COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 28.6.2006
COM(2006) 336 final

COMMUNICATION FROM THE COMMISSION TO THE COUNCIL, THE EUROPEAN PARLIAMENT, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

Freight Transport Logistics in Europe – the key to sustainable mobility

{SEC(2006) 818}
{SEC(2006) 820}

COMMUNICATION FROM THE COMMISSION TO THE COUNCIL, THE EUROPEAN PARLIAMENT, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

Freight Transport Logistics in Europe – the key to sustainable mobility

1. INTRODUCTION

As pointed out by the mid-term review of the 2001 White Paper[1], logistics plays a key role in ensuring sustainable mobility and also contributes to meeting other objectives, like a cleaner environment, security of energy supply, etc.

Europe's transport policy has been characterised by liberalisation and harmonisation over the years. This has slowly shaped the transport system into what it is today. Globalisation and the concept of wider Europe create further challenges. The fast growth of freight transport – driven to a large extent by economic decisions – contributes to growth and employment but also causes congestion, accidents, noise, pollution, increased reliance on imported fossil fuels, and energy loss. Infrastructure resources are limited and any disruption in the supply chain (i.e. energy) has necessarily a negative impact on the EU economy. Without adequate measures, the situation will continue worsening and increasingly undermine Europe's competitiveness and the environment that we all live in.

To overcome such problems, Europe's transport system needs to be optimised by means of advanced logistics solutions. Logistics can increase the efficiency of individual modes of transport and their combinations. As a result, fewer units of transport, such as vehicles, wagons and vessels should carry more freight. Impact on the environment will decrease accordingly. Rail and inland waterways need to be modernised. Air freight should be more closely integrated in the system. The positive development of short sea shipping should be accelerated. Deep-sea shipping and its hinterland connections need to be enhanced.

Shifts to more environmentally friendly modes must be achieved where appropriate, especially on long distance, in urban areas and on congested corridors. At the same time each transport mode must be optimised. All modes must become more environmentally friendly, safer and more energy efficient. Finally, co-modality, i.e. the efficient use of different modes on their own and in combinations, will result in an optimal and sustainable utilisation of resources.

Logistics measures are indispensable for maintaining and increasing European competitiveness and prosperity in line with the renewed Lisbon agenda on growth and jobs[2]. Europe needs to rise to its transport challenges by integrating logistics thinking in its transport policy. The approach should be market-oriented, include social and environmental dimensions, and create a win-win situation for all actors. To achieve these objectives, the

---

1 Keep Europe Moving – sustainable mobility for our continent - COM(2006) 314.

2 Cf. Creating an Innovative Europe, Report of the Independent Expert Group on R&D and Innovation appointed following the Hampton Court Summit, January 2006.

present Communication examines whether and where the EU could offer added value to enhancing the development of freight transport logistics in Europe and the world.

This work could lead to establishing a framework strategy for freight transport logistics. After consultations on the present Communication, the Commission plans to present an Action Plan for Freight Transport Logistics in 2007.

2. DEFINING THE SCOPE

Transport is an integral element of the logistics supply chain. The Commission's approach focuses on logistics in freight transport and covers all modes of transport. The approach contains a vast variety of areas, such as pure modal logistics and multimodal logistics, and emphasises the need for optimum complementarity of modes in an efficient and seamless European transport system that can provide the best possible services to transport users.

Developing freight transport logistics is primarily a business-related activity and a task for industry. Nevertheless, the authorities have a clear role to play in creating the appropriate framework conditions and keeping logistics on the political agenda. This framework approach concentrates on improving the preconditions that Europe can offer for logistics innovation and leaves the internal running of company logistics to the companies themselves.

For the purposes of this Communication:

- 'Freight Transport Logistics' covers the planning, organisation, management, control and execution of freight transport operations in the supply chain.
- 'Co-modality' means the efficient use of transport modes operating on their own or in multimodal integration in the European transport system to reach an optimal and sustainable utilisation of resources.
- 'Multimodality' is the carriage of goods by two or more modes of transport, irrespective of the types of freight, within a single transport chain.
- 'Third-party logistics' means that an organisation uses external logistics providers that supply all or a considerable number of its logistical activities.

3. THE EUROPEAN LOGISTICS MARKET

The global logistics industry is estimated at roughly 5,4 trillion euro or 13,8 % of the global GDP. This leads to annual logistics expenditure in Europe and North America of around 1 trillion euro respectively[3]. Competition in the European logistics sector is intense. This can

[3] Estimation of Global and National Logistics Expenditures: 2002 Data Update by A. Rodrigues, D. Bowersox and R. Calantone (Journal of Business Logistics, Vol. 26, No 2, 2005). The results are based on an econometric computation model that considers 29 variables capturing information regarding geographic region, income level, country size, economy level and transportation (road, rail and air freight, and container port traffic).

be illustrated by the low concentration rate of third-party logistics in Europe with the top 20 companies only have a market share of 33%[4].

On average, logistics costs account for 10-15% of the final cost of the finished product. This includes costs such as transportation and warehousing.

Globalisation of production and the corresponding supply chains increase the need for transportation. Logistics is becoming increasingly important not only within Europe but also for Europe's international business relations. Competition between Europe, the US and the Far East, in particular, is becoming a significant factor and can have consequences on nodal points (especially seaports and airports) and infrastructure capacity. Market and business integration through European co-operation with other major logistics centres in the world (e.g. with the US, Russia, Japan, China, India, Brazil) will need to be ensured. Transport market access is already addressed in bilateral and multilateral negotiations.

It is difficult to have a reliable picture of Europe's logistics market, because relevant statistical information is currently not sufficient.

There are a number of trends, some of which are contradictory. On the one hand, centralisation of logistics organisation in European and regional distribution centres is taking place, and, on the other, decentralisation is emerging in the light of saturation on the European roads, enabling quick response from local warehouses or buffer storages to customer requirements. A noticeable trend is also outsourcing logistics activities whereby shippers buy multifunctional logistics services from external service providers (such as third-party logistics providers). In recent years, this co-operation between shippers and service providers has become more long-term in nature and has been combined with a high level of integration in the organisational structures and informatics. Furthermore, when optimising their supply chains, enterprises in the EU increasingly recognise that there are competitive alternatives to road freight. For instance, large carriers provide comprehensive logistics services integrating more modes, because this provides them competitive cost advantages.

Further factors also influence logistics choices. Examples of these are environmental considerations (such as energy consumption and greenhouse gas emissions), security of energy supply, and company location. All these have significant impacts that go beyond transport itself, for instance, in terms of investment, employment and land use.

4. TOWARDS A FRAMEWORK FOR FREIGHT TRANSPORT LOGISTICS

4.1. Linking logistics and transport policy closer together

The Communication "Keep Europe Moving" describes a number of initiatives having an influence on freight transport logistics that the Commission has already taken, *inter alia*, in the areas of liberalisation, harmonisation, infrastructure, standardisation, promotion, and research.

[4] Logistics Value Chain by L. Ojala, D. Andersson and T. Naula (to be published in Memedovic Olga Global Production Networks, UNIDO).

One of the latest initiatives is the Commission's proposal enhancing security in the supply chain[5]. This proposal illustrates the balance that has to be drawn between security procedures fulfilling the highest requirements and the free flow of trade.

Further work on freight transport logistics should lead to the introduction of a logistics perspective into transport policy. Logistics considerations should be an underlying factor in decision-making. For example, the current reflection on road cabotage[6] will also consider how to further reduce empty runs.

True complementarity of modes and advanced logistics solutions allow effective planning, management, control and execution of unimodal and multimodal transport chains. Logistics excellence could also work as a catalyst to maintaining know-how, skills and jobs in Europe.

Logistics choices can help disconnect transport growth in Europe from the harmful external effects that it produces (emissions, accidents and congestion). They must go hand in hand with growing efforts to optimise the efficiency of each transport mode. Increasingly environmental and safety considerations will have to take into account the entire transport chain.

4.2. Areas of action

In February 2006, the Commission published a consultation document on intermodal logistics[7] and received over 100 contributions from the Member States and stakeholders. In April 2006, the Commission organised a consultation workshop with approximately 70 participants.

The results of these consultations showed significant support to establishing a European framework for freight transport logistics.

4.2.1. Identification of bottlenecks and their solutions

The industry's role in developing freight transport logistics and the authorities' role in creating an appropriate framework for optimising logistics require continuous co-operation and dialogue between the parties.

At the moment there is no comprehensive picture of concrete obstacles (bottlenecks) that hinder freight transport logistics from developing faster in Europe.

In line with the successful example offered by the "bottleneck exercise" in short sea shipping, a group of Focal Points should be established to carry out a continuous exercise of identifying and addressing concrete bottlenecks to freight transport logistics. These Focal Points would represent the Member States and industry (logistics service providers and customers). Apart from solving bottlenecks, they could share know-how, provide best practice, and give input to policy development.

---

5 COM(2006) 79.

6 Cf. Regulation (EEC) No 881/92 and www.ec.europa.eu/transport/road/consultations/road_market_en.htm.

7 www.ec.europa.eu/comm/transport/logistics/consultations/index_en.htm.

The participation of professional organisations and labour unions will contribute to the success of guiding and introducing changes in the logistics field.

4.2.2. Information and communications technology (ICT)

Tracking and tracing of cargo in all modes is a prerequisite for efficient logistics. The introduction of the satellite navigation system GALILEO will have a substantially positive impact on this development and so will the Long-range Identification and Tracking (LRIT), River Information System (RIS) and Automatic Identification System (AIS). SafeSeaNet should also contribute to improving logistics in the maritime field. In rail transport, telematic application for freight (TAF) and the European Railway Traffic Management System (ERTMS) should provide applications for integrated railway logistics.

Smart technologies should be introduced to avoid delays in the supply chain for security and other reasons[8]. One such technology is radio frequency identification (RFID) which is a growing market but requires further research and work on radio spectrum management, interoperability and standardisation[9]. Further elements in the equation are common messaging standards (e.g. EDI/EDIFACT) and new communications platforms (e.g. XML).

National transport authorities are increasingly seeking alternatives to manage better their own transport systems. One such system progressing towards implementation is that of road network management using intelligent transport systems (ITS). To ensure the integrity of the single market, it is important that national solutions do not become barriers to trade but develop in complementary ways across the EU, based on interoperable standards.

Companies should have easy access to ICT solutions. Closed systems entail start-up costs both in terms of technology and software, which raises the threshold for SMEs to fully participate in the market.

Common standards widely accepted by manufacturers and operators, and synergies between different systems are the keys to making logistics more efficient. All development should be geared towards interoperability and common messaging within an open architecture between the players. ITS-readiness should be incorporated in the original design of equipment or infrastructure to avoid costly add-ons at a later stage. Exchange of data between modes should also be in focus. A specific role for interoperability could be found in the exchange of information between businesses and administrations, while the interconnectivity in business-to-business and business-to-consumer logistics is also vitally important.

Freight Transport Logistics needs to continue being a research priority under the 7th Framework Programme because modern technological innovation can open up new avenues for the sector.

4.2.3. Logistics training

Shippers, transport users and operators attach particular importance to the skills, knowledge and competences of the personnel involved in transport and related logistics decisions. However, the supply of transport and logistics education and training provided by universities and other institutions in Europe varies greatly.

---

[8] Cf. research activities related to Information Society Technologies (IST).

[9] See the public consultation on www.rfidconsultation.eu/.

Training today will prepare us for the mobility of tomorrow. The Commission is considering promoting the development of mutually recognisable certification, under a voluntary regime, for freight transport logisticians. Such harmonised certification, and further action on networking training establishments, would contribute to the compatibility and quality of training in Europe. Holders of the certificates would have an advantage when marketing their human resources. Furthermore, companies employing certified individuals would have the assurance of know-how.

Work on certification and qualifications in the field of logistics has already been undertaken under the Leonardo da Vinci Programme. Moreover, the forthcoming European Qualifications Framework for lifelong learning could be used as a reference point.

Training should in no way be confined to managerial level. Instead, life-long learning and training should encompass all layers in the logistics sector to boost the overall performance.

4.2.4. Statistical data

The logistics performance of the European transport market needs to be monitored and benchmarked internally and against other continents. Statistical and other relevant indicators need to be developed to have a reliable picture of the situation and its evolution over time. The Commission plans to work on devising suitable methodologies and indicators for this purpose.

4.2.5. Utilisation of infrastructure

The quality of infrastructure is a key to logistics in freight transport. Infrastructure planning within the framework of the trans-European transport network (TEN-T) and structural funds is improving the comprehensive infrastructure network that Europe needs in order to operate in an area without internal borders and face the challenges of globalisation.

Constructing new infrastructure is not an objective in itself. Current infrastructure use can be optimised by deploying efficient and sustainable logistics solutions. This includes fleet management, rail and inland waterway infrastructure management, closer collaboration between business partners, and infrastructure managers, complete utilisation of loading capacity, avoiding unnecessary empty runs, or pooling resources across modes while respecting the European laws on competition. However, when lack of suitable infrastructure clearly creates a bottleneck, this should be rectified. The EU has identified 30 priority projects to be completed by 2020[10], which should also benefit logistics developments.

The efficiency of transhipment facilities, including seaports and airports, is crucial for logistics performance. These facilities should employ modern technological solutions, such as advance informatics, and have quality infrastructure connections for co-modal solutions. Attracting and securing additional private investments is essential and European rules must provide the appropriate legal framework. Quality of performance must be continuously improved by the appropriate means, including co-operation, social dialogue and legislation.

[10] Decision No 884/2004/EC.

4.2.6. Service performance

4.2.6.1. Recognition of quality

Industry uses a number of performance indicators or benchmarks to assess and control its service quality. Closely targeted indicators can be used to control a wide variety of services and production phases. The Commission has already examined comparative benchmarking across modes[11]. Work should continue with a view to introducing benchmarks for freight transport logistics and related services at European level. Establishing a set of European benchmarks would create uniformity in assessing logistics performance. In air transport, such benchmarks are already widely used by shippers today. Companies could also develop these indicators further for their internal purposes.

Benchmarking and labelling excellence could be used for short sea shipping and motorways of the sea. Based on experience to be collected under this exercise, such a quality label could be extended to logistics chains using other modes.

Further to a label dedicated to logistics chains or individual services, this work could also lead to a wider company label of quality encompassing the overall transport performance of a company. Such a label should entail minimum administrative procedures and be compatible with other existing certificates. It would constitute a strong marketing tool in a highly competitive environment. Such a label could include environmental and best practice considerations.

4.2.6.2. A network for rail freight services

Rail freight transport suffers from a lack of reliability and efficiency, caused, *inter alia*, by insufficient technical and administrative interoperability, and by the priority given to passenger trains on lines with mixed traffic. Action is needed to enhance interoperability and reduce delays generated by mixed traffic.

The Commission intends to propose an action plan to encourage the emergence of a rail freight-oriented network allowing for dedicated freight corridors. Such corridors should help to achieve considerably higher levels of reliability, performance and competitiveness of international rail freight services.

4.2.7. Promotion and simplification of multimodal chains

4.2.7.1. One-stop administrative shopping and "Common European Maritime Space"

Logistics flows, in particular multimodal flows, can be assisted by one-stop administrative shopping or single windows where all customs (and other related) formalities are carried out in a co-ordinated way while the customer only has a single contact point with the administrations and submits the necessary documents only once. Also physical checks would be co-ordinated and happen at the same time in the same place. The Commission's proposal on a paperless environment for customs and trade[12] provides a framework that can achieve these results and simplify formalities. It now needs to be adopted and implemented as soon as possible.

---

11 ISL, Bremen, January 2006.

12 COM(2005) 609.

This is particularly important for short sea shipping where a ship sailing between two Member States leaves the EU Customs territory each time it leaves a port to re-enter that territory in the destination port. In the recent Green Paper on a Future Maritime Policy for the Union[13], the Commission launched a wider debate on a "Common European Maritime Space" where both the ship's journey and goods could be reliably and securely tracked all the way along, thereby decreasing the need for individual controls in purely intra-Community trade.

4.2.7.2. Multimodal promotion

The use of different modes in a single transport chain is a contemporary concept. This requires a change, first and foremost, of mentality.

A recent study[14] on ways to promote intermodality mainly modelled its work on Shortsea Promotion Centres[15] and their activities. The Commission has considered this approach and started to explore ways to develop the existing network of 21 Shortsea Promotion Centres to also encompass the promotion of multimodal logistics solutions in inland transport chains.

4.2.7.3. Multimodal liability

Responsibility and liability in international transport arise from international conventions. Often they provide different rules for different modes. This creates a complex multitude of regimes with subsequent friction costs in multimodal chains.

Shippers do not consider liability to be a major problem, in particular, when they use outsourced logistics providers that manage liability. Insurance coverage can normally be obtained to cover a transport operation using more than one mode.

The EU should participate in creating a multimodal regulatory structure at global level. Nevertheless, parallel to this work, the added value of an EU-wide liability solution that would best suit European needs should be studied.

Furthermore, the fragmented nature of liability regimes could be relieved by the use of a comprehensive transport document that would cover and simplify the entire carriage door-to-door (e.g. multimodal waybills or bills of lading). Further to a comprehensive liability solution for Europe, the Commission could also look into the added value of standardising a transport document for multimodal transport operations.

4.2.8. Loading standards

The Commission has taken the initiative to propose common European standards for intermodal loading units in intra-EU transport[16].

The proposal arises from the current multitude of different configurations of these units which creates friction costs and delays in handling operations between modes. Furthermore, swap bodies are generally not stackable, and standard containers do not often fully utilise the

---

13 COM(2006) 275.
14 Integrated Services in the Intermodal Chain (ISIC), ECORYS, November 2005.
15 See: www.shortsea.info.
16 COM(2003) 155, as amended by COM(2004) 361.

allowed dimensions in European road transport. European industry needs a better system of loading units for intra-European transport to reduce costs and improve competitiveness.

The Commission will consider appropriate ways to advance European standards in this field. It might also be opportune to examine the compatibility of units used in air transport and other modes.

The rules on the dimensions of vehicles and loading units should match the needs of advanced logistics and sustainable mobility.

5. THE WAY FORWARD

Advanced quality solutions are needed for Europe to maintain and improve its logistics position in the world market. Being a centre of logistics excellence, with the appropriate measures and incentives in place, would help economic, social and environmental sustainability in Europe and attenuate negative trends, such as relocation of business activities and employment away from Europe. Co-modality and high efficiency in the transport system are also indispensable for Europe to manage the increasing flows of goods that are transported every day on our infrastructures and waterways.

This Communication presents a set of ideas that might be further elaborated into a strategic framework, taking into account the views from the European institutions, stakeholders and any other interested parties on the feasibility and added value of elaborating a comprehensive EU strategy for freight transport logistics and on including the above or other areas of action in it.

The present Communication and subsequent consultations will lead to an Action Plan for Freight Transport Logistics in 2007. The Plan will set a landmark for advanced freight transport logistics development in Europe, and may, if appropriate, be accompanied by proposals.