

# **Final Report**

# Engagement of stakeholders when implementing urban freight logistics policies

Non-binding guidance documents on urban logistics N° 3/6

Authors: van den Bossche, M. and Maes. J. (Ecorys) Vanelslander, T. (University of Antwerp) Macário, R. and Reis, V. (University of Lisbon) with contributions from experts: Dablanc, L.







December - 2017

#### **EUROPEAN COMMISSION**

Directorate-General for Mobility and Transport Directorate B - Investment, Innovative & Sustainable Transport Unit B4 – Sustainable & Intelligent Transport

*E-mail:* MOVE-B4-SECRETARIAT@ec.europa.eu

*European Commission B-1049 Brussels* 

# Engagement of stakeholders when implementing urban freight logistics policies

Non-binding guidance documents on urban logistics N° 3/6

#### Europe Direct is a service to help you find answers to your questions about the European Union. Freephone number (\*): 00 800 6 7 8 9 10 11

(\*) The information given is free, as are most calls (though some operators, phone boxes or hotels may charge you).

#### LEGAL NOTICE

The information and views set out in this study are those of the author(s) and do not necessarily reflect the official opinion of the Commission. The Commission does not guarantee the accuracy of the data included in this study. Neither the Commission nor any person acting on the Commission's behalf may be held responsible for the use which may be made of the information contained therein.

ISBN: 978-92-79-70612-7 doi: 10.2832/335177

 $\ensuremath{\textcircled{C}}$  European Union, 2017 Reproduction is authorised provided the source is acknowledged.

# Table of Contents

Table of Contents5
Glossary and definitions
Chapter 1 Introduction7
Non-Binding Guidance Documents7
Engaging Stakeholders when Developing Urban freight logistics Policies
Chapter 2 Urban Freight Logistics Stakeholders9
Chapter 3 Stakeholders' Decision-making Process in the Context of Urban freight logistics 11
Chapter 4 Developing a Stakeholder Engagement Strategy
Step 1: Specify the Urban Freight Logistics Issue13
Step 2: Analyse and Map Urban Freight Logistics Stakeholders
Step 2.1 – Identifying the relevant stakeholders14
Step 2.2 – Analyse the stakeholders15
Step 2.3 – Mapping the relationships amongst stakeholders
Step 2.4 – Defining the Stakeholders' Level of Engagement
Step 3: Prepare an Engagement Plan17
Step 4: Consult and Follow Up21
Step 4.1 – Before the Engagement Initiative21
Step 4.2 – During the Engagement Initiative22
Step 4.3 – After the Engagement Initiative22
Chapter 5 Examples of Stakeholder Engagement Initiatives
5.1 Example of a Freight Quality Partnership (FQPs)24
5.2 Example of a consultation on Cargo Bike Deliveries in Donostia - San Sebastian (Spain) 25
5.3 Example of Including Stakeholder Engagement in a Decision- making Process in Gorna Oryahovitsa (Bulgaria)
5.4 Example of the Charter for Sustainable Urban Logistics in Paris (France)27
Chapter 6 Recommendations
Further Reading
References

### **Glossary and definitions**

- CIVITAS: City Vitality Sustainability: Cleaner and better transport in cities
- CO<sub>2</sub>: Carbon Dioxide EU: European Union
- FAB: Freight Advisory Board
- FQP: Freight Quality Partnership
- LP: Logistics Profile
- NBGD: Non-Binding Guidance Document
- SULP: Sustainable Urban Freight Logistics Plan
- SUMP: Sustainable Urban Mobility Plan

## Chapter 1 Introduction

#### **Non-Binding Guidance Documents**

This document is one of a series of six Non-Binding Guidance Documents (NBGDs) prepared within the scope of the Study on Urban Mobility - Preparation of EU Guidance Documents on Urban freight logistics (MOVE/C1/2014-370) commissioned by the European Commission. The documents aim to help stakeholders understand the challenges brought about by logistics activities in an urban context, and identify the most suitable measures and actions to overcome these challenges.

This non-binding guidance document (N° 3 out of 6) covers the issue of how to engage stakeholders during urban freight logistics policy decision-making and implementation processes. The document provides specific information on the most important engagement actions and measures to achieve more efficient and sustainable urban freight logistics policies.

#### Engaging Stakeholders when Developing Urban freight logistics Policies

The influence of urban freight logistics on people's mobility (e.g. congestion) and access to the work place, services, social and recreational activities (e.g. emissions), plus the growing perception that it may jeopardise the sustainable development of urban areas, are progressively attracting attention. People want to be informed and involved in policy making and implementation processes, particularly when they are likely to be directly affected. Residents are not the only interested parties, however. Urban freight logistics activities are mostly private in nature, involving many different stakeholders, and the active participation of all interested parties is increasingly recognised as fundamental to the success of a decision-making process.

In recent years, the term *stakeholder engagement* has become progressively more common in public decision-making<sup>[1]</sup>. *Stakeholder engagement is a broad term used to designate the involvement of various stakeholders in a decision-making process*<sup>[2]</sup>.

Stakeholder engagement is increasingly valued and regarded as an integral part of a democracy, since it gives citizens and other stakeholders the power to influence decisions. Indeed, stakeholder engagement has many benefits, including the following:

- It favours the early identification of controversial issues and difficulties.
- It improves the quality of decisions, and makes the policy-making process more representative.
- It enhances the transparency and acceptability of the decision-making process.
- It creates a sense of ownership of decisions and measures, increasing their acceptability.
- It favours the acquaintance between stakeholders.
- It is an accountability mechanism, since it obliges policy decision makers to involve stakeholders in identifying, understanding and responding to sustainability issues and concerns, and, in addition, to report, explain and answer to stakeholders for their decisions, actions and performance<sup>[3]</sup>.
- It is inherently educational. People get involved, learn about relevant topics and, through discussion and debate, hopefully elaborate better ideas and opinions<sup>[4]</sup>.

The goal of these Non-Binding Guidance Documents (NBGD) is to support local authorities planning to implement sound urban freight logistics policies that will help to achieve the EU goal of CO<sub>2</sub>-free city logistics by 2050, by providing non-binding guidance. The guidance primarily targets public authorities such as municipalities or local agencies responsible for the management of the traffic, transport and transport infrastructures within urban areas. Furthermore, it may also benefit logistics or freight transport operators working in urban areas. No specialised background in logistics or freight transport is required to understand this document. More in-depth examples, references and practical guidance can be found in the fully referenced Technical Report on which this less technical NBGD is based.

# Chapter 2 Urban Freight Logistics Stakeholders

A most distinguishing feature of urban freight logistics systems is the coexistence of a large number of stakeholders, often with unique characteristics, strategies, business models, objectives or roles. The following diagram (Figure 1) provides a general characterisation of the most common urban freight logistics stakeholders.

#### Figure 1 Key urban freight and logistics stakeholders

Producers & Shippers	Freight Transport and Logistics Operators	Receivers	
<ul> <li>Producing the goods.</li> <li>Often located outside cities.</li> <li>Some outsource transport and logistics operations.</li> <li>Others operate own fleet<sup>[6] [7]</sup>.</li> </ul>	<ul> <li>Visible face of urban freight logistics operations.</li> <li>Provide transport and distribution services.</li> <li>Highly heterogeneous group (small family companies up to major international transport companies).</li> <li>Hired by producers, shippers or receivers.</li> <li>Behaviour reflects the need to meet customers' requirements.</li> </ul>	<ul> <li>Highly heterogeneous group: small retailers, international retail chains, shopping centres, households, etc.</li> <li>Each segment has specific demands (in terms of delivery time, transport conditions, pricing, etc.).</li> <li>Expect high quality of service (reliability, flexibility, short transit times) at reduced prices.</li> </ul>	
Residents	Public Authorities	Other Stakeholders	
<ul> <li>May also be Receivers (e-commerce).</li> <li>Expect proper quality of life (no pollution, security, clean built environment, quiet green areas, charming leisure and shopping zones, etc.).</li> <li>Expect access to a wide range of high-quality goods at affordable prices.</li> <li>Expect customised and variety of goods.</li> </ul>	<ul> <li>Commonly municipalities and local agencies</li> <li>Balance between promoting sustainable urban development and fostering economic growth.</li> <li>Limited intervention in urban freight logistics activities.</li> </ul>	<ul> <li>Investors, Infrastructure providers, landowners, software providers, manufacturers, non- governmental organisations</li> <li>Not directly involved in the urban freight logistics operations.</li> </ul>	

Logistics activities depend on the interaction between the abovementioned stakeholders. Local authorities aim to promote the social, economic and sustainable development of regions and society. They attempt to mitigate the external challenges presented by urban freight logistics such as emissions, congestion or accidents; while working to create conditions that will promote the efficiency of operations and processes. The scope of intervention of (local) authorities is, however, limited. Logistics activities are essentially of a private nature and EU regulation sets clear limits to the lawful level of influence of public authorities. Secondly, when urban freight logistics is the end part, or last mile, of either longer supply chains or larger distribution networks, stakeholders have to measure the impact of the (local) policy measures on their chains and networks. The actual impact of the measures may be lower than initially expected<sup>[5]</sup>.

Local authorities are nonetheless essential to the regulation and organisation of urban freight logistics within urban areas. Indeed, the responsibility to initiate, motivate and coordinate urban freight logistics measures, lies, to great extent, with these stakeholders<sup>[6]</sup>. Their primary goal is to enhance the quality of life of the city without hampering its economic development. Hence, they are in a prime position to promote and lead stakeholder engagement initiatives. In

addition, they are also in contact with many different stakeholders, and, to some extent, can influence or encourage them to participate.

Private stakeholders seek to maximise profits, and there is thus an implicit need to achieve a reduction in transportation costs as well as an increase in sales, while keeping in mind that their customers expect a service that is both economical and reliable. Despite their natural profitdriven inclinations, private stakeholders are increasingly aiming at improving the sustainability of their logistics and transport processes. Looking ahead, current public strategic orientations are clearly set on a path towards decarbonisation and modal shift. Some stakeholders have already begun preparing for the oncoming paradigm and others have promoted sustainable urban freight logistics initiatives within the scope of their corporate social responsibility. Growing pressure from consumers and other stakeholders (e.g., residents, local authorities) is another reason some stakeholders opt to change their processes. Finally, sustainability is a driver of efficiency and competitive advantage. It entails rationalising resources, and reducing waste production and energy consumption.

Stakeholder engagement initiatives can accelerate this transition. Stakeholders can share their success and debate failures. Solutions can be discussed to overcome obstacles and barriers. One important aspect involves avoiding market imbalances. Resolving issues of urban freight logistics may entail the internalising of some external costs (e.g., changing an internal combustion engine vehicle for a costlier, but non-polluting, electric vehicle). Such decisions may be risky if adopted on an individual basis by a single stakeholder (particularly, one with reduced financial capacity), however if the decision is consensual and market-wide, it becomes less risky and easier to adopt.

With regard to residents, their prime goal is to live in a pleasing environment, while having access to goods at affordable prices. Complaints about urban freight logistics are often rooted in unfeasible expectations and on lack of familiarity with the complexity of the operations. Engagement initiatives can contribute towards overcoming these limitations.

# Chapter 3 Stakeholders' Decision-making Process in the Context of Urban freight logistics

A Sustainable Urban Mobility Plan (SUMP) 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<sup>[7]</sup>. Among other objectives, SUMPs are formulated to promote the sustainability of mobility patterns of people and freight in increasingly complex urban societies, to promote safety and security, to reduce air and noise pollution, or to contribute to the attractiveness and quality of the urban environment and design.

The Urban Mobility Package proposed by the European Commission sets out a concept for SUMPs<sup>[8]</sup>, which comprises the following elements: i) goals and objectives, ii) long-term vision and implementation plan, iii) assessment of performance, iv) integrated development, v) stakeholder engagement, vi) reporting and vii) quality assurance.

Although a SUMP should cover people and freight, the primary focus tends to be on the former. The concept of Sustainable Urban Logistic Plan (SULP) was created to balance and mitigate such bias. A SULP is focused on the sustainability of the urban freight logistics processes<sup>[9]</sup>. It proposes a set of measures and actions that, collectively, will contribute to reduce the energy consumption and environmental impacts of urban freight logistics enabling its economic sustainability.

The preparation of a SUMP or SULP, or any other policy plan, follows a series of stages (see Figure 2), which collectively establish a decision-making process. Stakeholders should be engaged throughout the process, in varying intensity and manner, as discussed in Section 4, and not be limited to a specific stage. By getting involved at an earlier stage, stakeholders can better comprehend and even shape the choice of policies. The CIVITAS programme developed a stepwise decision-making process (see Figure 2) organised into three phases – diagnosis, preparation and intervention – and nine stages.

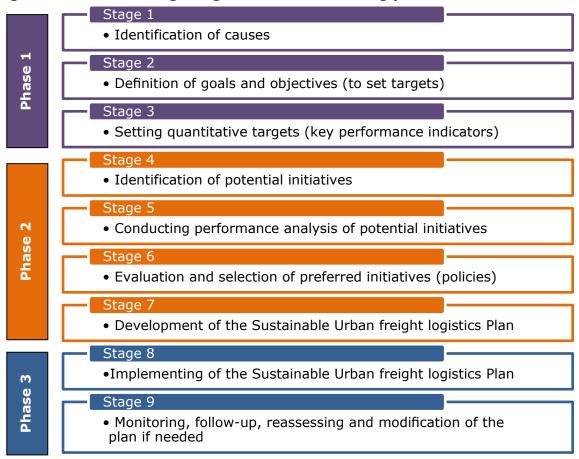
**Phase 1** includes the first three stages. It consists of a diagnostic of the urban freight logistics situation. We recommend the utilisation of the concept of Logistics Profiles<sup>1</sup> (LP) to support the characterisation of problems and issues.

The setting of quantitative targets, in stage 3, is also of critical importance to ensure an effective implementation of the measures and assessment of the benefits. Setting targets facilitates the motivation of the different stakeholders, and will also help in taking decisions. This target should not only represent the restrictions, but should also include the potential benefits.

**Phase 2** goes from Stage 4 to Stage 7 and it is dedicated to the preparation of the Sustainable Urban freight Logistics Plan. The SULP defines the plan of policies and other measures that will cumulatively contribute to the elimination or mitigation of the initial problem.

**Phase 3** corresponds to the final two stages, and concerns the actual intervention of the public policies and other measures as laid down in the SULP. The monitoring efforts (Stage 9) following the implementation (Stage 8) are of utmost relevance to provide explanatory insights about the success of the decision-making process. It is important to emphasise that the implementation stage, often the visible part of the decision-making process, is but a small fraction of a larger process, and not the only one that is relevant to the success of the policy decision-making process.

<sup>&</sup>lt;sup>1</sup>The Technical Report of NBGD number 1 provides a detailed explanation about the definition and use of the concept of Logistics Profiles.



#### Figure 2 The urban freight logistics decision-making process<sup>[10]</sup>

## Chapter 4 Developing a Stakeholder Engagement Strategy

A proper stakeholder engagement strategy should contain the following elements<sup>[11]</sup>:

- when and how stakeholders will be involved;
- the way in which involvement will be undertaken;
- the (changing) roles and responsibilities of all stakeholder groups;
- what skills are required (internal/external) to manage the process;
- timing;
- budget; and
- reporting procedures.

In order to maximise the conditions for an efficient, anticipatory and adaptive stakeholder engagement, we suggest the following six good practices<sup>[12]</sup>:

- Map all stakeholders, as well as their responsibilities, core motivations and interactions.
- Define the ultimate line of decision-making, the objectives of stakeholder engagement, and the expected use of inputs.
- Allocate proper financial and human resources, and share all information necessary to achieve result-oriented stakeholder engagement.
- Regularly assess the process and outcomes of stakeholder engagement to learn, adjust and improve accordingly.
- Embed engagement processes in clear legal and policy frameworks, organisational structures/principles and responsible authorities.
- Customise the type and level of engagement to the requirements, and keep the process
  flexible to changing circumstances.

A checklist for public action to follow the implementation of the above mentioned principles is also suggested. That means listing questions and indicators to help monitor the effectiveness of engagement processes and identify areas of improvement. In a highly decentralised and fragmented sector such as urban freight and logistics, with multiple interdependent players at different levels, stakeholder engagement is critical for the achievement of a successful outcome.

In order to assist in developing the engagement strategy, we propose a four-step approach schematised in the diagram presented in Figure 3.

#### Step 1: Specify the Urban Freight Logistics Issue

The first step (in Figure 3) consists of the characterisation and specification of the urban freight logistics issue. This step overlaps with the Phase 1- Diagnosis of the decision-making process (Section 3, Figure 2). Urban freight logistics issues range in scope and complexity. At this level, it important to understand the very nature of the urban freight logistics issue.



#### Figure 3 Stakeholder engagement approach<sup>[10]</sup>

In this matter, as mentioned earlier, we recommend the utilisation of the concept of LP. The LP concept (see Figure 4) provides a suitable and intuitive approach to the characterisation of urban freight logistics operations. It considers three dimensions of analysis, each one characterised along a set of variables. Each variable is then classified based on a pre-established evaluation grade. This allows for the development of a benchmarking analysis, and also serves as a monitoring tool for urban freight logistics activities.

#### Step 2: Analyse and Map Urban Freight Logistics Stakeholders

The central focus of a stakeholder engagement initiative is, of course, the stakeholders. Hence their identification and moment of participation are of utmost relevance. This second step aims to precisely identify the relevant stakeholders. It is organised into four phases<sup>[13]</sup>, as follows: 1) identifying the appropriate groups, organisations and people, 2) analysing the stakeholders' perspective and relevance, 3) mapping their relationships to objectives and to other stakeholders, and 4) prioritising stakeholders' relevance and identifying issues.

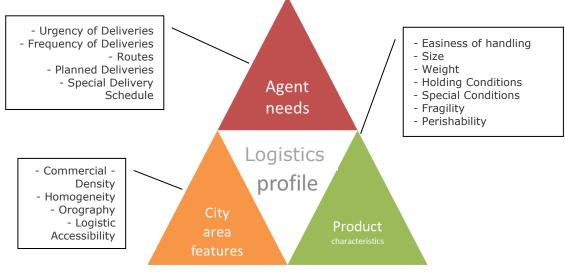
Local authorities should take time to adequately identify stakeholders, as smaller companies tend to be off the radar, although they can make a material contribution towards clean urban freight logistics. This can sometimes be the case with cycle based delivery companies<sup>2</sup>.

#### **Step 2.1 – Identifying the relevant stakeholders**

The characterisation of the urban freight logistics issue, undertaken in Step 1, will reveal the intervening stakeholders. In Chapter 2, we described the main urban freight logistics stakeholders. Several of them are likely to participate in the engagement initiative.

It is important to note that other stakeholders, not directly related to urban freight logistics activities, may also be relevant. These include manufacturers, non-governmental organisations, research institutions, and regional or national planning agencies.

<sup>&</sup>lt;sup>2</sup> The Cycle Logistics Federation offers a comprehensive database of EU companies using bicycles or tricycles to deliver goods (http://federation.cyclelogistics.eu).



#### Figure 4 Variables and dimensions of the Logistics Profile concept

Source: adapted from TURBLOG<sup>[14]</sup>

In order to properly identify the various stakeholders, appropriate tools and techniques should be deployed, such as: i) brainstorming is commonly used and often the most important way to identify stakeholders, ii) mind mapping<sup>3</sup>, or iii) stakeholders' lists.

#### Step 2.2 – Analyse the stakeholders

Every stakeholder must be properly characterised, which entails gathering the following pieces of intelligence: its objectives and strategies, level of interest and commitment to the issue, power to influence the decision-making process, and ability to participate. One possible avenue of analysis consists in answering the following set of questions about every stakeholder:

- What are the stakeholders' underlying motivations and drivers?
- Do they have a positive or negative attitude towards the issue?
- What is the nature of their interest in the issue: emotional, economic or other?

What is their power and level of influence on the issue? Can they influence other stakeholders? Can they halt (or speed up) the development of the issue?

- What is their level of knowledge about the issue? Are they experts or merely users?
- What kind of information do they have access to? What are their communication channels and, thus, sources of information?
- What are their current opinions and influences? What are their beliefs, expectation and doubts?

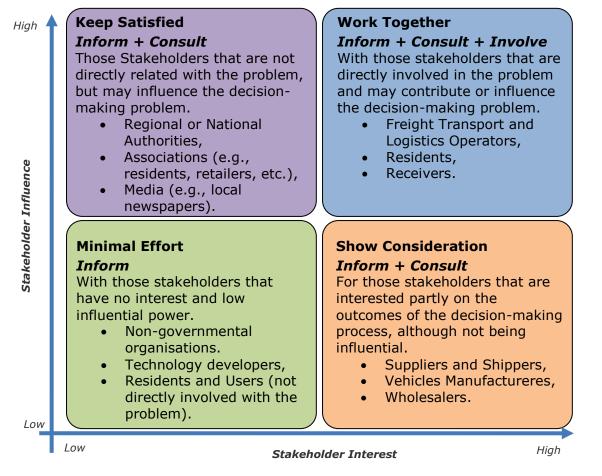
Stakeholders can, alternatively, be characterised along a set of specific features. A popular approach<sup>[15]</sup> consists of characterising the stakeholders along four key variables, as follows: i) the stakeholder's influence, ii) stakeholder's interest, iii) stakeholder's contribution, and iv) stakeholder's legitimacy.

<sup>&</sup>lt;sup>3</sup> Further information is available at http://www.mindmapping.com

A simple and intuitive way to analyse stakeholders is through visualisation. The underlying idea is to identify the stakeholders according to specific variables (e.g. influences, interest, etc.) and to represent them on a chart or similar. The positioning and relative arrangement of each stakeholder will provide relevant inputs and offer insights on how to proceed. A common technique is the utilisation of 2D, which makes use of two variables.

Figure 5 presents a possible classification considering two variables – interest and influence. It is possible to pin each stakeholder on the 2D map, along four categories according to a valuation of both variables. The relative positioning provides information about the type of stakeholder engagement to adopt. The suggested stakeholders in each category were chosen on the basis of the hypothetical case of a commercial urban street with a high volume of daily deliveries and traffic of freight vehicles. Residents have complained about the urban freight logistics issue, and the local authority has decided to work with freight transport and logistics operators and street shoppers to tackle the situation.

#### Figure 5 Classifying stakeholders according to their interest and influence<sup>[15]</sup>



#### Step 2.3 – Mapping the relationships amongst stakeholders

The relationships between the stakeholders are another piece of intelligence that is important to keep in mind while designing the engagement strategy. It is known that certain stakeholders have opposing objectives and positions about a specific topic. For instance, transport operators' views concerning the use of public space may differ from those of the municipality; or transport operators, shoppers and residents may share different concerns and expectations related to night deliveries. Bringing together opposing parties may raise conflict, and consensus building becomes far more difficult to attain.

On the other hand, people can change behaviour in the presence of others, particularly with regard to disclosing sensitive information. For instance, representatives from different transport operators may prefer to play down any figures or numbers concerning operations, since it can provide valuable intelligence to competitors. The same happens when employees of the same entity (e.g.: municipality or company), but from different divisions, are invited to a common meeting or event.

All in all, it is important to understand the strength, level of influence and nature of the relationship. The strength refers to whether the relationship is weak or strong. A strong relationship may indicate a common understanding and position. The level of influence defines whether the relationship is balanced, or whether one party has influence over the other. Nature refers to whether the stakeholders share common ground or have contrasting views.

One possible technique is to investigate stakeholders' relationships and their importance in the Social Network Analysis. This allows the investigation into the role a stakeholder plays in terms of weight of decision and influence over others<sup>[16]</sup>.

#### Step 2.4 – Defining the Stakeholders' Level of Engagement

There is no need to engage all stakeholders in a similar fashion. Stakeholders should be engaged according to their role and expected contribution. This is an effective way to rationalise resources and avoid the participation of stakeholders with lower added value in the decisionmaking process. The point being that it is often not viable, necessary, or even desirable, to engage all stakeholders at the same time and with the same level of intensity. Different stakeholders hold different levels of importance in the stakeholder engagement process, due to their level of influence, interest or knowledge of the topic. Moreover, a stakeholder's level of interest changes over time, and it can thus make sense to involve the stakeholders at different times. For all these factors, there is the need to establish an involvement agenda or schedule, which defines the moment of involvement and the respective intensity.

Prioritisation of stakeholders can be based on any number of factors, including the level of influence, interest or legitimacy, already mentioned in the previous Phase. An alternative way is to answer a series of questions, as follows<sup>[13]</sup>:

- Is our list focused on relevant stakeholders who are important to our current and future efforts?
- Do we have a good understanding of where stakeholders are coming from, what they
  may want, whether they would be interested in engaging with the process, and why?
- How can we further understand and qualify these stakeholders? Through discussions with internal colleagues? Reading reference reports? Finding specific blogs or social media accounts to follow?
- Based on our prioritised stakeholders, how can we define a suitable level of engagement? Will this list inform us about tactics, formats, and investment considerations?
- Have we given any thought to what type of resources (expertise, people, and budget) we need to support our engagement strategy and follow-up activities?

#### Step 3: Prepare an Engagement Plan

In this step, the engagement techniques and measures should be carefully chosen, according to the target stakeholders and stage in the decision-making process. To ensure efficient utilisation of available resources and time, and to achieve the best results, it is important to select the appropriate level of involvement for each stakeholder. A total of five degree of involvement can be identified. In its simplest form, a stakeholder engagement process may be used to *inform* residents, freight companies and other stakeholders about a specific decision, event or other

relevant fact. In this case, there is a one-way flow of information, and feedback from the receivers of this information is not expected. This type of dissemination is commonly used to disseminate decisions to a broad audience, with minimal resources. In truth, this type of engagement cannot be considered, since there is no actual feedback or interaction between parties.

A second purpose is *consultation*, which aims to collect the views, perspectives and opinions of those directly impacted by the problem and/or affected by its eventual solutions. This type of engagement works in a similar way to the previous one, however the information flows from the stakeholders to the decision maker. Again this type of engagement is essentially one-way, although feedback on how the opinions were considered in the decision-making process can be given. Proper engagement begins where there is an *involvement* of the stakeholders in the decision-making process. Stakeholders are brought together to voice their opinions and debate options. They may be considered in the decision-making process, but they play no role in the policy choice and decision. Figure 6 summarises the key goals and outcomes of each level of involvement, and lists some examples. Each one involves specific resources and delivers specific expectations of engagement.

In more important situations, stakeholders may work closely with policy makers in the characterisation of the challenges and identification of policy options and other measures. The decision-making process is influenced by the stakeholders' experience, knowledge and expectations. Nonetheless, the final choice of policy options remains with the decision maker. At the end of the involvement spectrum is *empowerment*, where stakeholders become an integral party of the decision-making process, sharing responsibility for the decisions.

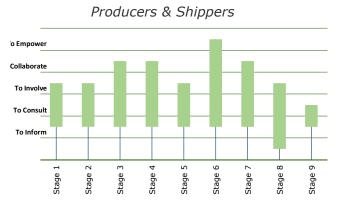
It is important to engage stakeholders from the beginning of the decision-making process, in order to make the best of their participation. The engagement of the stakeholders at later stages of the decision-making process may be received with suspicion, sometimes resulting in rejection. It is, however, not reasonable to engage stakeholders at high intensity throughout the decision-making process. Not only would that require a disproportionate amount of resources but also the stakeholders' interest would be more likely to fade early in the process. It is necessary to find a balance between available resources and time, stakeholders' interest and influence, and the stage of the decision-making process. A few brief notes on distributing resources through the stages to ensure a continuous engagement (Figure 7) are included below:

- Producers: more intense forms of engagement can be focused on those located in or near the area of analysis; whereas the less intense forms can be applied to those located outside the area of analysis or even outside the urban area.
- Transport & Logistics Operators: their involvement should be adjusted to their role and influence. Remember that the market is quite heterogeneous, ranging from small familyowned businesses to major international companies. The engagement of trade associations is a good option to ensure a broad representation of the sector. Small companies (or single entrepreneurs), however, are often poorly represented by trade groups

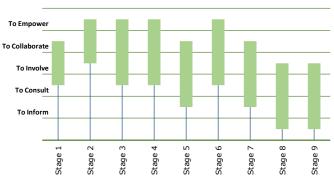
#### Figure 6 Ladder of purposes of the stakeholder engagement process<sup>[17]</sup>

als	Inform	Consult	Involve	Collaborate	Empower
Stakeholder engagement goals	• To provide balanced, objective, accurate and consistent information to assist stakeholders to understand the problem, alternatives, opportunities and/or solutions.	• To obtain feedback from stakeholders on analysis, alternatives and/or outcomes.	• To work directly with stakeholders throughout the process to ensure that their concerns and needs are consistently understood and considered.	• To partner with the stakeholder including the development of alternatives, making decisions and the identification of preferred solutions.	• To place final decision-making in the hands of the stakeholder. Stakeholders are enabled/equipped to actively contribute to the achievement of outcomes.
	Inform	Consult	Involve	Collaborate	Empower
			Involve		Empower
Promise to stakeholders	• We will keep you informed.	• We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how stakeholder input influenced the outcome.	• We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how stakeholder input influenced the outcome.	• We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the outcomes to the maximum extent possible.	We will implement what you decide. We will support and complement your actions.
	Inform	Consult	Involve	Collaborate	Empower
Examples	<ul> <li>Utilisation of social media to reach the population with latest changes in parking regulation.</li> <li>Utilisation of static boards, variable message panels or social media to inform about decisions.</li> </ul>	• Undertake web- based surveys to collect people's opinion on a new access regulation.	<ul> <li>Metings with citizens to explain intervention on the built environment.</li> <li>Webinars to explains urban freight logistics concepts and initiatives.</li> </ul>	<ul> <li>Round tables to debate public policy options concerning unlawful loading and unloading practices.</li> </ul>	• Establishment of partnerships to issue opinions on freight logistics issues.

- Receivers: also a fairly heterogeneous group. Their involvement must be adjusted to their role and influence. Commonly, there are associations or local chambers of commerce, which should necessarily be called to participate.
- Residents: more intense forms of engagement can be allocated to the residents living in or near the area of analysis. Nevertheless, it is important to remember that residents are many and have different expectations, sensibilities and perspectives.
- Other stakeholders represent a quite diversified assortment of entities. Their involvement must be carefully planned. They can bring valuable inputs and options. e.g., manufacturers may provide an indication of anticipated technological developments, or staff from other municipalities may bring in best practices and recommendations. Their involvement should be tailored and customised.

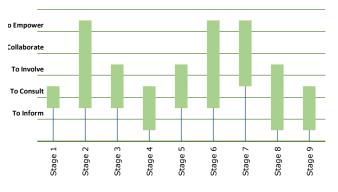


#### Figure 7 Adapting stakeholder engagement to decision-making process stages

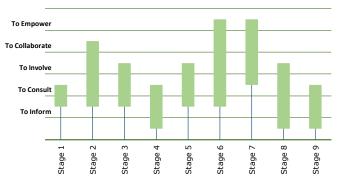


Freight Transport & Logistics Operators

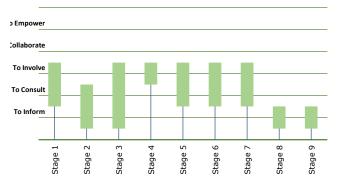








#### Other Stakeholders



Source: authors' own composition

In order to achieve these purposes in the most efficient way, including a rationalisation of resources, engagement techniques must be chosen carefully <sup>[18]</sup>, taking into consideration the following aspects:

- Available resources and time frame each technique requires a specific amount of resources and time, which must be compatible with the decision-making process schedule and respective budget.
- Understanding of the values and culture of stakeholders in many cases the general views of stakeholders will be known in advance. Therefore, be clear about what you expect of the engagement process when choosing the most appropriate technique. This is particularly important when involving private stakeholders, since issues such as confidentiality and trust play an important role. For instance, bringing to the same table employees from different transport operators may cause them to refrain from speaking about certain matters considered confidential.
- Technical complexity some issues are relatively easy for stakeholders to understand, while others are extremely complex. Technically complex issues require a careful selection of the appropriate technique. Remember to choose a technique that allows you to communicate the key messages of your project to stakeholders and also provides stakeholders with the ability to provide feedback.
- Adaptability and flexibility of the engagement techniques if an engagement technique has been successful in one project, this does not automatically ensure its success in another. Both the projects and stakeholders you are trying to engage will differ. Also be open to innovative or new methods while keeping in mind that sometimes the most effective methods are the most traditional ones.
- Specific experiences consider hiring an expert to deploy certain techniques. For example, engaging a population may require someone knowledgeable in managing expectations, tensions, timings, etc.

A wide range of techniques is available nowadays (Figure 8), including recent developments in the field of information and communication technologies such as those based on the internet (e.g. social networks) or mobile devices (e.g. push notifications). Figure 8 presents typical engagement techniques. They are classified by type of engagement. Each one offers specific properties which make them more suitable for utilisation in one or another type of engagement. Although the division is not strict, it provides guidance on the choice of the techniques. For instance, a poster contains a limited amount of static information and its readership depends on the location. Yet, it is relatively inexpensive and it can potentially reach a wide audience. It is more properly used in the context of providing information. Another relevant stakeholder engagement initiative is the Freight Quality Partnership (FQP). This is a long-term partnership between urban freight stakeholders who, on a formal or informal basis, meet regularly to discuss (and sometimes find solutions to) problems and issues that occur in an urban area. FQP represents a good opportunity to achieve worthwhile results at a relatively modest cost<sup>[19]</sup>.

#### Step 4: Consult and Follow Up

This Step refers to the actual deployment of the stakeholder engagement strategy<sup>[2], [3]</sup>. Each initiative has its own requirements and procedures. Nevertheless, some aspects should be taken into consideration in order to ensure the success of the initiative. These can be classified accordingly with the realisation of the initiative, i.e., before, during and after.

#### **Step 4.1 – Before the Engagement Initiative**

Action must be taken to ensure the necessary conditions are met<sup>[3]</sup>. People will be requested to voice their concerns, expectations and ideas. In order to do so, they must feel comfortable and confident. Even in lower forms of involvement (such as surveys), the necessary conditions should be thought through and met. For instance, it is not proper to survey a driver while

moving freight from/to a shop. In general terms, the following aspects could be considered: location of the initiative, formality of the initiative, atmosphere of the initiative, utilisation of facilitators, and other logistical and organisational aspects. Training and capacity building of stakeholders can be provided to ensure they can get the most from, and deliver the best out of the initiatives (e.g., conflict management techniques).

#### **Step 4.2 – During the Engagement Initiative**

During the initiative, many different events and dynamics may occur, largely related to the nature of the initiative. The duration of the initiative is also highly variable. It can range from a few seconds or minutes in the case of surveys, to several hours, in the case of meetings or seminars. Additionally, it can be an isolated initiative (e.g. dissemination of a specific decision), or repeated several times. In the case of meetings, seminars and the like, several recommendations may be given to increase the usefulness of the initiative<sup>[13]</sup>: levelling stakeholders, ensuring equity in the participation, focussing the discussion, managing cultural dynamics, and mitigating tension.

A modelling approach for simulating stakeholder participation in the engagement can be considered transversal to all the stages. Scenario analysis allows first for the simulation, and afterwards for evaluation of the impact that a hypothesised action might have on stakeholders' behaviour and interactions. The results of the simulation can also provide useful suggestions for policy-makers on the potential acceptability of the policies discussed with stakeholders, considering that involving from the outset those that bear the final consequences helps in finding better solutions.

#### **Step 4.3 – After the Engagement Initiative**

Following up initiatives with stakeholders should be promoted<sup>[3]</sup>. The outputs of an engagement initiative are expected to contribute to the advancement of a decision-making process. It is relevant to report the decisions back to the participants, and to request feedback from them. This feedback is beneficial at different levels: 1) participants will perceive that their efforts were considered. This will increase their willingness to participate in future events, 2) feedback reports can be considered as another type of engagement initiative. Indeed, the feedback can be used to fine-tune the decisions. Above all, it is important to make it clear that the participants' efforts were not in vain, and 3) the impact of the engagement initiative.

The engagement initiative should be assessed. A set of descriptors is suggested by CIVITAS<sup>[2], [18]</sup>. Foremost, all engagement initiatives should be duly reported and documented. The documentation can be done with different supporting materials, such as reports (e.g. minutes), audio, pictures, video, etc. In terms of content, at least the following should be preserved: the original purpose and aims of the engagement, the methods used, the participants, a summary of noted stakeholders' concerns, expectations and perceptions, a summary of discussions, and a robust list of outputs (decisions, actions, proposals, and recommendations). If necessary or valuable, the documentation can be shared among the participants to collect feedback.

#### EUROPEAN COMMISSION

#### Figure 8 Examples of engagement techniques (source: authors' own composition)

		Stakeholders				
		Producers & Shippers	Freight Transport & Logistic Operators	Receivers	Citizens	Other Stakeholders
To Inform	Letters, Leaflet, Brochure, Newsletter					
	Posters and notices					
	Reports & Fact Sheets					
Ĕ	Web Pages					
	Web 2.0 (social networks)					
Consult	Surveys, including web and telephone based					
Co	Questionnaires					
<b>T</b> 0	Interviews					
	- Smatphones or Web Applications					-
<u>v</u> e	Public Meetings					
סע	Information Sessions					
To Involve	Deliberative pooling					
Ĕ	Forums, including web based					
	Seminars & Topical Events					
Colla- rate	Focus and Reference Group					
To Colla borate	Facilitated consensus building					
<b>F</b>	Workshops & Meetings					
To Empower	Freight Forum					
	Local Governance, Joint Planning					
	Shared Projects, Capacity Building					

### Chapter 5 Examples of Stakeholder Engagement Initiatives

#### 5.1 Example of a Freight Quality Partnership (FQPs)

FQPs are discussions promoted by public entities, commonly local authorities. The relevant stakeholders – transport operators, public authorities, shippers, receivers, residents' groups – meet regularly to debate matters of urban freight logistics. Stakeholders bring up issues, present their perspectives and challenges, and debate (in some cases, negotiate) possible solutions and initiatives. The range of initiatives is vast and may include: new pilot projects, proposal of regulations, elaboration of urban freight logistics plans, interventions on specific locations, studies (e.g., marketing, energy, economic, etc.). Participation is on a voluntary basis and the stakeholders' level of interest is high. Also, stakeholders feel accountable for the decisions they take. A study<sup>[20]</sup> identified key success factors: i) to establish a dedicated consultation process, ii) to cover a metropolitan area or region and iii) to empower the responsible institution with sufficient legal and political influence.

FQPs have become particularly popular in the United Kingdom<sup>[19]</sup> and, as of 1998, they are acknowledged by the British government<sup>[21]</sup>. Several other places also have well-established FQPs, such as: Gothenburg (Sweden), Turin (Italy), Greater Lyon (France), Paris (France), Nantes (France), and Aberdeen (UK).

Despite their potential, FQPs have some limitations and difficulties. Consensus building is a lengthy process and initiatives may take a long time to be deployed. There is the danger of transforming the meeting into a talk shop, without genuine interest. Representativeness is not always ensured. Since enrolment is voluntary, participation of all relevant stakeholders cannot be ensured. Finally, the budget is often limited, which may reduce the scope and ambition of the initiatives. In the city of Oslo (Norway), a FQP has been terminated.

A study<sup>[22]</sup> identified drawbacks in the operating conditions, as follows:

- attendees were much the same from meeting to meeting, giving less variation to the discussions,
- members did not attend on a regular basis,
- members from police and residents' groups were sometimes missing,
- elected representatives and senior management from industry were also lacking,
- tendency to become a talking group, and
- lack of dissemination of results and achievements.

More information is available at: https://www.centrallondonfqp.org

# **5.2 Example of a consultation on Cargo Bike Deliveries in Donostia - San Sebastian (Spain)**

This initiative started in 2009 in Donostia–San Sebastian, Spain. The goal of the measure was to establish a new distribution model of goods by cargo bike.

The main stakeholders involved were freight transport and logistics operators and their producers, retailers, and, necessarily, municipal authorities. A Mobility Advisory Council advises the municipality of Donostia–San Sebastian on all decisions concerning urban transport. Twenty-nine stakeholder groups have seats on the council, including political parties, architects, private and public transport companies and taxi firms. The Basque Institute for Logistics led the measure, in close cooperation with the Mobility Department of the Municipality of San Sebastian. The institute is an association of regional and local authorities, as well as businesses in the freight sector.

The assessment was carried out by means of a stakeholder survey. This ensured that the key groups were directly involved in the design of the measure itself. Based on this preliminary assessment and subsequent discussions over the course of several meetings and interviews with local stakeholders, a package of proposed measures was presented to the Mobility Advisory Council.

Consultation on Cargo Bike Delivery in Donostia–San Sebastian involved stakeholders in two major engagement approaches: consultation and partnership; using letters and personalised door-to-door interviews.

The measure began with the sending out of a letter from the City Council to shopkeepers and transport companies, to announce the survey on freight distribution. Individual interviews were held with shopkeepers and with all the freight companies operating in the area. The outcome of the assessment and proposals for measures were presented at meetings of the Mobility Advisory Council. The evaluation included an additional survey of a selected representative sample of stakeholder groups (20 transport companies, 200 shopkeepers and 50 users/residents). In the case of shopkeepers and transport operators, a first round of face-to-face interviews was complemented by telephone and on-line questionnaires.

The actual results of the experimentation were: fuel consumption and emissions were reduced by decreasing the number of freight kilometres and increasing vehicle loading rate; due to the reduction in delivery trucks within the city, GHG and noise pollution declined; improved traffic, mainly in the Old Town; and an extension of loading and unloading times without causing problems to the neighbours, thus improving the ecological positioning of the City of San Sebastian.

As a result of the stakeholder consultation, a Local Urban Cooperation Platform was set up, and the municipality was able to put new measures in place:

- A micro consolidation centre was created.
- Several regulatory measures were implemented (a system of access control using cameras in the Old Town has been established, specific areas for loading and unloading times were defined, and a model of efficient distribution of products was implemented in the city during the CIVITAS ARCHIMEDES project).
- The Municipal public procurement procedure is now a zero emissions policy.
- The establishment of a cycle logistics distribution company, TXITA, for urban distribution in the centre and the Old Town. Today, TXITA has 10 cargo-trikes, 2 cargo-bikes and 9 taxi-bikes in its fleet, and operates from a micro consolidation centre located in the city centre. TXITA offers distribution and home delivery services, works mainly for delivery

companies, and has contracts with the express couriers SEUR, EROSKI and GUPOST. The company also offers cargo-trike rental, integrated advertising space on the tricycles as well as consulting and training to start-up companies in the area of sustainable goods transport<sup>[23]</sup>.

More information is available at: http://tinyurl.com/jxmjtdd

# **5.3 Example of Including Stakeholder Engagement in a Decision- making Process in Gorna Oryahovitsa (Bulgaria)**

This initiative started in 2009 in Gorna Oryahovitsa, Bulgaria. The city is situated in the central part of Northern Bulgaria and in recent years has become a national hub for railways, road and air travel. As a result, freight traffic in the city has increased, causing congestion, noise and air pollution.

The main stakeholders involved were the large companies operating in the city. They represent several sectors, including building and development, heavy industry, manufacturing, and food and textile supply. A total of 41 companies were represented in the meetings organised by the city council. From among these, the city identified the 20 firms with the biggest impact on urban life. Residents were also considered as a main stakeholder group, since the opinions of residents were mentioned as very important to local politicians. Representatives from the city met with each of the identified companies to discuss the main traffic issues affecting their activities and operations. This was done through interviews and questionnaires tailored to the different sectors. The main purpose was to identify the main freight and congestion problems in the city and, by working together, to propose solutions that would benefit both residents and large companies.

The city conducted an initial survey of 300 households (717 people), followed by a survey among the 20 biggest companies and industries in the city. As a result of this consultation, the following projects were suggested: the construction of a new road in the industrial zone; the creation of a bus route to the airport; and the construction of a logistics centre near the airport.

The Strategic Planning in Gorna Oryahovitsa involved stakeholders in two major engagement approaches: consultation and push/pull communication. The municipality believes it is essential to maintain momentum and to keep all stakeholders involved throughout the process. The city paid attention to the input of the public and other stakeholders on each of the measures that were implemented. This close monitoring ensured a high level of involvement from all stakeholders. As a result of this experience, the city is now more aware of the importance of engaging with local stakeholders, giving them the opportunity to participate in discussions, and updating them throughout the process.

More information is available at: http://tinyurl.com/z44z8js

#### 5.4 Example of the Charter for Sustainable Urban Logistics in Paris (France)

The Charter was the outcome of a consultation framework initiated in 2001. It was signed on 28 June 2006 by 47 parties, including shippers, senders and recipients, freight transport operators (rail and waterways sectors), delivering carriers and chambers of commerce and agriculture. The Charter is interesting because of the number of involved stakeholders and their levels of commitment. They all shared the desire to preserve the city's commercial activities while optimising and modernising the transport and delivery of freight to limit its adverse environmental impacts.

In the long term, the objective is to reduce the overall emissions from activities in the urban area by 75% in 2050 compared to 2004. Another goal, expressed by the city council in autumn 2014, is that 100% of deliveries should be non-diesel by 2020.

A further step was taken in 2013 with the implementation of the Sustainable City Logistics Charter, which establishes a long list of initiatives for the urban logistics sector, such as: i) an outline policy for urban logistics in Paris, ii) a trial of the Tramfret with an operator, iii) a programme to develop logistics zones in leased car parks on land owned by social landlords; iv) the modernisation of delivery zones, v) deploying a network of recharging terminals for electric vehicles, vi) encouraging good practices for deliveries to small shopkeepers and own-account transport and vii) developing water-based urban logistics with a self-unloading boat.

One issue that has been emphasised by the City of Paris is the 'logistics sprawl', i.e. logistics facilities have moved and established further away from the city centre. To counterbalance this trend, the City aims to reintroduce logistics terminals in dense areas. In particular, two urban consolidation centres have already been defined: in Chapelle (at the construction phase) and in Beaugrenelle (at the operating phase). The projects will provide a framework to city practitioners to get familiar with urban logistics activities, while assessing costs and benefits of (re)introducing logistics terminals in dense urban areas.

More information is available at:

http://www.citylab-project.eu/presentations/160526\_Paris/Paris\_Herve\_Levifve.pdf

### Chapter 6 Recommendations

In this last Chapter, we elaborate and present recommendations for developing stakeholder engagement when implementing urban logistics policies.

# **Recommendation 1:** Frame the implementation of Urban freight logistics Policies within the context of an SUMP and/or SULP and set targets.

The implementation of urban freight logistics policies should represent just one step in a much larger decision-making process. In Chapter 3, we propose a 9-step decision-making process, in which implementation is the eighth. This will maximise the possibilities for developing efficient policy measures.

#### **Recommendation 2:** Take some time to understand the Urban freight logistics issue

As explained in Chapter 2, urban freight logistics is a complex business, with many stakeholders and activities. Stakeholders are intertwined in different layers of relationships, and anything that affects one will certainly impact many others. Public policies should thus be carefully crafted. In this sense, the Logistics Profile concept (presented in Chapter 4.2) provides a valuable method to become acquainted with the particularities and specificities of an urban freight logistics issue.

#### **Recommendation 3:** *Develop a proper stakeholder engagement strategy*

A sound stakeholder engagement strategy is of utmost importance. The four-step method, described in Chapter 3.3, provides a suitable roadmap:

- Step 1 Specify the Urban Freight Logistics Issue is already known and constant throughout the decision-making process. The relevant stakeholders and their respective significance changes over time.
- Step 2 Analyse and Map the Urban Freight Logistics Issue provides information about which stakeholders should be involved
- Step 3 Prepare Engagement Plan concerns the choice of technique, which must be chosen according to the stakeholders, the purpose of the engagement, and available resources.
- Step 4 Consult and Follow up Stakeholders provides explanatory information on how to continue collecting feedback from stakeholders after the engagement event.

An important aspect of the design of a successful strategy is to have a clear idea about the available resources, in terms of budget, human resources, time, etc., that can be allocated. We must not forget that stakeholder engagement initiatives are costly and time consuming.

#### **Recommendation 4:** Involve stakeholders as soon as possible

Stakeholders should be involved as early as possible. They can contribute to the achievement of a better understanding of the problems and challenges, they can offer solutions and options, and, as a result, will be more willing to accept the final decisions and outcomes.

#### **Recommendation 5:** Make the best use of the engagement techniques

There is a wide assortment of techniques and methods available to engage stakeholders. In recent times in particular, the emergence of information and communication technologies has led to the development of new economical and powerful options. There is no "one size fits all" approach. The techniques should be chosen according to the requirements of each situation at the moment of engagement: the stage in the decision-making process, the stakeholders to involve, and the type of engagement, are just some influencing factors. Chapter 4.3 provides a better description on this topic.

#### **Recommendation 6**: Make the best use of decision-making techniques

Diverse modelling and simulation tools have been developed to support the decision-making process. Multicriteria analysis offers guidance to evaluate policy options in an unbiased and transparent way<sup>[24]</sup>. Scenario simulations of stakeholder interaction can provide useful suggestions for policy-makers on the potential acceptability of policies discussed with stakeholders. All-in-all, they will promote the rationality of the discussion and foster acceptability. The technique can be considered transversal to all the stages of the engagement process.

#### **Recommendation 7**: Balance and rationalise the involvement

Although stakeholders should be engaged early in the process, it does not necessarily follow that all should be involved, nor that we should deploy the same form of involvement for each of them. Stakeholders would soon lose interest in the process. The involvement of each stakeholder should be appropriate for the level of interest and expected feedback. In Chapter 4, section 4.2, we presented several tools to identify and map the stakeholders.

#### **Recommendation 8:** Look elsewhere for good and bad practices

Looking elsewhere to other urban areas that have experienced similar issues or cases, and becoming acquainted with their approaches and methods, is an invaluable way of learning, and of developing a city's own stakeholder engagement initiatives. In this document we presented a set of examples to provide both information and inspiration. Stakeholder engagement is a common practice in EU funded or co-funded research projects, with the common goal of developing and implementing new solutions; either technological, organisational, or policy related. The success of the project is linked to the acceptability of the results. In this sense, involving the interested parties is fundamental. Many different forms of engagement have been adopted:

- Advisory boards with stakeholder experts is a common approach, and to a certain extent similar to the already mentioned FQPs.
- Public Seminar and Meetings are also regularly held, usually at important stages of the project (e.g., product specification, results validation or presentations of results) (e.g., SMARTFUSION project developed a total of five workshops with stakeholders).
- Dissemination through newsletters, fact sheets, film or video, social media and websites is a common practice (e.g., CITYLAB project has produced diverse newsletters and other media outputs).
- Surveys, inquiries and interviews are also commonly conducted.
- Pilot tests are conducted whenever possible (e.g., STRAIGHTSOL Project conducted a total of six pilot tests).
- Users Experiments are another interesting way to approach stakeholders (e.g., Pro-E-Bike project offered stakeholders the opportunity to try innovative technologies for a six month period).

References from other projects include:

- SMARTFUSION Smart Urban Freight Solutions, http://www.smartfusion.eu/
- STRAIGHTSOL Strategies and measures for smarter urban freight solutions, http://www.straightsol.eu/
- CITYLAB City Logistics in Living Laboratories, http://www.citylab-project.eu/
- PRO-E-BIKE Promoting Electric Bike Delivery, http://www.pro-e-bike.org
- Cyclelogistics Ahead project organises workshops for local businesses and governments, http://www.cyclelogistics.eu/

- Freight TAILS Network Tailored Approaches to Innovative Logistics Solutions, http://crossriverpartnership.org/projects/freight-tails/
- More information is available on: http://www.transport-research.info/

#### Recommendation 9: Evaluate and follow up

Stakeholder engagement does not end with the accomplishment of the initiatives. Stakeholders must be informed about the outcome of the participation and how their opinions were considered. They will thus feel that they belong to the process, and be more willing to accept decisions and to participate in future initiatives. Also, the very process of engagement should be subject to follow up in order to be improved throughout the decision-making process.

# Further Reading

- Bryson, J. (2004) What to do when stakeholders matter. Public Management Review, 6 (1), p.21 - 23. Available at https://www.hhh.umn.edu/people/jmbryson/pdf/ stakeholder\_identification\_analysis\_techniques.pdf
- Freeman, Edward. (2010) Strategic Management: A Stakeholder Approach, Cambridge: Cambridge University Press.
- Freeman, Edward, Jeffrey S Harrison, Andrew C Wicks. (2007) Managing for Stakeholders: Survival, Reputation, and Success (Business Roundtable Institute for Corporate Ethics Series in), Yale: Yale University Press. Latest edition.
- Obeng, E (1995), All Change!: The Project Leader's Secret Handbook, (Financial Times Series), Financial Times/ Prentice Hall.
- Turner, R (2008). Gower Handbook of Project Management, Gower. Latest edition Gower Handbook of Project Management.
- Thompson, L. (2007) The Truth About Negotiations. Financial Times/ Prentice Hall.
- Neil Jeffrey, 2009. Stakeholder Engagement: A Road Map to Meaningful Engagement [pdf] Available at: [Accessed 19 March 2013].
- Bryan W. Husted and David Bruce Allen, (2010). Corporate Social Strategy: Stakeholder Engagement and Competitive Advantage, Cambridge University Press.

### References

- 1. Allen, J., et al., *A Review of Urban Consolidation Centres in the Supply Chain Based on a Case Study Approach.* Supply Chain Forum: International Journal, 2014. **15**(4): p. 100-111.
- 2. Lebeau, F. and C. Macharis *Freight Transport in Brussels and its Impact on Road Traffic.* 2014. **80**.
- 3. Quak, H.J. and M.B.M. de Koster, *Exploring Retailers' Sensitivity to Local Sustainability Policies.* Journal of Operations Management, 2007. **25**(6): p. 1103-1122.
- 4. Arvidsson, N., *The Milk Run Revisited: A Load Factor Paradox with Economic and Environmental Implications for Urban Freight Transport.* Transportation Research Part A: Policy and Practice, 2013. **51**: p. 56-62.
- 5. Milan, C.o. *Zone Traffico Limitato*. 2016; Available from: http://www.comune.milano.it/wps/portal/ist/it/servizi/mobilita/Regole\_permessi.
- 6. Maes, J., Report on Online Stakeholder Consultation, in Study on Urban Mobility -Preparation of EU Guidance Documents on Urban Logistics. 2015, Ecorys.
- 7. Dablanc, L. and A. Montenon, *Impacts of Environmental Access Restrictions on Freight Delivery Activities The Example of Low Emission Zones in Europe.* Transportation Research Record: Journal of the Transportation Research Board, 2015. **2478**: p. 12-18.
- 8. London, T.f., *Ultra Low Emission Zone. Update to the London Assembly, Feb 2014*. 2014, Transport for London.
- 9. Trafikkontoret, Assessment of Environmental Zone in Göteborg: A Report for the Traffic & Public Transport Authority of the City of Göteborg (on line). 2006.
- 10. SadlerConsultants. http://www.urbanaccessregulations.eu/. Urban Access Regulations in Europe 2015; Available from: http://www.urbanaccessregulations.eu/.
- 11. Navarro, O. and T. Vanelslander, *Concept Technical Report: Urban Vehicle Access Regulation Schemes*, in *Study on Urban Mobility Preparation of EU Guidance Documents on Urban Logistics*. 2015, University of Antwerp.
- 12. Wolff, H., *Keep Your Clunker in the Suburb: Low-Emission Zones and Adoption of Green Vehicles.* Economic Journal, 2014. **124**(578): p. F481-F512.
- 13. Comi, A., et al. Differentiated Regulation of Urban Freight Traffic: Conceptual Framework and Examples from Italy. in 13th International Conference of Hong Kong Society for Transportation Studies, Hong Kong, China. 2008.
- 14. Borjesson, M. and I. Kristoffersson, *The Gothenburg Congestion Charge. Effects, Design and Politics.* Transportation Research Part a-Policy and Practice, 2015. **75**: p. 134-146.
- 15. Broaddus, A., M. Browne, and J. Allen, *Sustainable Freight: Impacts of the London Congestion Charge and Low Emissions Zone.* 2015.
- 16. Bhuiyan, M.F.H., A. Awasthi, and C. Wang, *Investigating the Impact of Access-Timing-Sizing Regulations on Urban Logistics.* International Journal of Logistics Systems and Management, 2015. **20**(2): p. 216-238.
- 17. Tögel, M. and L. Špička, *Low Emission Zones in European Countries.* Transactions on Transport Sciences, 2014. **7**(3): p. 97-108.
- London, T.f. London Low Emission Zone Impacts Monitoring Baseline Report, July 2008.
   2008 [cited 2015 08 Septemberr 2015]; Available from: http://content.tfl.gov.uk/lezimpacts-monitoring-baseline-report-2008-07.pdf.
- 19. Lutz, M. and A. Rauterberg-Wulff, *A Year Environmental Zone Berlin: Effect Studies* 2009, Senate Department for Health Environment and Consumer Protection.
- 20. Giuliano, G. and L. Dablanc, *Approaches to Managing Freight in Metropolitan Areas. City Logistics Research A Transatlantic Perspective*, T.R.B.o.t.N. Academics, Editor. 2013: The National Academic of Sciences Building, Washington D.C.
- 21. Fensterer, V., et al., *Evaluation of the Impact of Low Emission Zone and Heavy Traffic Ban in Munich (Germany) on the Reduction of PM10 in Ambient Air.* International Journal of Environmental Research and Public Health, 2014. **11**(5): p. 5094-5112.

- 22. Cyrys, J., et al., *Low Emission Zones Reduce PM10 Mass Concentrations and Diesel Soot in German Cities.* Journal of the Air & Waste Management Association, 2014. **64**(4): p. 481-487.
- 23. London, T.f., *Public and Stakeholder Consultation on a Variation Order to Modify the Congestion Charging Scheme. Impact Assessment.* 2014.
- Eliasson, J., *The Role of Attitude Structures, Direct Experience and Reframing for the Success of Congestion Pricing.* Transportation Research Part a-Policy and Practice, 2014.
   67: p. 81-95.
- 25. Noordegraaf, D.V., J.A. Annema, and B. van Wee, *Policy Implementation Lessons from Six Road Pricing Cases.* Transportation Research Part a-Policy and Practice, 2014. **59**: p. 172-191.
- 26. Ison, S. and T. Rye, *Implementing Road User Charging: The Lessons Learnt from Hong Kong, Cambridge and Central London.* Transport Reviews, 2005. **25**(4): p. 451-465.
- 27. Rye, T., M. Gaunt, and S. Ison, *Edinburgh's congestion charging plans: an analysis of reasons for non-implementation.* 2008. **31**(6): p. 641-661.
- 28. Allen, J., G. Thorne, and M. Browne, *Good Practice Guide on Urban Freight,*. Bestufs, Rijswijk, Pays-Bas., 2007.
- 29. Leonardi, J., et al., *Feasibility Study of a Network of Consolidation Centres in Luxemburg*, in *International City Logistics Conference, June 17-19*. 2015: Tenerife, Spain.
- 30. Degenkamp, M. *Ultrecht Experience: Utrecht and Freight Policy*. in *Webinar* 2013.
- 31. Danielis, R., L. Rotaris, and E. Marcucci, *Urban Freight Policies and Distribution Channels.* European Transport \ Trasporti Europe, 2010. **46**: p. 114-116.
- Ville, S., J. Gonzalez-Feliu, and L. Dablanc, *The Limits of Public Policy Intervention in Urban Logistics: Lessons from Vicenza (Italy).* European Planning Studies, 2013. **21**(10): p. 1528-1541.
- 33. Dablanc, L., *Goods Transport in Large European Cities: Difficult to Organize, Difficult to Modernize.* Transportation Research Part A: Policy and Practice, 2007. **41**(3): p. 280-285.
- 34. SUGAR, *SUGAR: City Logistics Best Practices: A Handbook for Authorities*, L. Dablanc, Editor. 2011, EUs European Regional Development INTERREG IVC programme.
- 35. Browne, M., et al., *Urban Freight Consolidation Centres Final Report.* Transport Studies Group, University of Westminster, 2005. **10**.
- 36. Leonardi, J., M. Browne, and J. Allen, *Before-After Assessment of a Logistics Trial with Clean Urban Freight Vehicles: A Case Study in London*, in *Seventh International Conference on City Logistics*, E. Taniguchi and R.G. Thompson, Editors. 2012. p. 146-157.
- 37. Melo, S., P. Baptista, and A. Costa, *Comparing the Use of Small Sized Electric Vehicles with Diesel Vans on City Logistics*, in *Transportation: Can We Do More with Less Resources? - 16th Meeting of the Euro Working Group on Transportation - Porto 2013*, J.F. DeSousa, et al., Editors. 2014. p. 350-359.
- 38. Barner, E. *It's Boom Time for Cargo Bikes*. in *European Cycle Logistics Conference*. 2014. Nijmegen, Netherlands: http://www.cyclelogistics.eu/.
- 39. Browne, M., J. Allen, and J. Leonardi, *Evaluating the Use of an Urban Consolidation Centre and Electric Vehicles in Central London.* IATSS Research, 2011. **35**(1): p. 1-6.
- 40. Labelle, J., F. Sheena, and E. Gottschling, *Off Peak Delivery. A Pilot Project for the Chicago Region.* Urban Transportation Centre, 2015.
- 41. Holguin-Veras, J., et al., *Overall Impacts of Off Hour Delivery Programs in New York City Metropolitan Area.* Transportation Research Record, 2011(2238): p. 68-76.
- 42. London, T.f. *Transport for London's Code of Practice for Quieter Deliveries*. Transport for London Freight 2015 [cited 2015 28 November 2015].
- 43. Holguin-Veras, J. Urban Freight Transport: The Final Frontier and Our Role as Pionners. 2013.

- 44. Holguin-Veras, J., et al., *The New York City Off Hour Delivery Project: Lessons for City Logistics*, in *Eighth International Conference on City Logistics*, E. Taniguchi and R.G. Thompson, Editors. 2014. p. 36-48.
- 45. Holguín-Veras, J. and F. Aros-Vera, *Self Supported Freight Demand Management: Pricing and Incentives.* EURO Journal on Transportation and Logistics, 2014. **4**(2): p. 237-260.
- 46. Yannis, G., J. Golias, and C. Antoniou, *Effects of Urban Delivery Restrictions on Traffic Movements*. Transportation Planning and Technology, 2006. **29**(4).
- 47. Marcucci, E., V. Gatta, and L. Scaccia, *Urban Freight, Parking and Pricing Policies: An Evaluation from a Transport Providers' Perspective.* Transportation Research Part a-Policy and Practice, 2015. **74**: p. 239-249.

#### HOW TO OBTAIN EU PUBLICATIONS

#### **Free publications:**

• one copy:

via EU Bookshop (http://bookshop.europa.eu);

• more than one copy or posters/maps:

from the European Union's representations (http://ec.europa.eu/represent\_en.htm); from the delegations in non-EU countries (http://eeas.europa.eu/delegations/index\_en.htm); by contacting the Europe Direct service (http://europa.eu/europedirect/index\_en.htm) or calling 00 800 6 7 8 9 10 11 (freephone number from anywhere in the EU) (\*).

(\*) The information given is free, as are most calls (though some operators, phone boxes or hotels may charge you).

#### **Priced publications:**

• via EU Bookshop (http://bookshop.europa.eu).

#### **Priced subscriptions:**

 via one of the sales agents of the Publications Office of the European Union (http://publications.europa.eu/others/agents/index\_en.htm).



doi: 10.2832/ 335177