

# Executive summary – a toolbox for policy packaging

This executive summary provides condensed summary of conclusions and recommendations of the Optic project. Background material and rationale behind the recommendations can be found both in this Deliverable and in Optic Deliverables 1 through 5. Here, we solely focus on the policy recommendations and guidelines. We first give a brief introduction to Optic *framework* and its related issues. Then, we offer a *toolbox* for policy packaging and policy implementation in the form of *factsheets*. While it is clear that real life policy making rarely follows any idealised process exactly, the framework can support policy makers in the different stages of the policy making process. In every stage, the recommendations must be applied in a flexible manner and, if needed, adjusted to meet specific demands.

## Issues in policy packaging and implementation

The overall objective of Optic is to give guidance for the design and implementation of optimal policy measures in combination (i.e. policy packages) to reduce adverse effects and/or provide positive synergies. A practical way to combine the most important design and implementation related recommendations for policy packaging is in form of factsheets which together represent a useful toolbox for policy packaging. Each one of these factsheets addresses a specific stage of the Optic policy packaging process (Figure 0.1).

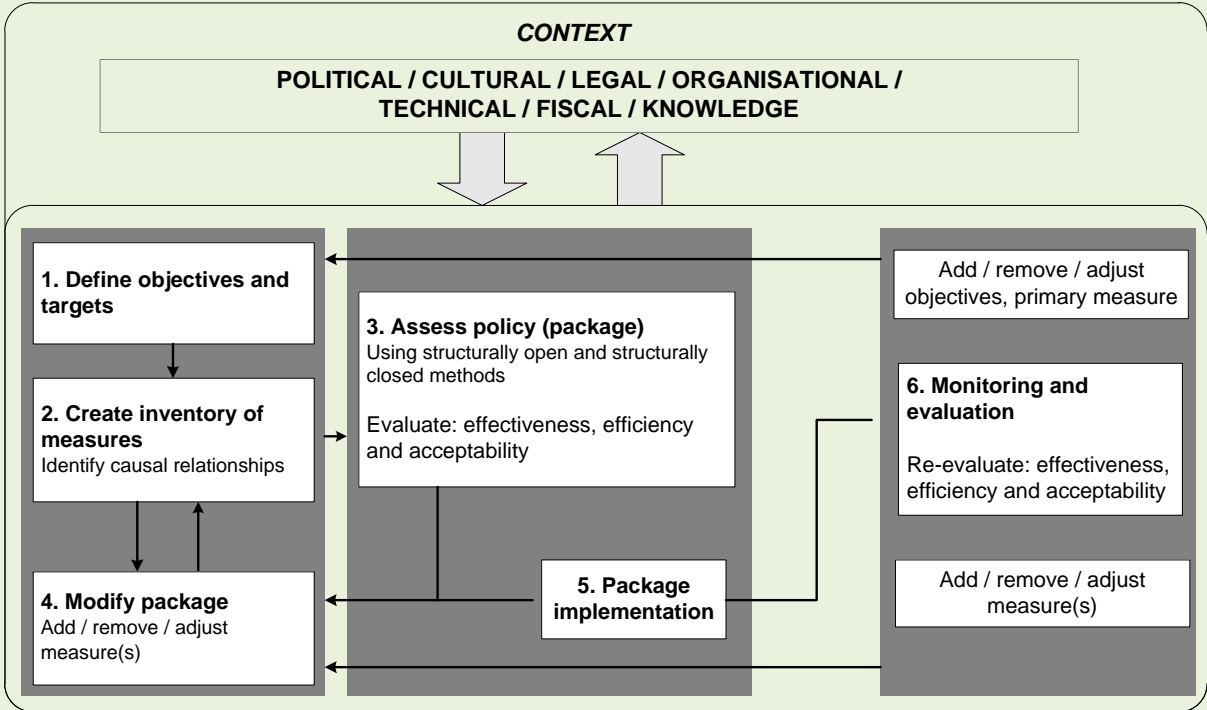


Figure 0.1: Optic policy cycle

For analytical purposes and to help structuring the approach, six stages are distinguished.

1. **Definition of objectives and targets.** Here the objectives and targets of the policy intervention are defined. The more concrete these definitions are, the more tangible their assessment in later stages can be. Ideally, targets are connected to specific target values, or indicators. If objectives and targets remain vague, it becomes difficult to define suitable and effective policies
2. **Creating an inventory of possible policy measures:** Once objectives and targets have been agreed upon, an inventory of suitable measures can be set up (stage 2). Each of these measures must be evaluated with respect to acceptability, effectiveness, efficiency, potential barriers and their causal relationship to other measures. The output is a decision on one or more primary measures that function as the core foundation of the policy package
3. **Assessment of policies and policy package:** The primary measure is assessed here, with the aim to predict in as much detail as possible impacts and to quantify effectiveness
4. **Expansion of package and amendment of measures:** If the primary measure is considered insufficient in any respect, further ancillary measures can be supplemented into a policy package. Based on further assessment (stage 3), the policy package can be further refined. This process iterates until a satisfactory output is reached
5. **Implementation of package**
6. **Monitoring and evaluation:** Once the package has been implemented, the effects must be monitored and evaluated and, if necessary, corrective actions taken

In real life, the boundaries between the stages are evidently not that clear and, importantly, a policy packaging and implementation process does not necessarily follow any fixed order. As explained above and seen in Figure 0.1, a policy packaging process will likely include some iterations between these stages before a final policy package can be established. The number of these iterations will depend, inter alia, upon the complexity of the policy package in question.

Besides implementation, stages 3 and 4 are likely to be the most demanding with regards to necessary time and resources. However, careful work in stages 1 and 2 will help improve the whole packaging process.

The toolbox provides recommendations for each of the stages. The recommendations are based on theoretical elaborations and empirical evidence analysed in the Optic project, and they are associated with a higher likelihood of arriving at a satisfactory outcome.

The reason for adopting such an approach is twofold. One is to avoid negative unintended consequences of a policy action. An adequate assessment – including both quantitative and qualitative methods – and revision of a policy package should help minimising this risk. Appropriate tools and methodologies must be chosen for the assessment of the policies. Quantitative assessment, like modelling, is usually necessary. More qualitative approaches (e.g. causal mapping) can support this assessment, especially for identifying aspects that should be part of the quantitative analysis. Appropriate indicators have to be defined in order to determine acceptable results of the assessment. Depending on the outcomes and on the complexity of the policy package this will require iterations when adding, adjusting or removing different policy measures of the policy package.

The second reason is to deal with barriers during formation and implementation of a package. Depending on the type of policy package, more or less barriers can be anticipated. A useful categorisation building on Lowi (1964; 1985) helps identify potential barriers which were discussed in further detail in Optic (2011b):

- *Regulatory policies* dealing with legislation and sanctions to influence the activities of citizens and companies (in this context, e.g. road traffic acts)

- *Distributive policies* including most resource policies, research and development and business policies (in this context e.g. infrastructure policy)
- *Redistributive policies* which imply redistribution of income by taxation. Welfare state programmes represent traditional examples (but in our context, examples could be congestion charges and heavy vehicle fees)
- *Constituent policies* imply establishment of governance institutions. Changes in the constitution but also other institutional changes in public administration are considered constituent policy (in our context, e.g. establishing a new transport agency)

It can be generally expected that public and political acceptance is more likely in the case of distributive and constituent policies than for regulatory and redistributive policies, because the former confer powers and privileges, while the latter impose obligations or positions. However, constituent policies are more likely to experience opposition from existing public organisations than the other types.

Another categorisation of public policy emphasises that the extent of likely success or failure for formation or implementation of a policy or package depends on whether advantages and disadvantages of the policy are spread or focused. Wilson (1980) discusses under these premises the potential of four policy types:

- *Majority policy*, where both advantages and disadvantages are spread, is not likely to be decided and implemented because no specific group cares sufficiently
- *Entrepreneur policies* are least likely to be decided and implemented since groups affected negatively by the policy have incentives to organise and struggle against the policy
- *Client policy* is most likely to be decided and implemented since groups benefiting are likely to mobilise, while those carrying the burden will not
- Whether or not *Interest group policies* are decided and implemented can depend on the relative strength of the parties. Strong mobilisation from both sides can be expected, reducing the likelihood of implementation

During implementation and once a policy package has been implemented, it is of great importance to ensure regular monitoring of the results. There is always some degree of uncertainty over the outcome of a policy, and the degree of goals achievement often changes over time – making adjustments necessary. Monitoring and evaluation of a policy package during and after implementation can help identifying unintended effects and secure long-term effectiveness of a policy package. Still, unfortunately, while significant resources are often directed at ex-ante evaluation of policy interventions, less is usually devoted to official ex-post evaluation.

In terms of ex-post monitoring of a policy package, there is a range of approaches and tools in use. Straightforward comparisons of pre- and post- intervention indicators represent a valuable, although simplistic, base for ex-post analysis. Cost-benefit analyses help assess whether interventions have generated their expected benefits efficiently. Complementary modelling or multi-criteria analysis approaches enable incorporation of non-monetary impacts.

There are four broad categories of remedial actions that can be considered should the outcome not be as expected: policy intensity; compliance adjustment; character adjustment; and scope adjustments. Section 1.2 will introduce more detail the concept of adjusting policies, which is treated in detail in Section 3.2.1.

Long term monitoring is especially important, as examples have shown that short term successes can deteriorate over time, making adjustments necessary.

## Toolbox

Figure 0.1 illustrates the stages of the Optic policy package process. This process is dynamic and includes stakeholder interaction, iterations between individual stages, and policy modifications depending on the complexity of the policy package.

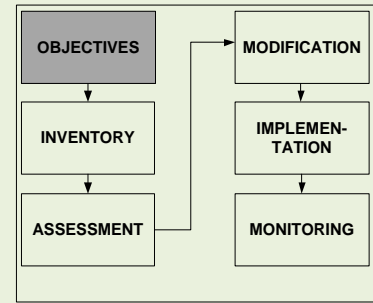
Each stage is described on a *factsheet* with a short description, followed by a number of recommendations that are derived from this and previous Optic Deliverables. The recommendations help policymakers to identify ways to detect unintended effects, and to reach a high degree of effectiveness, efficiency, and acceptability of policy packages.

The recommendations highlight the degree of different actors' involvement in the different stages of the process. While in real life many actors and stakeholders participate in and influence all parts of the policy making processes, we can only provide normative recommendations. The extent to which single actor groups are involved in each stage is indicated using a "degree-of-involvement"- scale: very low; low; medium; high; and very high. We pay particular attention to the following groups of actors:

- **Politicians / decision makers:** Those who set objectives and make decisions. They are typically politicians who state overall goals, and who may play important roles in adoption and implementation phases as well. In real life they can be anything from absent to actively involved in all stages;
- **Public administration:** In our context, the public administration executes politicians' decisions and makes them happen. Public administration could be the administrative staff of a department or public bodies like for example a civil aviation authority. They prepare the decision basis for politicians (either themselves or make it happen – e.g. they give direct advise or they gather advice from external experts);
- **Stakeholders:** Those who have an interest in, or are affected by, a policy. This includes users and their interest groups, suppliers, affected industries and their interest groups, and the general public. Stakeholders' role would primarily be to respond to hearings, but in real life they are also likely to try to influence objective settings, targets, policy measures, package design, implementation and so on;
- **Independent experts:** Independent and unbiased consultants or researchers. They normally work (on a contract) for a public administration.

## OBJECTIVES AND TARGETS

**DESCRIPTION:** Clear definition of objectives and targets of the policy intervention, acknowledgement of other objectives and targets (within the same or in other policy domains), description of how target achievement will be monitored. More concrete and measurable targets enable proper ex-post assessment. Ideally, quantitative targets (a number or a range) are set for each objective. A vague focus, ambiguous definition and setting objectives without viable targets can undermine the rest of the packaging process.



### RECOMMENDATIONS

- Clearly state objectives and document them in official publications
- Set and define a number of alternative targets to be met representing different ways to measure objective achievement and set high, medium and low 'achievement' thresholds
- Identify a mechanism and data requirements to monitor level of objective attainment over time
- Acknowledge objectives and targets of other policy domains

### TOOLS AND METHODS (THOSE COMMONLY USED)

- Policy communication: formal (e.g. green/white paper) and less formal (e.g. EU briefs)
- Structurally open methods (involving mainly policy makers and policy analysts)

### CHECKLIST QUESTIONS

- Have the targets and objectives been clearly defined?
- Have targets and objectives of other policy domain been considered?
- Is there an agreement which objective is 'more important' if contradiction arises?
- Can the targets be realistically measured and monitored?

### PRACTICAL EXAMPLE

The EU White paper (European Commission, 2011b) explicitly mentions that a reduction of at least 60% of GHGs by 2050 with respect to 1990 is required from the transport sector. This objective is translated into 10 concrete and measurable targets, which include:

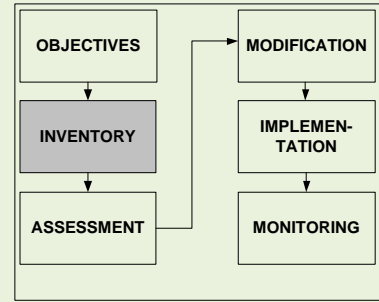
- Low-carbon sustainable fuels in aviation to reach 40% by 2050
- 30% of road freight over 300 km should shift to other modes such as rail or waterborne transport by 2030
- By 2050, connect all core network airports to the rail network, preferably high-speed
- Halving road casualties by 2020

### ACTOR INVOLVEMENT

Actor Group	Degree of involvement	Recommended tasks
Politicians / decision makers	<i>Very high</i>	<ul style="list-style-type: none"> <li>• Initiate and steer the process of setting objectives and targets</li> <li>• Decide upon objectives and possibly define targets</li> </ul>
Public administration	<i>High</i>	<ul style="list-style-type: none"> <li>• Establishes resource plan</li> <li>• Assist in setting objectives</li> <li>• Acquires relevant background data for objective setting</li> </ul>
Stakeholders	<i>Medium</i>	<ul style="list-style-type: none"> <li>• Consulted to validate targets and objectives</li> </ul>
Independent experts	<i>Between low and medium</i>	<ul style="list-style-type: none"> <li>• Could be consulted for information which might be relevant for later policy development process</li> <li>• Ensure that early decisions are sensitive to the objectives and targets.</li> </ul>

## INVENTORY OF MEASURES

**DESCRIPTION:** Set up a comprehensive list of individual measures that are expected to directly affect the objective set (i.e. primary measures) and assess each of these measures individually against two criteria: its likely effectiveness (on the objective) and its implementability. One or two primary measures are chosen as the foundation of the policy package.



### RECOMMENDATIONS

- Evaluate a broad range of possible primary measures ensuring a mix of different types of measures (regulatory, economic, infrastructure, technological etc.)
- Do not consider (almost) any measure as infeasible or not effective at this stage
- Identify and draw (literally) the tacit causal assumptions underlying the expected effect of a measure on an objective
- Involve stakeholders and conduct open discussions to assess a) the causal assumptions made, b) identify likely unintended effects and barriers to the implementation of each individual measure

### TOOLS AND METHODS (THOSE COMMONLY USED)

- Data management: for establishing the inventory of measures
- Causal Mapping: “diagrammatic representation or visual aid to explain causal relation between policy measures.
- Cost-benefit Analysis, Multi-Criteria Analysis or other appraisal techniques to estimate (mainly) each measure’s effectiveness
- Policy analysis to appraise the implementability of each measure

### CHECKLIST QUESTIONS

- Has a sufficiently broad range of policy measures been identified for the inventory?
- Has a set of selection criteria been transparently defined to appraise/evaluate each primary measure?
- Is a broad range of stakeholders involved in the inspection of the causal relationships?

### PRACTICAL EXAMPLE

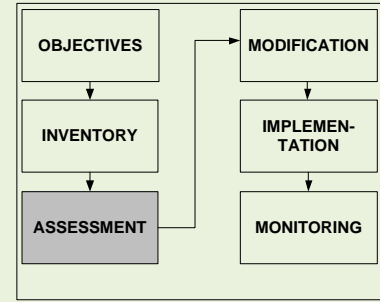
The VIBAT-London study identified over 120 individual measures to combat climate change challenges in London (Hickman et al., 2009); the Policy Scenarios for Sustainable Mobility project (Banister et al., 2000) identified close to 100 measures to advance sustainable transport in Europe.

### ACTOR INVOLVEMENT

Actor Group	Degree of involvement	Recommended tasks
<b>Politicians / decision makers</b>	<i>Between low and medium</i>	<ul style="list-style-type: none"> <li>▪ Consultation of experts, choice of primary measure(s)</li> <li>▪ Delegate development and maintenance of inventory to civil servants</li> </ul>
<b>Public administration</b>	<i>Very high</i>	<ul style="list-style-type: none"> <li>▪ Evaluate the input needed from external stakeholders to develop measures and prepare the causal relationship assessment</li> <li>▪ Responsible for establishing the inventory</li> <li>▪ Conduct the operational causal mapping and prepare results as input for inventory of measures</li> </ul>
<b>Stakeholders</b>	<i>High</i>	<ul style="list-style-type: none"> <li>▪ Are involved in open discussions about possible effects</li> <li>▪ Help identify relevant policy consequences</li> </ul>
<b>Independent experts</b>	<i>Anything between very low and very high</i>	<ul style="list-style-type: none"> <li>▪ Expert review on feasibility, causal assumptions and cost effectiveness</li> <li>▪ Assessment of cost effectiveness of policy package using appraisal techniques</li> </ul>

## POLICY PACKAGE ASSESSMENT

**DESCRIPTION:** Enabling a comprehensive but efficient assessment of the effects of a policy intervention inside the transport system and beyond. Structurally open methods are used as qualitative approaches to receive external insights to the measures and thus detect effects. Structurally closed approaches are applied to assess possible effects with mainly quantitative models. The aim of both approaches is to evaluate the policies' effectiveness, efficiency and acceptability. Part of policy package assessment is also the definition of indicators to measure the policy package's performance and comparison of ex-ante assessment with ex-post measurements.



### RECOMMENDATIONS

- Apply structurally open and explorative methods in the beginning of setting up a policy package. Then use structurally closed approaches in order to quantify effects. Finally, use structurally open methods for the interpretation of results
- Prioritise which measures from the inventory of measures should be subject to a resource-intensive model-based assessment; identify risks and uncertainties already prior to the actual assessment
- Consider communicating assessment results to a multi-actor group to reflect again on the appropriateness of policies.
- Analyse distributional effects based on clear concepts and definitions
- Consider the degree of consensus on targets and certainty about measures

### TOOLS AND METHODS (THOSE COMMONLY USED)

- Apply a sequential approach of assessment where first primary measures are analysed in isolation using structurally closed methods (e.g. transport models) and then step-by-step add more measures with the focus on inter-measure interaction
- Mixed approaches (structurally open *and* structurally closed) for the assessment of complex policy packages are recommended.
- The appropriate design and integration of structurally open methods (e.g. interviews, workshops, focus group discussions/interview meetings, integration of public perceptions and knowledge) can help anticipating and thus, reducing the number of potential (unknown) unintended effects

### CHECKLIST QUESTIONS

- Are all available (structurally open and closed) methods and tools identified?
- Is a strategy developed to evaluate aspects not covered by the deployed models?
- Are risks and uncertainties related to the package's measures revised prior and after the assessment?
- Has an open and broad view on potential effects been applied and does the methodological approach cover relevant unintended effects, effects beyond the transport system as well as potentially affected societal groups?
- Are there sufficient budgets to cover necessary cost and time resources for the assessment?
- Has a set of selection criteria for primary measures been transparently defined?

### PRACTICAL EXAMPLE

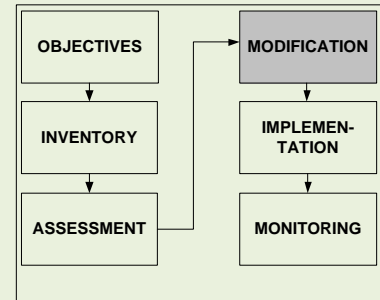
In Germany a vehicle scrappage scheme was introduced (so-called "Umweltprämie") which gave new car buyers a bonus when an old car was handed in for scrappage (under certain restrictions). This measure was supposed to reduce the stock of high emission cars among other objectives. The intended effect of an increased number of newer cars with fewer emissions and also the respective shift within the vehicle stock can be reproduced with structurally closed methods. An unintended effect, namely the illegal export of scrapped cars to other countries, for which enforcements were not considered sufficiently beforehand, was not covered by quantitative approaches but could have been detected with additional structurally open methods (involvement of stakeholders).

### ACTOR INVOLVEMENT

Actor Group	Degree of involvement	Recommended tasks
Politicians / decision makers	Medium	<ul style="list-style-type: none"> <li>▪ Request assessment and agree on milestones for the assessment</li> <li>▪ Decide on changes on the policy package if required</li> </ul>
Public administration	Medium to high	<ul style="list-style-type: none"> <li>▪ Assist in operational tasks</li> <li>▪ Execute (acquire) assessment and hereby influence choice of methodology</li> <li>▪ Decide on resources to be spend for external involvement</li> </ul>
Stakeholders	Very high	<ul style="list-style-type: none"> <li>▪ Are consulted during workshops, discussions (open explorative assessment methods)</li> <li>▪ Identification of not yet detected effects</li> </ul>
Independent experts	Very high	<ul style="list-style-type: none"> <li>▪ Choice of tools and methods for assessment</li> <li>▪ Perform quantitative and qualitative assessment</li> </ul>

## MODIFY PACKAGE / AMEND MEASURES

**DESCRIPTION:** Improving the policy package regarding its effectiveness, efficiency and acceptability by adding or removing measures, and addressing unintended effects and barriers identified during the assessment. After introducing additional measures further effects from inter-measure interaction may appear which have to be assessed. Hence, this stage is essential regarding the decision of whether to implement or to iterate the process by amending measures, i.e. going back to stage 2 or 3.



### RECOMMENDATIONS

- Decide whether additional measures and barrier management strategies are required to address unintended effects and to improve efficiency, effectiveness or acceptability
- Identify how barriers can be managed by package expansion and/or amendments
- Consider if changing or adding new primary measure(s) raise the overall policy package's effectiveness, efficiency and acceptability
- Consider if additional, secondary measures improve the package mitigating encountered barriers
- Consider expanding the policy scope and in that case consider new, additional interests of stakeholders
- Communicate benefits of additional measures if expanding the package

### CHECKLIST QUESTIONS

- Have potential barriers been identified?
- Have unintended effects been identified?
- Does the inventory of measures include additional measures that may assist managing barriers and unintended effects?
- Is it necessary to remove or amend measures?
- Will the transaction costs related to an adjustment of the package exceed the gain in efficiency and effectiveness obtained due to the changed package?

### PRACTICAL EXAMPLE

There exist today several economic policy instruments aimed at reducing heavy vehicle transport on roads and sometimes also promoting a modal shift to rail and sea transport. An example of such an initiative is the heavy vehicle fees in Switzerland and Germany. The heavy vehicle fee in Switzerland is included in a large policy package of other measures. The main aim of the package was to push for a modal shift for freight transport from road to rail and to reduce the number of heavy vehicles crossing the Alps. In the original design the fee only covered infrastructure costs. Amendments were made to the calculation so as to also include external costs.

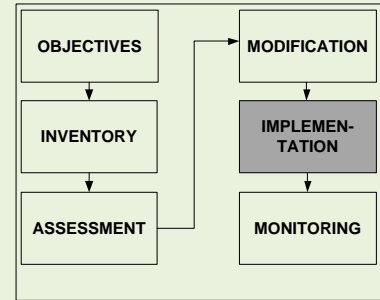
### ACTOR INVOLVEMENT

Actor Group	Degree of involvement	Recommended tasks
Politicians / decision makers	High	<ul style="list-style-type: none"> <li>▪ Decide upon the usage of barrier management strategies</li> <li>▪ Consider changing or adjust the package character to increase the effectiveness and efficiency and acceptability</li> </ul>
Public administration	High	<ul style="list-style-type: none"> <li>▪ Overview resources and additional expenses due to barrier management strategies</li> </ul>
Stakeholders	High	<ul style="list-style-type: none"> <li>▪ In case major changes are necessary an additional iteration with new stakeholders is advisable. This might occur if e.g. the policy scope is widened</li> </ul>
Independent experts	High	<ul style="list-style-type: none"> <li>▪ Deliver information on the policy package effectiveness, efficiency, risks and uncertainty</li> <li>▪ Recommend modifications of the policy package</li> </ul>



## PACKAGE IMPLEMENTATION

**DESCRIPTION:** To ensure that the policy package is implemented so that the final outcome, as far as possible, is in accordance with the objectives of the package. However, implementation of policy packages will often run into numerous barriers. Before and during implementation of a policy package different barriers must therefore be taken into account and managed. The number of expected barriers often depends on the type of policy to be implemented.



### RECOMMENDATIONS

- Identify already in the policy formation stage potential implementation barriers with a high inertia and initiate a way of either managing these, or reconsider the chosen policy measures
- Ensure continuous communication with stakeholders during the early implementation, and possibly already during policy packaging to pave the ground for successful implementation
- Allow room for adjustments of details in policy package, expanding the scope and showing flexibility.
- Apply a clear communication strategy, and communicate benefits
- Consider organisational responsibility and set-up for implementation. This may preferably be started already during formation of package phase
- Early assessment of technical problems that may be encountered. If there is a limited window of opportunity available for implementation, go for proven technology
- Consider a set of barriers management strategies before implementation of the package

### TOOLS AND METHODS

- Consultation of stakeholders through “open house meetings” or “dialog seminars for key stakeholders”. Supporting tools may be chats , blogs to receive instant comments on adjustment

### CHECKLIST QUESTIONS

- Have potential barriers been identified already during policy package formation?
- Have the stakeholders been prepared for the implementation?
- Have all technical systems been sufficiently tested?
- Are benefits communicated clearly?
- Have the organisational responsibility and set-up for implementation been considered?
- Is an actor assessment (identification of types of actors, to what degree they may be affected, and their political resources) required to ensure that intentional bias is reduced given the nature of lobbying?

### PRACTICAL EXAMPLE

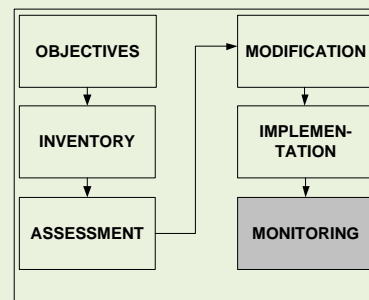
The implementation of the Stockholm congestion charging scheme is an example of a process where a flexible approach was applied and extensive dialogue with stakeholders took place. A clear information strategy was included in the process, which implied profound and professional communication of results. The organisational set-up was considered consciously, involving a shift of responsible authority between the phases of policy formation and policy implementation. This case was eventually successful, despite the fact that legal barriers were found at a rather late stage.

### ACTOR INVOLVEMENT

Actor Group	Degree of Involvement	Recommended tasks
Politicians / decision makers	<i>High</i>	<ul style="list-style-type: none"> <li>▪ Need for a consistent and transparent communication strategy to make benefits clear to parties involved</li> <li>▪ Initiate analysis of technical difficulties which might occur during or shortly after the implementation (e.g. infrastructural obstacles)</li> <li>▪ Consider small changes to the package as possibility to avoid failures of policy targets.</li> </ul>
Public administration	<i>Very high</i>	<ul style="list-style-type: none"> <li>• Documentation on the first implementation phase, feedback to policy makers</li> </ul>
Stakeholders	<i>Between low and medium</i>	<ul style="list-style-type: none"> <li>▪ Consulted about their first impressions after policy is implemented (with regard to opposition on policies in early stages)</li> </ul>
Independent experts	<i>Very low</i>	<ul style="list-style-type: none"> <li>▪ Needed to analyse causes for implementation difficulties and for policy re-calculation.</li> </ul>

## MONITORING, EVALUATION AND EX-POST ADJUSTMENTS

**DESCRIPTION:** Monitoring and evaluation of a policy package after implementation is crucial for the long-term effectiveness of a policy package and must already be foreseen during the design process. The goal is to examine if the objectives and targets have been achieved, within the planned timeframe and within budgets, and to identify any unintended effects. Deviations must be examined and, if necessary, adjustments made to the policy package. Monitoring and evaluation should be carried out in regular intervals, as agreed upon during the design process. This agreement must also include the methods used for monitoring and evaluation and the relevant indicators.



### RECOMMENDATIONS

- Identify a set of indicators that continuously measure achievement of objectives and targets
- Consider both qualitative and quantitative approaches for monitoring and evaluation
- Methods and procedures must be agreed upon before evaluation/monitoring takes place
- Consider adjusting the policy intensity (impact on targets), compliance (towards policy impacts), policy package character (changes of measures) and the package scope (geographical, operational).
- Establish impact monitoring strategies to assure cost effectiveness, transparency and accessibility of the process

### TOOLS AND METHODS (THOSE COMMONLY USED)

- Multi-Criteria Analysis and Cost-Benefit-Analysis
- Signposts: indicators showing to what extent the pre-set objectives and targets are reached after the implementation phase. These signposts identify critical points in time when adjustment of policies should be considered

### CHECKLIST QUESTIONS

- Is there an agreement on the indicators to be used for evaluation and monitoring?
- Have the methods been agreed upon, including the timing of monitoring activities?
- Are the methods flexible/adaptable enough to take situations in to account that were not anticipated before the policy intervention?
- Have resources been made available to carry out monitoring and ex-post evaluation?
- Have the responsibilities for monitoring, evaluation and reporting been clearly defined?

### PRACTICAL EXAMPLE

Transport for London invested heavily in ex-post monitoring of the London Congestion Charge. The organisation closely adheres to an 'Impact Monitoring Strategy', which is founded upon the following five principles:

- (1) Monitoring should robustly detect and characterise the main expected effects of congestion charging', which reflects a commitment to comparative analysis of ex ante and ex post appraisals ("with/without analysis")
- (2) Monitoring should enable unexpected or unanticipated effects to be determined', which is designed to ensure that the monitoring approach remains sensitive to the presence of non-intentional effects
- (3) Monitoring should seek to understand, as well as measure', which reflects the need for qualitative methods
- (4) Monitoring should aim to meet the legitimate needs of all stakeholders for information', it should be designed to ensure that the monitoring process remains democratic, transparent and accessible to a range of individuals, organisations and economic sectors
- (5) Monitoring should provide best value', which aims to ensure that the monitoring procedures remain cost-effective

### ACTOR INVOLVEMENT

Actor Group	Degree of involvement	Recommended tasks
Politicians / decision makers	Medium	<ul style="list-style-type: none"> <li>▪ Adjustment of policy package if needed</li> <li>▪ Assignment of monitoring responsibilities between civil servants and experts</li> </ul>
Public administration	Very high	<ul style="list-style-type: none"> <li>▪ Manage, monitor and control indicators and inform policy makers on changes</li> </ul>
Stakeholders	Between medium and high	<ul style="list-style-type: none"> <li>▪ Are not necessarily required during the monitoring stage, should rather be consulted if monitoring shows strong deviations from initial targets to identify causes</li> </ul>
Independent experts	Very high	<ul style="list-style-type: none"> <li>▪ Define those target achievement indicators which are implemented in the monitoring strategy</li> <li>▪ Application of qualitative and quantitative methods for policy monitoring</li> <li>▪ Assessment of changes in costs and benefits compared with calculations in earlier stages</li> </ul>