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2011 Theme: Role of terminals and logistics centres for intermodal transport

Working Party on Rail Transport

Sixty-fifth session

Geneva, 3–4 November 2011 Item 9 of the provisional agenda

Role of terminals and logistics centres for intermodal transport

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Addendum

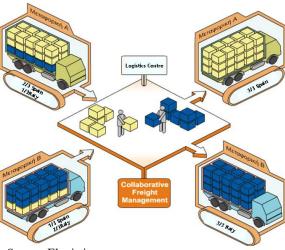
Note by the WP.24 informal group of experts



Type of terminals and logistics centres

- 1. Terminals and Logistics centers provide to the users the possibilities to develop collaborative freight management techniques (figure 1.) and therefore become more competitive by reducing the transport cost and creating economies of scale. The scheme illustrates the collaborative freight management and how it normally works inside a freight village logistics centre.
- 2. Based on their attributes, their operational characteristics and their orientation the terminals are usually classified into 4 different types:
 - City Terminals;
 - Freight Villages;
 - Industrial or Logistics Parks;
 - Special Logistics areas.

Figure 1 Collaborative freight management



Source: Elogistics.gr

3. The following table illustrates the most common characteristics of the above types of terminals.

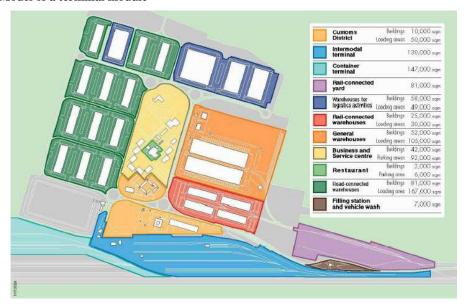
| Types of Terminals/ Characteristics | City Terminal | Freight Village | Industrial and Logistics Park | Special Logistics Area |
|-------------------------------------|-------------------------------|--|--|---|
| Modes Used | Road-road / road-rail | Road-rail (barge) | Road-road / road-rail | Road-sea/air , road-rail-sea/air |
| Main aims | Traffic reduction in the city | Modal shift and urban traffic reduction | Regional economic growth and modal shift | Regional economic growth |
| Operator | Large forwarder or retailer | Operating company (public influence) | No single operator | Airport or harbour authorities |
| Company structure | Huge forwarder or retailer | Small companies, also large transport companies | Large industrial companies and transport companies | Large companies |
| Land use | Small areas in the city | Large areas in the outskirts | Large areas in the outskirts or at old industrial areas | Extension to existing sites in the city or in the outskirts |
| Land price | Very high price | Relatively low | Relatively low | High |
| Quality of infrastructure | Good access to the city | Direct links to main infrastructure and access to the city | Direct connections to main infrastructure | Very good access to the international infrastructure |

| Types of Terminals/ Industrial and Special Logistic. | | | | |
|--|---------------|-----------------------------|--------------------------|----------------------------------|
| Characteristics | City Terminal | Freight Village | Logistics Park | Area |
| Orientation | city | Regional / Interregional | Regional / interregional | International / intercontinental |

Source: Imonode Project 2005

4. The following scheme illustrates a modern terminal – logistic center with a modular shape. Customs district, intermodal terminal, container terminal, rail connected yard, rail connected warehouses and general warehouses are some of the module of its operations – services.

Figure 2 Model of a terminal module



Source: Europlatforms

Location of terminals and logistics centres

- 5. In the decision making process regarding the location of the already existing intermodal terminal or regarding building of a new regional intermodal terminal on a specific location a thorough transport logistics analysis should be performed.
- 6. In any case, the following factors may need to be taken into account for an optimum location of a terminal or logistics centre:

| Location's prioritization factors | | Parameters |
|-----------------------------------|---------------|---|
| 1. | Freight flows | • Existing flows in terminal catchments area; |
| | | • Existing freight flows (road/rail ratio) |
| | | Potential freight flows (road / rail ratio) |

| Location's prioritization factors | | Parameters | | |
|---|----------------------------------|--|--|--|
| | | Economic sector in the region | | |
| | | • Seasonality | | |
| 2. | Location | • Distance from major industrial zones (km) | | |
| | | • Distance from ports; | | |
| | | • Distance from airports; | | |
| | | Distance from transport and transhipment companies; | | |
| | | • Distance from urban and commercial centres; | | |
| | | • Distance from agricultural centres; | | |
| 3. | Infrastructure – General | Connection to the international / national motorway network; | | |
| | | Connection to the international / national railway network; | | |
| | | • Connection to maritime terminals; | | |
| | | Connection to hub airports; | | |
| 4. | Infrastructure – Railway network | • Railway infrastructure; | | |
| | | Railway connection to other terminals; | | |
| | | Interoperability of the railway systems; | | |
| | | Non-physical obstacles; | | |
| 5. Terminal Equipment/services (influence size of the property and determines type of the terminal) | | • Warehouses | | |
| | | • Other facilities (parking, restaurants etc) | | |