

TEACHING MATERIAL GUIDANCE

1. Title of the material

Planning of cargo bike hubs. A guide for municipalities and industry for the planning of transshipment hubs for new urban logistics concepts.

Tom Assman, Florian Muller, Sebastian Bobeth, Leonard Baum.

https://cyclelogistics.eu/sites/default/files/downloads/Hub%20Planning%20Brochure_EN_Web_final.pdf

2. Which section of the SUMP it is relevant to?

It is relevant to Section 4.1 which refers to developing scenarios of the potential future. The guidance is addressed primarily to municipalities to assist them in defining the expected benefits and prerequisites of modal shift in urban freight.

3. Which Mobility Manager knowledge this material is the most relevant to?

The scope of this report is related to logistics and urban freight management (4) regarding the type of movements covered, but content-wise is it related also to the development of mobility solutions meeting community challenges (1.d).

4. Problem approached and content overview

The guideline deals with a question concerning the implementation of small transshipment hubs in urban areas, focusing on the wider implementation of zero-emission cargo bikes. Its goals are:

- to provide a basic overview of cycle logistics in the last and first mile of logistics chains,
- to define a general planning process for the implementation of transshipment hubs as a blueprint for municipal planning aided by logistics experts,
- to make recommendations from a logistical, traffic and acceptance point of view on the implementation and design of the components of cycle logistics,
- to present recommendation for the long-term planning and improvement of the framework conditions for cycle logistics.

The guidelines are organized based on these objectives and provide practical content with increasing level of detail. Hence to main recipients of the guidelines are municipal planning authorities, logistics concepts are directly related to challenges of the planning process. When basics of urban cycle logistics are concerned, some fundamental issues and questions are answered:

- what is a cargo bike and what types are available
- what are the potential uses of cargo bikes and how they may be integrated into logistics processes,
- logistics procedures of handling goods at the last mile with cargo bikes.



TEACHING MATERIAL GUIDANCE

Recommendations for planning process for cargo bike hubs have some underlying assumptions:

1. The presented process is ideal typical and begins with the intention of planning a sustainable delivery. Field implementation may be different from this concept, hence some steps can be consolidated or altered depending on the planning case.
2. The planning of a transshipment hub is considered as so-called “brownfield planning” (planning in the given). The aim therefore not to develop an optimal solution, but a solution that satisfies all involved actors under given circumstances.
3. The focus is on cargo bikes, but the general assumptions are valid also for other, non-motorised means of transport.

The planning process is divided into consecutive steps covering necessary activities and inputs. For each step there is also a cancellation criteria identified, which indicates conditions under which progressing to the next step is not viable. They are sort of warning signs informing about threats which might undermine the whole process. Steps of the planning process are illustrated with practical examples, such as an overview of transshipment points depicting the components available for planning:

Type	Advantages	Disadvantages	Equipment	Requirements
Semi-stationary				
Swap body (sTN) © UPS 	Quick realisation Designable Mobile Area theoretically usable anytime	Large area requirement Organisation of transport required (trucks) Interim solution Aesthetically unattractive	No social rooms necessary	Parking space or similar Area Shunting area Delimitation of the area required
Trailers (sTN) © UPS 	Quick realisation Easy parking space use Area theoretically usable anytime	Low capacity	No social rooms necessary	Parking space or similar Area Shunting area Possible area delimitation
Stationary (Container)				
Sea container (sTN, cTN) © DPD 	Fast, cost-effective, flexible, designable Simple solution Flexible arrangement possible Stable value Dimensions normalized	Interim solution Aversion to cities Partially logistically cumbersome Aesthetically unattractive	Individual CEP equipment possible	Loading and parking facility for cargo bikes Holding/shunting area
Building / office containers (sTN, cTN) © Otto-von-Guericke-Universität Magdeburg 	Fast, cost-effective, flexible, designable Simple solution Flexible arrangement possible Aesthetic design possible	Interim solution Aversion to cities Partially logistically cumbersome	Individual CEP equipment possible	Loading and parking facility for cargo bikes Holding/shunting area

TEACHING MATERIAL GUIDANCE

5. Who could be interested in this material?

The report is addressed directly to municipal planners, but might also be interesting for students searching for in-depth practical information on the development of cargo bike hubs as a part of their project or thesis.

6. What is worth mentioning as an innovative factor for the reader?

- direct orientation on practicability and implementation
- focus on the planning process and its consideration from the logistics point of view
- highly illustrative content oriented on technical aspects of integration of cargo bikes in urban logistics.

7. Limitations

No major limitations were identified.

