

# Summary (Report)

## Executive summary

The executive summary is the last part of the report to be written but the first part to appear in the report.

The executive summary (maximum length: 5 pages) will consist of:

- an Introduction (1 page), which explains the purposes of the specific DLA and the methodology utilised (areas of problems investigated through the questionnaire)
- a Regional profile (2 pages), which presents the relationships between the sample of businesses involved in the DLA and the main characteristics of the entrepreneurial fabric, as well as the profile (in dots) stemming from the SDL/SWOT analysis of the DLA results and referred only to the 10 Orientation aspects (see after)
- a Regional Perspective (2 pages), which evaluates the cluster of innovative options elaborated in the LCA and combines them with the hypotheses derived from the DLA results and referred to the local entrepreneurial context

1. The DLA illustrates that the furniture industry is a useful example of an industrial cluster of SME's, where the logistical competence is embedded in a network among a number of firms - specially transport firms. Only parts of the logistical competence (in terms of decision-making on logistical organisation) is locally embedded, while other parts (specially ingoing flows) of the logistical decision-making are located outside the territory of Viborg County. This illustrates the close relationship between the logistical flows and the organisation of the inter-firm network as a characteristic of the logistical organisation.

2. It has been possible to some degree to utilise data from publicly available statistics in the DLA to identify the environmental load from the freight transport sector - but only on a national level. It has not been possible to extract relevant data on a regional level. From other studies it has been possible to get some useful data on the perception and integration of environmental strategies among firms located in Viborg County. Some of this information is also related to freight transport.

3. At this stage of the DLA of Viborg County it seems useful to conclude, that a promising gate to develop and implement environmental strategies/Sustainable District Logistics in Viborg County could be through the network among SME's and their transport operators. This is based on the observation, that logistics often is an issue organised in an inter-firm network, than within the single firm.

## Regional profile and perspective

The sample in the questionnaire in this District Logistics Analysis (DLA) consisted of 56 furniture-producing firms. 2/3 of the firms were located in Viborg County and the rest was located in other parts of Denmark. Thereby the specificities and similarities of the local furniture producers of Viborg County was better illuminated by contrasting them against a sample of firms located outside Viborg County.

As a more in-depth supplement, 5 firms within transport and wholesaling related to furniture production, was interviewed. These firms represented actors in the transport-logistical chains of transport flows to and from the local furniture industry in Viborg County.

The study was aiming at giving an exploratory new insight of how transport and logistics are organised in a local industrial context. The sample of furniture producers therefore represents different sub-sectors of the more general category of furniture industry. Producers of kitchen and bathroom inventory, office and shop inventory, upholstered furniture and non-upholstered furniture were represented. Also producers from different layers of the production process, sub-suppliers and final assembler, were present in the sample.

Based on the results of the current LDA it has not been possible to measure in specific numbers the size and quantity of the total transport load stemming from the local furniture industry in Viborg County. It is however not likely, that the traffic and transport generated from the local furniture producers in isolation can be identified as a significant environmental problem in terms of pollution, congestion, noise etc. However, the LDA seems to reveal a localised concentration of material flows and organisational networks among local furniture producers and regional transport providers. This is interesting, since it represent promising conditions for innovative strategic actions on the field of transport and logistics among a co-operating cluster of firms related to different parts of the same transport-logistical chain.

## Correlation between the LCA hypotheses and the DLA findings

This section describes the connection between the LCA innovative options on those derived from the DLA, underlining the probable impacts of the former on the latter, as well as the possible integrations and modifications to be introduced into the LCA.

## **Main hypothesis of innovative action derived from the LCA**

### **Short description**

Development of innovative networks in the relationships among local furniture and transport firms as the basis for implementing regional policies aiming at promoting more sustainable district logistics.

### **Expected results**

- reduction of traffic load on existing traffic infrastructure (primarily roads)
- reduction of emissions from transport
- reduction in costs on transport for SME's localised in a peripheral region
- development of new localised orientations of the local furniture industry in order to prevent a re-localisation of business, employment and competencies from the region.
- formalisation of inter-firm competencies on transport and logistics within the local furniture industry as example of good practice of mobility management. Established good-practices on transport and logistics (competencies) could be used as good examples of mobility management of freight transport in the County of Viborg could serve as a new tool for mobility management of freight transport for the regional planning authorities.
- promotion of transport and logistics inter-firm competences as a regional and cluster-specific competence, which adds to the competitiveness of the local furniture industry.

### **Organisational measures**

- combination of several attempts stemming from local initiatives to follow criteria of economic and environmental sustainable development (e.g. regional spatial plan, reports on transport and infrastructure development, Centre of wood and furniture)
- integration of a regional hub-and-spoke system for the furniture industry (and other SME's) in a formal mobility management policy for Viborg County
- monitoring of selected indicators on transport and logistics in existing web-site at the planning authorities at Viborg County in order to sustain interest in the mobility management initiative.

## **Correlated findings derived from the DLA**

### **Short description of main findings correlated to main hypothesis**

Existence of material and organisational networks in a localised setting. Local awareness on the co-operative capabilities among local furniture producers, but lacking awareness about localised cluster of transport-logistical network.

### **Examples of relevant findings:**

- a large number of the local furniture producers use the same regionally located transport providers
- the transport providers often organise their pick-up and delivery as round-trips among several local furniture producers
- the transport firms often provide storage facilities for the local furniture producers final products. This also benefits the transport firms in terms of the ability of consolidating consignments and thereby increase the rate of full-loads in distribution to furniture costumers
- no examples of existing co-operation among the local furniture firms and transport firms concerning strategies on environmentally sustainable logistics and transport
- a few projects of implementation of EDI-systems among regional transport provider and a small number of furniture producers
- inbound transport of furniture input to production is mainly organised by non-local actors (e.g. sawmills, wholesalers, forwarders and road haulers)
- outbound transport of final furniture products is mainly organised by local and regional actors (furniture producers, forwarders and road haulers)