SHAPE-IT Case Study 5

SUMP Policy Integration

Authors: Rupprecht Consult (Miriam Lindenau, Kristin Tovaas, Frank Wefering)

Contributors: Wuppertal Institute (Oliver Lah, Kain Glensor), Swedish National Road and Transport Research Institute (Kerstin Robertson, Lennart Folkeson), Energy Research Centre of the Netherlands (Hein de Wilde, Christine van Zuijlen), Cracow University of Technology (Andrzej Szarata, Aleksandra Faron)

1 Introduction

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.

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 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

---

\(^1\) Action Plan on urban mobility [COM(2009) 490]
\(^2\) White Paper: Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system [COM/2011/0144 final]
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.

In order for cities to answer the call for an integrated transport system, featured prominently in the 2011 Transport White Paper as a means of supporting a competitive and resource efficient transport system, sustainable urban mobility planning requires integration of policy creation across sectors (horizontally), along multiple authority levels (vertically), and across administrative boundaries (territorially). The seminal UN Report of the World Commission on Environment and Development (1987) titled “Our Common Future”, otherwise known as the Brundtland Report, already found in the late 1980s that the tendency for institutions to be “independent, fragmented, working to relatively narrow mandates with closed decision processes” is a major institutional gap for achieving sustainable development. There is a great need for institutions to progress from a ‘silo mentality’, where departments isolate their specialized knowledge bases and decision-making processes from each other, towards a more open, collaborative and interconnected institutional structure. This need has been recognised at the international level; policy integration has been promoted by the European Commission, the EU Expert Group on the Urban Environment and the United Nations through a number of policies, frameworks and reports.

### About SHAPE-IT

**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?”**

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. The project partners are Wuppertal Institute (project coordinator), Rupprecht Consult, the Swedish National Road and Transport Research Institute, the Energy Research Centre of the Netherlands and the Cracow University of Technology.

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 focal areas: 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.

### 2 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.

Vertical integration

Vertical integration involves aligning local policies with supportive or complementary policies and priorities held at the regional, country 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 portion of co-ownership of the policy.

The integration ladder proposed by Preston (2012) (see figure 2) helps to conceptualize 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.

Integrated & Sustainable Transport

(i) Integrate with Environmental, Social and Economic Policy e.g. LSTF

(viii) Integrate with Education, Health and Social Services e.g. Angus Transport Forum

(vii) Integrate Transport and Land-Use e.g. Kent Thameside

(vi) Integrate Transport Authorities e.g. Merseytravel, Translink (Public), Transport for London, Transport Scotland (Public & Private)

(v) Integrate Passenger and Freight Transport e.g. Heathrow Airport

(iv) Integrate Public and Private Transport e.g. Cambridge, York

(iii) Integrate PT Fares e.g. London

(ii) Integrate PT Services e.g. Tyne and Wear

(i) Integrate PT Information e.g. West Midlands

Disintegrated & Unsustainable Transport

PT = Public Transport
LSTF = Local Sustainable Transport Fund

Figure 2: The Integration Ladder (source: 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 recognize 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 1).

**Table 1: Overview of barrier and driver categories**

<table>
<thead>
<tr>
<th>Category</th>
<th>Subcategory</th>
<th>Interpretation as a Barrier</th>
<th>Interpretation as a Driver</th>
</tr>
</thead>
<tbody>
<tr>
<td>Politics and strategy</td>
<td>Opposition / Commitment</td>
<td>Lack of political will based on political and/or strategic motives; Lack of sustainable development agenda or vision</td>
<td>Commitment of key actors based on political and/or strategic motives; sustainable development agenda or vision</td>
</tr>
<tr>
<td></td>
<td>Conflict / Coalition</td>
<td>Conflict between key political actors due to diverging material interests and expectation of redistributive losses</td>
<td>Coalition between key political actors due to shared/complementary material interests and expectation of redistributive benefits</td>
</tr>
<tr>
<td></td>
<td>Veto players / policy brokers</td>
<td>Key individuals opposing the policy and preventing successful implementation</td>
<td>“Local champion(s)” motivating actors and catalysing the process</td>
</tr>
<tr>
<td>Problem pressure</td>
<td>-</td>
<td>Severity of problems to be solved (e.g. congestion, air pollution)</td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>---</td>
<td>------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Involvement of actors and citizens</td>
<td>Stakeholder involvement</td>
<td>Failed or insufficient partnership arrangements and limited involvement of key actors</td>
<td>Constructive partnership arrangements and open involvement of stakeholders</td>
</tr>
<tr>
<td></td>
<td>Citizen engagement</td>
<td>Insufficient or poorly performed consultations with and involvement of citizens; no/limited acceptance of the measure</td>
<td>Broad consultations with and involvement of citizens; overall acceptance of the measure</td>
</tr>
<tr>
<td></td>
<td>Information</td>
<td>Insufficient information of key stakeholders and citizens; lack of awareness raising activities</td>
<td>Information of key stakeholders and citizens; awareness raising activities</td>
</tr>
<tr>
<td></td>
<td>Resources</td>
<td>Lack of personnel and financial resources to carry out a proper involvement process</td>
<td>Sufficient resources reserved for involvement tools and the organisation of a participation process</td>
</tr>
<tr>
<td></td>
<td>Participation culture</td>
<td>Low interest and awareness of citizens (‘consultation fatigue’); lack of participation tradition in a country</td>
<td>Citizens and stakeholders are used to take actively part in planning processes; long experience in participatory planning</td>
</tr>
<tr>
<td>Institutional structures</td>
<td>Administrative structures and practices</td>
<td>Hampering administrative structures, procedures and routines</td>
<td>Facilitating administrative structures, procedures and routines</td>
</tr>
<tr>
<td></td>
<td>Interdepartmental cooperation</td>
<td>Interdepartmental and interpersonal conflicts; lack of cooperation routines; lack of communication between departments</td>
<td>Facilitating cooperation procedures and routines; regular inter-departmental exchange and communication</td>
</tr>
<tr>
<td></td>
<td>Vertical cooperation</td>
<td>Failed cooperation between administration and higher level authorities/other political bodies</td>
<td>Constructive cooperation; measure/policy is in line with higher-level strategies and policies</td>
</tr>
<tr>
<td></td>
<td>Spatial cooperation</td>
<td>Conflicting interests and policies between local authority and neighbouring communities; lack of cooperation and communication</td>
<td>Joint regional planning approach increasing the effectiveness of measures</td>
</tr>
<tr>
<td>Policy integration</td>
<td>Vertical integration</td>
<td>Hampering planning documents, laws, rules, regulations and their application on regional, national or supranational level</td>
<td>Facilitating planning documents, laws, rules, regulations and their application on regional, national or supranational level</td>
</tr>
<tr>
<td></td>
<td>Sectoral integration</td>
<td>Conflicting policies or policy frameworks of other sectors (land-use, environment, energy, etc.) hampering measure implementation; risks of negative trade-offs</td>
<td>Policies or policy frameworks that create synergies and co-benefits thus fostering measure implementation</td>
</tr>
<tr>
<td></td>
<td>Territorial integration</td>
<td>Conflicting policies or policy frameworks of neighbouring areas (local authorities, communities, districts, etc.) hampering measure implementation</td>
<td>Policies or policy frameworks of neighbouring authorities that create synergies and co-benefits thus fostering measure implementation; stimulation of a joint planning approach</td>
</tr>
<tr>
<td>Situational factors</td>
<td>Specific events and local conditions</td>
<td>Specific events or local conditions influence the policy negatively and close windows of opportunity.</td>
<td>Specific events or local conditions contribute to successful policy implementation opening windows of opportunity.</td>
</tr>
</tbody>
</table>
SHAPE-IT’s policy integration case studies

**Munich’s Transport Development Plan (Verkehrsentwicklungsplan)**
SHAPE-IT partner: Wuppertal Institute
The development of Munich’s TDP was led by the municipal Department of Urban Planning and Building Regulation, which invited participation from 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.

**The Netherlands’ integration of LEV laws with EU laws**
SHAPE-IT partner: Energy research center of the Netherlands
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.

**Lund’s LundaMaTs**
SHAPE-IT partner: Swedish National Road and Transport Research Institute
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.

**Krakow’s Telebus**
SHAPE-IT partner: Cracow University of Technology
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.

3 The SHAPE-IT criteria for successful policy integration

As outlined in table 1, 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 (see Table 2) were found to be crucial to the success of integrated sustainable transport policies in a number of cities.

<table>
<thead>
<tr>
<th>Topic area</th>
<th>Success factor</th>
</tr>
</thead>
</table>
| 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 |

Table 2: Overview of SHAPE-IT success factors for policy integration

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

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.

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 and implemented, the E-mobilitäts-strategie will contribute to reaching the SUMP goals.

**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.

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 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 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.

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 incentivizing 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.

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.

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.

4 Recommendations

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.

References