Gullberg & Isaksson 2009 p. 75). At an early stage, the already established Stockholm Commission (a government committee) had been commissioned to investigate procedures for an introduction of congestion charging but the task was not prioritised by the Commission, nor by the government (op. cit. p. 75; page numbers below also refer to Gullberg & Isaksson 2009). At a later stage (in summer 2003), however, the Government Offices of the Ministry of Finance took on a responsibility for the congestion trial (p. 75). The government and the relevant ministry remained inactive for almost a year, though (p. 77).

In principle, the Social Democrats were in favour of the trial and actively worked for it to take place. Internally in the party, there was substantial opposition against this policy, however, and ways to find an excuse for a tactic retreat from the decision were sought (p. 15). The Green Party, holding the balance of power in both Parliament and the Stockholm City Council, were very eager to make the trial work well and turn out to be successful (p. 14). Among the major bodies in favour of road charging (and the trial) were also the Swedish Society for Nature Conservation (p. 29).

Aggressive campaigns against the trial were executed by the Stockholm Chamber of Commerce, the Swedish Automobile Association, the Swedish Conservative Party and the Swedish Liberal Party (p. 14). Several experts as well as managers and civil servants actively involved in traffic policies were dubious to or clearly against the trial

(p. 14). In their work to plan and implement the trial, many civil servants were disturbed by colleagues, friends, the press, etc. in fulfilling their duties (p. 14).

Undoubtedly, the planning process for the trial, congestion charging/tax and the referendums can be characterised as extremely exposed to political volatility during most of its stages. As an example, the Stockholm City Council's decision to procure a technical and administrative system for the congestion charging trial was appealed against by the opposition in the City Hall (p. 75). Overall, the process leading to the implementation of the trial went along with a series of actions and decisions emerging as a result of political tactics at various levels. Many actions and standpoints can be seen as expressions of vested interest of various kinds.

Among important actors was also the Stockholm Public Transport, which had to prepare itself for the expected increase in demand for public transport capacity during the trial. This organisation was fairly neutral as to the trial but concentrated on securing finance and capacity for the increase in public transport demand (p. 105). The Stockholm County Council, which is responsible for public transport in the region, as well as the Councils of suburban municipalities, were not invited to the negotiations; they were only presented with the decision once it was made by the national and the Stockholm City politicians (p. 13)

Also, the Stockholm congestion trial formed an arena of political debate and controversy not only in Stockholm city and the larger metropolitan area but also at national level (p. 150). Moreover, the outcome of the trial can be said to have had a substantial influence on current and future transport policy in Sweden. Despite the fact that the congestion charge and the trial were to be seen as matters of national interest, there was remarkably little interest from the government (p. 104). This caused considerable uncertainty in the whole process. Since central governmental leadership was lacking and crucial decisions delayed, planners had to work within unclear frameworks and often under very hard time pressure (p. 104).

At many stages in the planning process, there was a discrepancy between the City of Stockholm and the suburban municipalities. From early on, the suburban municipalities were strongly against congestion charging and also against the trial (p. 75). For these municipalities, keeping the only motorway connecting the areas north and south of Stockholm toll-free was a crucial question (p. 85-86).

In spite of a range of difficulties accompanying the planning and implementation of the Stockholm trial, the trial turned out to be a success. Factors contributing to the success include:

- Stockholm City Council's decision to drive through the trial without all circumstances having been settled

- Engagement of individual key persons fully committed to their task
- Some extraordinary steps to be taken under extreme time pressure
- Heavy pressure from the local council leaders on the administrators
- Successful tactic measures taken by political parties at local and central level
- Skill of relevant administrators
- Professionalism shown by civil servants in municipal administrations, Stockholm Public Transport and the Swedish Road Administration
- Clear leadership assumed by the Swedish Road Administration once given responsibility by the government
- Necessary change in legislation forced through Parliament
- Procurement of the technical system found to have been legally robust after having been appealed
- Efficient development and delivery of the technical system for the trial during extreme time pressure
- Renaming from congestion charge to environmental charge
- Exemption of some crucial road-network compartments from tolling
- The carrying out of the referendum after the trial
- Involvement of many leading consultants and experts
- Generous state budget allocated to the trial
- The aim of the charging perceived by the public as being important
- Channelling of gross congestion-tax income to investment into the region, notably public transport
- The final lay-out of the charging system
- The provision of alternatives to the private car for personal trips
- Threat from one of the coalition parties to overthrow the government if the trial would not be implemented

**Policy brokers and veto players**

Throughout the planning process for the Stockholm trial, the Council of the Stockholm City had a central role as enhancers of the project (p. 94). One of the most influential veto players, up to a certain point, was the Stockholm Mayor Annika Billström. In a much-referred interview in the regional television only three weeks before the election day in 2002, she stated “there will be no road charging during our next term of office, and that is a manifesto pledge on our part.” (p. 12). Soon thereafter, she was more or less forced to give up her line and instead had to work in favour of the charge, however.

Throughout the process, the Swedish Automobile Association acted as a strong veto player. For instance, they collected signatures among the public to demand a referendum on the implementation of a congestion charge. The same demand was presented by the Conservatives and the Liberals (p. 75). The Green Party, holding

the balance of power in Parliament, was accused for “foisting upon Stockholders” an ill-thought-out experiment” (p. 14).

**Public participation**

There was very strong resistance to the trial in the press (p. 14). Also, some newspapers initially pro-trial changed to being against the trial (p. 14). Prior to the referendum among Stockholm residents, a local referendum was arranged in 12 of the suburban municipalities. The outcome showed a majority against a trial (p. 105).

The story of the Stockholm congestion trial can be said to be a question of who were allowed to have a say in the issue (p. 150). A range of institutions and organisations were given or took on responsibilities for the planning, implementation and management of the trial. All way long, the public, the media and a large number of NGOs were very active in the process. Without exaggerating, the congestion trial can be characterised as being an issue engaging a large number of people in Stockholm and environs for an extended period of time.

**Institutional structures**

At an early planning stage, the special “Stockholm Commission” was committed to investigate how congestion charging could be arranged (p. 25). A key role in the implementation of the trial was also played by consultancy, which planned the analysis of changes in travel behaviour following the trial. Severe administrative problems, however, delayed the procurement of the analysis (p. 99).

The Governmental Offices gradually became more involved in the planning process for the trial, eventually becoming fully involved in the work of planning, legislation and negotiation (p. 15). A sub-committee of a working group representing the major parties in Parliament was set up to follow the congestion-charge planning but seems to have had little influence on the process (p. 79). The Swedish Road Administration and the National Tax Board became involved during later in the process (p. 15).

A key role in the preparations for the trial was played by the City of Stockholm, notably by the Chief Executive of the Stockholm City Executive Board (p. 83). It could have been natural for the City to give the Streets and Real Estate Administration the role of managing the congestion charging. In the City Executive Board, however, it was felt that doing so would jeopardise a positive outcome of the project because of the strong tradition of enhancing of road traffic that was said to characterise the Streets and Real Estate Administration (p. 84).

Using the term “environmental charge” instead of “congestion charge” was a way for the City of Stockholm to more easily gain acceptance for the charge. The so-called Environmental Charge Secretariat was given the responsibility to manage the introduction of the charging measure. Its responsibilities included the preparation and

coordination of the trial, information on the trial, and procurement and assessment of the trial (p. 95). The Secretariat comprised a Planning Group, Information Group and a System group (p. 96-102).

Being responsible for the state roads, the Swedish Road Administration would have been expected to have taken on a large share of the responsibility for the congestion charge and the trial from an early stage. However, they did (or could) not enter the scene until late in the process (p. 79). After having long been a process characterised by unclear governance, the planning process for the congestion-tax trial was taken over from the Stockholm City by the Swedish Road Administration in summer 2004 (p. 114).

The planning of the trial was hampered by differences in power, administrative culture and working processes between the major institutions in charge, such as the Government Offices, other state authorities, various local authorities and the Stockholm Transport (SL) (p. 15). A crucial question long remaining unsettled was what organisation should finance the congestion trial--the Stockholm City or the central government (p. 85). Unclear responsibilities, lack of central leadership, proliferation of authorities, polarisation of opinions, political intriguing, procurement troubles, vested interests and uncertainty about legal issues can be said to be characteristic of the Stockholm trial (p. 156-7).

The City of Stockholm had a central role in the preparations of the congestion trial and the referendum. The Stockholm Commission (a government committee) was expected to take an active part here but little cooperation between the two organisations occurred (p. 78). The Stockholm Commission worked rather independently from the government even if the government could have been expected to take a more active part in this big issue, had there been a more firm political lead (p. 80-81).

**Legal and formal factors**

Throughout the process of the planning for the congestion charging measure, a crucial issue was whether the congestion charge should be treated as a charge or as a tax. Although warnings that the measure would demand the introduction of a special law were raised by many at an early stage, the issue was largely neglected. Gradually, however, the matter developed into a really crucial issue that was at the edge of stopping not only the trial but also the whole congestion-charge measure (p. 77). The solution was the passing of a special law in summer 2004. Its appearance was preceded by a sequence of complicated juridical steps and associated with much political controversy.

The process of the procurement of the technical system for the congestion charging (and the trial) was characterised by considerable problems arising from severe lack of clarity on what organisation should act as formal procurer and who should be allowed to bid. Moreover, it was for long unclear whether the trial would really take place (p. 102). The procurement of the technical system for the trial was considerably delayed by an appeal of the procurement. After several rounds among different courts, the issue was eventually settled by confirming the robustness of the initial decision on the award (p. 120).

There were three major issues that made the planning of the congestion charge and the trial extremely complicated: the uncertainty whether the congestion charge was really a charge or rather a tax; the establishment of charging procedures; and the procurement of the technical system for the charging. In addition, the extremely short time framework was a serious complication (p. 89). Alongside, the whole process was accompanied by considerable political conflict at all levels.

The process of procurement of the technical system for the charging was far from straightforward. It long remained unclear what organisation should actually manage the procurement. Since the charge was actually a tax, the central government would have been expected to manage the procurement but long showed no signs of interest in the issue. Instead, the City of Stockholm played the central role in the procurement (p. 91).

It long remained unclear in what way the responsibility for the trial should be divided by the Council of the City of Stockholm and central government (p. 94). Also, the question whether the City Council of the Swedish Road Administration should implement the trial remained unsettled. Eventually, however, the Road Administration was charged by government to manage the trial.

A much-disputed issue was to whom the income from the congestion-charge fees should be directed. Finally, it was decided that it should be directed to investments and other measures raising the capacity of the Stockholm public transport system (p. 108).

Once the trial was decided, the duration of the trialling period became explosive matter. Because of the shrinking time available in order for the trial to be completed before the anticipated resolution to pass (and the elections to Parliament), there was intense political debate about the necessity of cutting the duration of the trial. This crucial question was at the edge of bringing both the central government coalition and the Stockholm City coalition to a collapse. In the last moments, this serious threat towards the entire trial was avoided by political manoeuvres at both levels (p. 95, 112).

After so much controversy and a range of different obstacles and difficulties, it came as a big surprise that the congestion-tax trial became a success with substantially larger reductions in traffic volumes than expected (p. 140). The congestion tax in Stockholm was permanently re-introduced in August 2007 (see Table 4).

## *5.4* Case-study 9: Krakow's *Mobility Forum*

**Actors**

Within this step the main components of characteristics relevant to stakeholder involvement and estimated the current level (i.e. high/medium/low) of each characteristic in its current process. Within this policy process we can mention the main stakeholders involved in it:

The citizens of the city and other public/private organisations as: public transport companies, associations of public transport passengers and bicycle users and shopkeepers associations – the impact of theirs participations on the Forum is very high, because they can to discussed with the public units of the city and provoke them to change theirs stand of the problems;

The municipality – the role of this stakeholder is also very high, because the municipality defines the technical consideration of the projects and also is a leader in the debates with the other participants. The municipality is represented as the public administrative units, City Council, the public transport operator, etc.

The Mobility Forum is not good supported by the media. The meeting is transmit in Internet Forum (e.g. via Skype) – as an extension of Forum in order to give everyone a chance to express separate opinions on different issues concerning sustainable transport. However, this approach should be more promote in media – via the newspapers, radio, TV. It could be a chance to popularise the meeting and to convince the citisens that they can have an influence on the transportation shape.

The political support in the Mobility Forum approach could be only possible through the participation of the City Council members in this meeting, where the politicians could discuss with the citisens and to support the finial agreements.

**Public participation**

The public participation of many stakeholders in Mobility Forum is the condition to success of this approach. Citizens' involvement in policy process provides the possibility of involving the public in the decision-making process underlying mobility policy strategies at an early stage and creates an opportunity for their active involvement throughout the implementation and monitoring stages. It also could raise awareness of the use of clean and sustainable urban transport in cities, as a result of the discussed during the meeting.

**Institutional structures**

It is important to convince city authority to support planned activity and to show them the significant importance of involvement of different departments. The collaboration between interested administrative units has a high role in Mobility Forum. The agency has a medium role in this approach, although it is expected to have a good collaboration, after general directions from major departments.

## 5.5 Case-study 10: public participation in SUMP

### *5.5.1 Public participation in sustainable urban mobility planning*

Involving communities in planning is a fundamental duty of local authorities to improve decision-making and is also a requirement stipulated by EU directives and international conventions. Public participation has a democratic rationale by giving citizens and stakeholders the opportunity to be involved in a planning process that is likely to affect them; it has an instrumental rationale by enhancing the decision-making process and its outcomes through the involvement of citizens and stakeholders and it is a social learning process for both those who carry out the participation process and those who participate in it.

**Stakeholder and public involvement**

Participation reflects the overall integration of citizens and groups in planning processes and policy decision-making and consequently their share of power. A term commonly referred to in participation research is “stakeholder” which may be an individual, group or organisation affected by a proposed plan or project, or who can affect a project and its implementation. Transport planning frequently affects a great variety of different economic, public and social interest groups either positively or negatively, which often results in complex relationships between the city administration and the groups having a stake in the decisions made.

Public involvement, in contrast, usually refers to engaging citizens in planning and decision-making. While stakeholders usually represent positions of organised groups and have a collective interest, citizens are individual members of the public and unaffiliated participants in the involvement process (Kahane et al., 2013).

**Aims and benefits of participation**

There are various aims and targets of public participation and the engagement of stakeholders that largely depend on the scope of participation, the level of intensity and on how results from participation schemes are processed. In general (see e.g. Krause, 2013), participation aims at

- making decision making processes more transparent,
- raising mutual understanding between citizens and the administration,

- creating new partnerships between local actors and the local authority
- considering (new) ideas, concerns and everyday knowledge of the community,
- improving the knowledge basis and
- having a positive influence on planning processes as it increases acceptability.

Various projects and also the SHAPE-IT case studies have shown that participation processes carried out for SUMP development and for measure option generation lead to plans and measure packages of higher quality. In most cases, participation contributes to greater legitimacy and greater acceptance of mobility plans and transport measures as well as to better political credibility. Last but not least, it aims to create a sense of ownership among stakeholders and citizens, which becomes a crucial element when measure implementation starts.

**Levels and intensity of involvement**

Arnstein (1969) defined citizen participation as the redistribution of power and developed an eight-rung ladder gradually symbolising participation levels starting with nonparticipation, referred to as manipulation and therapy, to citizen control at the top rung. Although the ladder is a simplification, it helps to illustrate the gradations of citizen participation. In general, the intensity of participation can range from dissemination of information to interaction, dialogue, co-decision and real decision-making.

Participation in transport and mobility planning is less studied than participation in other areas of public policy and planning. Yet the last 20 years has seen a gradual increase in the practice and study of participation in mobility planning. In mobility and transport, as in other areas, there is apparent tension surrounding public and stakeholders' engagement in planning processes which frequently involve very technical questions. This emphasises the value in presenting technical information in as accessible a form as possible. As important though, is the consideration of how much transport and mobility planning involves, and can be challenged by, social, political, ethical and cultural questions which the public are well placed to debate (Bickerstaff and Walker, 2005; Mullen, 2012).

**28 countries in Europe – 28 different cultures of participation**

Stakeholder involvement and citizen participation practices in transport planning vary across European countries and between cities. Several countries have formal, mandatory consultation procedures for mid- and large scale transport projects as well as for the development of transport plans and SUMPs (e.g. for Local Transport Plans (LTPs) in the UK and for Plan de déplacements urbains (PDUs) in France). Also, a number of European countries have extensive experience in innovative participation instruments in complex planning processes (e.g. the Netherlands, Belgium and Germany). However, there are also a number of countries in Europe that have no procedures or only very limited formal procedures for involving citizens and stakeholders. Here, transport planning still focuses on traffic and infrastructure rather than on planning for and with people. Some of the Eastern European countries belong to this group but also countries from other parts of Europe have yet to adopt sustainable urban mobility planning that take citizens and stakeholders as the focus (Rupprecht Consult/ Edinburgh Napier University, 2012; CH4LLENGE, 2014a).

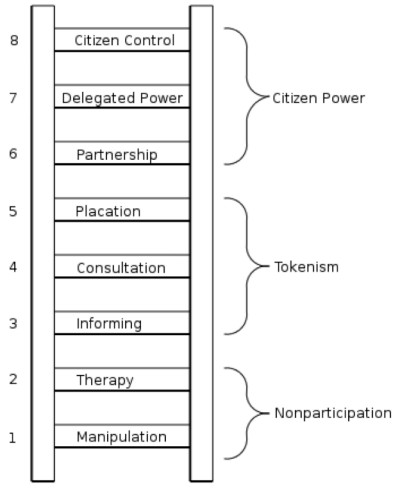


*Figure 11. A ladder of citizen participation (Arnstein, 1969)*

**Instruments for involvement**

There is a great variety of involvement tools and techniques ranging from tools for information giving and gathering (e.g. letters, posters, leaflets and brochures, newsletters, telephone techniques, web-based tools, surveys) to interactive engagement (e.g. exhibitions, information centres, public meetings, focus groups, transport visioning workshops, citizen juries, stakeholder conferences, planning for real events). The question of the most appropriate involvement tools in mobility in planning is not easy to answer. Careful preparation of the consultation process does not guarantee high participation rates and successful results; however, it clearly influences the level of participation, satisfaction among citizens and stakeholders and the effectiveness of the process.

**Common barriers to participation**

Research has shown that citizens' interest in participating in SUMP development tend to be rather low. Interest in specific mobility measures, in contrast, is much higher – especially when citizens realise that they are directly affected by a proposed measure. This phenomenon is known as the "dilemma of participation" (Team Ewen 2010, Krause 2014, p. 36). It reflects that the interest of citizens is low in early planning phases when processes are still open and flexible. As soon as planning

processes and proposals become more concrete and at the same time more inflexible, citizens' interest increases as they now feel directly affected.

Local authorities also face other barriers when preparing and implementing a participation process. Hurdles to successful participation include, for example, the lack of political will and support for carrying out a participation process, limited financial and personnel capacities, a lack of skills and knowledge about process organisation and an imbalance of stakeholders (CH4LLENGE, 2014).

In response to these barriers, SHAPE-IT aims to identify the success factors for organising and carrying out a participation process with stakeholders, citizens or a mix of both. The criteria outlined in the following chapter aim to assist cities in implementing

**Barriers and drivers in a policy process**

There are various barriers and drivers influencing the process and progress of policy preparation and implementation. Based on the CIVITAS METEOR (2006) methodology, influencing factors for policy processes have been further developed in SHAPE-IT in order to identify the key factors of success as outlined in the next chapter.

| Category | Subcategory | Interpretation as a Barrier | Interpretation as a Driver |
|---|---|---|---|
| Politics and strategy | Opposition/ commitment | Lack of political will based on political and/or strategic motives; Lack of sustainable development agenda or vision | Commitment of key actors based on political and/or strategic motives; sustainable development agenda /vision |
| | Conflict/ coalition | Conflict between key political actors due to diverging material interests and expectation of redistributive losses | Coalition between key political actors due to shared/ complementary material interests and expectation of redistributive benefits |
| | Veto players/ policy brokers | Key individuals opposing the policy and preventing successful implementation | "Local champion(s)" motivating actors and catalysing the process |
| | Problem pressure | - | Severity of problems to be solved (e.g. congestion, air pollution) |
| Involvement of actors and citizens | Stakeholder involvement | Failed or insufficient partnership arrangements and limited involvement of key actors | Constructive partnership arrangements and open involvement of stakeholders |
| | Citizen engagement | Insufficient or poorly performed consultations with and involvement of citizens; no/limited acceptance of the measure | Broad consultations with and involvement of citizens; overall acceptance of the measure |
| | Information | Insufficient information of key stakeholders and citizens; lack of awareness raising activities | Information of key stakeholders and citizens; awareness raising activities |
| | Resources | Lack of personnel and financial resources to carry out a proper involvement process | Sufficient resources reserved for involvement tools and the organisation of a participation process |
| | Participation culture | Low interest and awareness of citizens ('consultation fatigue'); lack of participation tradition in a country | Citizens and stakeholders are used to take actively part in planning processes; long experience in participatory planning |

| | | | |
|---|---|---|---|
| Institutional structures | Administrative structures and practices | Hampering administrative structures, procedures and routines | Facilitating administrative structures, procedures and routines |
| | Interdepartmental cooperation | Interdepartmental and interpersonal conflicts; lack of cooperation routines; lack of communication between departments | Facilitating cooperation procedures and routines; regular inter-departmental exchange and communication |
| | Vertical cooperation | Failed cooperation between administration and higher level authorities/ other political bodies | Constructive cooperation; measure/policy is in line with higher-level strategies and policies |
| | Spatial cooperation | Conflicting interests and policies between local authority and neighbouring communities; lack of cooperation and communication | Joint regional planning approach increasing the effectiveness of measures |
| Situational factors | Specific events and local conditions | Specific events or local conditions influence the policy negatively and close windows of opportunity. | Specific events or local conditions contribute to successful policy implementation opening windows of opportunity. |

*Table 6. Barriers and drivers in a policy process*

### *5.5.2 The SHAPE-IT criteria for a successful policy process*

A successful process of citizen and stakeholder involvement, no matter whether it is part of the development of a Sustainable Urban Mobility Plan, the planning of a single transport measure, or the preparation of an entire measure package, is a result of various factors and preparatory tasks. Almost certainly, a local authority will never be able to *guarantee* a successful participation process; however, the careful planning and implementation of a participation process can increase the chances to achieve a high-quality consultation process significantly. Eleven key success factors for successful participation were identified in SHAPE-IT. These are based on the analysis of the project's four case studies, are enriched by best-practice examples of other European cities and aim to both summarise the cities' lessons learned and to help transport planners in organising a thorough participation process.

Just as with sustainable urban mobility planning, citizen and stakeholder involvement also needs to follow a strategic approach in order to fulfil the purpose of the local participation process and to reach the goals set. A participatory culture and transparency are preconditions for effective participation. A participation process in

mobility planning is typically organised by the city administration's transport, planning or urban development department. In some cases, the organisation of a participatory process is also the task of the department for public relation or communication. Regardless of the allocation of responsibility, the most important principle for participation is its **transparency**. This includes the transparency of preparatory works carried out by the city administration, transparency about who will be involved in the participation process, what its aim and scope is and how views will be considered in the planning process. Public officials need to be aware and believe in the importance and benefits of participation in order to create **credibility** and maintain it throughout the participation process. **Direct and honest communication** is one of the keys to a transparent planning culture and at the same time it is a driver for stakeholders and citizens to contribute to the planning process. If the value of stakeholder and citizen involvement is underestimated within the city administration, this can result in a chain reaction: civil servants not taking participation as serious as claimed leading to a loss of credibility and a de-motivation of citizens and stakeholders to contribute to the planning process, resulting in low participation numbers and a lack of representativeness of views.

*Building political commitment for participation*

1. **Political commitment and engagement in participatory processes**

Political support for carrying out an in-depth participation processes is one of the crucial factors that influence the outcome of a participation process. Politicians and political committees such as local councils need to commit to taking the results of a participation process into account in the on-going and future transport planning processes. Therefore, it is most important for a city administration to gain sufficient support from local decision-makers to carry out a participation scheme and to integrate results into subsequent technical planning. In many cases, this is easier said than done: some political actors might not regard participation as an opportunity to obtain valuable knowledge and constructive input from citizens and stakeholders; others might fear the open confrontation which could result in a change of plans. Participants of an involvement process hesitate to contribute their opinions and knowledge if they feel that their views are not taken into account. Therefore, the city administration should act as a connecting link by supporting all parties involved to build trust.

**Examples:**

Krakow's Mobility Forum

The Mobility Forum is the Krakow's first official platform to take a step forward to a participatory approach in transport planning. Organised in cooperation with the Polish Association of Engineers & Technicians of Transportation, the Mobility Forum is led by the Mayor of Krakow. This demonstrates the high-level political commitment in Krakow to carry out proper and long-term public participation in transport planning and to take the discussion results in the political and administrative decision-making process into account. Further, the Mobility Forum is attended by local Councillors mirroring its significance as a participation tool even more. At the same time, it is an innovative way to convince the inhabitants and the administrative units (with the participation of the city politicians) that the cooperation among them can intensify the sustainable transport development in their city.

Soundboard Group Meetings in Gent

For the re-development of the main station area in Gent, the City Council established a series of 'soundboard group' meetings held four to six times a year during the project development and construction phase. It served as an information exchange body and aimed to engage residents and stakeholders of the train station area. The soundboard group approach was strongly supported by the Mayor of Gent who attended the meetings just like several of the city's Aldermen. This proved their interest in local opinions and concerns and directly informed the politicians about the local perception of the project's activities (CIVITAS ELAN, 2012).

**Risks if not considered:** If the lack of political will for carrying out a participation process is missing, this can result in a low priority given to participation also within the administration. Significant efforts and resources are required to gain political support; low level of participation as citizens and stakeholders do not feel to be taken seriously

*Thorough planning and preparation of stakeholder and citizen involvement*

2. **Development of a communication and participation strategy**

The identification of the current status of participation within an administration is a crucial first step to clarify the position of both high level officials and civil servants on participation and to assess the relevance they give to it. Reflection on the understanding of the concept, a comparison of what involvement actions have been taken in the past and what the scope of future activities should be, set the foundation for the definition of targets for future participation. Experience has shown that the development of a participation strategy is an important preparatory step for involvement. It should define rules, procedures and responsibilities within the administration as well as the overarching principles of participation. The CIVITAS ELAN project cities (Ljubljana, Gent, Zagreb, Brno, Porto), for example, observed that "the implementation of citizen engagement was more effective when objectives, participation rules and principles were clearly presented to the participants at the very beginning" (CIVITAS ELAN, 2012). A participation strategy should address all phases of a measure from problem definition to its implementation and define opportunities and the level of involvement for each stage. It should cover the following elements (see also Rupprecht Consult, 2014):

- Aims and objectives
- Identification of stakeholders and the public to be involved (see also Success Factor 5)
- Resources, capacities and budget
- Engagement timeline
- Media marketing strategies and key messages
- Identification of appropriate participation instruments and involvement techniques
- Agreement on the integration with decision-making (see also Success Factor 7)
- Documentation and evaluation of the participation process

Special emphasis should be given to communication and working with the media as measure promotion/ marketing can have a significant influence on a policy's acceptance (see also Success Factor 12).

**Examples:**

Aberdeen's Communication Plan for SUMP development

The City of Aberdeen developed a comprehensive Communication Plan for SUMP development in order to seek stakeholders' and citizens' views and opinions and to inform them about opportunities for involvement during the various stages of the plan development process. The Communication Plan "indicates the appropriate stages at which stakeholders could be consulted, frequency, method and format of communication with stakeholders and citizens" (Do the Right Mix/ City of Aberdeen, 2012). This included also creating a Project Management Team responsible for providing guidance and deciding on options for inclusion in the SUMP. Aberdeen won the 2012 SUMP Award for its well-planned participation process (for further information, see Do the Right Mix/ City of Aberdeen, 2012).

Munich's cycling campaign 'Cycling Capital Munich'

The 'Radlhauptstadt' campaign aims to market cycling to the public; clear targets and goals were set from the beginning on. Aside from the central goal to motivate Munich's residents to more frequent bicycle use and to establish a cycling culture in the city, the campaign aims to enable public involvement and participation by, for example, organising public events which serve as fora for informal exchanges between stakeholders and members of the public. In addition, it contributes to meeting the city's goal to increase cycling rates from 14% (2008) to 20% by 2015. Munich's cycling campaign might not be a classic example for public participation; however, it illustrates that setting concrete goals and targets helps in going along the right path during policy implementation

**Risks if not considered:** If purpose, aims and intensity of participation are unclear, unrealistic expectations towards the participation process might be raised by citizens and stakeholders; a non-strategic approach usually goes along with a loss in credibility and transparency, with the risk that objectives are not achieved and with a lack of constructive input and discussions.

3. **Clear institutional roles and leadership for participation**

The involvement of citizens and stakeholders is closely connected to administrative processes and a local authority's public management procedure. When the overall strategy and timeline have been agreed upon, dialogue structures and the process organisation within the administration need to be set up. It is necessary to define who is in constant dialogue and how, whether this dialogue happens on a constant or project-base and who takes the lead.

The latter aspect links to the general question of responsibilities. Participation can be arranged on a decentralised basis, with responsibilities spread over different departments. Alternatively, participation may be led by a special unit, preferably with

direct contact to the mayor, which has the sole responsibility for process organisation and institutional cooperation. It is the practical questions that are often marginalised but which are highly important for the management of the process such as: who should be invited to consultation events? Who decides how often these take place? How are they documented and by whom? A review of resources (personnel, time, financial) and skills is another fundamental step (CH4LLENGE, 2014a).

A fixed budget that is dedicated to participation clearly helps in setting up the involvement procedures. However, in many European cities there is no budget reserved exclusively for citizen and stakeholder participation (specifically in transport planning). Therefore, it needs to be carefully assessed whether the activities planned and the budget available match, and whether further funding is required. A review of skills and participation competences within the administration is another essential element in process organisation. The identification of expert knowledge but also knowledge gaps among municipal staff members leads to the question of whether capacity building, in-house training or external support is required.

**Examples:**

Krakow's Mobility Forum

The Mobility Forum is under the lead of the Mayor of Krakow and is organised in cooperation with the Polish Association of Transport Engineers (SITK). The association is a non-government body providing an experience exchange platform for transport experts. In addition, it advises the city administration. Since the association's experts are well aware of the State-of-the-art in transport planning, the city administration, such as the Department for City Development, often draws on their expert knowledge and advice. They work together in a task-oriented approach with the Mobility Forum being one of their major cooperation areas.

Participatory SUMP development in Bremen

The City of Bremen re-launched its Transport Master Plan with a strong participation approach. A project advisory board was established consisting of the Senator for Building and Transport, who took leadership for the board, the Economics Department, Council parties and relevant stakeholders. The project advisory board met every 4 to 6 weeks, discussed results from the participation process and was responsible for e.g. quality control of the entire SUMP development process, made sure that stakeholders' and citizens' interests were taken into account and assessed intermediate results (Just & Abramowski, 2012). In addition, an external consultant was contracted for supporting the entire transport plan's re-launch which also included stakeholder and citizen participation.

**Risks if not considered:** Administrative processes, roles and relationships are unclear; inefficient use of the limited resources available; delays in carrying out the participation; loss of quality of participation process

### 4. Participation routines and clear structures for active involvement

If carried out on a regular basis, which is recommended, the involvement of citizens and stakeholders enhances the social learning process for both the leading authority responsible for participation and the participation's target group. Routines help those involved to familiarise themselves with participatory planning. Routines can be understood as a participation instrument that is repeatedly applied (e.g. establishing a round table of stakeholders and city administration staff members that meets on a regular basis and has clear decision-making structures), recurrent events (e.g. regular, interactive face-to-face meetings), or procedures (e.g. the systematic involvement of citizens that always follows a similar structure).

Routines and clear structures allow for continuous evaluation of the participation procedures thus improving the process and fine-tuning the involvement actions. Process evaluation also offers the opportunity to expand the scope of participatory planning step-by-step.

**Examples:**

Krakow's Mobility Forum

The Mobility Forum in Krakow is an inspiring approach to discuss a city's hot topics on a regular basis. The regularity of the forum and its straightforward structure (introduction to the topic, presentation of legal and planning issues, discussion with participants) help citizens and stakeholders to get used to collaborative planning approaches and might initiate a change of mind sets in the long-term. It also creates opportunities for up-scaling the forum format: the organisers have started to link the forum to seminars, workshops and conferences that take place in schools and university.

Participation scheme 'Dresden Debate'

'Dresden Debate' is an open and public dialogue tool between politicians, technical planners and the populace. Dresden has already conducted four debates on selected urban development issues, one of these being Dresden's SUMP 2025plus. A 'Dresden Debate" usually foresees a four week dialogue period that includes meetings, workshops, a large-scale online dialogue and the set-up of an infobox. The dialogue phase is followed by an extensive consultation analysis. As the 'Dresden Debate' is a regularly applied participation instrument, it contributes to establishing a long-term communication culture and helps citizens and stakeholders to accustom to participative processes (City of Dresden, 2014).

The ‘SUMP Tuesdays’ in Lille

For the development of its SUMP (Plan de Déplacement Urbain, PDU), the City of Lille organised mobility fora and regular open debate sessions called “mardi du PDU” – the SUMP Tuesdays. Citizens and stakeholders were invited to discuss the different themes and parts of the Sustainable Urban Mobility Plan with the political representatives and technical planners (Rupprecht Consult, 2014).

**Risks if not considered:** The outcome of the participation process might be less representative and of lower quality if participation procedures are carried out only once; if collaborative planning is still a new approach in a local authority, participants might not have enough time to familiarise with it

*Achieving a sound basis for participatory planning*

5. **Thorough identification of stakeholders and analysis of their constellations**

The identification of stakeholders gives first insights into local interests, from groups that support the given measure or plan to be developed and groups that are ambivalent, through to groups that oppose the measure or plan. The purpose of an involvement process needs to link to the stakeholder groups identified and their interests. If there is the risk that certain groups or citizens may feel left out or do not show any interest in the transport project, this needs to be carefully considered in the selection of involvement tools. Stakeholders frequently interested in being involved in mobility planning are the following (GUIDEMAPS, 2004):

- Government/ authorities: e.g. politicians, higher-level authorities, neighbouring cities, traffic police, emergency services, project managers, professional staff
- Businesses/ operators: e.g. business associations, major employers, retailers, utility services
- Communities/ neighbourhoods: e.g. local community organisations and interest groups, cycle/ walking groups, citizens, landowners
- Others: e.g. research institutes and universities, experts from other cities

Stakeholder mapping can also be complemented by an analysis of stakeholder constellations which is based on different criteria or attributes such as interest, power, or coalitions. “The objective of a systematic analysis of actor constellations is to get a clear picture of conflicts of interests or potential coalitions and to be able to better determine clusters of stakeholders who may exhibit different capacities and interests in the issue in question” (Rupprecht Consult, 2014). An influence-interest matrix can help for the identification and grouping of stakeholders

**Examples:**

Krakow's Mobility Forum

For each Mobility Forum, local actors that might have a stake in the subject of discussion are identified by the Mobility Forum organisers beforehand and receive an invitation to the Forum event. Stakeholders that have participated in the Mobility Forum so far range from public transport companies, associations of public transport passengers, cycling associations and cyclists to retail associations, environmental organisations, and many more. Due to the great variety of transport issues discussed at the Mobility Fora, the event organisers make sure to carefully identify stakeholders again and again based on the topic of discussion.

Dresden's SUMP Round Table

The City of Dresden initiated a stakeholder round table for its "Sustainable Urban Mobility Plan 2025+". After a thorough identification of stakeholders, a number of committees were established, e.g. the Steering Committee led by the mayor and including heads of department, City of Dresden officials, councillors, project managers and round table facilitators. At the round table a large number of actors are involved such as the transport providers and associations, business associations, city council groups and others. A scientific advisory board forms another important advising actor. Also regions and neighbouring communities as well as citizens were involved. The round table is moderated by an experienced external moderator, which is seen to be essential for successful discussions. All committees, groups and boards are in a continuous dialogue process (CH4LLENGE, 2014).

**Risks if not considered:** Imbalance of stakeholders with weak stakeholders being overlooked; unexpected interventions and conflicts with opposing stakeholders jeopardising the policy; untapped opportunities to create alliances for a sustainable transport measure (see also success factor 4 "Early engagement with policy supporters and potential veto players")

### 6. Early engagement with local supporters and potential veto players

A thorough analysis of how local actors position themselves towards a new transport policy allows local authorities to take the next step – engaging with those who support the measure and also with those who oppose it. Building alliances with, for example, environmental and sustainable mobility organisations, powerful private sector actors or political parties is a crucial factor that helps the implementing authority to raise awareness and to gain stronger acceptance for the planned policy. A wider target audience can be reached by working in partnership, using supporters' communication channels and networks. It also opens up new opportunities to involve local actors in actual measure implementation and to create synergies.

It is beneficial to also actively approach those actors and organisations (potentially) against the measure in an early phase of planning. Offering them opportunities to express their opinions and concerns is a key aspect when trying to jointly find a solution that is acceptable for all actors involved. Working closely with opponents and those who are ambivalent to supporting might also make it possible to turn around opinions and win them as supporters.

**Examples:**

Munich's cycling campaign

For the implementation of the city's cycling marketing campaign, key policy supporters were brought on board in a very early stage. The largest Munich-based environmental organisation and its commercial agency were made contracted partners which opened up additional communication channels, access to the organisations' networks and enhanced acceptability of the policy. Also political actors from various parties promoted the campaign actively and the second deputy mayor took patronage for it. While the national cyclist's federation ADFC followed the campaign only half-hearted at first, calling rather for infrastructure investments, the media and the campaign organisers were able to turn around opinions and won the ADFC as a policy marketing supporter. The campaign also actively approached other local organisations for cooperation such as the police.

There was only little opposition to the policy. Interestingly, the campaign worked closely with the local car manufacturer BMW that would generally be considered a veto player (or at least not supporting a cycling campaign) involving them, among others, as a jury member for selecting the campaign's tenderer. This did not only give stakeholders decision-making power on the campaign contract but also encouraged early engagement and cooperation.

**Risks if not considered:** Similar to the risks of the success factor above – it might be a missed opportunity to collaborate and establish a work relationship with other organisations and actors committed to sustainable mobility in order to push the given transport policy; veto players might unexpectedly oppose the policy at an advanced stage of planning when the planning process is no longer flexible (see "dilemma of participation" in Chapter 5.5.1)

7. **Appropriate integration with decision-making**

If citizen or stakeholder participation is carried out, this needs to form an integral part of the decision-making process. The engagement strategy should set out transparently the purpose of the participation process and the links between involvement techniques and key decisions (see success factor 2 "Development of a communication and engagement strategy"). A clear agreement on how results of a participation process will be taken into account in the on-going technical planning

process and how to come to a joint, accepted decision is crucial. Giving citizens and stakeholders as much decision-making power as possible is generally favourable; however, it needs to be carefully considered at what level decisions can be taken by a mix of actors and/ or citizens (e.g. strategic decisions) and when decisions should be made by planners and experts (e.g. on technical issues). Tools for engaging local actors and citizens in decision-making include, for example, citizen juries, voting, referendums, expert round tables, or events (e.g. visioning workshops, open space events, focus groups) of which the outcomes are taken into account in the planning process.

Referendum on environmental charging scheme (Stockholm, Milan)

After a seven-month full-scale trial period, Stockholm residents were allowed to vote on the long-term implementation of the congestion charging scheme thus giving decision-making power to the citizens. It won with a narrow margin of 51% - a result that can be questioned; however, the congestion charging scheme achieved an even stronger congestion reduction impact than initially expected and is now experienced positively.

Also the City of Milan conducted a referendum on congestion charging which revealed that almost 80% of the city's inhabitants were in favour of upgrading and enlarging the existing charging scheme; major drivers were air pollution concerns. In Edinburg and Manchester, in contrast, referenda on charging schemes failed. A lack of clarity on congestion charging objectives was identified as one of the key reasons for the failed referendum in Manchester (Swanson, 2009).

Voting on mobility strategies and scenarios (Aachen, Bristol)

As part of the development of Aachen's SUMP, the city administration initiated a mobility vision development process together with local institutions and stakeholders. In a citizens' workshop and online consultation, citizens could then vote how much they agree with the visions and add comments on both the 2050 visions and on Aachen's overall mobility future. After the voting and collection of opinions and ideas, the results were analysed and presented to the city's expert commissions and taken into account in further SUMP development (Rupprecht Consult, 2013).

The City of Bristol takes a similar approach. The "Future Bristol" project invited citizens to vote online on two low-emission scenarios for 2050 that were developed in a three-stage consultation process with stakeholders, coordinated by the city and a local university. The affectionately illustrated scenarios introduced citizens to various emission reducing measures and even allowed voting and commenting on the policies themselves (Szmigielski, 2014).

Bottom-up mobility visioning in Gent

The most recent governance approach in the participation-experienced city of Gent is transition management. It aims to develop fresh approaches to changes in urban mobility, public space and people's awareness and attitudes. Gent's Transition Arena, a group of about 25 creative people from various backgrounds including young entrepreneurs, citizens, architects and transport professionals, brainstormed for one year and devised ten icon projects showing how Gent could look like in 2050. The first icon projects have already been tested. Ideas from the Transition Arena might appear futuristic at first but are growing bottom-up providing a sense of direction for mobility in the long-term.

**Risks if not considered:** Ineffective participation process and inefficient use of resources if unclear how results from a participation process are considered in the on-going planning process; citizens and stakeholders feel that their views and concerns are ignored; chances for joint agreements and acceptance of the measure decrease significantly

*Strategic thinking and planning – making planning processes more efficient and effective*

8. **Clear management and leadership structures for policy development and implementation**

Beyond participation, institutional roles and leadership also need to be clear for all other policy development stages: problem definition, option generation, assessment, decision-taking, implementation as well as monitoring and evaluation. However, in practice, roles and relations within an administration as well as responsibilities and input required from other departments and municipal institutions are often unclear. Cooperation is required at geographic, political, administrative and interdepartmental levels. Due to its complexity, it is helpful to structure and formalise cooperation on the local level by e.g. making legal arrangements or formal contracts of responsibility, by mapping competence areas and working with organisational charts/organograms, by defining functional relations (e.g. with a responsibility assignment matrix), or by defining rules and procedures for institutional engagement (CH4LLENGE, 2014b). At the same time, inflexible structures should be avoided as project management and cooperation structures need to be responsive to changing circumstances. Leadership within a multi-stakeholder planning process is essential – the leading organisation/ the core team, the role of the policy leader and the leadership style as well as the allocation of responsibilities need to be carefully defined.

For further information on clearly defined roles across departments and interaction at various scales of government, please have a look at SHAPE-IT's policy integration case study.

**Examples:**

Munich's cycling campaign 'Cycling Capital Munich'

In Munich, planning responsibilities for cycle transport are split between five departments as there is no department concerned with transport exclusively. A decision of principle was passed in 2009 making cycling promotion an integral part of the city's overall cycling strategy and establishing seven working groups in which the five departments cooperate on cycling and the cycling campaign. The working groups created a solid basis for the campaign and solved funding and responsibility conflicts so that inter-departmental cooperation was achieved in the end. All five departments embrace the campaign and its positive image now.

Stockholm's congestion charging scheme

The Stockholm congestion charging policy development process was characterised by a highly complex constellation of local, regional and governmental actors with varying levels of activeness that even changed during the process. Unclear responsibilities and a lack of central leadership called for clear management structures. Planners had to work within unclear frameworks and decisions were delayed. Substantial progress was made only after the Swedish Road Administration assumed leadership (after years of planning) and management structures became clearer. One of the key lessons learned in Stockholm is the necessity to define leadership and management structures for policy development and implementation from the beginning.

**Risks if not considered:** Delays in day-to-day management and delays in overall policy development; objectives are not met; risk that policy fails if no one takes the leadership or responsibilities are blurred

*Realising sustainable mobility through support and cooperation*

**9. Capitalising on support from key proponents**

Personal commitment of a 'local champion' can contribute considerably to the success of a policy. A leading individual might be a politician, a city administration's public official, a committed project manager, or a devoted institutional or organisational stakeholder who can raise awareness for sustainable mobility and can speed up i.e. drive the process of planning and implementing a policy. Key characteristics of such a person include the ability to create alliances, to have a significant influence on the planning process, to be able to negotiate and to be capable of mobilising resources (see Rupprecht Consult, 2014). The role of a local champion can be manifold ranging from active promotion and consciousness raising, to activation of local actors and citizens or to leading the policy's planning process. One could conclude that "you either have it or you don't" – nevertheless it is always

worth examining during the stakeholder analysis whether a local key person might be a policy's ambassador.

**Examples:**

Munich's cycling campaign 'Cycling Capital Munich'

The cycle campaign idea originates from the city administration's Head of Traffic and Transport Management, who was also the Green's transport policy spokesman and paved the way for adopting the campaign in the Green Party's 2008 election campaign manifesto. He championed the idea and was instrumental in policy implementation.

Krakow's Mobility Forum

The Mayor of Krakow is leading the Mobility Forum which gives the policy high relevance on the political agenda as well as public visibility. Being a person in authority, he has good relations to a large number of actors and networks that he can mobilise for the discussion fora and is at the same time the link between the city administration, the Council and citizens/ stakeholders.

Mayors standing up for sustainable mobility (London, New York)

Mayors are in the vanguard of policy innovation and can have significant influence on shaping sustainable mobility in their city. If Mayors stand up for sustainable mobility like in London (Boris Johnson) or New York (Michael R. Bloomberg), this can give a real boost to sustainable mobility policies (e.g. the 127 measures of New York's 'PlaNYC' plan for a greener, more sustainable city released by Bloomberg) and open up new funding opportunities (e.g. London's €2.16m Future Streets Incubator Fund launched by Johnson).

**Risks if not considered:** A key individual supporting a policy is beneficial to have; it is not an indispensable requirement though. It should be noted that an assessment whether the person is able to fulfil its supportive role is crucial and that there is also the risk of one individual, whether intended or not, influencing the process negatively.

### 10. Local partnerships and cooperation with private sector actors

The success of a sustainable mobility policy is usually not only the result of an active city administration but also of the dynamic engagement with the target group. A plethora of transport policies including e.g. sustainable mobility promotion, mobility management and low-emission freight measures are heavily based on the acceptance and involvement of local businesses and industry actors. Approaching the private sector target group proactively has turned out valuable in achieving a policy's objectives in various cases – such as in Utrecht. It contributes to community empowerment and stimulating local commitment, but is also an instrument to draw on the private sector's expertise and experience in the policy's topic. Further, it can

increase attention for the policy and gain stronger positive publicity. The local authority can act as the facilitator thus promoting cooperation and support with industry. There are also various benefits for the businesses involved: partnership projects can strengthen their voice in policy development and implementation, and transport planning overall, and can build new relationships in the short- and long-term. They might even seek out for further partnerships if they feel that the local authority is supportive in their role as a public sector facilitator.

The Utrecht Electric Programme

The Utrecht Electric Programme aims to foster electric mobility for making motorised transport as clean as possible. Aside from charging infrastructure development and the electrification of the municipal fleet, one of the main ambitions is to expand electric transport through cooperation with businesses and citizens. Local partnerships are created at the U15 company platform where various companies work together to solve (e-)mobility problems in and around Utrecht. Businesses are encouraged through financial incentives to become key players in the roll-out of electric transport and the reduction of their car fleets' $CO_2$ emissions. Further, the local government and the Ministry of Economic Affairs and the Ministry of Infrastructure and Environment have signed the 'Green Deal Utrecht Energy' which supports companies in implementing sustainable mobility and energy measures to reduce their $CO_2$ foot print.

Freight Quality Partnerships (UK)

Freight Quality Partnerships (FQP) are an instrument frequently applied in the UK cities to bring industry, local and regional governments together to realise sustainable, economic and efficient freight transport. FQPs provide mechanisms to work together in, for example, regional strategic partnerships, in 'umbrella' FQPs for Local Transport Plan areas, in local distribution, or in company/location specific sites (DfT, 2003). Working in Freight Quality Partnerships can have large environmental (e.g. reduced low carbon emissions, better air quality, lower noise emissions), economic (e.g. reduced costs for businesses through cooperation models) and societal (e.g. better access to goods and services) benefits.

**Risks if not considered:** Missing the opportunity for cooperation with local businesses, retailers and industry actors may hamper the successful policy implementation and the dynamic take-up of innovative measures at the local level

### 11. Test period for controversial measures – a real-life 'look and feel' for citizens and stakeholders

In contrast to "quick win" measures which help to generate a positive response among citizens and other stakeholders in the short-term, the full positive impacts and effects of controversial measures often become visible only after a longer time-span. In the first instance, public resistance might be high as citizens and stakeholder might regard such a policy rather as imposing a restriction/ limitation on their private and working lives as well as their transport-related activities instead of considering the overall benefits they will profit from in the long-term (better quality of life, improved air quality, better transportation etc.). Using a trial as a tool for convincing the target group ('seeing is believing') and testing the measure is a very interesting and obviously valuable approach. Testing a controversial measure over a certain period to demonstrate its positive effects on a city's environment and for its inhabitants, gives citizens and stakeholder the opportunity to take part in a real-life "look and feel" of the policy and might illustrate (unexpected) benefits.

A policy trial needs careful preparation and consideration of its values and costs. It should not be taken lightly as it requires substantial efforts and resources. It should also be ensured that there are good chances for positive effects to emerge during the test period (e.g. by selecting the correct test site). The planning of a measure with wide consequences will cause considerable public debate which must be given adequate time. In addition, it is important to agree prior to the trial how to proceed after the testing period. This includes clarifications about the analysis of results and the subsequent decision-taking whether to implement the policy in the long-term.

**Examples:**

Stockholm's congestion charging scheme

The congestion charging trial in Stockholm enabled citizens and also politicians to experience the effect of this large-scale measure which was very controversial in the public. Despite the policy's various positive effects on urban mobility (reduction of traffic volumes, increased efficiency of the transport system, increased public transport use, environmental benefits, etc.), congestion charges are often subject to doubt and have a strong impact on people's everyday life. The Stockholm trial showed citizens the policies' positive effects on congestion levels, air and noise emissions as well as quality of life that manifested themselves even greater than predicted. However, the success of the trial period was hard work for all actors involved. The Stockholm City Council decided to drive through the trial without all circumstances having been settled, which turned out to be the right, but also an uncertain decision. Among other things, it was the commitment of individual key persons, professionalism shown by civil servants, generous funding, major

extensions of public transport services (to provide alternatives to private car use) as well as time and political pressure that made the trial work successfully.

Proposals for policies such a congestion charging might be better received if a city's inhabitants were given practical experience and proof of the positive impact before introducing the scheme on a permanent basis, just like in Stockholm. Schuitema argues that the Stockholm findings indicate that "[…] the public are far more likely to embrace this change if they have first-hand experience of it in advance. […] This logic could be applied to the circumstances in Edinburgh in 2005 and Manchester in 2008, where there was no trial period before congestion charging was put up for vote in public referendums. Over 70% of people in both cities voted against its introduction" (University of Aberdeen, 2010).

**Risks to be considered:** Inefficient use of budget and personnel resources if trial is not planned carefully; test period for a controversial measure might backfire and not result in policy acceptance

### 12. Communicating the message – branding, marketing and working with the media

Marketing communications for products in the private sector world have proved to have immense effects on demand and sales. The sustainable urban transport world, often public sector based, can take lessons from company's marketing efforts. Marketing and communication should be integral part of sustainable transport policy development and implementation. The way how mobility measures are branded and marketed and how key messages and results are communicated to different audiences has a significant influence on the level of public acceptance. This also includes establishing good relations with the media. Achieving changes in travel behaviour towards more sustainable transport modes is not only connected to infrastructural measures but requires also user education and information (either as part of hard measures, or as separate soft measures). The key is to market a policy's positive impacts on individuals, a city and wider society.

**Examples:**

Stockholm's congestion charging scheme

The wording of the pricing mechanism was highly influential on public acceptance. Stockholm decided to rename it from 'congestion charge' having a rather negative connotation to the more positive term 'environmental charge' which greatly enhanced public acceptance of the measure. Further, it was decided that income generated from the congestion charging scheme would be channelled back into local and regional public transport system investments. Communicating this as a direct benefit for the Stockholm region residents significantly helped raising acceptance for the measure.

Munich's cycling campaign 'Cycling Capital Munich'

Munich's cycling campaign can be considered a marketing measure in itself including brand development (development of slogans, logo, branded material) and various campaign activities (e.g. events allowing exclusive use of road infrastructure for bicycles, city statute demanding and facilitating construction of bicycle parking facilities). The media was not always a straightforward communication partner with some criticising high public spending for this soft measure and ridiculing the 'safety joker', a small part of the campaign. However, the Mayor of Munich and his second deputy Mayor supported the campaign to the hilt, were able to engage with the media and achieved positive reporting in the end.

Kopenhagen Green Accounts

The City of Copenhagen has developed 13 goals that support the city's vision to become the Eco-metropolis of the world in 2015. The city administration communicates regularly on the progress by publishing 'Green Accounts' implementation reports. The Green Accounts booklet is "for everyone interested in the City's environmental initiatives, including citizens, enterprises and local politicians, as well as other decision makers in Copenhagen and other cities" (City of Copenhagen, 2014). It reports in a comprehensive but easy to understand assessment format whether the goals are likely to be achieved, how far the city administration has come already and what efforts are required to meet the expectations that were set. In the Green Accounts, successes are documented and implementation gaps as well as needs for further action are communicated with honesty and openness.

**Risks if not considered:** Low visibility of the policy and its successes that might result in slow local policy take-up and lower positive impact on urban mobility than expected; risk that media picks up on other aspects of the policy than its achievement

### *5.5.3 Reflection*

The emerging trend in cities to move from top-down planning approaches to collaborative planning is debated in both academic research and planning practice. Due to the plethora of large-scale participation processes cities are carrying out nowadays, some experts already speak of the phenomenon of "particitainment" (e.g. Selle, 2013). However, the general difficulties in conducting effective participation in transport planning and the failure of involvement methods in the past mean that the new paradigm of participation is also put into question. This touches, on the one hand, principle questions of participatory planning such as:

- Questions of democracy: does participation actually fulfil democratic requirements since it often involves only small sections of the public or

stakeholders (Booth and Richardson, 2001)? Is it a representative decision-making process, if only those that are directly affected and those who regularly visit consultations actively participate in a participation process?

- Questions of acceptance: Does participation actually ensure acceptance? Carrying out a complex and costly participation process neither guarantees the acceptance of a Sustainable Urban Mobility Plan nor the acceptance of a specific transport policy or measure
- Questions of quality: some researchers argue that the quality of decisions does not inevitably increase when consulting the public and in some cases even decreases, inter alia because of a wide range of less significant interests and a lack of expertise (Dietz and Stern, 2008).

On the other hand, there are still practical questions that local authorities face when carrying out participation processes:

- How to progress after having involved stakeholders and the public in workshop series, online consultations and transport visioning events? How to integrate the results into the decision-making process?
- How to take the results into account in the on-going technical transport planning process?
- And how to come to a joint, accepted decision if claims and proposals from the public are unrealistic, unfeasible and – one of the major concerns – financially not viable?

There are, admittedly, a number of questions that have not yet been solved completely in participatory planning. However, moving back to non-participation is no option either. Local authorities need to react to the call for participation that has emerged over the past decade(s) so that citizens and stakeholders, actually being the target groups of urban mobility, are heard and that their views and opinions are taken into account. At the same time, participatory planning processes can educate citizens and stakeholders on how to contribute their knowledge and experiences to mobility planning and how to successfully contribute to democratic decision-making in general. For both parties collaborative planning is still a new approach requiring a learning curve on both sides.

Local authorities can develop more effective and (cost) efficient mobility plans and projects by involving citizens and stakeholders from the initial to the final planning stages and by identifying controversial issues before a decision is made. Participation can prevent opposition and the failure of a plan by bringing the local stakeholders together and reaching agreement on how to progress. Thus delays and costs can be reduced in both the planning and implementation phases. Last but not least, participation frequently contributes to a sense of ownership of decisions and

measures, and creates a greater sense of responsibility among politicians, planners and citizens and stakeholders.

# 6. Conclusions

**Munich, Germany**

Transport Development plan

The TDPs constituent measures were conceived in an interrelated fashion, with good (but not complete) coherence between them. This was contributed to by the following factors:

- One agency was made responsible for the plan, but:
  - It consulted an extensive range of other actors in and around the city throughout the process.
- The TDP was itself embedded in broader, ambitious plans, which defined the general goals to which the TDP should strive, avoiding the TDPs goals being at cross-purposed with other plans or measures.
- However, the success was tampered by erroneous basic assumptions in the underlying models used to conceive the plan.

Radlhauptstadt München

Although the increase in cycling's modal share is difficult to attribute to Radlhauptstadt München alone, the shift to cycling is nonetheless significant, and is accompanied, significantly, by positive public sentiment toward the campaign, which can be attributed to it. This analysis has found the following significant factors in the establishment of the campaign:

- The policy's passing was aided by a policy broker within the municipal administration who advocated for the policy, helping to overcome resistance.
- High level assistance, from Munich's mayor, was called upon and provided at a key moment (in the aftermath of the Safety Joker's first appearance).
- The groundwork for interdepartmental cooperation was laid during the preparation for an event not intrinsically linked with Radlhauptstadt München (the VeloCity conference).
  - This event also increased the regard in which the topic of cycling was held within and without the administration.
- Powerful local players (esp. the car-maker BMW), which could have developed into powerful opponents of the campaign, were intimately involved in the campaign's conception.
- Resistance amongst other stakeholders was overcome through engagement and discussion.

**Sweden**

Success factors and obstacles identified in LundaMaTs

Factors contributing to the relative success of LundaMaTs can be summarised as:

- Broad collaboration between municipal bodies and other local actors representing different spheres of interest
- Good co-operation between the transport and the urban-planning departments
- Strong tradition of dialogue in municipal planning
- Tradition of political unity in the governance of Lund
- Long tradition of collaboration between traffic planning and building planning
- Commitment and adherence to agreed goals among officials
- LundaMaTs II being viewed as a resource in Lund's external marketing
- Citizens' active engagement in societal and spatial planning
- Environmental awareness of population
- Long tradition of using the bike (large share of students)

Factors hampering the full implementation of LundaMaTs include:

- The large variety of developments and actions on which the Technical Services Department has limited influence
- Land use planning being at the discretion of each municipality according to the municipal monopoly
- Increasing commuting due to large creation of jobs but relatively little provision of dwelling opportunities in Lund city
- Professionalisation of the politicians, which may intrude on civil servants' domains
- Politicians' professionalism prone to degradation as the term of office comes to an end

Stockholm Trial

- The planning of a measure with such wide consequences as a congestion charge in a large city will cause considerable public debate which must be given adequate time.
- Leadership and management of the planning and implementation of the measure must be defined from the beginning.
- The extended discussion on whether the fee was a tax or a charge points to the importance of having a firm legal basis for financing the congestion measure.
- Public acceptance of a congestion charge is greatly dependent on provision of alternatives to the private car for personal trips.
- A key factor in getting acceptance for the congestion tax was the decision to direct the tax to investments in the local and regional public transport system.
- The detailed layout of the congestion-tax zones is important for public acceptance.

- The wording of the pricing mechanism greatly influenced public acceptance. The change from “congestion charge” to “environmental charge” greatly enhanced public acceptance of the measure.
- From many perspectives, there is great value in performing a trial from which the experiences can be evaluated and added to the body of information underpinning the decision on such a controversial measure as a congestion tax.
- Experience from the congestion-charge trial formed a valuable input to voters in the referendum

**Krakow, Poland**

Mobility Forum success and failure factors

The most important key factors of success are participations of many stakeholders in Mobility Forum, as a one step in policy process. Getting the point of view of many users and decision makers is invaluable to solve the transportation problem in cities. The most important result of the Mobility Forum is getting the information about the opinions and the ways to solving them, taking into consideration different points of view. The other important result is raising citizens’ awareness of sustainable transport behaviour, by presenting them various solutions and ways to solve the problem.

The primary failure factors identified are:

- Insufficient number of Forum meetings to show to inhabitants that they can participate in decision-making processes. When the frequency of meetings has increased, also the number of participants has increased.
- Lack of fixed dates of Forum is perceived as random actions with no results. It is recommended to hold a meeting on a fixed day (e.g. first Thursday of each month).
- Not enough interest and support amongst quarter-councillors (representing citizens of different quarters/districts). Unfortunately still it is a barrier, which is very difficult to overcome.
- Wrong perceiving of Mobility Forum idea. “It is only political chat” – citizens (especially young people) attending Forums were afraid to take part in discussion feeling inferior to politicians and officials. This is very difficult to overcome.
- Insufficient media interest, depending on the subject of meetings. The more controversial topics, the more media interest is generated.

However, it is worth discussing about the transportation problems not only from the administrative units point of view, but also to get know the citizens point of view.

## 6.1 Recommendations: policy integration

Successful policy integration requires actors across departments and sectors to work together to create synergies between policies horizontally (across departments within the local authority), vertically (at the regional, country and EU-levels) and territorially (between neighbouring authorities). Ultimately, well-integrated sustainable urban mobility policies are the result of departments' joint contribution to reaching sustainability goals. However, one single policy cannot make it alone; local authorities should think in terms of related policies and policy packages to reach broader sustainability goals. Close consideration should be given to the previously mentioned factors in the early stages of policy planning. This will help the local authority to avoid the common institutional barriers for effective policy integration, which include duplicated responsibility, inconsistencies in process, political and public acceptability, information and skills shortages, financial constraints and legislative and regulatory requirements (Preston, 2012).

One of the most basic yet essential recommendations which can be derived from the success factors is that the local authority must create a work plan. The work plan is a document which everyone involved in developing the policy can refer to throughout the process; it clearly defines roles for collaboration across departments and describes the work that is to be done, including milestones. The SUMP Guidelines (Rupprecht Consult, 2014) suggest going through the following checklist:

- Political mandate and support for your plan concluded.
- Coordinator of the planning process determined.
- Strategy for risk management and quality management devised.
- Work plan for your planning process developed and politically approved.

The work plan lays the groundwork for the local authority and any involved neighbouring authorities to develop the policy. Once this has been created, the following aspects can be incorporated into the policy's development.

**Bringing the policy into line with the local authority's broader priorities**

- Whenever possible, directly align the policy with related local, regional, country and EU-level policies, strategies and goals.
- When a broader local-level plan exists, consult with the department(s) responsible for creating the plan to see how the new policy could support it (e.g. by helping to meet its goals).
- When a concrete policy idea is being discussed, become familiar with the available funding structures at the country and EU levels to make use of opportunities for funding. In addition to grants and subsidies, it may also be possible to become a project partner as Krakow was in the CARAVEL project which helped to create the Telebus.

**Supportive environment at the local level**

- When a policy idea or transport challenge is on the table, be proactive by inviting related departments to engage in a preliminary brainstorming discussion about the relevance, necessity and interconnectedness of the issue with their areas of work. Structure the discussion by having a moderator and using techniques such as drawing a 'mind map' of the interconnected issues and ideas.

**Strike a balance in the policy measure(s)**

- When appropriate, pair together measures which manage demand for less sustainable modes (e.g. through disincentives) with measures which improve the supply of more sustainable modes (e.g. through increasing access to alternative modes or through incentives like subsidies and tax exemptions).
- Avoid creating policies which only focus on one mode in isolation. People use multiple modes in their daily journeys, so the connectivity and interactions between sustainable modes should always be a major area of focus in any policy which targets a specific mode (e.g. a cycling plan).

**Facilitating integration through cooperation**

- Establish working relationships across departments and keep each other up to date on current projects. Cross-training people on working processes in other departments can be a valuable learning experience which helps departments to better understand each other. This can also involve creating mechanisms for accountability, e.g. obligating departments to consult with other departments when a proposed policy may overlap with or have impacts on existing policies.
- Bring neighbouring authorities into the planning process as early as possible once it has been determined that the policy is based on a solid assessment of the problem from various sectoral perspectives.
- Group related departments into working groups with a clearly defined mandate, and assign a role to each member of the group(s).

**Ensure accountability during implementation and follow-through**

- In the work plan, assign clear and binding roles to involved departments which cover not only implementation of the policy, but also monitoring and evaluation at predetermined intervals.
- Periodically re-assess the relevance of the policy for addressing social, environmental and economic concerns in the city or region. If any major changes have occurred in these areas, update the policy accordingly and ensure that related policies are updated as well.

## 6.2 Recommendations: participation and policy processes

The success of a policy process depends on a wide range of influencing factors ranging from politics, commitment of key actors, local conflicts and coalitions to the participatory approach applied, administrative structures and cooperation procedures. Of the many potential influential factors, SHAPE-IT gives recommendations on public participation and its effect upon the acceptance and implementation of policies and also on the administrative organisation of a policy planning process.

**Building political commitment for participation**

- When the idea of a participatory planning process for the development of a policy is on the table, engage early with politicians and convince them to become part of the involvement process. This gives them the chance to learn more about the policy and sufficient time to establish their own view and position on the planned policy. At the same time, it gives planners opportunities to convince politicians of the transport policy's benefits and increase chances for political support and successful policy adoption
- Find key politicians or persons in authority to assume leadership for your policy's participation process, thus demonstrating a high-level commitment to citizens and stakeholders that their views, knowledge and concerns will be taken into account

**Thorough planning and preparation of stakeholder and citizen involvement**

- Agree the overall strategic approach at the outset and prepare an engagement strategy that defines when and how stakeholders will be involved, the involvement tools to be used, as well as timing, budget and documentation requirements
- Agree formally on the strategy document to develop a common understanding within the administration on how the involvement process will be carried out; if possible, agree on the document together with primary stakeholders
- Define leadership, responsibilities and dialogue structures for the administrative process of organising and carrying out the participation process
- Review skills and participation competences within the administration and assess whether capacity building, in-house training or external expert support are needed
- If there is no budget reserved exclusively for citizen and stakeholder involvement in transport planning, check whether there are local, regional, national or EU funding opportunities to support your participation initiative
- Develop participation routines to enhance the social learning process, to familiarise participants with participatory planning and to fine-tune the involvement tools applied

**Achieving a sound basis for participatory planning**

- Identify all relevant stakeholders (primary stakeholders, key actors, intermediaries) as well as their objectives, power, capacities and planning resources
- Analyse stakeholder constellations and identify possible synergies or conflicts between stakeholders
- Engage early with policy supporters and work in partnership – but do not forget to also approach potential veto players, offer them the opportunity to express their concerns and find a solution that is acceptable for all actors concerned, thus avoiding that veto players block the policy at a later planning stage
- Ensure appropriate integration of participation results and have the courage to involve citizens and stakeholders in decision-taking. There are various participation tools out there that allow citizens and stakeholders to jointly decide on strategic and, if appropriate, technical policy questions (see e.g. GUIDEMAPS, 2004; Rupprecht Consult, 2014)
- When appropriate, assign responsibilities and roles for policy implementation to stakeholders already in the participation process to prepare stakeholders for their cooperation and support role in actual measure implementation
- Gain and keep credibility. Do not disregard the importance of transparency and accountability

**Strategic thinking and planning – making planning processes more efficient and effective**

- Identify a lead organisation with the authority to lead and the capacity to make decisions that has political and citizen support. Make one department responsible but explicitly task them with consulting with the full range of stakeholders
- Clarify and formalise the roles of institutional actors, their competence areas and resource contributions
- Draft an overall work plan for the planning process, indicating all necessary milestones and ensuring political approval. Maintain a certain flexibility to amend the work plan as the work progresses. Ideally, agree on management procedures and tasks also with stakeholders involved in planning tasks

**Realising sustainable mobility through support and cooperation**

- Find key proponents to raise awareness for your policy and to drive the planning and implementation process. The personal commitment of a local champion can contribute significantly to the success of a policy.
- Identify high-level politicians ready to come out in support if need be
- You're not alone: cooperate with your policy's target groups as it is not only the public administration's responsibility to implement sustainable mobility

policies. Approach private sector target groups and convince them to engage in policy roll-out

**Demonstrating benefits and generating momentum for sustainable mobility**

- If appropriate, test your policy for a certain period and assess the impacts, benefits and problems that occur. A trial can overcome opposition and convince the target group of the policy's positive impacts. It provides a real-life 'look and feel' opportunity for citizens and stakeholders
- Brand your policy, create effective messages and develop attractive information material for local dissemination. Make marketing and communication an integral part of policy planning and implementation
- Work closely with the media to gain their support and to increase the visibility of your policy
- When a policy is being adopted or successfully implemented, this is a major step towards achieving sustainable mobility in your city – it's worth celebrating this with citizens, stakeholders, politicians and the media to maintain momentum and create ownership

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# 8. Annexes

## 8.1 Stepping Stones: transnational collaboration within Era-net Transport

Since 2004 a comprehensive and powerful network of national ministries and supporting organizations in the field of transport research has been building up Era-net Transport (ENT).

ENT pre-dominantly helps the owners and managers of transport research programs by facilitating cooperation between their national/regional funding programs in order to reduce fragmentation of the European Research Area (ERA) for Transport.

Since its foundation ENT has initiated and implemented multiple activities and is currently defining further, even more advanced measures to improve the outcome and quality of transport research in Europe.

ENT has received funding from the European Union's Seventh Framework Program for research, technological development and demonstration under grant agreement no. 321525.

**Our mission**

In ENT we work together on the basis of trust and we aim to benefit from each other´s strong points. We proactively bring together different European research parties involved in transport industry. Our collaborative cross-border consortium brings together a range of knowledge and viewpoints to create a sustainable transport (r)evolution.

**Stepping Stones**

Stepping Stones is a small and medium sized transnational research and innovation funding initiative launched by ENT in 2012. It concerns a consortium of the governments of Germany, the Netherlands, Sweden, the United Kingdom, Poland and Belarus.

The goal of the Stepping Stones research consortium is to understand the success factors of mobility management aimed at making mobility patterns more sustainable and the underlying mechanisms including social & psychological factors. Due to the transnational approach of Stepping Stones, the research results will be of common interest across Europe or in several regions.

The call to tender for the Stepping Stones research projects was opened in March 2012 and closed in June 2012. After a thorough selection process, three consortia were selected. In total, 12 organisations from 4 different countries were involved in the following research projects:

- Step-by-Step: Learning from implementing behavioural changes in transport
- GPS: Guiding principles for Sustainable Mobility / Navigating towards sustainable mobility and behaviour
- SHAPE-IT: Shaping sustainable transport patterns in European Cities

These three research consortia, composed from a wide range of European partner organizations, have investigated mobility behaviour and mobility management policies in various European cities.

The final results were presented at the Final Conference in Cracow, Poland on September 18th and 19th, 2014.

**Which questions have been addressed in this project?**

- The what-question: Which policies were more and which are less successful in making urban mobility more sustainable? What are differences and similarities in these policies?
- The how-question: How are these successful and less successful policies implemented? What can we learn from the implementation and evaluation process? How does the implementation process influence the effectiveness of the policy?
- The why-question: Why are some policies successful and why are some policies less successful? Why is the same approach successful in city A but not in city B?

**Where to find further information?**

If you are working for a local and regional government or organization and you are looking for ways to make people's mobility behaviour more sustainable, Stepping Stones can be of great help to you. On the website of Era-net transport we will share research findings and recommendations in this field. www.transport-era.net

Yours sincerely,
Program Manager Stepping Stones
Marien G. Bakker
Rijkswaterstaat WVL
The Netherlands
==========

**Members of the Program Management Group of Stepping Stones:**

- Ludgera Klinge-Habermann - TÜV Rheinland Consulting GmbH, Germany
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- Martje Storm - KiM Netherlands Institute for Transport Policy Analysis, The Netherlands
- Kees van der Reijden - Rijkswaterstaat WVL, The Netherlands
- Joe Finlay - Department for Transport, United Kingdom (observer)
- Natallia Yankevich National Academy of Sciences of Belarus, Belarus (observer)

**Funding Organizations**

- German Federal Ministry of Transport and Digital Infrastructure; (former Federal Ministry of Transport, Building and Urban Development)
- Dutch Ministry of Infrastructure and the Environment
- Department for Transport of Great Britain
- Swedish Transport Administration
- NCBR - Poland National Centre for Research and Development

## 8.2 Policy integration guiding questions

*Note: Rupprecht Consult developed a set of questions for the policy integration and policy process topics to help SHAPE-IT partners in writing and structuring their case studies. The guiding questions also mirror the SHAPE-IT understanding of the two topics.*

### Guiding Questions – Policy Integration

It is suggested to categorise the case study analysis into three thematic areas covering various forms of policy integration (see also Munich integration paper as an example):

- Vertical integration
- Sectoral integration
- Territorial integration

Further topics of interest for the case study analysis are policy interactions and the effectiveness of the policy. Guiding questions on each of the categories and on linkages to policy processes aim to assist the authors in drawing conclusions from their cases. Authors do not need to consider all of the questions outlined below when drafting their papers; however, they should regard them as guidance on the identification of local barriers and drivers.

**Vertical integration**

- This chapter aims to outline how the policy is embedded in a wider regional and national planning framework and how it is in accordance (at least conformity with) relevant legislation at other levels of government (district, municipality, agglomeration, region and Member State).
- Is the given policy part of a greater plan (e.g. a city's development strategy, regional development plan)? If so, please describe which issues are of particular importance for integration and what the scope of integration is.
- Are any opportunities or potential problems identified that result from regional, national or supranational framework conditions? If so, what specific impact do they have on the implementation of the policy?
- Does the policy depend on funding from higher-level authorities, e.g. national government? If so, does this have an impact on policy implementation?
- What went well in the vertical integration process? What drivers can you identify?
- What problems did you encounter in the integration process? Were there specific barriers that complicated the policy planning and implementation?

**Sectoral integration**

This section should analyse how a policy relates with other sectors and to what extent it is consistent, or complements, with other policies (from e.g. land use and spatial planning, environmental protection, social services, health, energy, education, enforcement policing, economic development, gender equities, etc.).

- What sector (department) is overall responsible for the policy?
- What other sectors are linked to the thematic focus of the given policy?
- Which departments and institutions *should* work together on integrating the given policy into existing policies and plans? Which departments and institutions actually do cooperate on common actions for the policy's sectoral integration?
- What plans, regulations and strategies from other policy fields were considered when planning and implementing the policy?
- Did goals and objectives of other planning documents support or conflict with the policy's aims and objectives? If the latter, how were conflicts solved?
- Did the integration of the policy lead to new local practices, formal procedures such as joint plans (e.g. joint land use plans), or informal procedures such as working groups?
- What went well in the sectoral integration process? What drivers can you identify?
- What problems did you encounter in the integration process? Were there specific barriers that complicated the policy planning and implementation?

**Territorial integration**

Territorial integration, or spatial integration, is a second form of horizontal cooperation and describes how a policy is in accordance with policies of neighbouring urban and peri-urban areas. Ideally, a policy's spatial coverage should take account of actual mobility patterns by covering the functioning agglomeration (e.g. travel-to-work areas).

- What is the spatial scope of the policy? Are there spatial interdependencies?
- Was there a decision on political level that approved the geographical coverage and lead organisation?
- Does the policy foresee specific measures that require cooperation with surrounding communities and integration into their policies?

- What planning documents, regulations or strategies from surrounding actors (councils, districts, local communities, etc.) were relevant for the integration of the given policy?
- What went well in the territorial integration process? What drivers can you identify?
- What problems did you encounter in the integration process? Were there specific barriers that complicated the policy planning and implementation?

**Policy interactions**

Transport policies interact with policies in other areas. The many interactions outlined in the previous sections can result in positive but also negative outcomes.

- Did the policy have mutually reinforcing positive effects (synergies and co-benefits) either knowingly or unintended, e.g. in view of transport modes, geographical areas, social groups, other policy areas?
- Did the policy have negative trade-offs either knowingly or unintended, e.g. in view of transport modes, geographical areas, social groups, other policy areas?

**Effectiveness of the policy**

This chapter should look at how effective the policy actually is and how this can be proven. It should take the topics of the previous sections into account but may also look at other factors that influence the effectiveness. Special attention should of course be paid to integration issues.

- Which indicators are suitable for analysing the policy's effectiveness (e.g. modal split, number of trips, cost to users, public transport satisfaction; see Chapter 2.4 Methodology, Effectiveness indicators)?
- Is data available that allows you to evaluate the effectiveness of the policy?
- If no data is available, please assess the overall effectiveness of the policy from your own perspective based on the interviews conducted.
- To what extent can you attribute success or failure of the policy to integration factors (vertical, sectoral, territorial)?

**Linkages to policy processes**

This chapter aims to give a brief overview about the role of policy processes in the given policy's planning and implementation phases. All forms of integration closely relate with the involvement of actors, institutional arrangements, cooperation as well as political and strategic factors.

- Who were the key actors in favour of the policy, ambivalent to and against the proposed policy?
- Who coordinated the planning and implementation process of the policy? Were roles and responsibilities clearly defined?
- Were any cooperation routines established (regular meetings, round tables, agreement procedures, etc.)?
- What drivers facilitated cooperation?
- What barriers made cooperation more difficult for the planning and implementation of the measure?

## 8.3 Policy processes guiding questions

*Note: Rupprecht Consult developed a set of questions for the policy integration and policy process topics to help SHAPE-IT partners in writing and structuring their case studies. The guiding questions also mirror the SHAPE-IT understanding of the two topics.*

### Guiding Questions – Policy Processes

It is suggested to categorise the case study analysis into five thematic areas (see Capacity Model by Janice 2002 and e.g. Munich paper on policy processes):

- Actors (stakeholders, institutions, political parties, NGOs, etc.)
- Policy brokers/veto players
- Public participation
- Institutional structures
- Situational factors

Guiding questions on each of the categories and on linkages to policy integration aim to assist the authors in drawing conclusions from their cases. Authors do not need to consider all of the questions outlined below when drafting their papers; however, they should regard them as guidance on the identification of local barriers and drivers.

**Actors (stakeholders, institutions, political parties, NGOs, etc.)**

This section should outline the position and interests of the actors towards the measure and how they were involved in the planning, implementation and evaluation phases of the measure.

- Were actors identified at the beginning of the planning process?
- Was a stakeholder coordination strategy or plan developed? If so, what did it contain?
- Who were the key actors in favour of the policy, ambivalent to and against the proposed policy?
- How broad was the coalition for the measure?
- How exposed was the measure to political volatility?
- At what stages and how were stakeholders involved?
- To what extent did stakeholders influence the planning and implementation process of the transport policy?
- What went well in the actor/stakeholder involvement process? What drivers can you identify?
- What problems did you encounter in the involvement process? Were there specific barriers that complicated the measure planning process?

**Policy brokers/veto players**

This chapter should identify key individuals of high influence either strongly pushing, or opposing the measure.

- Was there a policy broker advocating and pushing the implementation of the measure (e.g. a key individual with high recognition among local actors who played a significant role in mobilising resources and creating alliances)?
- Was there a veto player preventing the successful implementation of the measure (e.g. individual actors actively opposing the measure)?
- To what extent did any of the two influence the planning and implementation process?

**Public participation**

This section should analyse the presence, extent and effectiveness of citizen involvement. Special attention should be paid to the effects public involvement had on the success or failure of the measure.

- To what extent were citizens engaged in the development process of your transport measure (consultations, public discussions, focus groups, campaigns, being informed in writing or through online tools, referendum, etc.)?
- Was a citizen engagement strategy developed? Was a communication plan developed? If so, by whom and what did they outline?
- To what extent did citizens influence the planning and implementation process of the transport policy?
- How would you assess the engagement of citizens? Did it create commitment and initiate behaviour change? Did it lead to the measure's legitimisation?
- What is the city administration's perspective on the involvement of citizens (and also stakeholders)?
- What went well in the public involvement process? What drivers can you identify?
- What problems did you encounter in the involvement process? Were there specific barriers that complicated the measure planning process?

**Institutional structures**

This chapter should give an idea about the effect of institutional structures affecting the proposed policy and how institutions worked together.

- Please describe institutional arrangements and institutions involved in the policy development and implementation process?
- Who coordinated the planning and implementation process of the measure? Were roles and responsibilities clearly defined?

- Were any cooperation routines established (regular meetings, round tables, agreement procedures, etc.)?
- Was there cooperation with neighbouring communities?
- What drivers facilitated cooperation?
- What barriers made cooperation more difficult for the planning and implementation of the measure?

**Situational factors**

This chapter should describe specific events or local conditions which opened or closed windows of opportunity.

- Were there specific events that did not directly relate to the policy but had a significant effect on it by strengthening or complicating its implementation?
- Did specific local conditions influence the policy process in a positive or negative way?

**Linkages to policy integration**

This chapter aims to give a brief overview about how the policy was integrated into local frameworks and plans and how integration affected the policy process.

- How was the policy integrated into existing legal frameworks, plans and policies?
- What relevant policy linkages were identified (synergies)? Were there also policies conflicting with the measure?
- Was a dialogue established with all concerned actors (departments, agencies, political and administrative bodies, etc.) about integration possibilities?
- How did policy integration influence the planning process? How did it affect how institutional actors worked together?

# Annex I: Integrating Summary Report of three researches

# Stepping Stones: Practical Steps on the journey to Sustainable Mobility

Based on:

SHAPE-IT
Step by Step
Guiding Principles for Sustainable Mobility

January 2015

Authors: Pieter Tanja (Tanja TopConsult) and Jantine Zwinkels (Royal HaskoningDHV)

# Table of contents

# 1 Introduction

As described in the foreword, in framework of the trans-national program “Stepping Stones” research was done by three consortia: SHAPE-IT, Step by Step and Guiding Principles for Sustainable Mobility. This report is an integrating summary of the reports of those consortia.

The main findings and recommendations of each of the projects have been integrated. Moreover, the results of the discussions between the consortia and practitioners during the final Stepping Stones Conference in Krakow on September 18 and 19, 2014, have been added. From this the most important success factors have been derived to achieve a successful sustainable mobility project and a joint set of recommendations to make mobility patterns more sustainably has been developed. You will find this overview in this report.

# 2 Approach of the three consortia

**Step-By-Step: Learning from differences in mobility behaviour: a comparative research among European cities**

The uniqueness of the Step-By-Step project is that it tried to combine different approaches to analysing mobility behaviour. One approach was strongly quantitative: project mobility data was collected for 15 European cities. A ***comparative analysis was performed resulting in a typology of cities based on their mobility characteristics***. In total 31 cases with a behaviour intervention were analysed. However, these kind of analytical studies lead quite often to general conclusions on why the mobility behaviour is as it is. Implications for policy makers are not that easy to make. On the other hand, ***the behaviour psychological approach is recognizable for policy makers and connects to a more intuitive approach.*** However, results and analysis based on a behaviour psychological approach lack a framework to transfer the results from one situation to another. The Step-By-Step approach aimed to get the best of both worlds: transferability and recognisability.

The Step By Step project was coordinated by Goudappel Coffeng (the Netherlands). Partners are: the TU Dresden (Germany), WSP Sweden and IBDiM (Poland).

**Shape-It Shaping Sustainable Transport Patterns in European Cities**

The SHAPE-IT project investigated the factors that influence the effectiveness of sustainable transport policies focusing on the integration of policies and policy processes. The project explains why policies are successful in one place, but not in another. To do that the ***project examined the influence of policy processes and the role of policy integration on the ability of a measure to influence behaviour***. The project brought together the analyses from the policy integration cases and process case studies, compared the results and explored the potential of Sustainable Urban Mobility Plans (SUMPs) as a tool for policy integration and participatory processes. This allowed the identification of key factors for success and failure and identified the opportunities to enhance the effectiveness of policies through integration and participatory processes. The cases were also compared to less successful implementations of the chosen measures to highlight the factors that influence the extent to which a policy potential can be utilized. The case studies examined also in which way the selected policies included relevant steps to motivate people to change their travel behaviour, using four steps of analysis: recognition of undesirable situations, creation of attractive alternatives, information about and understanding of the alternatives, and motivation for behaviour change.

The SHAPE-IT project was coordinated by the Wuppertal Institute (Germany). Partners were: Rupprecht Consult (Germany), the Swedish National Road and Transport Research Institute, the Energy Research Centre of the Netherlands and the Cracow University of Technology (Poland).

**GPS: Guiding Principles for Sustainable Mobility**

The key objective of GPS was to understand the successful (policy) measures aimed at making mobility patterns more sustainable by learning from the experience of twenty cases that varied widely in nature. A thorough fact finding and analysis program was designed and executed. Four groups of projects, varying from individual measures to comprehensive programmes, were included:

I. Long term integrated transport & environment strategies
II. Regulation (parking, speed limits)
III. Infrastructure for sustainable modes and multimodal transport
IV. Mobility management, including e-mobility, car/bike sharing and campaigning.

Per case multiple in-depth interviews with stakeholders and independent (scientific) observers were held to get views from different perspectives answering seven key questions, including the ***'What' question***: ***the type of measures in relation to the problems that were sought to address***, as well as the costs in relation to the success of the measure; and the ***'How' question***: ***the key success and failure factors and the way barriers were overcome***, as well as the key ways to manage the public reaction and use of the framework of behaviour change. Finally conclusions were drawn about the transferability of the measures.

To enable drawing conclusions from the groups, comparable cases within each group were compared to identify what works best. Besides the successfulness and effectiveness of policy measures this research also attempted to ***identify what specific circumstances were present at the local/regional level***. Special attention was given to the role of participating public and private actors and other stakeholders. From the research an important number of practical recommendations could be formulated, based on a major list of success and failure factors.

The GPS consortium was coordinated by Royal HaskoningDHV (the Netherlands), supported by Tanja Topconsult. Partners were the University of Lund (Sweden) and the Deutsches Institut für Urbanistik (DIFU) (Germany).

# 3 Main findings

## 3.1 Successfulness of mobility projects and behaviour change

Change of travel behaviour is at the very core of achieving the objectives of a project. Changes may regard the very decision to travel, the choice of the destination, the way (mode) of traveling (including type of vehicle) and the moment of traveling. All 60 cases studied intended in some way or another to influence the travel behaviour.

There is an important number of findings on the success factors of measures and projects on which all researchers agree. They are discussed in more detail in the following sections.

In addition to these, there are some overall findings from the three researches:

1. ***The successfulness of projects or measures is not just related to WHAT measures are introduced, but to a large extent to HOW this is done.***
   The joint research has resulted in a high number of findings and recommendations, both to the "WHAT" and to the "HOW" question. Figure 1 gives an overview of topics addressed by the Stepping Stones research.
   The left column "WHAT" shows the more 'traditional' sequence of policy making, definition of measures, implementation of which alters the travel behaviour, which in its turn has measurable effects. Evaluation leads to adjustments of measures and potentially to transfer to other locations.

   The right column highlights the 'HOW-topics' that have a major effect on the successfulness of projects or measures:
   - Ambition and goal setting
   - The governance of the project, including policy integration and innovative structures for delivering projects
   - Packaging of measures, like combinations of 'pull' and 'push' measures
   - Organization of the implementation, including funding, ownership, windows of opportunity and cooperation
   - Monitoring and evaluation as a crucial means of improving results and of transferring those.

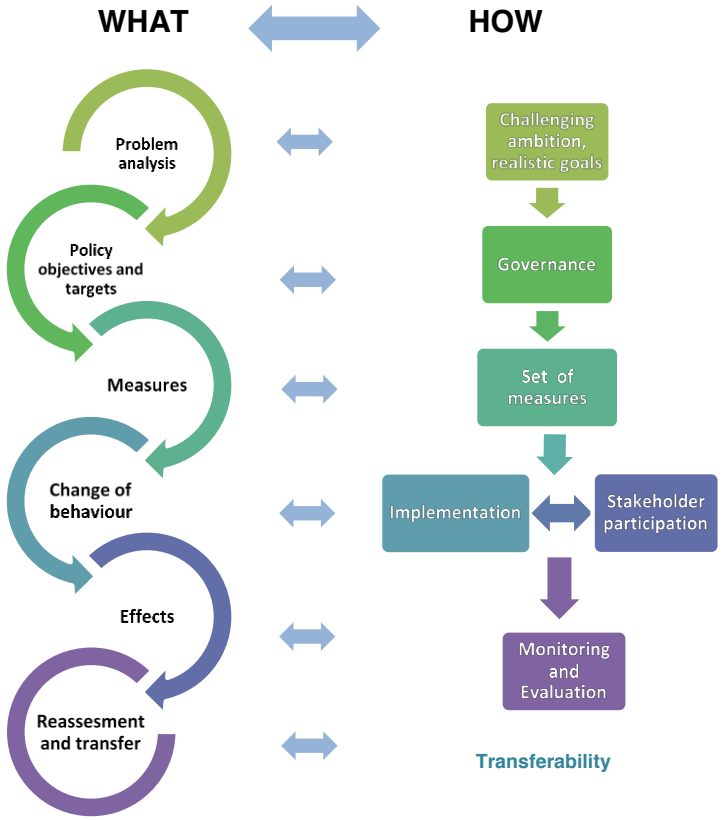



*Figure 1: Aspects addressed in the three researches*

2. ***In only a few cases use was made of behaviour change theories to raise the success of measures. Although the use of such theories was found valuable, no conclusions can be drawn yet on the effectiveness thereof.***

   The majority of measures were not informed by behaviour change theories like the theory of Cialdini, the ttheory of Planned Behaviour and the Trans-theoretical Model. Where they were used, they were used mostly implicitly, but were found to be valuable. However, these projects did not use control groups to assess whether interventions designed based on theories of behaviour change were any more effective than those that were not. The research was unable to establish whether the measures that did not use a theory of behaviour change would have been more successful, if they had done so.

## 3.2 Success factors

In the following sections the success factors of the three researches are brought together, following the topics of the 'HOW' column of figure 1.

### 3.2.1 Ambition and goal setting

- Many projects turned out to be budget driven instead of problem driven. However, for a project to be successful a ***sound problem analysis*** is required, that investigates not only the actual situation (of mobility patterns), deficits and challenges, but also the desired situation in the future. Based on such an analysis, goals can be defined. Researchers have noticed that projects that lack such an analysis are less successful.
- A pure problem driven approach lacking a ***challenging ambition*** is likely to fall short. At the same time the definition and communication of ***realistic objectives and targets*** avoids disappointments afterwards and contributes to the perceived success.

### 3.2.2 Governance

***Innovative structures***

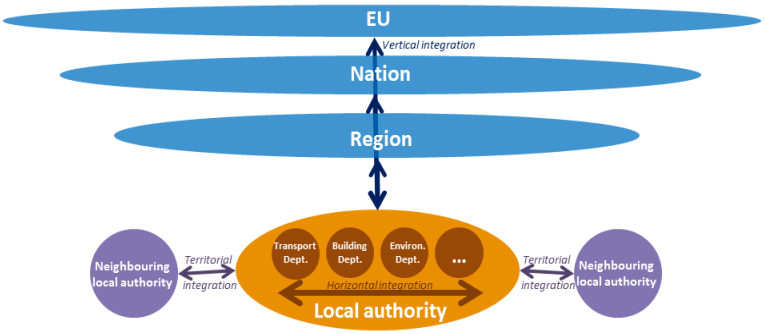
- ***Innovative structures for delivering projects*** were often important. For example, giving responsibility for project delivery to organisations outside the municipality was very important for projects such as the Mainz public bike scheme, the Dortmund "Head on, engine off" campaign, the Västra Hamnen mobility management measures, or Task Force Mobility Management in the Netherlands. This allowed them to take quicker decisions and use a more pragmatic approach than if all implementation decisions had continued to rest with municipal or regional government. Of course, proper control by the political and funding organisation of the delivery organisations remains crucial.

*Dortmund campaign (Source: Stadt Dortmund)*

***Policy integration***

- A number of cases showed that the ***alignment of the local policy with regional, national and EU level frameworks*** helps the projects in being supported by decision-makers and being adopted by colleagues.
- Besides this vertical integration also ***horizontal integration superseding geographical boundaries*** (trips do not stop at the municipal limits) ***or boundaries between departments*** (as environment, economy, spatial planning and housing) proved to be beneficial to the success of projects.
    - Coordination of spatial and transport planning aimed at multifunctional and intensive land use makes the development of sustainable transport modes (public transport, bicycling, walking) easier.
    - If sustainable transport is only one element of the project, as was the case for city redevelopment projects Freiburg Vauban, Tübingen French Quarter and Malmö Västra Hamnen, this can add strength to the project, because others become involved and committed to the project.

Figure 2. Policy integration framework (Source: SHAPE-IT)



- A ***proper sequence of the city policy documents*** (city development strategy, spatial master plan, transportation policy) approved by the City Council is the best prerequisite for sustainable mobility measures implementation.
- Approaching the measure ***as an (integrated) project allowed for good planning*** and often the establishment of ***clear objectives***. Most of the measures examined however – especially those in the mobility management category - are or were discrete stand-alone projects rather than being part of a municipality's ongoing transport activities. This was found to have disadvantages, but also advantages: discrete projects can easily be ended when they turn out not to be successful, which was the case for several of those that were reviewed.

### 3.2.3 Coherent set of measures

Many policy measures have been examined. Some general conclusions are the following:

- From the comparative study of *Step by Step*, it was concluded that
  - all policy measures can be successful or unsuccessful, depending on the situation. To choose the best one given the local circumstances, analysis and monitoring of the (changes of) attitudes and travel habits of citizens are indispensable.
  - measures in car oriented cities are sometimes slightly less successful in achieving more sustainable conditions than measures in public transport or multimodal oriented cities.
- Applying incentives may work better than punishment. In general economic incentives seem to be more successful than other types of measures.
- The overall view is that introducing complementary measures enhances the success of single measures. Economic incentives have shown to be very successful in the interactive play of push and pull measures.

### 3.2.4 Implementation

***Funding***

- Another success factor is the ***ability to take advantage of new laws or funding streams***. Numerous projects benefitted from this. Funding opportunities can even create a momentum to get a project started and initiate a new cooperation structure in a short amount of time as was the case in 's-Hertogenbosch. Lundamats and Amsterdam Electric benefited from national funds. Freiburg Vauban and Tübingen benefited from a new law that enabled municipalities to acquire federal land at reduced prices in the public interest. Nonetheless, all these projects had a strategic context, helping to achieve the municipality's wider transport objectives, and did not come into existence because of a funding stream alone.

*Tübingen: French Quarter shopping street (Source: J. Thiemann-Linden)*

***Feeling of ownership and will to act***

- ***Key people*** was a point that came up again and again in the case studies. Committed, skilled and also pragmatic technical staff were seen to be key to a project's success. Of course, **political commitment and support** was often seen to be important as well, but on the other hand, some projects succeeded without very strong political support being mentioned by interviewees as a key factor.
- ***Skilled and committed and staff*** or advisors were then often able to overcome barriers that less skilled or committed staff may not have been able to or wanted to address. An example is the entirely new solution at Freiburg Vauban to deal with to the state's minimum parking requirements in a car free urban redevelopment, involving the creation of a new body to own land that could be used for parking in the future if required.
- One way to bring new staff into project development and implementation was to ***involve other municipal departments or organisations not previously involved in transport issues***. This is seen in main road

traffic calming in Berlin, for example, where the Environment Department as well as the Transport Department is involved. This also results in the advantage that if one party in the project loses momentum or finance, other partners can take over, as was the case in Heilbronn when Federal funding was reduced.

***Cooperation, responsibilities and accountability***

- In many cases new cooperation structures have been established within the local government and with private parties such as local companies as suppliers or users of mobility services. ***Clearly defined roles are crucial to be successful.*** Among the involved parties there are often different expectations and perceptions about the responsibility of each party. This 'accountability' is not only a financial matter. It is closely related to unexpected occurrences in a project. Evaluation moments during the implementation can help to identify these deviations in time.

*Radlhauptstadt München (Source: Flickr Channel)*

***Windows of opportunity***

- A "***window of opportunity***" helps 'setting off 'a measure. Windows of opportunity will differ as cities are different: the may originate from a national or European funding scheme, from a special event (for example a National Road Construction Plan, the Dresden flood 2002, extra funding from car parking fees in Amsterdam). If there is no obvious window, one may be able to use an experiment project or a temporary project first.

### 3.2.5 Participation and managing public reaction

Realising sustainable mobility through ***participation of stakeholders and of the public*** is very important for the acceptance of policies and measures. This enables to capitalise on the support of key proponents and may be done by local partnerships and cooperation with private sector actors, political parties and NGOs. Participation is not limited to the implementation phase, but also may include the design of the policy and of the measures. Factors that contribute to the success of participation processes are:

- A ***sound problem analysis or any kind of needs assessment*** to ensure that the problem that the project is trying to resolve is actually acknowledged by the target group; lack of this results in lack of success as was demonstrated in Svågertorp and Lund in the case of the Leisure Bus.
- Preparing well by ***developing a participation and persuasion strategy***. As an example the City of Aberdeen won the 2012 SUMP award for its well-planned participation process.
- Thorough ***identification of stakeholders and analysis*** of their constellation including stakeholders from neighbouring authorities and private sector stakeholders and ***adding stakeholders views*** to the mix. Examples are Dresden's SUMP Round Table and Stockholm's and Milan's referenda on environmental charging.
- ***Real life test of measures*** and taking ***temporary measures***. In Köniz this allowed public feedback to be used in their next street remodelling.
- ***Taking stock of potential private sector partners***, as was shown by numerous cases, such as the Utrecht and 's-Hertogenbosch Electric program.
- ***Regular communication*** with the stakeholders and ***branding, marketing and working with the media***, like Munich's cycling campaign 'Cycling Capital München'. Negative public and stakeholder feedback was managed through the employment of professional communications specialists and by developing forums for the discussion of objections to the scheme.

### 3.2.6 The importance of evaluation

Thorough monitoring and evaluation is an important success factor, although the research showed that systematic evaluation is rarely applied.

- Projects with monitoring and evaluation activities turned out to have a higher success rate.

- Many successful projects were based on good practices learned during a long history of previous projects even without a systematic evaluation.
- Change of behaviour in most cases is gradual and takes place over longer time than most projects run. This requires patience and the need for monitoring over longer time periods.
- Although it can be difficult to monitor activities with effects on the long run, there are numerous benefits to do so:
    - To identify the positive and expected effects (accessibility, environmental effects, quality of life), which are sometimes needed as arguments in the public discussion and can promote the successful outcomes of projects that could be applied elsewhere.
    - To correct or prevent of any negative effects in the next planning cycle; or identification of changed conditions which require new objectives or approaches.
    - To maintain the momentum and urgency of the process, also related to the continuity in political rule.
    - To get a better understanding of critical success factors.

### 3.2.7 Transferability

From the three researches it was concluded that most measures are transferable to other situations and locations, with the caveat that differences in financing structures between countries should be taken into account.

Two motivation factors for transfer were identified:

- Transfer was of great help to municipalities to ***avoid inventing the wheel*** over and over again.
- ***Spin off opportunities*** for the private sector: in innovative projects with no or little similar application elsewhere, the potential for future expansion and the promise of a profitable business meant a big motivation for private actors to participate and invest in innovative pilots.

# 4 Recommendations

The recommendations included in the following sections are an integration of the recommendations of each of the three consortia, including the results of the final joint conference discussions. More detailed recommendations can be found in each of the three reports. While these recommendations do not necessarily guarantee a successful policy outcome, they have been demonstrated to be instrumental to the success of many exemplary sustainable transport policies.

**1. Adopt a challenging ambition and set clear realistic goals (Think big, but act realistic)**

1.1. Think big: do not be afraid to set high and ambitious goals and to go for a large budget when starting a project. That creates enthusiasm, grabs the attention of politicians and generates publicity. At the same time, manage expectations: change of behaviour takes time.

1.2. Adopt broader objectives that go beyond the "traditional" transport sphere, or link to those: quality of life is an example of this, which features strongly as an objective in the strategies reviewed, but also in individual projects, as in Dortmund, where the campaign was linked to quality of life and city image issues

1.3. Tune the objectives to the specific challenges of the city and individual needs of people, since they all differ. Challenges may be the abatement of congestion, of emissions (Head on, Engine off in Dortmund) or noise and safety improvements (Köniz main road redesign, or Berlin 30 km/h on main roads).

*Köniz: Main shopping road redesign "Begegnungszone" (Source: Thiemann-Linden)*

**2. Care for good governance**

2.1. Consider which arguments for sustainable mobility measures will convince politicians of the benefits and identify windows of opportunity in the political cycle to promote sustainable mobility measures.

2.2. Connect your project on sustainable mobility with the aspects that are important for the city more generally, such as attractiveness, social inclusion, competition with other cities, public image. This may also help to answer the question of how political support can be gained, if it does not already exist. (Tram-train in Heilbronn).

2.3. Consider if the project could best be started as a 'standalone project', e.g. to test a new measure or service, that may be abolished afterwards in case of lack of success, or should be integrated in the local policy

2.4. Fit your plan in a broader context in three ways of policy integration:

a. Align your policy with broader aims and priorities at *all government levels* (EU, national and regional level), seizing opportunities for mutual beneficial action and adding to political credibility and weight.

b. Supersede *geographical boundaries* of neighbouring authorities, to define the most suitable scope of the policy, to address optimally multimodal regional travelling.

c. Foster inter-disciplinary collaboration and *integration between departments* within the municipal administration. Comprehensive plans, e.g. including mobility, sustainable development and urban planning provide a window of opportunity to integrate new ideas in the policy agenda. It also encourages collaboration to create a cohesive and balanced package of policy measures that takes environmental, social and economic challenges into account.

2.5. Establish a common ground strategy that shows how the success in one policy level and/ or policy area (e.g. environment) is based on active measures in another department (e.g. transport planning).

2.6. Look for innovate structures for delivering projects, for example giving responsibility for project delivery to organisations outside the municipality.

2.7. Get a basic decision at a high political level to support the project, in particular to avoid that the project's priority will drop due to other, conflicting, priorities in the current workload.

2.8. Slow the process down if current politics does not comply with sustainable mobility plans or policy, and speed up the decision-making and subsequent implementation process when politics align with sustainable mobility plans.

*Freiburg – Vauban: Redevelopment, low car use housing, car free streets. (Source: J. Gies)*

3. **Define a coherent (and therefore probably effective) set of measures**

3.1. Since there is not such a thing as 'the most effective measure', consider a broad range of measures looking at all modes and analyse their impact on mobility patterns as well as on related economic, social and environmental concerns.

3.2. Develop complementary and mutually reinforcing packages of measures. Pair "push" measures with "pull" measures, e.g. pair congestion charging with increased access to and incentives for public transport use, bicycling and car sharing; or pair speed limits with supporting road design.

Measures can be clustered in four categories, to which distinct specific recommendations apply that emerged from the best practices of the cases studied. These are included below:

Comprehensive strategies

Due to the more comprehensive and holistic nature of sustainable mobility strategies, policy integration (see “Governance”) is the most important recommendation. For this category cases as Freiburg Vauban, Tübingen French Quarter and Malmö’s Västra Hamnen, showed transport objectives being only a part of a much broader framework that sought to deliver sustainable living and high quality of life in an entire city neighbourhood.

3.3. Use international knowledge on urban and transport planning integration: this issue is complex, but can give major results over time. There is detailed international expertise on how to reduce traffic generation by the right mix of measures.

3.4. Use windows of opportunities such as brownfield (re)development of urban areas as a consequence of economic changes, special and / or temporary funding programs for establishing example structures for sustainable transport in urban development.

*Malmö, Western Harbour (Source: Malmö city)*

Regulation


*Berlin: “Konzept Tempo 30 nachts” (Source: Bohnet / Walther)2011)*

3.5. Consider door-openers for discussions such as environmental standards for air quality and traffic noise, road safety issues and a (need for) street redesign to introduce new regulations (speed limits, parking restrictions and access restrictions).

3.6. Overcome potential barriers of the legal framework by introducing temporary local exception regulation with control and monitoring at a higher level of government. This will inspire and encourage the supporters of change, the temporary character reduces resistance of opponents. In a parallel process address the issue to national lobby associations that have an interest in campaigning for change of the legal framework in the long run.

3.7. Support new regulation with good street design and quality in the public space to build intrinsic motivation to show the desired driving behaviour (e.g. for driving at low speed) and apply broad public communication to build acceptance.

Infrastructure

3.8. Look for a window of opportunity to decide on new infrastructure, linked to relevant themes and solving problems of the city.

3.9. Use infrastructure (street) redesign, e.g. to accommodate special public transport lanes, to create a physical basis for a structural change in modal split.

3.10. Look for co-funding/co-alignment opportunities from/with other sources, like construction permits for opening up new land use, utility renewal, introduction of barrier free bus stops, replacements of out-of-date traffic light systems and support from the local business community and civil society.

*Tram-train Heilbronn in the city centre (Source: J. Gies)*

Mobility management


*Amsterdam Electric charging points & E-car pooling services (Source: Jantine Zwinkels):*

3.11. *Campaigns*: Analyse the scale of the problem and be sure that the campaign is a tool to solve the identified problem. Identify carefully and describe in detail the target group for such campaigns: this is vital to tailor make the message of the campaign, to find the way to deliver the message. Take the interests of the stakeholders and end users into account.

3.12. *Introducing new services:* Set up an adequate (special purpose) organization, preferably independent of the authorities with skilled professionals, being able to involve other stakeholders and citizens and making them enthusiastic to act. Leave freedom to the stakeholders (businesses) on the measures to be taken. Try to get as close to the end user. And just start (learning by doing).

3.13. Provide real alternative travel options when trying to move away from transportation by car. Link the travel options to flexible work condition and think of economic incentives like setting tax and reimbursement structures for travel costs in such a way that sustainable options are attractive instead of a punishment.

**4. Organize for implementation, leaving room for a pragmatic approach**

4.1. Explore new avenues to find additional funding:

a. Look for co-funding/co-alignment opportunities from/with other public sources, in particular in case of major budgets needed for infrastructure reconstruction (e.g. for public transport and traffic calming). Opportunities can be: selling of publicly owned land, fees for construction permits when opening up new land use, combining street redesign with utility renewal, introduction of barrier free bus stops or replacements of out-of-date traffic light systems.

b. Look also for support by building new networks, such as the local business community and civil society. Contributions may be financial or in kind and even support the capacity of the municipality. New mobility services as part of mobility management are particularly suited to public-private (co-)funding, since there may be a future business case.

4.2. Create ownership of the plan:

a. Make sure that one specific stakeholder either from the public or from the private sector has have real interest in achieving a good result of the project and has the authority to lead and the capacity to make decisions that has political and citizen support, and

b. Establish the right responsible person, supported by a working group, having the energy to take care of the project apart from current general administrative work and really pushing for the successful implementation of the project, overcoming barriers. This person plays the role of spider in the network and preferably will be found within the city administration.

c. Define the task of the person and the supporting working group as a project (apart from current work) with targets, defined milestones and implementation horizon, clarified responsibilities and resources.

4.3. Play the game well at the personal level to earn sympathy of the politicians, building networks of influential people both at the administration, at private stakeholders and with the public.

4.4. Take a pragmatic approach, throughout the various stages of the project, e.g.:

a. Identify opportunities (sometimes only short term “windows of opportunity”) to get project started, within the framework of political and funding timescales.

b. Leave room for adjustments during the life time of the project to react on changing circumstances as opposed to applying an absolutely fixed list of measures to implement within the strategy.

c. Draw on experience of previous schemes in the same area when available to overcome barriers. For example Freiburg Vauban drew much experience from earlier Rieselfeld development.
d. Just start and learn by doing if no previous experience is available. It may be a valuable approach for authorities to build their policy on, or for companies to expand their business in a later stage.
e. Trial measures, allowing users to test them in practice, enabling them to change opinions.

**5. Ensure participation proactively**

5.1. Make citizen and stakeholder involvement an integral part of the decision-making process. It is crucial to clearly agree on how the results of a participation process will be taken into account in the ongoing technical planning process and how you will come to joint, accepted decisions.

5.2 Prepare a communication and participation strategy that defines when and how stakeholders will be involved, since a participation process fosters acceptance of new mobility measures. This ultimately supports the process of implementation by achieving a general consensus on the measure / project and avoiding time consuming conflicts.

*Krakow's Mobility Forum (Source: Gazeta Krakowska)*

a. Identify head groups, organisations and people are likely to have an interest in your policy or plan and might be affected by it and need to be approached.
b. Define the involvement tools to be used, as well as (adequate) timing, budget and documentation requirements in order to.
c. Define communication and marketing activities complement the policy planning and implementation process, to overcome negative public reaction that may arise from the concerned people.
d. Identify transport policies, schemes or projects with potential for private sector involvement. Examine whether existing policies or projects can be scaled up with private sector support.

5.3 Define a persuasion strategy (for example using the behaviour model of Cialdini).

5.4 Share the positive intentions (giving instead of taking away) as well as positive effects of mobility measures and celebrate these, increasing publicity. Citizens (or other local players), who are proud of their city, who are motivated and willing to create positive change, who identify themselves with their city are starting points of all successes and positive experiences.

**6. Organize evaluation and monitoring from the beginning**

6.1 When planning a policy or project, organize for monitoring and evaluation: this is crucial to be able to make the right adjustments during and after the project, to raise acceptance and to enable others to learn from.

6.2 Include either an obligation for monitoring and evaluation or incentives in the funding mechanisms for projects when designing and commissioning a project. The legal and funding basis of the cases examined is very different, so incorporating any obligation for monitoring and evaluation will be very specific.

6.3 In general the desire to see evaluation is mentioned in the guidelines for good quality planning of the different types of project – but in order to make it actually happen in practice incentives are needed.

**7. Prepare for continuation**

There is a life after the project:

7.1 When defining the project, think already about future continuation (for example through defining stages, thinking about who will 'own' the results and can bring them further).

7.2 Keep measures alive after the formal end of the first project.

7.3 Maintain, improve and develop measures constantly.

## Further information

If you are working for a local and regional government or organization and you are looking for ways to make people's mobility behaviour more sustainable, Stepping Stones can be of great help to you. On the website of Era-net transport we will share research findings and recommendations in this field. www.transport-era.net.


SHAPE-IT

# GUIDELINES FOR POLICY-MAKERS

## Policy Integration, Policy Processes and Participation in Sustainable Urban Mobility Planning

October 2014

era-net TRANSPORT

**Table of Contents**



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**Cover photo:** Harry Schiffer, www.eltis.org

era-net TRANSPORT

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## 1. Introduction

Why are sustainable transport policies successful in one place but not in another? The answer to this question is complex, but it holds the keys to effective decision-making for policy development and implementation. These SHAPE-IT policy guidelines explain how local authorities can use Sustainable Urban Mobility Plans (SUMP) as a planning concept for policy integration and participatory processes, with the end goal of developing effective policies which shape mobility patterns towards sustainability.

The social, environmental and economic challenges which motivate local authorities' sustainable transport policies are most effectively addressed by taking an inclusive and collaborative planning approach. This means moving away from top-down decision making and towards synergistic policymaking which considers transport's interconnection with other aspects of urban life. There is a wealth of knowledge, insights and expertise available across public and private sector actors which are highly valuable for the development of sustainable transport policies. The challenge is to find the right approach for your city to include the relevant departments and stakeholders in each stage of the policy's development. Analysis of SHAPE-IT's eight case studies reveals the power of such inclusive and holistic approaches to effectively address the social, environmental and economic issues that are inseparably connected to sustainable transport.

Ten recommendations are put forth to help guide the way for local authorities to ensure a well-informed, thorough and inclusive process for policy development and implementation. While these recommendations do not necessarily guarantee a successful policy outcome, they have been demonstrated to be instrumental to the success of many exemplary sustainable transport policies.

## 2. SHAPE-IT: Shaping sustainable transport patterns in European cities

**The SHAPE-IT project** (2013-14) is designed to contribute to a better understanding of the key success factors for sustainable transport policies to effectively influence travel behaviour in European cities. With transferability in mind, it aims to answer the question ***"why are sustainable transport policies successful in one place but not in others?"*** The SHAPE-IT analysis focuses on local authorities' approaches to their policy making process, specifically in which ways and to what extent there is collaboration between:

- Decision makers and transport planners across various scales
- Decision makers, transport planners and stakeholders
- The policy itself and other related policies and frameworks at various scales

A thorough analysis is performed on selected sustainable transport policies implemented in Munich (Germany), Krakow (Poland), Utrecht (the Netherlands), Stockholm and Lund (Sweden). The analysis is split into two essential components of sustainable urban mobility planning: the influence of policy processes, and the role of policy integration. The **policy integration analysis** explores the extent to which each case's respective policy was integrated and interacted with the city's institutional conditions, and how this contributed to the policy's effectiveness. **The policy**

**process analysis** explores what factors influence the successful development and implementation of effective sustainable transport. Of the many potential influential factors, one has been singled out for particular attention: **public participation** and its effect upon the acceptance and implementation of policies.

**SHAPE-IT Project Partners**

- Wuppertal Institute, DE
- Rupprecht Consult, DE
- Swedish National Road and Transport Research Institute, SE
- Energy Research Centre of the Netherlands, NL
- Cracow University of Technology, PL

Covering all four funding partner countries of the Stepping Stones programme, SHAPE-IT encourages a constructive dialogue between the five project partners and the five project cities, as well as knowledge exchange between the cities. Insights from these exchanges have informed these guidelines which are further enriched by best-practice examples of other European cities so that cities throughout Europe can learn from their experiences as well.

## 3. The concept of Sustainable Urban Mobility Plans

A Sustainable Urban Mobility Plan is a strategic plan designed to satisfy the mobility needs of people and businesses in cities and their surroundings for a better quality of life (Rupprecht Consult, 2014). It builds on existing planning practices and takes due consideration of integration, participation, and evaluation principles. It is therefore a holistic plan which can be used to address environmental, social and economic challenges which are interlinked with urban mobility.

As set out in the Guidelines on Developing and Implementing a SUMP, the key characteristics of a Sustainable Urban Mobility Plan are:

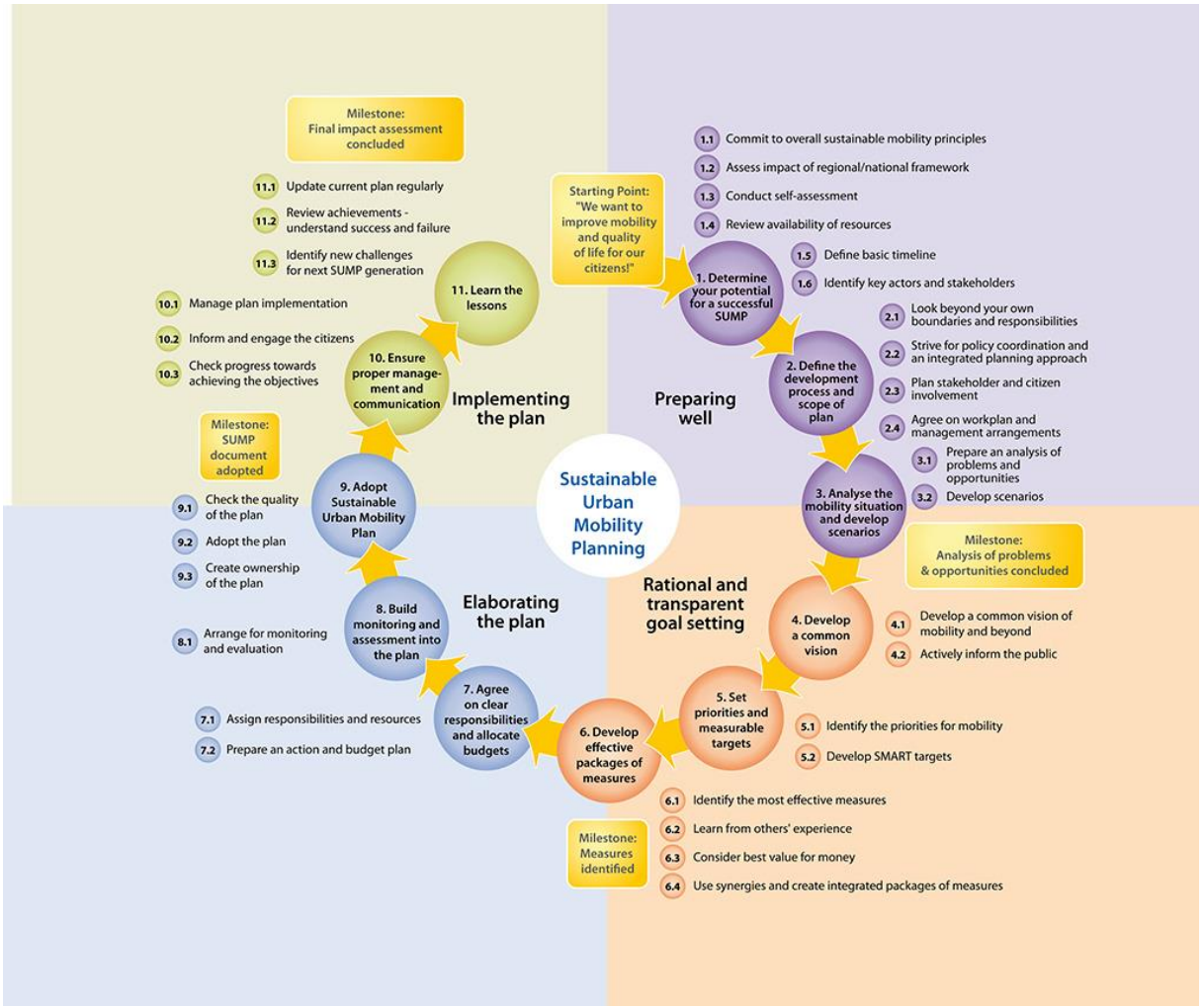
- Long-term vision and clear implementation plan
- Participatory approach
- Balanced and integrated development of all transport modes
- Horizontal and vertical integration
- Assessment of current and future performance
- Regular monitoring, review and reporting
- Consideration of external costs for all transport modes

The SUMP approach not only considers the development of plans and strategies but it also looks at the planning processes behind them. Such sustainable urban mobility planning processes can be part of the plan development and the implementation of transport policies and measure packages.

SUMP is a planning concept strongly promoted by the European Commission in several policy documents. The Action Plan on Urban Mobility[1] (2009) proposes to accelerate the take-up of

[1] Action Plan on urban mobility [COM(2009) 490]

Sustainable Urban Mobility Plan and the Transport White Paper[2] (2011) supports the development of Sustainable Urban Mobility Plans as an instrument to promote clean transport modes and strategic planning. In December 2013, the European Commission released the Urban Mobility Package[3] to reinforce its support for urban transport. This EC Communication, titled "Together towards Competitive and Resource Efficient Urban Mobility", prominently mentions the concept of Sustainable Urban Mobility Plans and encourages the take-up of SUMPs in European cities. The Urban Mobility Package was launched in conjunction with the "Guidelines on Developing and Implementing a Sustainable Urban Mobility Plan" (Rupprecht Consult, 2014) and is complemented by a five-page annex dedicated to the concept of Sustainable Urban Mobility Plans.




The SUMP Planning Cycle (Rupprecht Consult, 2014)

[2] White Paper: Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system [COM/2011/0144 final]

[3] Communication From The Commission To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions Together Towards Competitive And Resource-Efficient Urban Mobility [SWD(2013) 524-529 final]

## 4. The SHAPE-IT case studies

### Munich

#### Transport Development Plan

*Photo: H. Schiffer, www.eltis.org*

The development of Munich's TDP was led by the municipal Department of Urban Planning and Building Regulation, which invited various government bodies from Munich and the surrounding municipalities. Passed in 2006, it is a focused, binding plan which sets goals for a modal shift away from private motorized vehicles and towards more cycling.

Focus area: policy integration; SHAPE-IT partner: Wuppertal Institute

#### Cycling marketing approach

*Photo: Radlhauptstadt München Flickr Channel*

'Cycling Capital Munich' (Radlhauptstadt München) is a cycling promotion campaign financed by Munich City Council that aims to create visibility, attention and awareness for cycling, improve residents' identification with cycling and enable public involvement and participation. Established in 2010, it has been extended until 2015 due to its success.

Focus area: policy processes; SHAPE-IT partner: Wuppertal Institute

### The Netherlands

#### Integration of LEV laws with EU laws

The Dutch government has implemented several subsidies and taxes as "pull" and "push" measures respectively, which encourage a shift towards low emission vehicles (LEVs). Two subsidies were implemented in 2010, one designed to stimulate the roll-out of hybrid and battery electric vehicles, and another for the purchase of EVs. Taxes are levied on vehicles based on their emissions, and many LEVs are eligible for tax waivers.

*Photo: K. Roeder, Wikimedia Commons*

Focus area: policy integration; SHAPE-IT partner: Energy research centre of the Netherlands

#### The "Utrecht Electric" e-mobility scheme

Utrecht Electric aims to foster electric mobility for making motorised transport as clean as possible by establishing a large-scale charging network, electrifying the municipal fleet and expanding e-mobility through cooperation with businesses and citizens.


*Photo: Bontenbal, Wikimedia Commons*

Focus area: policy processes;
SHAPE-IT partner: Energy research center of the Netherlands

## Lund's SUMP "LundaMaTs"

*Photo: https://www.flickr.com/photos /scratch_n_sniff/131615808*

Lund Municipality implemented its transport plan, LundaMaTs in 1996. The plan was developed in consultation with a broad spectrum of public and private stakeholders at the municipal and regional levels, with support from a political steering group and an expert group. In 2007, the city rolled out LundaMaTs II, with a widened focus on sustainable development of the transport system, which goes beyond the environment to also address economic and social concerns.

Focus area: policy integration; SHAPE-IT partner: Swedish National Road and Transport Research Institute

## Stockholm's Congestion Tax


*Photo: https://www.flickr.com/photos/mlcastle/ 966872744/in/photostream/*

Following a seven month trial period of congestion charging and a referendum on its long-term implementation, the City of Stockholm finally introduced congestion charging as permanent transport policy in 2007 to reduce traffic congestion in the central city area.

Focus area: policy processes; SHAPE-IT partner: Swedish National Road and Transport Research Institute

## Krakow

### Telebus

In 2005, under the CiViTAS/CARAVEL project, the City of Krakow decided to implement a demand-responsive transport (DRT) bus service. Telebus connects three previously underserved districts, providing them with a bus service that is adaptable to their particular journey, with fixed stop points and flexible routes. After technology and knowledge transfer from Genoa to Krakow, Telebus began operation in July 2007 and continues to run today.


*Photo: http://www.caravel.forms.pl*

Focus area: policy integration; SHAPE-IT partner: Cracow University of Technology

### Mobility Forum

*Photo: Gazeta Krakowska*

Krakow's Mobility Forum is a series of public meetings designed for better communication between the city administration, stakeholders and citizens. It was initiated in 2006; since then, the Forum meets at least twice a year and serves as an instrument to discuss local transport issues and potential solutions.

Focus area: policy process; SHAPE-IT partner: Cracow University of Technology

## 5. Policy integration and processes in SUMP development

The starting point for a local authority to create a SUMP is to decide "We want to improve mobility and quality of life for our citizens!" Throughout the proceeding four phases of developing and implementing the SUMP, ensuring policy integration and creating policy processes for stakeholder participation are crucial elements for ensuring the SUMP's success (Rupprecht Consult, 2014). While most phases in the SUMP policy cycle require decision makers to double up on actions which foster both policy integration and participatory processes, several activities focus exclusively on either one or the other approach so that the SUMP can progress in its development.

Policy processes feature prominently in phase 1, 'Preparing well', particularly in step 2, 'Define the development process and scope of plan'. In this initial phase of SUMP development, most of the groundwork is laid out for the policy processes which will be carried out throughout the three remaining phases.

Policy integration features prominently also in phase 1 and phase 2, 'Rational and transparent goal setting'. From phase 1, heavy focus on integration occurs in activity 2.2, 'Strive for policy coordination and an integrated planning approach'. Phase 2 involves developing a common vision, setting targets which are specific, measurable, achievable, realistic and time-bound and identifying the most effective measures. This phase highlights the importance of departments and sectors working together to make concrete and mutually beneficial decisions about the policy's design so that its later implementation is successful.

Public participation has a democratic rationale by giving citizens and stakeholders the opportunity to be involved in a planning process that is likely to affect them; it has an instrumental rationale by enhancing the decision-making process and its outcomes through the involvement of citizens and stakeholders and it is a social learning process for both those who carry out the participation process and those who participate in it. Policy integration also has an instrumental rationale by bringing together a broader range of decision makers to establish synergies between policies and packages of measures across related sectors and neighbouring territories, and between multiple levels of government. Policy processes and integration both involve active group communication, knowledge sharing, joint work and ultimately shared decision making and accountability for the policy.

### 5.1 Policy integration

Policies which aim to solve mobility challenges and create a more integrated, sustainable transport system require a holistic approach of multi-sectoral (horizontal), multi-level (vertical) and cross-territorial cooperation. There are three main aspects of policy integration:

- **Vertical integration** involves aligning local policies with supportive or complementary policies and priorities held at the regional, country and EU levels.
- **Horizontal integration** occurs at the local level, where departments across multiple sectors (e.g. building and land use, urban planning, transport, environment, energy, etc.) combine their expertise by working together to develop a policy.

- **Territorial integration** can be seen as a further form of horizontal cooperation in which the local authority ensures that a policy is in accordance with policies of neighbouring urban and peri-urban areas, and involves these authorities in the development of a wider regional policy as appropriate.

Policy integration encourages local authorities and the primary responsible department(s) to look beyond their own boundaries and responsibilities and to strive for synergistic policies which support and enhance the effects of related policies and frameworks. In combination with policy processes for stakeholder participation, this creates a greater sense of ownership in the SUMP as all relevant stakeholders work towards their common vision of improved mobility and quality of life for all citizens. Further benefits for SUMP development include:

- promoting synergies and win-win solutions between sectors;
- reducing duplication in the policy-making process, thus saving time and money;
- promoting consistency between policies in different sectors and at different levels of decision making;
- improving achievement of goals and objectives;
- giving more focus to the achievement of a government's overall goals, thus supporting its overall steering role;
- helping to promote innovation in policy development and implementation;
- encouraging greater understanding of the effects of policies on other sectors;
- helping overcome financial constraints.

(United Nations Economic Commission for Europe, 2008)

**Vertical integration in the Netherlands**

By integrating its LEV policies with EU-level laws, the Netherlands case highlights the structural opportunities for synergies between EU-level laws and country-level laws. A combination of regulations and subsidies at the EU-level influenced the subsidies and taxes developed at the country level, which in turn has had a direct impact on the take-up of electro-mobility in Dutch cities. For example, the EU's Air Quality Directive obliges local authorities to reduce their transport emissions, while its *Life+* subsidy granted the Netherlands a total budget of 8.5 million Euros for environmental policies. The result in the Netherlands was the development of a package of financial incentives for electro-mobility. These included subsidies and tax exemptions for LEVs and taxes for higher emission vehicles. The Netherlands case shows that the country level can play a significant role in stimulating the take-up of sustainable transport measures at the local level.

**Horizontal integration in Lund**

Lund consulted with a variety of departments and sectors when creating its successful LundaMaTs plan, and later the LundaMaTs II plan. The city recognized the need for a holistic approach and actively facilitated cooperation within the municipality: in addition to carrying out a thorough participatory process with public and private stakeholders in the municipality and surrounding region, several cross-sectoral working groups were formed. Lund applied its participatory approach to policymaking inter-

nally, with representatives from the departments of Urban Planning, Transport Planning and Environmental Administration as well as the Mobility Office coming together to shape LundaMaTs.

**Territorial integration in Krakow**

Krakow's Telebus is a prime example of a local authority thinking as a wider urban area. The city identified the need for several of its semi-independent suburban districts to be incorporated into the main public transport system, thereby providing residents with increased regional mobility. The Telebus replaced conventional public transport in these lower density areas. This tailor-made solution benefitted the suburban districts and helped the wider local authority and its public transport authority to optimise the allocation of resources in the area.

**Typical stakeholders groups involved in transport policies/ planning**

- **Government/ authorities:** e.g. politicians, higher-level authorities, neighbouring cities, traffic police, emergency services, project managers, professional staff
- **Businesses/ operators:** e.g. business associations, major employers, retailers, utility services
- **Communities/ neighbourhoods:** e.g. local community organisations and interest groups, cycle/ walking groups, citizens, landowners
- **Others:** e.g. research institutes and universities, experts from other cities

*See also Guidemaps, 2004; Rupprecht Consult, 2014*

## 5.2 Policy processes

Involving communities in planning is a fundamental duty of local authorities to improve decision-making and is also a requirement stipulated by EU directives and international conventions. Participation reflects the overall integration of citizens and groups in planning processes and policy decision-making and consequently their share of power. Transport planning frequently affects a great variety of different economic, public and social interest groups either positively or negatively, which often results in complex relationships between the city administration and the groups having a stake in the decisions made. **Public involvement** usually refers to processes created by the local authority which engage citizens in planning and decision-making so that the resulting policy effectively addresses their needs.

For both parties collaborative planning is still a new approach requiring a learning curve on both sides. However, various projects (e.g. CiViTAS ELAN) and also the SHAPE-IT case studies have shown that participation processes carried out for SUMP development and for measure option generation lead to plans and measure packages of higher quality. Participation processes empower the end-users of the transport system – the public – to steer the SUMP's development, particularly in terms of its social sustainability. Together, local authorities and stakeholders from the community can generate new ideas and produce valuable insights into the challenges, opportunities and potential visions for policy-

making. In most cases, participation contributes to greater legitimacy and greater acceptance of mobility plans and transport measures as well as to better political credibility. As previously mentioned, it aims to create a sense of ownership among stakeholders and citizens, which becomes a crucial element when measure implementation starts.

In general (see e.g. Krause, 2013), participation aims at

- making decision making processes more transparent,
- raising mutual understanding between citizens and the administration,
- creating new partnerships between local actors and the local authority
- considering (new) ideas, concerns and everyday knowledge of the community,
- improving the knowledge basis and
- having a positive influence on planning processes as it increases acceptability.

**Participation techniques**

**Information giving and gathering**

- Print materials (e.g. letters, posters, leaflets, brochures, fact sheets, newsletters)
- Briefings, presentations
- Study tours, field trips
- Information centres, exhibits
- Public meetings, town meetings
- Websites, online tools
- Surveys
- Focus groups
- Workshops (e.g. stakeholder conference, transport visioning event, Planning for Real method, Open Space events)
- Interviews
- Charettes
- Roundtables
- Citizen juries
- Technical working parties
- Advisory groups, study circles, task forces

**Interactive engagement**

*See also Rupprecht Consult, 2014*

**Public participation in the 'Cycling Capital Munich' campaign**

The 'Radlhauptstadt' campaign aims to market cycling to the public; clear targets and goals were set from the beginning on. Aside from the central goal to motivate Munich's residents to more frequent bicycle use and to establish a cycling culture in the city, the campaign aims to enable public involvement and participation by, for example, organising public events which serve as fora for informal exchanges between stakeholders and members of the public. In addition, it contributes to meeting the city's goal to increase cycling rates from 14% (2008) to 20% by 2015. Munich's cycling campaign might not be a classic example for public participation; however, it illustrates that setting concrete goals and targets helps in going along the right path during policy implementation.

**Participation structure in Krakow's Mobility Forum**

The Mobility Forum in Krakow is an inspiring approach to discuss a city's hot topics on a regular basis. The regularity of the forum and its straightforward structure (introduction to the topic, presentation of

legal and planning issues, discussion with participants) help citizens and stakeholders to get used to collaborative planning approaches and might initiate a change of mind sets in the long-term. It also creates opportunities for up-scaling the forum format: the organisers have started to link the forum to seminars, workshops and conferences that take place in schools and university.

**Stockholm's congestion charging scheme**

The congestion charging trial in Stockholm enabled citizens and also politicians to experience the effect of this large-scale measure which was very controversial in the public. The Stockholm trial showed citizens the policies' positive effects on congestion levels, air and noise emissions as well as quality of life that manifested themselves even greater than predicted. However, the success of the trial period was hard work for all actors involved. The Stockholm City Council decided to conduct the trial without all circumstances having been settled, which was a risky decision which turned out to be the right one in their case. Among other factors, what made the trial work successfully was the commitment of individual key persons, professionalism shown by civil servants, generous funding, major extensions of public transport services (to provide alternatives to private car use) as well as time and political pressure.

## 6. The SHAPE-IT recommendations

| Recommendations | Actions |
|---|---|
| **1 Take your policy to the next level**<br><br>*How does your policy or plan fit into higher-level frameworks and priorities of the EU, national, regional or local authority levels?*<br><br>No policy should be thought of in isolation. The success of a policy depends greatly on the broader context within which it is situated. Come to the table prepared by thinking critically about how to align your policy with broader aims and priorities at all levels of government, thereby creating synergies and avoiding conflicting policies.<br><br>A thorough review of regional, national and EU level policy frameworks related to your policy's focus area should reveal opportunities for mutually beneficial action. The local level policy helps to meet the goals and objectives held at higher levels while also gaining political credibility and weight due to its affiliation with broader priorities. This often results in increased public support for the policy's development and implementation.<br><br>At the local level, comprehensive plans, e.g. those relating to mobility, sustainable development or urban planning, provide a window of opportunity for local authorities to integrate the new policy idea into its broader, long-term vision for the city. Integrating a complementary transport policy can help encourage a more holistic vision for the city's urban planning agenda. It also encourages the various related departments to work together to create a cohesive package of policies which balance and reinforce each other. | **1.1** Investigate the related framework conditions held at higher levels (EU, national and regional) and analyse how your policy can help reach these goals.<br><br>**1.2** Identify the funding available from higher authority levels for local authorities which contribute to meeting their goals.<br><br>**1.3** Analyse where the policy fits into themes at the local level, like a broader comprehensive plan, or a SUMP. When such a plan exists, tailor the policy according to its framework conditions.<br><br>**1.4** Consult with the departments responsible for creating the local level comprehensive plan to see how the new policy could support it.<br><br>**1.5** Regularly conduct a strategic outlook for the policy which ensures that it is embedded into future plans and frameworks which will be created. And if it's a higher level policy, ensure that future policies are embedded into your framework. |

| Recommendations | Actions |
|---|---|
| **2 Build bridges, not walls**<br>*Where are the geographic boundaries of your policy and who are the neighbouring authorities which should be involved?*<br><br>Mobility does not stop at administrative boundaries; travel for work, errands and leisure often cross territories. Mobility patterns require a critical analysis, which may likely reveal that the policy or plan should be developed in partnership with neighbouring authorities so that it covers the entire agglomeration.<br><br>Early in the planning stage, a thorough analysis should be conducted on the potential impacts of the policy on neighbouring authorities, as well as the potential benefits to the public if the policy were to be scaled up to a more regional level. These factors help to identify the most suitable scope and scale of the policy. Ultimately, it results in policies which seamlessly address mobility challenges along citizens' entire multimodal journey from point A to point B.<br><br>In order to fully realise the benefits of a SUMP, co-operating authorities must build links and collaborative working relationships between relevant departments. Together with direct participation from citizens and stakeholders, the authorities should agree on a common sustainable mobility vision for the region and proceed with developing measure options for their policy packages. | **2.1** Conduct an analysis of mobility patterns in terms of feeder areas, destinations and heavily trafficked transport routes, with differentiation between modes used.<br><br>**2.2** Agree on the appropriate spatial coverage of the policy based on the mobility pattern analysis and input from stakeholders.<br><br>**2.3** Analyse the obstacles and opportunities for cross-territory transport policies, particularly in cases where more than one transport authority serves the area.<br><br>**2.4** Identify all relevant actors and stakeholders from neighbouring authorities and establish regular communication about cross-territorial transport issues.<br><br>**2.5** Create a cross-territorial planning team and agree on the division of responsibilities for the policy's development. |

| Recommendations | Actions |
|---|---|
| **3 Break out of the box** | |
| *Which departments' work either has an impact on the policy or is impacted by the policy? How can other departments contribute their expertise for the policy's development?* | **3.1** Identify the other departments within the local authority which are affected by or could affect the policy's development and implementation. |
| Some transport problems may not always originate from a transport-related issue. Likewise, some transport solutions may have unforeseen consequences that extend beyond the transport department's primary focal areas. This highlights the need for local authorities to engage in a holistic approach which can better inform the policy's development. | **3.2** Analyse the existing connections and working relationships between related departments and identify any missing connections. |
| Cities can benefit from a more proactive approach which involves a wider spectrum of departments during the transport policy's development. The first – and often the biggest – step is for specialists and political leaders at the local authority level to be open to receiving input and knowledge from departments outside of the transport and urban planning departments. | **3.3** Group related departments into working groups with a clearly defined mandate related to the policy and assign a role to each member of the group(s). |
| For some local authorities, this openness may already be part of the institutional structures and practices. If it is not yet an integral part of departments' day-to-day work, however, it will require a conscious effort to get to that point. Working routines within and between departments may need to change in order to ensure opportunities for regular collaboration. The result is a sustainable transport policy or plan which more effectively addresses the environmental, social and economic challenges it set out to resolve, while minimising the likelihood of additional externalities emerging. | **3.4** Create mechanisms for accountability, e.g. obligating departments to consult with other departments when a proposed policy may overlap with or have impacts on existing policies. |

| Recommendations | Actions |
|---|---|
| **4 Find the sweet spot between policy measures** | |
| *How can the SUMP shape mobility patterns towards sustainability through measures which promote a balance between modes?*<br><br>The linkages between modes should always be considered when developing a policy – not just in the short and medium term, but also in relation to the city's long-term vision. This requires mobility and transport planning to be viewed as a shared policy domain in order to most effectively serve the different needs of society: economic, social and environmental (Rupprecht Consult, 2014).<br><br>After conducting an analysis of the city's transport challenges, local authorities should start developing the policy by generating a broad range of measure options and analysing their impact so that the transport measure(s) with the best cost/benefit ratio can be found. This process includes looking at all other modes of transport and creating appropriate packages of measures, as no one policy measure is sufficient on its own.<br><br>Demand management measures such as congestion charging and parking pricing – often referred to as "push" measures – tend to be more successful and receive a more positive reaction from the public when combined with incentivising measures, or measures which "pull" people towards more sustainable modes. Push and pull measures which mutually reinforce each other tend to have a multiplier effect: both measures reduce the barriers for implementing the other through the creation of co-benefits, thereby helping local authorities to meet their broader transport goals more efficiently. | **4.1** Generate a broad range of measure options and develop scenarios to analyse their impact on mobility patterns as well as related economic, social and environmental concerns.<br><br>**4.2** Communicate scenarios to stakeholders and request their feedback for further development of the measures.<br><br>**4.3** Develop complementary and mutually reinforcing packages of measures which together contribute to achieving the mobility vision, objectives and targets.<br><br>**4.4** When "push" measures are on the table (e.g. congestion charge), pair them with "pull" measures (e.g. increased access to and incentives for public transport use) which complement and reinforce each other.<br><br>**4.5** Re-evaluate the policy at regular intervals through internal and external (participatory) reviews to ensure that the measures are on track for realising the vision. |

| Recommendations | Actions |
|---|---|
| **5 Divide the task and multiply the success**<br><br>*What organisations are involved in policy development and implementation? Who is the leading department? Can you use existing management structures, or do you need to create new ways of institutional cooperation?*<br><br>The success of a policy's integration and implementation depends greatly on the establishment of clearly defined, complementary roles early in the process. Leadership within a multi-stakeholder planning process is essential and it is important for those involved to know who does what and when. Defining clear roles for cooperation and interaction reduces the number of barriers encountered, prevents the development of conflicting policies and makes optimum use of the available resources.<br><br>Cooperation is required at geographic, political, administrative and interdepartmental levels. Due to its complexity, it is helpful to structure and formalise cooperation by e.g. making legal arrangements or formal contracts of responsibility, by mapping competence areas and working with organisational charts/organograms, by defining functional relations, or by defining rules and procedures for institutional engagement. Avoid inflexible structures as project management and cooperation structures need to be responsive to changing circumstances.<br><br>Remember that collaborative approaches to policy development require certain skills and capacities which, if not already part of the local authority's institutional structures and practices, must be actively developed and maintained through capacity training workshops. The goal ideally should be to build capacities for inter-sectoral cooperation into daily workflows even outside of periodic group meetings. | **5.1** Identify a lead organisation with the authority to lead and the capacity to make decisions that has political and citizen support. Make one department responsible but explicitly task them with consulting with the full range of stakeholders.<br><br>**5.2** Create a planning team with members from different backgrounds to coordinate the policy process and, if required, establish multiple working groups.<br><br>**5.3** Draft an overall work plan for the planning process, indicating all necessary milestones and ensuring political approval. Ideally, agree on management procedures and tasks also with stakeholders involved in planning tasks.<br><br>**5.4** Clarify and formalise the roles of institutional actors, their competence areas and resource contributions. Set-up common cooperation structures for the planning and implementation process.<br><br>**5.5** Assess risks and plan for relevant contingencies. Devise a strategy for risk and quality management.<br><br>**5.6** If needed, provide institutional capacity building workshops for collaborative policy development to improve cooperation and management skills within the administration. |

## 6.1 Recommendations 1-5: Examples

*Photo: K. Roeder, Wikimedia Commons*

### 1 Take your policy to the next level

***The Netherlands' integration of LEV laws with EU laws*** In an effort to stimulate the take-up of electro-mobility at the local level, the Netherlands aligned its country-level policies with EU-level laws and incentives. The EU's Air Quality Directive obliges local authorities to reduce their transport emissions, while its Life+ subsidy granted the Netherlands a total budget of 8.5 million Euros for environ-mental policies. The result in the Netherlands was the development of a package of incentives which includes subsidies and tax exemptions for LEVs and taxes for higher emission vehicles.

### 2 Build bridges, not walls

***Joint Local Transport Plans in West Yorkshire***

Local Transport Plans (LTPs), which are required by law in England, are quite flexible for taking into account commuter flows and other travel patterns because they do not need to follow administrative boundaries. West Yorkshire's Integrated Transport Authority and West Yorkshire Passenger Transport Executive produced their LTP together with five other West Yorkshire District Councils. The highway, land use and economy departments from all five districts advise the Councils on the LTP and work together to reflect the regional geographical and economic priorities.


*Photo: West Yorkshire Combined Authority*

*Photo: H. Schiffer, www.eltis.org*

### 3 Break out of the box

***Munich's Transport Development Plan***

When developing its TDP, Munich's Department of Urban Planning and Building Regulation consulted with any departments affecting or affected by transport development in order to gain further insights into the plan's situation within the broader city context. Munich fostered policy integration by creating a process which obliged the main responsible department to analyse how the policy impacts and is impacted by other departments, and to invite them into the policy's development process to contribute their views and knowledge of related policies.

## 4 Find the sweet spot between policy measures

***Lille's Plan de déplacements***

Lille's PDU is a comprehensive document comprised of six axes which together promote a balance between sustainable modes. In addition to investing in public transport, the agglomeration of Lille will redistribute road space in favour of sustainable modes, particularly in terms of walking and cycling. Lille will also develop micro-PDUs for certain neighbourhoods. Further, specific measures are in place to ensure that the environment and the health and safety of citizens are protected.***urbains (PDU)***

*Photo: https://www.flickr.com/photos /8086087@N08/12991441393*

## 5 Divide the task and multiply the success

*Photo: https://www.flickr.com/ photos/sigfridlundberg/7458981256*

***Lund's comprehensive transport plan, LundaMaTs***

For the development of LundaMaTs, Lund created a primary responsible working group (Lund's Municipal Assembly, Technical Services Committee and Building Committee) which was supported by a political steering group (Transport Committee and Planning Council) and an expert group (representatives from urban planning, transport planning, and environmental administration). The clearly configured roles for interdepartmental cooperation contributed to LundaMaTs' success.

| Recommendations | Actions |
|---|---|
| **6 Lay the groundwork for participation** | |
| *Where are opportunities to involve citizens and stakeholders in the policy planning process and how will the participation process be managed?*<br><br>Preparing well is one of the keys to success. Participation requires meticulous planning as well as a common understanding of the scope of participatory activities and the strategic approach behind them. The organising departments need to agree on the design of their participation scheme and its aims, objectives and overarching principles. Developing a dedicated participation strategy helps to formalise the participation approach and ensures citizen and stakeholder involvement throughout all relevant planning and implementation phases.<br><br>Collaborative planning is closely connected to administrative processes and a local authority's public management procedures. Dialogue structures and process organisation for participation need to be set up, and leadership and the allocation of responsibilities need to be agreed on. It is the practical, logistical questions that are often marginalised but which are highly important for the management of the process and should not be neglected.<br><br>Improving sustainable urban mobility planning through participation requires creating a transparent planning culture that is based on direct and honest communication and political credibility. High-level commitment, e.g. by Mayors, Councillors, or Head of Departments, demonstrates citizens and stakeholders that their views, knowledge and concerns will be taken into account. Make sure to gain sufficient support from local decision-makers to carry out a participation scheme and to integrate results into the technical planning process. | **6.1** Prepare a communication and participation strategy that defines when and how stakeholders will be involved, the involvement tools to be used, as well as timing, budget and documentation requirements. Agree formally on the document within the administration and, if possible, with your primary stakeholders.<br><br>**6.2** Define leadership, responsibilities and dialogue structures for the administrative process of organising and carrying out the participation process.<br><br>**6.3** Establish a participation team that will work with stakeholders and the public and identify appropriate team members.<br><br>**6.4** Review skills and participation competences within the administration. Assess whether capacity building, in-house training or external support are needed.<br><br>**6.5** Build-up political commitment and engagement for participation and find key politicians or persons in authority to assume leadership for your policy's participation process.<br><br>**6.6** Gain and keep credibility. Create a transparent planning culture and strengthen the vitality of civil society. |

| Recommendations | Actions |
|---|---|

## 7 Scout out your stakeholders

*What groups, organisations and people are likely to have an interest in your policy or plan and might be affected by it? Who are the key stakeholders you need to approach?*

Transport policies are often the subject of controversial discussion within the urban community and impact a wide range of actors. Opening up a highly specialised and complex subject area like transport planning requires a thorough identification of stakeholders. You might have a long history of co-operation with some actors (e.g. public transport providers) but also need to be forward thinking and consider potential new stakeholders that might have an interest today or may have an interest in future.

Once stakeholders are identified, you should analyse actor constellations and sort them according to their interests and attitudes towards the policy to get a clear picture of conflicts and potential coalitions. Building alliances with environmental and sustainable mobility organisations, powerful private sector actors or political parties helps you to raise awareness and to gain stronger acceptance for the planned policy. It is beneficial to also actively approach those (potentially) against the measure in an early phase of planning. Offering them opportunities to express their opinions and concerns is a key aspect when trying to jointly find a solution that is acceptable for all actors involved. It might also make it possible to turn around opinions and win them as supporters.

Further, it is always worth examining whether a key local figure might be a policy's ambassador (e.g. a politician, a city administration's public official, or a devoted stakeholder) that raises awareness for sustainable mobility and can speed up the process of planning and implementing your policy.

**7.1** Brainstorm a list of relevant stakeholders. Think about all groups, organisations and people that are likely to affect your policy or be affected by it.

**7.2** Map out your stakeholders in a grid showing their interest, support, power, or attitude. Analyse actor constellations and identify synergies and conflicts.

**7.3** Prioritise your stakeholders according to their impact on the policy and the impact the policy will have on them. Balance your stakeholders and do not only pay attention to those with the loudest voice but also rather silent actors.

**7.4** Find out about the stakeholders' views. Choose an appropriate involvement technique to consult them about your policy.

**7.5** Build alliances and engage early with policy supporters. Find key proponents to raise awareness for your policy and to drive the planning and implementation process.

**7.6** Re-assess stakeholder constellations on a regular basis to track changes in attitudes, e.g. when the policy becomes more concrete, and to react to changing circumstances.

| Recommendations | Actions |
|---|---|

## 8 Add stakeholders' views into the mix

*How will your stakeholders and the public contribute to the policy development and implementation process? How intense will their involvement be and how will you incorporate their input?*

Citizen and stakeholder involvement needs to form an integral part of the decision-making process. It is crucial to clearly agree on how the results of a participation process will be taken into account in the ongoing technical planning process and how you will come to joint, accepted decisions.

There is a great variety of involvement tools and techniques ranging from tools for information giving and gathering (e.g. letters, posters, leaflets and brochures, newsletters, telephone techniques, web-based tools, surveys) to interactive engagement (e.g. exhibitions, information centres, public meetings, focus groups, transport visioning workshops, citizen advisory committees, citizen juries, stakeholder conferences, planning for real events). Giving citizens and stakeholders as much decision-making power as possible is generally favourable. Have the courage to involve in decision-taking. However, consider carefully at what level decisions can be taken by a mix of actors and/ or citizens (e.g. strategic decisions) and when decisions should be made by planners and experts (e.g. on technical issues).

Don't give up when your participation activities do not turn out as successful as you hoped. It is a social learning process for both the leading authority responsible for participation and the participation's target groups. Establishing participation routines can help those involved to familiarise themselves with participatory planning. Apply participation instruments repeatedly and hold recurrent events and procedures. Routines and clear structures allow for continuous evaluation of the participation procedures thus improving the process and fine-tuning the involvement actions. Process evaluation also offers the opportunity to expand the scope of participatory planning step-by-step.

**8.1** Determine the purpose of your participation process as well as the level and intensity of involvement (e.g. inform, consult, involve, collaborate, or empower[4]).

**8.2** Select participation methods and techniques that are most appropriate for your policy, meet your participation objectives and match the needs and interests of the interested stakeholders.

**8.3** Use several varying activities and tools to reach different groups and people.

**8.4** Agree beforehand how participation results will be taken into account in the subsequent technical planning process. Think about mechanisms for recording and analysing input.

**8.5** Carry out participatory on a regular basis and establish participation routines. Apply involvement techniques repeatedly and fine-tune these step-by-step.

**8.6** Assign roles and responsibilities for policy implementation to stakeholders already in the participation process to prepare them for their cooperation and support role.

**8.7** Work with key stakeholders on a permanent basis and establish thematic working groups that meet regularly.

**8.8** Evaluate the overall effectiveness and outcomes of the participation process. Share the lessons learned to build capacity in your local authority and beyond.

[4] Spectrum of public involvement developed by the International Association for Public Participation www.iap2.org.au

| Recommendations | Actions |
|---|---|
| **9 Take stock of your potential private sector partners** | |
| *Where are opportunities to mobilise private sector partners in order to jointly tackle local environmental, economic and social mobility challenges?*<br><br>You're not alone. Sustainable mobility is shared responsibility, especially in times of austerity. Mobilise private sector players, convince them of the benefits of sustainable mobility (and its co-benefits!) and build partnerships. There are various opportunities to involve local businesses and industry actors in sustainable transport policies such as mobility management for companies, awareness raising and campaigning, consumer behaviour, and actual measure implementation (e.g. in freight transport, electric mobility). The private sector can also help bridging resource gaps in investment and shifting investments from carbon-intensive transport toward sustainable mobility.<br><br>Approach private sector actors and convince them to engage in policy roll-out. It contributes to community empowerment and stimulating local commitment, but is also an instrument to draw on the private sector's expertise and experience in the policy's topic. Cooperation will also generate various benefits for the businesses involved. | **9.1** Identify transport policies and schemes with potential for private sector involvement. Examine whether existing policies can be scaled up with private sector support.<br><br>**9.2** Approach private sector actors early in the planning process to increase chances for commitment and joint implementation.<br><br>**9.3** Listen to the companies' needs and take these into account in policy design. Establish partnerships and see yourself as a supportive public sector facilitator.<br><br>**9.4** If possible, provide financial incentives for businesses and their employees to switch to sustainable transport and low-emission vehicles. |

| Recommendations | Actions |
|---|---|
| **10 Shout it from the rooftops**<br>*How will communication and marketing activities complement the policy planning and implementation process?*<br><br>You have designed a first-rate sustainable urban mobility policy and all key actors are ready to kick-off implementation. But have you also considered developing a communication and marketing strategy to spread the news? The sustainable urban transport world, often public sector based, can actually take lessons from private sector's marketing efforts. Research has shown that changing travel behaviour towards more environment-friendly transport modes does not happen automatically but must be initiated, as a first step, by awareness raising (and making people understand transport(-related) problems) and information campaigning.<br><br>The way how mobility measures are branded and marketed and how key messages and results are communicated to different audiences has a significant influence on the level of public acceptance. The key is to market a policy's positive impacts on individuals, a city and wider society. Make marketing and communication an integral part of policy planning and implementation. Inform the public pro-actively about the planning process, its progress and outcomes, and highlight milestones and important steps of measure implementation. Establish good relations with the media to win them as policy supporters and ensure continuous media coverage. | **10.1** Define the target audiences at which your policy is aimed at. Decide on the overall marketing approach (e.g. mass marketing, concentrated marketing or niche-marketing) to achieve your marketing objectives. Build a brand around your policy.<br><br>**10.2** Create thought-provoking marketing messages that focus on solutions and outcomes. Make them stand-out in nowadays information overload.<br><br>**10.3** Select a mix of communication channels and promotional tools to maximise outreach.<br><br>**10.4** Work closely with the media to gain their support and to increase the visibility of your policy. Look also beyond local media and approach regional, national and, if possible, European media to disseminate your activities and results more widely.<br><br>**10.5** Take the plunge and start social media marketing. Assess also the potential for web-based communication and participation tools (e.g. interactive online mapping, voting, discussion fora). |

## 6.2 Recommendations 5-10: Examples

### 6 Lay the groundwork for participation

***Aberdeen's Communication Plan for SUMP development***

The City of Aberdeen developed a comprehensive Communication Plan for SUMP development. The plan "indicates the appropriate stages at which stakeholders could be consulted, frequency, method and format of communication with stakeholders and citizens" (Do the Right Mix/ City of Aberdeen, 2012). They also created a Project Management Team responsible for providing guidance and deciding on options for inclusion in the SUMP. Aberdeen won the 2012 SUMP Award for its well-planned participation process (for more information, see Do the Right Mix/ City of Aberdeen, 2012).


*Photo: Aberdeen City Council*
*http://www.aberdeencity.gov.uk/SUMP/*

### 7 Scout out your stakeholders

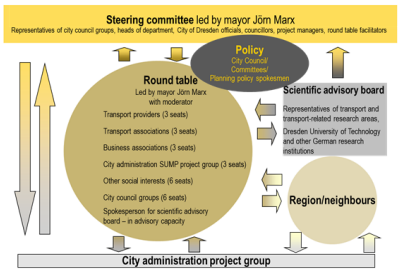



*Figure: City of Dresden/ CH4LLENGE 2014*

***Dresden's SUMP Round Table***

The City of Dresden initiated a stakeholder round table for its "Sustainable Urban Mobility Plan 2025+". After a thorough identification of stakeholders, several committees were established, e.g. the Steering Committee led by the mayor and including heads of department, City of Dresden officials, councillors, project managers and round table facilitators. At the round table a large number of actors are involved such as transport providers and associations, business associations, city council groups and others. A scientific advisory board forms another important advising actor. Also regions and neighbouring communities as well as citizens were involved. The round table is moderated by an experienced external moderator, which has been essential for successful discussions. All committees, groups and boards are in a continuous dialogue process (CH4LLENGE, 2014).

### 8 Add stakeholders' views into the mix

***Referendum on environmental charging scheme (Stockholm, Milan)***

After a seven-month full-scale trial period, Stockholm residents voted on the long-term implementation of the congestion charge, thus giving decision-making power to the citizens. It won with a narrow margin of 51% - a result that can be questioned; however, the congestion charging scheme achieved an even stronger congestion reduction impact than initially expected and is now experienced positively. The City of Milan also conducted a referendum on congestion charging which revealed that almost 80% of the city's inhabitants were in favour of the scheme, with concerns about air pollution being a major driver.

*Photo: https://www.flickr.com*
*/photos/38607288@N03/3836189003*

## 9 Take stock of your potential private sector partners

*Photo: TheDigitel Myrtle Beach, Wikimedia Commons*

***The Utrecht Electric Programme***

The Utrecht Electric Programme aims to foster electric mobility for making motorised transport as clean as possible. Aside from charging infrastructure development and the electrification of the municipal fleet, one of the main ambitions is to expand electric transport through cooperation with businesses and citizens. Local partnerships are created at the U15 company platform where various companies work together to solve (e-)mobility problems in and around Utrecht. Businesses are encouraged through financial incentives to become key players in the roll-out of electric transport and the reduction of their car fleets' $CO_2$ emissions. Further, the local government and the Ministry of Economic Affairs and the Ministry of Infrastructure and Environment have signed the 'Green Deal Utrecht Energy' which supports companies in implementing sustainable mobility and energy measures to reduce their $CO_2$ foot print.

## 10 Shout it from the rooftops

***Munich's cycling campaign 'Cycling Capital Munich'***

Munich's cycling campaign can be considered a marketing measure in itself including brand development (development of slogans, logo, branded material) and various campaign activities (e.g. events allowing exclusive use of road infrastructure for bicycles, city statute demanding and facilitating construction of bicycle parking facilities). The media was not always a straightforward communication partner with some criticising high public spending for this soft measure and ridiculing the 'safety joker', a small part of the campaign. However, the Mayor of Munich and his second deputy Mayor supported the campaign to the hilt, were able to engage with the media and achieved positive reporting in the end.

Radlhauptstadt München

*Photo: Radlhauptstadt München Flickr Channel*

## 7. Conclusion

In the past decades, local authorities have been implementing policies and measures that encourage a shift towards more sustainable transport modes in response to growing concerns about air pollutants, greenhouse gas emissions, traffic congestion, accessibility and public health. Some of these have been met with great success while others encountered challenges. Without doubt, transport policy development and implementation are complex processes. Their success often depends on a great variety of local factors that all interrelate. Policy integration and interaction can have significant effects on the effectiveness of policies, although quantifying these remains difficult, while collaborative planning can have a positive influence on a policy's acceptance and implementation.

Successful policy integration requires actors across departments and sectors to work together to create synergies between policies horizontally (across departments within the local authority), vertically (at the regional, country and EU-levels) and territorially (between neighbouring authorities). Ultimately, well-integrated sustainable urban mobility policies are the result of departments' joint contribution to reaching sustainability goals. However, one single policy cannot make it alone; local authorities should think in terms of related policies and policy packages to reach broader sustainability goals.

Local authorities also need to react to the call for participation that has emerged over the past decade(s) so that citizens and stakeholders, actually being the target groups of urban mobility, are heard and that their views and opinions are taken into account. At the same time, participatory planning processes can educate citizens and stakeholders on how to contribute their knowledge and experiences to mobility planning and how to successfully contribute to democratic decision-making in general. Local authorities can develop more effective and (cost) efficient mobility plans and projects by involving citizens and stakeholders from the initial to the final planning stages and by identifying controversial issues before a decision is made. Participation can prevent opposition and the failure of a plan by bringing the local stakeholders together and reaching agreement on how to progress. Thus delays and costs can be reduced in both the planning and implementation phases. Last but not least, participation frequently contributes to a sense of ownership of decisions and measures, and creates a greater sense of responsibility among politicians, planners and citizens and stakeholders.

Policy integration and participatory processes are integral parts of the new concept of Sustainable Urban Mobility Plans which "places particular emphasis on the involvement of citizens and stakeholders, the coordination of policies between sectors […], between authority levels and between neighbouring authorities" (Rupprecht Consult, 2014). The main characteristics of the SUMP concept (e.g. long-term vision, clear implementation plan, balanced and integrated development of all transport modes, regular monitoring, review and reporting) and its specifications for policy integration and participation can be applied to both the actual development of comprehensive, strategic mobility plans and also to the development of single measures and measure packages. In order to take steps towards changing their local environments and transport systems towards sustainable mobility, local authorities also need to look inward to redevelop their approach towards institutional collaboration and planning processes. The SHAPE-IT case study analyses and recommendations mirror the importance of the transitional change required in local authorities to move away from traditional transport planning towards sustainable urban mobility planning, which contributes to creating mobility policies that are more sustainable and transport planning that is better integrated and more effective.

**Policy integration - success factors**

**Bringing the policy into line with broader priorities:**

1. Alignment of the local policy with regional, national and EU-level frameworks and goals
2. Integration of the policy into a broader local-level plan

**Supportive environment at the local level:**

3. Openness to the take-up of solutions that originate from departments not directly involved with transport

**Striking a balance in the policy measure(s):**

4. Policies that encourage complementary transport modes
5. Creating complementary push and pull measures

**Facilitating integration through cooperation:**

6. Clearly defined roles for cooperation across departments and for interaction at various scales of government
7. Capacity building for collaborative policy development
8. Thinking, planning and acting as a wider urban area

**Ensuring accountability during implementation and follow-through:**

9. Policy implementation plan which ensures continued accountability across departments
10. Re-evaluation of the policy at regular intervals

**Policy processes/ participatory planning - success factors**

**Building political commitment for participation**

1. Political commitment and engagement in participatory processes

**Thorough planning and preparation of stakeholder and citizen involvement**

2. Development of a communication and participation strategy
3. Clear institutional roles and leadership for participation
4. Participation routines and clear structures for active involvement

**Achieving a sound basis for participatory planning**

5. Thorough identification of stakeholders and analysis of their constellations
6. Early engagement with local supporters and potential veto players
7. Appropriate integration with decision-making

**Strategic thinking and planning – making planning processes more efficient and effective**

8. Clear management and leadership structures for policy development and implementation

**Realising sustainable mobility through support and cooperation**

9. Capitalising on support from key proponents
10. Local partnerships and cooperation with private sector actors

**Demonstrating benefits and generating momentum for sustainable mobility**

11. Test period for measures – a real-life "look and feel" for citizens and stakeholders
12. Communicating the message – branding, marketing and working with the media

*The SHAPE-IT Success Factors*

There is no one-size-fits-all solution for policy integration and participation. Policy mixes and policy design need to be tailored to the local context conditions, transport problems and urban mobility objectives. Based on the case study analyses, however, SHAPE-IT was able to identify several transferable success factors (see above) for making policies, their integration into frameworks as well planning pro-

cesses and participatory elements more effective. Giving close consideration to these in the early stages of policy planning can contribute considerably to a sustainable mobility's success.

**If you want to know more about the SUMP Policy Integration and SUMP Process and Participation case studies, or about the SHAPE-IT local case examples, visit www.shape-it-project.eu or www.transport-era.net!**

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