



PROSPERITY



TRAINING TOPIC SUMMARY

Land Use and Mobility Management

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Table of Contents

- 1 INTRODUCTION 3**
- 2 MOBILITY..... 3**
 - 2.1 MODAL SPLIT OF TRIPS 3
 - 2.2 MOBILITY MANAGEMENT..... 3
 - 2.3 LAND USE AND MOBILITY IN NEW DEVELOPMENTS..... 4
- 3 HOW LAND USE PLANNING CAN INFLUENCE MOBILITY..... 4**
 - 3.1 LAND USE PATTERNS 4
 - 3.2 TRANSPORT INFRASTRUCTURE 5
 - 3.3 REQUIREMENTS AT CERTAIN POINTS OF LAND USE PLANNING..... 5
- 4 LAND USE PLANNING AND SUMP 5**
 - 4.1 CHARACTERISTICS OF LAND USE PLANNING..... 5
 - 4.2 COOPERATION BETWEEN SUMP AND LAND USE PLANNING..... 5
- 5 CONCLUSION..... 6**
- 6 AVAILABLE TRAINING MATERIALS 6**

1 Introduction

Training topic: Land Use and Mobility Management within SUMP

Main trainer for topic area: Karl-Heinz Posch, Austrian Mobility Research

Land Use Planning has a very strong influence on the mobility behaviour of future residents, as land use plans determine density, use mix, the space for transport infrastructure and as building permits depend on the land use planning. Such building permits can be connected to certain obligations for developers in the field of mobility, e.g. co-financing of transport infrastructure or the amount of parking provided and thus further influence mobility behaviour of future users.

This training session will provide an overview over the connection between land use planning and managing mobility. It includes a group exercise that prepares the participants for the sometimes difficult reality of dealing with stakeholders with diverse interests.

The training will also show some very successful examples where land use planning has successfully influenced mobility and an ongoing, a state of the art example from the development of a new city district in Vienna, in which the trainer has been actively involved. .

Learning Objectives

- (1) Understand how mobility is defined and what can be changed;
- (2) Get an overview over the factors in land use planning that can influence mobility;
- (3) Understand the viewpoints of different stakeholders in the land use planning process; and
- (4) Understand how land use planning can connect to SUMP.

2 Mobility

2.1 Modal split of trips

Basically, some parts of mobility behaviour are very stable, regardless of external circumstances: the average amount of daily trips per person is between 3 and 4 trips per day, the average time spent on mobility is between 60 and 90 minutes per day. What is different, is the mode used for these trips within this limited time budget: car, foot, bicycle and public transport.

The choice of mode varies widely between cities and countries. There are cities in which up to 40% of the trips are made by bicycle, other cities where up to 50% are made by public transport, and still others where up to 80% are made by car. In all these cities the average time spent on trips and the average number of trips is about the same! Therefore, if you want to influence mobility, you have to influence the choice of mode.

2.2 Mobility Management

Effective managing of mobility is to try to influence the choice of mode at the spot where these choices are made: e.g. at home, at the workplace at events. Another possibility is to choose the right time for change – a moment when people are reflecting about their mobility: e.g. when they change the place where they live or work or where their children go to school.

Further, there are external factors that manage mobility, often in the form of either incentives (pull measures) or disincentives (push measures). You can put higher or lower tariffs on parking and driving a car or using public transport, or you can make available infrastructure that makes it easy to use certain modes, like a good walking environment, good cycling infrastructure, or excellent car parking facilities.

One important other aim of mobility management is also to have people make better use of the car (have more people in the car when driven), either by carsharing or by car pooling.

2.3 Land Use and Mobility in new developments

Land Use has a very strong influence on Mobility. As Land Use is stable over longer periods (it normally takes time to change built structures), it is of utmost importance to take into account mobility when a new area is developed. It is very difficult to change mobility behaviour once everything is built, even more so once mobility behaviour has already been established.

The newly to be developed area can be a whole city district (as shown in the examples of Seestadt Aspern in Vienna and Freiburg Vauban) or just a certain site (as shown in the example of SihlCity in Zürich).

The advantage of doing this is obvious: new developments is the right spot and the right time where people as well as organisations reflect and are most ready to change and adapt mobility behaviour. The land use as well as the framework conditions set for developers massively influence mobility behaviour.

3 How Land Use Planning can influence Mobility

3.1 Land Use patterns

The keys for mobility behaviour are the densities and the diversities of a development. Diversity leads to mixed use and lower distances to cover, higher density leads to more effective use of infrastructure, particularly of public transport, streets and parking structures.

It is also important to have some provisions to make public spaces and especially streets interesting – that means the opposite of monotonous architecture, as well as to provide for diverse ground floor occupation: e.g. shops, café's, restaurants, open offices instead of e.g. garage entries, concrete or glass walls, car parking, walled in private gardens. A great way to have more diversity is to have relatively small lots per developer and architect – this already produces diversity in appearance and setup.

Without diversity, density and interesting streets, people will use cars as main mobility mode, even if there is other infrastructure like public transport and cycle paths available.

3.2 Transport infrastructure

Land-use, to some extent, also determines the transport infrastructure provided: e.g. size of roads, density of the road and street network, provisions for walking, cycling and public transport.

Moreover, the land use can be oriented towards the infrastructure – you can have public transport oriented development with a concentration of density at well serviced public transport stops. You can have a street network in your development that is excellent for cycling and walking – of course you can also orient everything so you have easy access to the car and to ample car parking – but this will lead to high levels of car usage.

3.3 Requirements at certain points of land use planning

There are certain stages / elements of land use planning in which mobility can be influenced / managed. These include but not limited to:

- Environmental legislation;
- Overall planning process;
- Setting up planning conditions and obligations;
- Setting up parking standards and regulation;
- Detailed Site Development Plan (e.g. Master Plans);
- Building permission process; and
- Monitoring and evaluation and enforcement and adaptation.

4 Land Use Planning and SUMP

4.1 Characteristics of Land Use Planning

- Land use planning is statutory (obligatory by law), SUMP is not; and
- Land use planning can run on different levels:
 - General land use plan on regional level;
 - City land use plan; and
 - Detailed Site Development Plan

4.2 Cooperation between SUMP and Land Use planning

The optimum would be that SUMP and land use planning runs in parallel in a very coordinated way.

That's why it is important to strive for communication between departments and for joint workshops well in advance of the development of specific sites. In this way, a better understanding of the priorities of the different stakeholders can be achieved and then a higher level of cooperation is much more feasible.

5 Conclusion

We hope that this set of notes and the presentation are useful and help you integrate the land use planning process into your own city's SUMP. Sources of more detailed information are in the table below. If you have questions, please address them to Karl-Heinz Posch posch@fgm.at (note that the PROSPERITY project ends in August 2019 and so after that date we cannot guarantee to answer although we will do our best).

6 Available training materials

Fortunately, there already is quite some training material available from earlier EU projects. Some parts might be a bit outdated, but it is still useful.

Source	Content & Description
MaxLupo guidelines and materials from the MAX project	The MAX project ran from 2006-2009 and part of it was on the integration of Mobility Management with Land Use Planning – this part was called MaxLupo. As the Max-website is no longer online, EPOMM hosts this important materials at: http://epomm.eu/maxlupo
EPOMM newsletters	EPOMM publishes regular newsletters which are a good source for any practitioner in the field. Recent notable e-news include: http://www.epomm.eu/newsletter/v2/eupdate.php?nl=0215&lan=en On the integration of Land Use Planning and Mobility Management http://epomm.eu/newsletter/v2/eupdate.php?nl=0217&lan=en An excellent introduction to the Push&Pull project – the Way to good Parking Management
Push and Pull project	The website of the project Push&Pull (2014-2017) contains very useful material on parking – especially relevant is the material on maximum parking allowances and minimum parking requirements to be found on the download page: http://push-pull-parking.eu/index.php?id=15 The direct link to the English slides is here: http://push-pull-parking.eu/docs/Training/05/Slides/Training_Material_5_EN.ppt And to the Lithuanian document here: http://push-pull-parking.eu/docs/Training/06/Summaries/Summary_6_LT.docx
KonSULT – Knowledgebase on Sustainable Urban Land Use and Transport	This Knowledgebase was updated in 2015 and 2016 during the Ch4llenge project (http://www.sump-challenges.eu/) and contains a range of interesting files in their so-called Policy Guidebook http://www.konsult.leeds.ac.uk/pg/ In particular, the section land use is interesting in which you can also find information on density and mix, land use to support public transport, parking standards and developer contributions.