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**IA Freight Transport Logistics**



COMMISSION OF THE EUROPEAN COMMUNITIES

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**COMMISSION STAFF WORKING DOCUMENT**

**Annex to the**

**Communication from the Commission to the Council, the European Parliament, the  
European Economic and Social Committee and the Committee of the Regions**

**Freight Logistics in Europe – key to sustainable mobility**

**Impact Assessment**

## Executive Summary

The use of resources in Europe's transport system needs to be optimised. The efficiency of the system and the integration of transport services are not as advanced as they could be. Europe needs efficient freight transport logistics combining the benefits of all modes to maintain and increase European competitiveness and prosperity in line with the Lisbon agenda and concept of co-modality<sup>1</sup> introduced in the mid-term review of the White Paper on European Transport Policy.

Furthermore, the rapid growth of freight transport with consequential congestion, accidents, noise and pollution are amongst the economic, social and environmental problems that need to be addressed. Effective planning, management and control in the transport system are currently not sufficiently developed. Modern logistics solutions are needed to use fewer transport operations to carry more freight. Rail and inland waterways, although they show growth in the last few years, are still lagging behind in performance. Air freight should be closer integrated in the system. Short sea shipping is performing well but is not developing as fast as it could. Deep-sea shipping and its hinterland connections need to be enhanced.

National transport authorities are increasingly seeking alternatives to better manage their own transport systems. However, the integrity of the single market must be ensured so that national solutions are not developed and implemented in different ways throughout the EU.

This impact assessment examines different policy options to enhance the development of freight transport logistics in Europe. The short-listed options are:

- 'Do nothing' and not take action towards establishing a framework for freight transport logistics in Europe but continue to work as has been the case so far;
- 'Take action' towards establishing a framework for freight transport logistics in Europe. This framework could lead to a strategy using soft measures or combining soft measures with legislative ones in a coherent way.

<b>RANKING THE OPTIONS</b>	
	<b>Aggregated impacts in total</b>
Do nothing	Towards slightly negative
Take action towards establishing a framework that can lead to a strategy for freight transport logistics	From slightly positive to positive

The preferred option is to launch consultations by presenting a Communication that constitutes the first step towards establishing a framework that might later lead to a strategy for freight transport logistics.

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<sup>1</sup> 'Co-modality' means the efficient use of transport modes operating individually or in multimodal integration in the European transport system to reach an optimal utilisation of resources.

## **Impact Assessment**

This report commits only the Commission services involved in its preparation and does not prejudice the final form of any decision to be taken by the Commission.

### **SECTION 1: PROCEDURAL ISSUES AND CONSULTATION OF INTERESTED PARTIES**

#### **1.1. Organisation and timing**

The Commission services have prepared a Communication under the Work Programme 2006 of the Energy and Transport DG (ref. 2006/TREN/010) concerning Freight Transport Logistics.

An external study contributing to the evaluation of impacts was launched in December 2005 and was finalised in April 2006<sup>2</sup>. The internal impact assessment was prepared in March/May 2006.

An inter-service steering group was set up under the impact assessment guidelines. Economic and Financial Affairs DG, Employment, Social Affairs and Equal Opportunities DG, Information Society and Media DG, Research DG, and Energy and Transport DG participated in the group which had meetings in December 2005 and April 2006. Between the meetings, contacts were maintained by e-mail.

#### **1.2. Consultation and expertise**

##### *1.2.1. External expertise*

Information for the Communication was gathered mainly by the responsible Commission service in co-operation with the Member States and industry.

Information for the Impact Assessment was gathered by the responsible Commission services and an external consultant (ECORYS) under a framework contract. The information collected contained a number of contributions by industry and Member States.

A large study on Integrated Services in the Intermodal Chain (ISIC) was finalised in November 2005<sup>3</sup>. That study examined a number of sub-areas, such as training, liability, multimodal terminals, and multimodal promotion.

Two studies relating to the sphere of the Communication were finalised in March and April 2006 under the Maritime Transport Co-ordination Platform (MTCP):

- Comparative benchmarking of performance for freight transport across modes from the perspective of transport users: Short sea shipping vis-à-vis rail, road and inland waterways<sup>4</sup>;

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<sup>2</sup> Impact Assessment of the proposal for a Communication on “Logistics for Promoting Freight Intermodality”, Final Report, ECORYS Transport, Rotterdam, April 2006.

<sup>3</sup> ECORYS.

<sup>4</sup> Comparative Benchmarking of Performance for Freight Transport across the Modes from the Perspective of Transport Users: Short Sea Shipping vis-à-vis Rail, Road and Inland Waterways, Institute of Shipping Economics and Logistics (ISL), January 2006 (updated in March 2006).

- Inventory of communications systems for administrative data in ports, between ports and between ports and port users in the EU and their compatibility with each other.<sup>5</sup>

Research and Technological Development (RTD) work is ongoing on a number of aspects of logistics. The available information has been used in preparing the present Communication.<sup>6</sup>

Research has been carried under the 4<sup>th</sup> and 5<sup>th</sup> Framework Programmes for RTD on creating open system architecture for freight telematics. These results will be incorporated in an appropriate policy framework.

A special consultation group (EULOC) on logistics under the auspices of Finland finalised its work in February 2006.<sup>7</sup> Furthermore, a background note on freight logistics<sup>8</sup> was submitted to the Finnish Ministry of Transport and Communications in January 2006 and made available to the Commission services.<sup>9</sup>

### *1.2.2. Stakeholder consultations*

In February 2006, the Energy and Transport DG published, on the Europa website of the DG, a consultation document on logistics for promoting freight intermodality<sup>10</sup>. The document was also sent separately to 70 identified stakeholders. Written comments were invited by the end of March 2006. A total of 115 contributions were received. In April 2006, the Energy and Transport DG organised a consultation workshop with stakeholders. Approximately 70 participants attended the workshop. The Commission services prepared, for the workshop, a summary of the written comments received to the consultation document. This summary was also made public on the same website as the consultation document was posted.

### *1.2.3. Main results of consultations*

Out of the 115 responses that the Energy and Transport DG received to the written consultation, 36 were received on-line and 79 by e-mail or hard copy. Fifteen out of the 36 came from citizens and 21 from organisations. Thirty-seven out of the 78 came from service providers, 6 from users of transport services, 19 from governments or international bodies, and 17 came from 'others'.

The results of the consultations showed significant support for the framework approach that the Commission services were advocating in the consultation document.

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<sup>5</sup> Port Data Exchange Systems, Sequoyah, April 2006.

<sup>6</sup> E.g. SULOLOG analysed trends in logistics and supply chain management. PROTRANS analysed the role of third party logistics providers. EUTRALOG made recommendations for RTD-initiatives to support multimodal policy. FREIGHTWISE examines alternatives for further developing intermodal freight transport. POLLOCO supports the development of intermodal transport infrastructure. BESTLOG will collect logistics best practice. PROMIT will work on intermodal technologies and procedures and help promote intermodal logistics. TEMPO works on the implementation of intelligent transport systems. Furthermore, the European Intermodal Research Advisory Council (EIRAC) develops a co-ordinated intermodal research strategy for Europe.

<sup>7</sup> [www.mintc.fi/oliver/up1187-Julkaisu%208\\_2006.pdf](http://www.mintc.fi/oliver/up1187-Julkaisu%208_2006.pdf).

<sup>8</sup> Professor L. Ojala and Dr L. Häkkinen, Turku School of Economics and Business Administration.

<sup>9</sup> The Commission is grateful to the Finnish Ministry of Transport and Communication and to Professor Ojala and Dr Häkkinen for these contributions.

<sup>10</sup> [www.ec.europa.eu/comm/transport/logistics/consultations/index\\_en.htm](http://www.ec.europa.eu/comm/transport/logistics/consultations/index_en.htm).

Considerable support was also expressed for the suggested quality approach that was presented in the consultation document. However, some criticism was expressed about the growing number of certification schemes.

Broad general support was evident for the individual actions proposed (certifying quality, multimodal liability, multimodal promotion, and a dialogue between the stakeholders, Member States and the Commission services).

#### *1.2.3.1. General comments*

- EU policy should optimise the transport system, requiring a modal merge instead of a modal shift. A one-sided focus on modal shares ignores the freight decisions that focus on supply chains, service quality, and reliability;
- A common theme to most of the responses was the recognition that the EU needs an integrated approach to its transport policy – across all modes and linked to trade and economics. A successful outcome to the Lisbon Strategy needs a successful EU policy on logistics;
- General support for non-legislative measures;
- Some expression of a need for clarity in terminology. Commonly used terms should only be used or all terms used should be clearly defined. Preference should be given to using terms in common usage;
- General expression that real changes to freight transport in the EU will only come about with real liberalisation of the railways. Real competition in the rail sector will increase the quality of EU freight transport in general. Significant opposition to the reference in the consultation paper to “rail liberalisation becoming a reality”;
- General recognition that policies for modal shift are not working. (Since the introduction of Swiss road charges for lorries, the share of freight carried by rail in Switzerland has fallen from 70% to 65%. Further, the German motorway toll has failed to shift freight on to the railways);
- Greater use would be made of non-road transport modes if all modes were treated equally as regards taxes, charges, infrastructure costs, and social and safety standards;
- Air freight should be included in the process;

#### *1.2.3.2. Specific themes*

##### (1) Quality in logistics

- A quality framework will establish a high competitive level for EU logistics services in the global economy;
- Improving service quality across all transport modes must be a common objective. Whether yet another certificate will do this is doubtful;

- Broad support for ‘quality logistics’ and partial support for certification to achieve this, but concern over the proliferation of certificates. Must avoid duplication and bureaucracy. Preference for leaving it to the market to select the best;
- Concern that it is the price of the service that is more important than quality. Getting a quality certificate does not always mean the supply of a quality service;
- Security certification is a stand-alone, and shouldn’t be mixed with service quality;
- Education on multimodal transport needs improving;

(2) Best practice, benchmarking, information, promotion, and bottleneck exercise

- Yes to identifying best practices, benchmarking and co-ordination/dissemination of information. Important to not only develop good transport chains but also good information chains;
- General support for promotion and a bottleneck exercise;

(3) Loading units and weights and dimensions

- General preference for international solutions to the issues of weights and measures for multimodal loading units;
- Lack of standardisation of loading units is becoming a real problem;
- Weights and measures of loading units need further examination – why not keep the 45 foot containers?
- Euro Module System for road transport offers big advantages;

(4) Liability

- General recognition that multimodal liability can be a real problem and there is a need for an international regime. Preference to wait for the outcome of the on-going work in UNCITRAL. The market has a solution in offering multimodal bills of lading and multimodal waybills;

(5) Infrastructure

- An integrated policy on logistics needs an integrated policy on infrastructure development;
- More infrastructure is needed for multimodal transport.

***1.2.3.3. Additional considerations arising from the consultation workshop of 25 April 2006***

The consultation workshop broadly reflected the stakeholders’ comments presented above and came to a broad agreement on four priority measures:

- More and better training and education is needed for the logistics sector;

- A sufficient degree of interoperability is needed in information and communications technology. The first line of action could target communications between industry and administrations.
- An exercise is needed to identify concrete obstacles to the development of freight transport logistics and finding solutions to them (“bottleneck exercise”)
- There is a need for statistical information on logistics in Europe.

#### *1.2.4. Comments from the Commission services to the contributions*

##### **1.2.4.1. General comments**

The Commission services consider that a framework for freight transport logistics must have a clear and uniform terminology. The initial approach of the Commission services concentrated on multimodality. However, in light of the mid-term review of the White Paper on European Transport Policy and comments received from stakeholders, the Commission services suggest that co-modality should be in focus with multimodality constituting part of it on equal basis with other solutions.

The liberalisation of EU rail transport is gradually becoming a reality. When all the three railway packages that the Commission has put forward enter into force, the legal framework for this liberalisation will be in place.<sup>11</sup> Furthermore, co-operation between rail infrastructure managers is developing. Nevertheless, things will not change over night.

A number of large logistics companies in Europe have their background in maritime, rail or postal services and rely largely on multimodal solutions.

The Commission services accept that a European approach should encompass air freight which carries, in terms of value, over 40 % of world trade in goods. Growing demand in developing economies and the recent boost of home deliveries generated by Internet retail sales have contributed to a fast growth of air courier services.

Security issues are of growing importance for transport and logistics.

##### **1.2.4.2. Other themes**

###### (1) Quality logistics

The current approach of the Commission services emphasises training and certification of logistician and training of other personnel more than was the case in the consultation document.

Certifying quality would help the market to identify the best available quality. Identification of quality service by word of mouth and experience of transport users can be considerably improved by introducing a Europe-wide certification of quality. The Commission services will pay special attention to the concerns expressed on the proliferation of certificates. Any

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<sup>11</sup> Cf. Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the implementation of the first railway package, COM(2006) 189 final.



quality certification process would entail administrative procedures that should be minimised and out-weighted by benefits.

The legislative framework for the admission to the occupation of road haulage operator<sup>12</sup> defines a list of subjects required for the recognition of professional competence. This framework could also be used to include logistics closer to this occupation.

Furthermore, the Commission services will examine whether a quality label could be used to recognise logistics excellence in transport services and chains.

(2) Best practice, benchmarking, information, promotion, and bottleneck exercise

All these areas are included in the Communication.

Information and communications technologies (ICT) are essential for logistics development. Research and innovation in these technologies are indispensable for new advanced logistics solutions to surface. The Commission services have already carried out research in the logistics field and they intend to continue it with enhanced efforts under the 7<sup>th</sup> Framework Programme for RTD.

Virtual infrastructure should be in focus. A specific role for interoperability could be found in the exchange of information between businesses and administrations. However, the interconnectivity in business-to-business and business-to-consumer logistics is also vitally important.

(3) Loading units and weights and dimensions

The Commission proposed, in 2003<sup>13</sup>, a European Intermodal Loading Unit (EILU) that would be a pallet-wide, reinforced, stackable swap body for intra-European traffic and utilise the maximum capacity allowed on the road. It would be a voluntary standard combining the advantages of swap bodies with the rigid construction of containers. The idea behind the EILU is not to replace containers but to create a viable and feasible alternative to swap bodies that already today only move in Europe. It would also not interfere with the circulation of containers. An international solution is not needed for the intra-European situation. If the EILU was planned to be used globally, the matter would be different.

Without prejudice to Article 4(4) of Directive 96/53/EC<sup>14</sup> on weights and dimensions in road traffic, 45-foot containers will be able to continue circulating on European roads until the end of 2006 (cf. Article 4(6) of the Directive).

Reference is made to recital No. 5 in Directive 2002/7/EC that amends Directive 96/53/EC:

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<sup>12</sup> Council Directive 96/26/EC of 29 April 1996 on admission to the occupation of road haulage operator and road passenger transport operator and mutual recognition of diplomas, certificates and other evidence of formal qualifications intended to facilitate for these operators the right to freedom of establishment in national and international transport operations, OJ L 124, 23.5.1996, p. 1.

<sup>13</sup> Proposal for a Directive of the European Parliament and of the Council on Intermodal Loading Units, COM(2003) 155 final, 7.4.2003, as amended by COM(2004) 361 final, 30.4.2004.

<sup>14</sup> Council Directive 96/53/EC of 25 July 1996 laying down for certain road vehicles circulating within the Community the maximum authorized dimensions in national and international traffic and the maximum authorized weights in international traffic, OJ L 235, 17.9.1996, p. 59, as amended by Directive 2002/7/EC, OJ L 067, 9.3.2002, p. 47.

“(5) Harmonised rules on maximum weights and dimensions of vehicles should remain stable in the long term. Thus, the amendments laid down in this Directive should not create a precedent for the maximum authorised weights and dimensions of buses and other categories of motor vehicle.”

Article 4(4) of Directive 96/53/EC allows the so-called “modular concept” under certain circumstance for national transport operations that are not considered to significantly affect international competition in the transport sector. By allowing longer vehicles and load lengths, this concept also helps decrease the number of lorries on the road.

The Commission services are currently contemplating on revising the rules on access to the market in road transport<sup>15</sup>. This revision could offer an opportunity to encourage a further reduction of empty runs or less-than-full capacity utilisation. In Switzerland, for instance, the number of lorries has decreased by 10 % since the year 2000, in particular, following the phasing out of the 28 tonne weight limit.

#### (4) Liability

Multimodal liability is fragmented, which creates unnecessary friction costs. Multimodal transport documents or multimodal insurance can be used to cover transport operations involving more than one mode. Further to a comprehensive liability solution for Europe, the Commission services could also examine whether a European transport document for multimodal transport operations could be standardised, under a voluntary regime, introducing targeted clauses to cover liability.

#### (5) Infrastructure

Constructing new infrastructure should not be seen as an objective in itself. Instead, current infrastructure should first be used at an optimal level by efficient fleet management, tighter collaboration between business partners, fuller utilisation of loading capacity, avoiding unnecessary empty runs, achieving partnerships, or pooling resources across modes while respecting the European laws on competition. However, when lack of suitable infrastructure creates a clear obstacle to logistics development, this should be rectified.

#### *1.2.4.3. Additional considerations arising from the consultation workshop of 25 April 2006*

All the four points mentioned in chapter 1.2.3.3 above are included in the considerations of the Commission services.

## **SECTION 2: PROBLEM DEFINITION**

### **2.1. Defining the problem**

An optimal use of resources in the European transport system has not been reached. This conclusion is also in line with the mid-term review of the White Paper on European Transport Policy. Complementarity of modes and their integration in the transport system and with each other should be improved. The efficiency of the system is not as advanced as it could be.

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<sup>15</sup> Cf. Council Regulation (EEC) No 881/92 of 26 March 1992 on access to the market in the carriage of goods by road within the Community to or from the territory of a Member State or passing across the territory of one or more Member States, OJ L 095 , 9.4.1992, p. 1.

Freight transport needs to do more to maintain and increase European competitiveness and prosperity.

Rapid growth of freight transport with consequential congestion, energy consumption, accidents, noise and pollution are amongst the economic, social and environmental problems that need to be addressed. Furthermore, effective planning, management and control of unimodal and multimodal transport chains through logistics solutions are not sufficiently developed for the objectives of co-modality to fully materialise.

Without adequate measures, the situation will continue worsening and increasingly undermine Europe’s competitiveness, people’s lives and the environment that we all live in.

Road is predominant and contributes, to a high degree, to congestion, noise, accidents and pollution. Rail and inland waterways, although their modernisation has started and they have shown growth in the last few years, are still lagging far behind in performance. Air freight should be more closely integrated in the system. Short sea shipping is performing well but is not developing as fast as it could in optimal circumstances. Deep-sea shipping and its hinterland connections, including feeding, need to be enhanced.

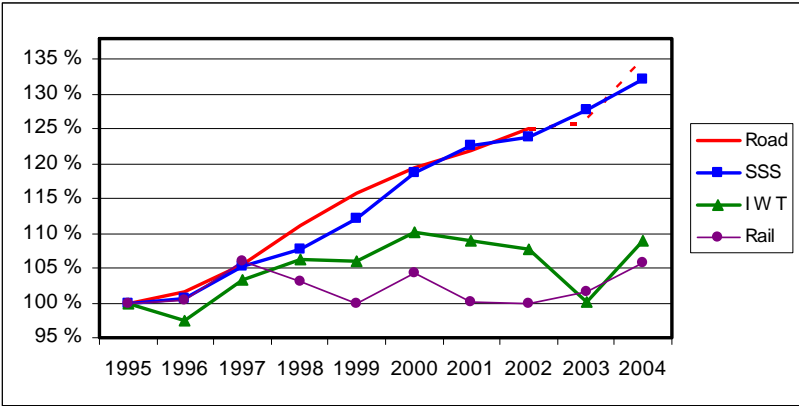


Figure: Tonne-kilometre growth 1995-2004 in per cent for road, short sea shipping (SSS), inland waterway transport (IWT) and rail (index 1995 = 100)<sup>16</sup>.

Available resources, whether infrastructure, superstructure or rolling (floating) stock, are not used optimally in Europe. Efficient and sustainable logistics solutions are not deployed sufficiently, including fleet management, rail and inland waterway infrastructure management.

Collaboration between business partners (whether for transport, warehousing or others) and between infrastructure managers is not as developed as it could be. The same applies to pooling of resources. These and other factors lead to less than full utilisation of available capacity and unnecessarily empty runs. Standardisation of optimal loading equipment for intra-European needs is not developing in a uniform manner. The supply of transport and logistics education and training provided by universities and other educational institutions is wide and divergent.

<sup>16</sup> Source: Eurostat. Part of data for Short Sea Shipping as been collected in co-operation with a number of member ports of the European Sea Ports Organisation (ESPO). The dotted part of the line for road reflects the significant changes that have taken place in the collection methodology for road data in certain Member States for 2003/2004.

Too many kilometres are performed to carry the goods whereas this could be done more efficiently from an economic and environmental point of view.

A number of bottlenecks - that are organisational, administrative or operational in nature - exist in Europe and hinder transport and logistics from developing faster. Statistical data on the European logistics market is not sufficient. Service quality is not recognised in a coherent manner.

Information technology solutions are not sufficiently interoperable to allow wider benefits through synergy. Modern informatics solutions are not used fully or developed as fast as they could be.

Logistics needs are not sufficiently taken into consideration in all aspects of transport policy. Without advanced logistics planning, the negative effects of mobility on the environment and people's health cannot be sufficiently limited.

National transport authorities are increasingly seeking alternatives to manage their own transport systems better. There is a clear risk that national solutions can become barriers to trade, if they are not developed in complementary ways across the EU.

Responsibility and liability in international transport are generally mode-based and provide different rules for different modes. This creates a complex multitude of regimes with subsequent friction costs in multimodal chains.

Accordingly, freight transport logistics does not currently contribute fully to the Lisbon strategy and Sustainable Development Strategy.

As part of the European transport system, multimodality is hindered by a number of further problems:

- Full complementarity of modes and their integration has not yet been reached;
- It involves complex administrative procedures and logistics planning;
- It requires higher efficiency from transshipment points and hinterland connections.

## **2.2. Affected parties**

Everyone is affected by these issues. Road transport without logistics planning results in unnecessary and empty runs, less than full loads, congestion, accidents, noise and environmental pollution that affect the citizens and industry. Building land-based infrastructure also needs careful land-use planning. The transport logistics cluster is an important source of employment and employs around 7,5 million people in the EU-25. Concerns are also evident at political level.

Europe at large is affected because its transport system is not used in a balanced way but emphasises the road component even over longer distances. European competitiveness and prosperity can suffer when the transport system is not used in the best possible way. Complementarity of modes in a co-modal transport system has not yet materialised.

### **2.3. Foreseen evolution of the problem**

Without new measures, transport modes in the European transport system would continue developing in contrasting ways and not achieve a sufficient degree of synergy. Optimisation of modes and their integration in the whole system would not occur. With the unbalanced growth of road transport, infrastructure resources could become exhausted in a few years' time and the European transport system would become crippled. European competitiveness and prosperity would be at risk. Transport policy would not be able to respond to the challenges of the Lisbon agenda.

### **2.4. Subsidiarity, proportionality and fundamental rights**

The policy to foster freight transport logistics is based on Articles 71(1) and 80(2) of the Treaty.

National policies might not always produce the interoperable transport solutions that are needed for Europe to work optimally together in an area without borders. Substantial results can only be achieved by the European Commission services working with the Member States and industry towards a coherent framework covering the whole of Europe.

Individual measures that might follow from a European approach to freight transport logistics would have to be examined, one by one, from the point of view of subsidiarity and proportionality. Divergent measures, taken at national level, without guaranteeing synergy and interoperability, such as road network management using intelligent transport systems (ITS) but implemented without European coherence, could create barriers to the free movement of goods and services. This is a clear case where Europe could offer added value to national approaches. Furthermore, logistics training and certification need to be mutually recognised across borders. Standards are needed at European level to create uniformity in the EU.

A European approach to freight transport logistics could identify a number of areas of action that might lead to legislation, but, in most cases, entail a voluntary and not an obligatory approach. Nevertheless, detailed subsidiarity and proportionality tests would have to be carried out for each concrete action proposed.

All areas of action suggested fully respect fundamental rights.

## **SECTION 3: OBJECTIVES**

### **3.1. General policy objectives**

Logistics is the process of planning, implementing and controlling the movement of raw-materials, half-finished products and finished goods. These should arrive in time at the right destination and retain the right quantities and quality, while respecting the level of service selected for the process. The process should minimise the burden on the environment and optimise the long-term economic performance of the undertaking.

The future EU logistics policy needs to provide the mobility for economic growth and social welfare while, in parallel, tackling the negative effects that are caused by increased transportation.

Advanced logistics solutions would allow co-modal freight transport operations to be carried out optimally in all circumstances thereby giving Europe a competitive edge. Logistics planning should enable a more balanced use of transport solutions whether unimodal or multimodal. The objective would also include decreasing the number of vehicle-kilometres performed by unimodal road transport vis-à-vis tonne-kilometres. However, this decrease should not be confined to road transport alone.

Europe needs an efficient transport system combining the benefits of all modes to maintain and increase European competitiveness and prosperity in a sustainable way benefiting industry and the citizens alike.

The overall policy objectives in terms of expected results are to optimise the European transport system and increase its efficiency in order to diminish the unsustainable trends indicated in Section 2 above. Logistics is an essential tool for this. Furthermore, logistics enhances cohesion and links to peripheral areas and islands. Efficiency in logistics might also help avoid certain trends, such as relocation of jobs outside the EU.

These general objectives will contribute to:

- developing and improving economic and resource efficiency of transport modes and systems;
- ensuring high level services and protection to users and their environment, while integrating the social dimension of the transport industry;
- increasing the deployment of new technologies, and;
- strengthening the role of EU at international level.

Developing and improving economic and resource efficiency is the key objective for the Lisbon strategy. A higher economic efficiency will enable a reduction of transport costs and in resource use. Freed resources, e.g. in work time and energy savings, may thus be put to better use in other sectors of the economy or in improved transport services. More and/or better mobility will foster the productivity of the European economy and the Union's global competitiveness.

The general objectives seen in the light of **SMART criteria**:

Specific: To further develop Europe's transport system towards optimal, efficient and integrated use of available resources in a complementary way.

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Measurable: When indicators are in place, progress can be measured in terms of the annual change in of vehicle-kilometres (and rail and vessel kilometres) in relation to tonne-kilometres carried. Growth of rail, inland waterway transport and short sea shipping, in tonne-kilometres, also gives relevant indications in comparison with road. Political priority given to logistics can also be weighted and so can priority given to it by industry. Future identification of obstacles to freight transport logistics and finding solutions to them is also measurable. In the longer term, the growth of logistics expenditure in Europe should stabilise.

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Accepted: Responses to the consultation paper (logistics for promoting freight intermodality) of February 2006 and the subsequent consultation workshop show a wide interest in and acceptance of a European approach.

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Realistic: A lot remains to be done to streamline Europe's transport system. Enhancing this process by working towards a framework that might lead to a comprehensive European strategy for freight transport logistics is realistic. The necessary political and business momentum can be achieved.

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Timed: The Commission's Communication on Freight Transport Logistics presents the first elements that might be included in a European framework for freight transport logistics. This framework can lead to an overall strategy that should be operational within the timescale of the mid-term review of the White paper on European Transport Policy (5 years). The next step in the process, an Action Plan detailing concrete actions, is planned to be presented in 2007.

### **3.2. Consistency of the objectives**

An approach to enhancing freight transport logistics is fully in line with the objectives of the Lisbon agenda (prosperity and competitiveness; improving the regulatory environment: minimising costs of regulation to the business community) and the mid-term review of the White Paper on European Transport Policy (co-modality, competitiveness, environmental and social sustainability, safety, and security).

Diminishing vehicle-kilometres (and corresponding kilometres in other modes) to carry the same or more freight would increase the energy efficiency of transport per tonne-kilometre. It would also diminish the external environmental and social effects of transport. Waterborne transport has a higher energy-efficiency than other modes of transport and is, in general, less harmful to the environment. Increased use of waterborne modes can also help decrease negative environmental and social effects attributed to road transport (accidents, noise, congestion, etc.). Also rail transport, when operating efficiently, can achieve environmental and social benefits for the system. Enhancing logistics would be in line with EU's transport, customs, economic, energy, industrial, information, land-use, research and innovation, social, and environmental policies.

## **SECTION 4: POLICY OPTIONS**

### **4.1. Possible options for meeting the objectives and tackling the problem**

The basic approach to reaching the above objectives is to fine-tune and optimise co-modality and, when appropriate, promote multimodal solutions with advanced logistics, including the organisation of transport and interfaces between modes. This can be done through soft and legislative measures. At this point in time, it is essential to take action towards establishing a European framework for freight transport logistics and carry out a consultation process on the subject. This framework could later lead to a comprehensive strategy that would allow combining different existing and forthcoming measures into a coherent way forward. The definition of this framework will follow, at the earliest in 2007, on the basis of the reactions to the present Communication from the European institutions, stakeholders and other interested parties. Such a strategy, when in place, might lead to specific soft and/or legislative action.

The strategy should create a horizontal policy bringing together different actions taken so far and encompassing all modes.

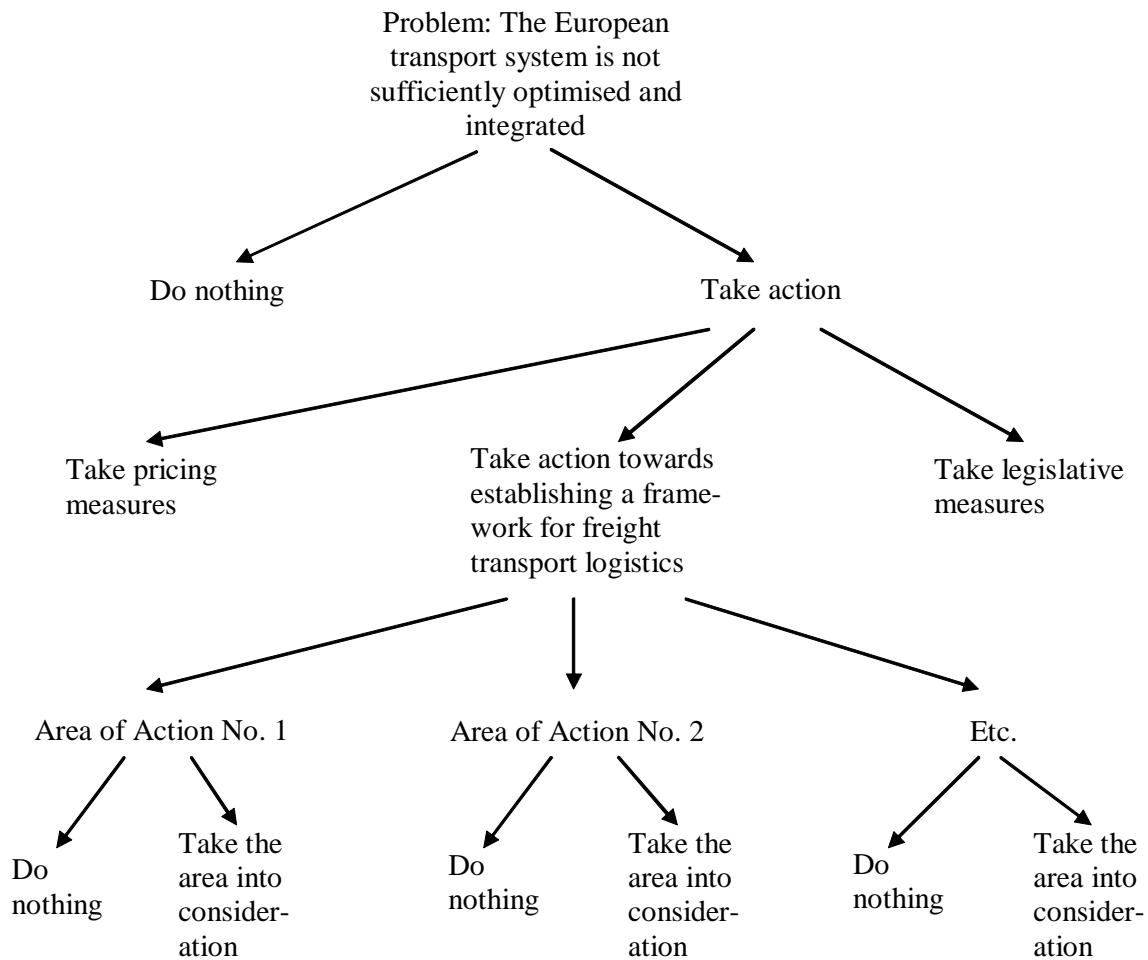
There are two possible options to start with ('do nothing' and 'take action'). One of these ('take action') can be subdivided into three further options ('legislative', 'pricing' and 'action towards establishing a framework'):

- 'Do nothing' and not take action towards establishing a framework for freight transport logistics in Europe but continue to work as has been the case so far;
- 'Take action' that can be subdivided into:
  - Legislative measures to impose better use of existing resources, push fleet management and fuller utilisation of available capacity, oblige industry to use multimodal solutions when applicable, etc.;
  - Transport pricing by internalising the external costs of transport, different modes and nodal points;
  - Action towards establishing a framework for freight transport logistics in Europe. This framework could lead, at a later stage, to a strategy using soft measures or combining soft measures with legislative ones in a coherent way.

Furthermore, these options would have to be subdivided into specific measures or areas of action that could be taken or elaborated. These measures or areas, as feasible and reasonable, would have to be assessed separately to find out their impacts.

In the form of a tree of options and instruments, this could be described as:





The options will be assessed against *a baseline (neutral option) which is the situation in 2006 until possible new action*. This option has been chosen as the baseline because it is a stable scenario, while choosing the ‘do nothing’ option (not to take action towards a framework or other measures but to continue as earlier) would be a moving target which, as such, can reasonably also be compared against a stable baseline as an option.

## 4.2. Discarding certain options

4.2.1. *Take legislative measures to impose better use of existing resources, push fleet management and fuller utilisation of available capacity, oblige industry to use multimodal solutions when applicable, etc.*

Actions that could be taken include a legislative obligation to achieve a certain degree of capacity utilisation, banning road transport on certain roads, or obliging industry to carry out a certain percentage of their transport operations multimodally. Further examples cover the implementation of ceiling distances for long distance road transport or controlled location policies for transport companies and shippers. Restrictions that apply for trans-Alpine crossings for trucks in Switzerland and Austria are examples of this policy option. Banning certain vehicles from city centres and enforcing the use of city distribution centres are other examples of a regulatory actions that can be used.

Such regulatory actions can be very effective in realising modal shift. Efficiency might be harmed by the expected efforts needed to enforce this kind of regulation. However, it is not consistent with other policies, such as liberalisation, trade policy or creating equal conditions of competition. It would also be against leaving the free choice of the transport mode to the user. In addition, commitment for this type of forced regulation would be very low and would lead to objections from several stakeholders in the transport and logistics industry, as well as practically from all other economic sectors.

While this policy option could be efficient for modal shift, it might not increase the overall logistics efficiency of the transport system where modal shift is not an objective in itself. Instead, all modes, unimodal or multimodal, should complement each other towards an optimisation of resources.

This option would be premature, if feasible at all, and not constitute an optimal solution at this point in time. Voluntary action has not yet been tested, but could work in the right direction on the basis of soft and/or (mainly voluntary) legislative measures. Legislative action without a coherent framework would not be supported by industry or the Member States. It could also not solve the lack of awareness of multimodal solutions. One can question whether restrictive legislation could create better results than a voluntary approach. Furthermore, the Commission has already presented a proposal on intermodal loading units<sup>17</sup> based, partly, on a voluntary approach. Other actions, such as the introduction of uniform reporting formalities for ships<sup>18</sup> or the introduction of a single window<sup>19</sup> have arisen from industry needs. Furthermore, logistics is a horizontal policy which is influenced by a number of policies, such as transport, customs, energy, industrial, information, social, land-use, research and innovation, and environmental. The impacts of these policies and initiatives taken therein will have to be evaluated before any legislative action could be considered purely for freight transport logistics. New legal action, until this can be closely targeted, would not have the desired impact.

Logistics is a business activity where it is of utmost importance to have the business community supporting any actions taken. Without such support, this option alone could lead to negative consequences when the Commission services, Member States, industry and other relevant parties would not be working together towards a common aim. Such a loss of support could result in stagnation, decrease the effectiveness of the European transport system and, consequently, lead to negative impacts in most, if not all, areas.

Specific legislative action might become an option in an overall strategic framework. Such a framework - that might be established at a later stage - would approach the complexities of co-modal freight transport logistics and examine multimodality alongside with the efficiency of single modes. A strategic framework would allow legislative action to be fine-tuned and targeted to specific logistics needs (and not to modal shift as such) that only a coherent approach could achieve.

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<sup>17</sup> Proposal for a Directive of the European Parliament and of the Council on Intermodal Loading Units, COM(2003) 155 final, 7.4.2003, as amended by COM(2004) 361 final, 30.4.2004.

<sup>18</sup> Directive 2002/6/EC of the European Parliament and of the Council of 18 February 2002 on reporting formalities for ships arriving in and/or departing from ports of the Member States of the Community, OJ L 67, 9.3.2002, p. 31.

<sup>19</sup> Proposal for a Decision of the European Parliament and of the Council on a paperless environment for customs and trade, COM(2005) 609 final, 30.11.2005.

#### 4.2.2. *Take measures in the field of transport pricing by internalising the external costs of transport, different modes and nodal points*

Transport taxes and charges, in every mode, could be varied to reflect the cost of different pollution levels, travelling times, damage costs, and infrastructure costs. To apply the “polluter pays” principle would provide clear fiscal incentives to help achieve the goals of reducing transport's congestion, better utilisation of capacity, decreasing pollution, and decoupling transport growth from the negative socio-environmental effects that it produces. In order to reach this objective, pricing policies should focus on the entire transport system.

Pricing policy can be expected to be very effective in realising an efficient and sustainable transport system. The efficiency depends on the type of implementation. Electronic fee collection can increase the efficiency of road charging policies. Pricing policy would be consistent with other policies since it regulates transport growth and creates better utilisation of capacity in different modes. Applying the “user pays” principle might generally be acceptable to commercial practices and liberalised markets. Commitment for pricing policies seems to be growing, since several Member States and regions have implemented road charging schemes or have plans to implement them in the coming years. An effective, efficient, consistent and well-supported pricing policy should take into account the time and place of transport.

This option could reach the objective of making the transport system more efficient and divert transport to modes that are less polluting and create less socially negative effects. Nevertheless, the option would increase the cost of transport, thereby affecting the economy.

At this point in time, this option would be premature and not constitute an optimal solution alone. Studies on the external impacts of transport by different modes are divergent and do not allow drawing final conclusions. Implementing a pricing policy without a wide agreement on the methodology and targets at European level might not create a level playing field. Unequal implementation, or an implementation that could be perceived unequal, would not receive wide acceptance. The ingredients of any comprehensive approach in pricing will need to be researched further.

Certain steps have already been taken in the direction of “user pays”, such as the minimum level of excise duties for fuels<sup>20</sup> and Eurovignette<sup>21</sup>, which have been well justified and widely accepted. Furthermore, certain countries or towns have implemented their own solutions (such as Germany, London, Oslo, and Stockholm). These solutions are partial, target one mode of transport, and have limited effects. A comprehensive European solution is still pending.

Some modes of transport, in some Member States, already pay a market price for certain services today, such as port services.

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<sup>20</sup> Council Directive 2003/96/EC of 27 October 2003 restructuring the Community framework for the taxation of energy products and electricity, OJ L 283, 31.10.2003. P.051, as last amended by Directives 2004/74/EC and 2004/75/EC.

<sup>21</sup> Directive 1999/62/EC of the European Parliament and of the Council of 17 June 1999 on the charging of heavy goods vehicles for the use of certain infrastructures, OJ L 187, 20.7.1999, p. 42. Proposal for a Directive of the European Parliament and of the Council amending Directive 1999/62/EC on the charging of heavy goods vehicles for the use of certain infrastructures, COM(2003) 448 final, 23.7.2003, as amended by COM(2006) 131 final.

A pricing policy could be considered part of a wider strategy without negative interference, but implemented on its own, without a solid base, it might become counter-productive. Also, implementing a pricing policy without a strategic framework might not be an ideal solution.

## SECTION 5: ANALYSIS OF IMPACTS

### 5.1. Likely economic, social and environmental impacts of short-listed options

The short-listed options are:

- ‘Do nothing’ and not take action towards establishing a framework that could lead to a future strategy for freight transport logistics in Europe but continue to work as has been the case so far;
- ‘Take action’ towards establishing a framework for freight transport logistics in Europe. This framework could lead to a future strategy using soft measures or combining soft measures with legislative ones in a coherent way.

The more precise impacts and indicators to be looked into under each of these options are as follows:

- economic impact: *competitiveness, operating costs, consumer costs, and macroeconomic environment;*
- social impact: *employment and public health;*
- environmental impact: *air and soil quality, climate change, land use, and consumption of energy.*

The *evaluation criteria* used to assess impacts are: positive (++), slightly positive (+), neutral (0), slightly negative (-) and negative (--).

The *time perspective* under each option and indicator is considered to be from short to medium-term since the first steps towards a logistics framework and strategy would follow the time-frame of the mid-term review of the White Paper (5 years).

Furthermore, certain specific areas of action might be suggested for consideration in the context of taking action towards establishing the framework leading to a strategy for freight transport logistics. These should be assessed for impacts separately one-by-one against the chosen baseline (i.e. the situation in 2006 until possible new action). The areas of action that naturally fall under assessment are the four first areas of action that arise from stakeholder consultations. For the other possible areas of action that could be referred to in the Communication, it is too early to assess the impacts owing to lack of details. Furthermore, for any areas of action, the assessment cannot be detailed, because the magnitude or details of action will not be known until an Action Plan has been presented (planned for 2007) as a follow-up of the present Communication and subsequent consultations. The current Communication does not go into detail but remains more at policy level. Consequently, the impacts of the four specific areas of action are assessed only superficially in this impact assessment. Moreover, decisions to include these or other areas of action in a framework or strategy would ultimately be based on the reactions of the European institutions, stakeholders and other interested parties that will be consulted on the present Communication.

5.1.1. Overall impacts of ‘taking action’ (taking action towards establishing a framework that could, in the future, lead to a strategy) vis-à-vis ‘doing nothing’ and their comparative assessment

This comparative assessment of the overall impacts of presenting a Communication on freight transport logistics needs to be done separately from the assessments of the impacts of possible specific areas of action, because a negative overall assessment might affect the need to continue assessing the impacts of the specific areas.

5.1.1.1 Overall Impacts

- ‘Do nothing’ and not take action towards establishing a framework for freight transport logistics in Europe but continue to work as has been the case so far

This option would ensure the continuity of current policies. Logistics services would remain at the level of today or develop in divergent ways, and most of the problems of today would persist or even become worse. The expected support from logistics to meet the challenges from economic growth, job creation and globalisation would not be met. On the other hand, the legislative burden to stakeholders would not increase either.

- economic impact (*competitiveness, operating costs, consumer costs and macroeconomic environment*): slightly negative. This option would give less visibility to logistics and could lead to stagnation in the transport system in the medium term and would not gain efficiency. European competitiveness would not improve and would suffer in the longer term. Road transport would continue growing in an environment with limited infrastructure resources and without co-ordination towards better fleet management or collaboration. Available loading capacity would not be fully utilised in Europe (empty runs, less than full loads). Transport performance would not be shared in the system but develop in a fragmented way with all modes competing with each other. Unnecessary duplication would occur owing to lack of co-ordination and co-operation. European logistics costs would continue to grow. A holistic approach would not emerge to identifying and solving obstacles to the development of the transport system. Consumer costs would not decrease because the European transport system could not operate optimally. The macroeconomic environment would not improve.

The timeframe of this impact assessment (5 years) does not allow taking into consideration longer-term positive effects that might follow from actions already taken or underway. Examples of such actions are the implementation of the satellite navigation system GALILEO, rail liberalisation and the introduction of a dedicated rail freight network. Furthermore, new infrastructure investments, ongoing standardisation work and research projects will have positive impacts in the medium-to-long term.

- social impact (*employment, public health*): slightly negative. With the growth of transport, its external social impacts (congestion, accidents and noise) would grow. Fast growth of road vehicle-kilometres would have a negative effect on accident costs in road transport. In other modes these costs are lower (rail) or considerably lower (short sea shipping and inland waterway transport). Improved fleet management, better utilisation of capacity, collaboration between business partners, and other similar measures to carry more freight with fewer units of transport would

not be taken into consideration in a coherent manner. Training of both young people and professionals would stay diversified and lack of mutual recognition for specialised training would hinder the movement of persons. Employment opportunities would not improve.

- environmental impact (*air and soil quality, climate change, land use, consumption of energy*): slightly negative. Energy efficiency and harmful emissions in the transport system would not be reduced. Climate change and global warming would continue to be affected. The impact on land use could be slightly negative due to lack of an overall vision. Research in new environmentally friendly technologies would continue, but in a more fragmented way.
- 'Take action' towards establishing a framework for freight transport logistics in Europe

This option considers a variety of organisational and technological areas of actions, ranging from information and communications technologies to training, solving bottlenecks etc., which will contribute to reducing the costs of freight transport in terms of time, money and environmental impacts. Also transport demand could be positively affected. In addition, the integration of different decision levels, including commercial and administrative, will produce more pertinent solutions. All in all, this option offers good prospects of reducing the time and energy costs involved in the transport activity while giving a push to the global competitiveness of the EU.

- economic impact (*competitiveness, operating costs, consumer costs and macroeconomic environment*): positive. A strategic vision could emerge from taking action towards the establishment of a possible framework strategy for freight transport logistics and a momentum would be created. The further presentation of an Action Plan in 2007 would keep this momentum ongoing. The option would increase the visibility of logistics, put it higher on the political and business agendas, and target the work of scarce resources onto core areas thus increasing added value. This option would result in dynamism, improve synergies and replication, and reinforce the European transport system. Out of the responses to the Commission services' Consultation Document more than 90 % of the respondents supported a strategic approach creating an enabling framework for logistics business to grow, including environmental and social sustainability. A more positive economic impact can only be expected with the possible introduction of a future framework strategy.
- social impact (*employment, public health*): slightly positive. Raising logistics higher on the European political agenda and enhancing co-operation and synergy between the parties, interest in the sector might slightly grow and young people might be more attracted to the profession. With the possible future presentation of a framework and strategy, further positive aspects could be expected and know-how increase. Concerning public health, slightly positive impacts can only be expected with the possible future introduction of a framework strategy.
- environmental impact (*air and soil quality, climate change, land use, consumption of energy*): slightly positive impact can only be expected, though they will only materialise with the introduction of a future framework strategy.

<b>Economic impact</b> (Overall impacts)				
	Competitiveness	Costs	Macroeconomic environment	
Do nothing	-	-	-	
Take action towards establishing a framework that can lead to a strategy for freight transport logistics	++	+	++	
<b>Social impact</b> (Overall impacts)				
	Employment	Public health		
Do nothing	0/-	-		
Take action towards establishing a framework that can lead to a strategy for freight transport logistics	+	+		
<b>Environmental impact</b> (Overall impacts)				
	Air and soil quality	Climate change	Land use	Energy consumption
Do nothing	-	-	0/-	-
Take action towards establishing a framework that can lead to a strategy for freight transport logistics	+	+	0/+	+

### **5.1.1.2. Comparing the overall impacts**

#### **5.1.1.2.1. Summarising the overall impacts**

The following table summarises the short-listed options so as to allow consideration of the strengths and weaknesses of these two policy options.

The weighting factor used for each indicator is one.

<b>Summary table of impacts</b> (Overall impacts)			
	Economic impact	Social Impact	Environmental impact
Do nothing	-	0/-→-	-
Take action towards establishing a framework that can lead to a strategy for freight transport logistics	++	+	+

#### **5.1.1.2.2. The preferred main option**

The impacts of taking action towards establishing a framework that could lead to a strategy for freight transport logistics seem to be more positive than those of the option ‘do nothing’. Consequently, this impact assessment should continue assessing the individual impacts of the first four possible areas of action that have been broadly agreed upon by the stakeholders and that might be undertaken in the context of working towards a framework for freight transport logistics which could subsequently lead to a comprehensive strategy.

#### *5.1.2. Specific impacts of possible areas of action*

##### **5.1.2.1. Information and communications technology (ICT)**

Logistics efficiency can strongly benefit from ICT improvements in administrative and commercial processes.

Smart technologies should be introduced to avoid delays in supply chains for security and other reasons. One such technology is radio frequency identification (RFID) which is a growing market. It can open up a range of possible application to make business more efficient, but requires further research and work on radio spectrum management, interoperability and standardisation.

Innovative solutions for advanced integrated logistics should be included in the 7th Framework Programme for RTD. There are many examples, to demonstrate that technology can improve the freight transport logistics process. RTD efforts need to be focused on areas offering the greatest potential benefit.

- ‘Do nothing’ and not take action towards establishing a framework for freight transport logistics in Europe but continue to work as has been the case so far
  - economic impact (*competitiveness, operating costs, consumer costs and macroeconomic environment*): towards slightly positive. Information and communications technologies are constantly developing. However, a lot of this development is divergent, and interoperability and synergy at system level (in technical or application terms) is not sufficient. Logistics efficiency is not improving as fast as it should be due to fragmentation. Administrative and commercial processes are being simplified and opened to all. Optimisation of physical and human resources through ICT is developing slowly. The expected positive impacts of interoperability in ICT are lagging behind. Reliable and efficient tracking and tracing



system are often closed systems but they are developing. Standardisation is progressing. The macroeconomic environment is not improving as quickly as it could. RTD needs to be able to address the core needs of system integration.

The timeframe of this impact assessment (5 years) does not allow taking into consideration longer-term positive effects that might follow from actions, such as the implementation of the satellite navigation system GALILEO, European Rail Traffic Management System (ERTMS), Long-Range Identification and Tracking (LRIT), River Information System (RIS), etc. Furthermore, standardisation and research work is ongoing and will have a positive impact over a longer time period.

- social impact (*employment, public health*): neutral overall. Optimisation of resources and consequent better transport utilisation is progressing slowly. Impact on employment would be from neutral to slightly negative.
- environmental impact (*air and soil quality, climate change, land use, consumption of energy*): towards slightly positive because of the same reasons as above (see the social impact).
- ‘Take action’ towards establishing a framework for freight transport logistics in Europe
  - economic impact (*competitiveness, operating costs, consumer costs and macroeconomic environment*): positive. It is vital for companies and their customers to have information in real time on the progress of their deliveries and their orders. Reliable and efficient tracing and tracking systems are needed in lean supply chains. Logistics efficiency can strongly benefit from improvements in information and communications technologies concerning both administrative processes<sup>22</sup> and commercial practices. This is particularly true for complex multimodal transport chains. Administrative procedures would be simplified by switching from paper documents to computerised processes. Immediate, reliable information allows managers to optimise their physical and human resources. The successful use of information technology allows carriers to leverage low-cost methods to accurately gather and disseminate data. Interoperability of different information sources, such as administrative, tracking, tracing, identification sources, is imperative for e-logistics to be fully operational and benefit the society in full. Increased ICT interoperability and integration of interfaces between businesses and administrations would lower friction costs and contribute to fast and seamless trade flows. Interoperability can also help SMEs better benefit from the internal market because an open architecture can lower the initial costs of access to systems. Standardising common core messages for new, open communications platforms (e.g. XML) would also have wide benefits by creating uniformity. Having a clear goal would also help target research activities to political and business needs that go together for system integration. This would lead to positive impacts on all indicators.
  - social impact (*employment, public health*): slightly positive. Optimisation of resources could lead to better transport utilisation and affect the external effect of transport (congestion, accidents and noise) in a slightly positive manner. Effects on employment would be closer to neutral but more specialisation and training would be

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<sup>22</sup> E.J. Visser, Innovation and spatial effects of ICT in the logistic service industry, 2003.

needed for the staff. There might in some cases be a slight negative impact on employment but this should not become a trend.

- environmental impact (*air and soil quality, climate change, land use, consumption of energy*): slightly positive for the same reasons as above (see the social impact).

<b>Economic impact</b> (Information and communications technology)				
	Competitiveness	Costs	Macroeconomic environment	
Do nothing	0/+	0/+	0/+	
Include this area of action for consideration towards establishing a framework for freight transport logistics	++	+	++	
<b>Social impact</b> (Information and communications technology)				
	Employment	Public health		
Do nothing	0/-	0/+		
Include this area of action for consideration towards establishing a framework for freight transport logistics	0/+	+		
<b>Environmental impact</b> (Information and communications technology)				
	Air and soil quality	Climate change	Land use	Energy consumption
Do nothing	0/+	0/+	0	0/+
Include this area of action for consideration towards establishing a framework for freight transport logistics	+	+	0/+	+

### 5.1.2.2. Logistics training

The supply of transport and logistics education and training provided by universities and other institutions is wide and divergent. Certain private initiatives in Europe or internationally have established courses or certification schemes allowing individuals to be certified against set standards. The Commission services have recently conducted a study<sup>23</sup> on logistics training and education.

<sup>23</sup> Integrated Services in the Intermodal Chain (ISIC), task E: "Certification and Training", ECORYS, November 2005.

The Commission services consider promoting the development of a uniform, mutually recognised certification for freight transport logisticians in co-modal and multimodal transport operations.

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

- ‘Do nothing’ and not take action towards establishing a framework for freight transport logistics in Europe but continue to work as has been the case so far
  - economic impact (*competitiveness, operating costs, consumer costs and macroeconomic environment*): towards slightly positive. Educational demand and supply do not match very well, but a lot of training is ongoing. Shippers, clients and operators have the opinion that the required skills, knowledge and competences for making the right decisions in the supply chain are not sufficient. Until the supply of training and education matches the demand, the quality of freight transport logistics services cannot be expected to improve as much as it should. The current situation will lead to improvements but slower and less uniform than it could. Industry seems to be divided whether training would have a significant effect on price.
  - social impact (*employment, public health*): towards very slightly positive because a lot of training is available to improve the situation even though qualifications differ. However, external effects of transport might not be as prominent in training as they could be.
  - environmental impact (*air and soil quality, climate change, land use, consumption of energy*): towards slightly positive because training normally takes the environment into consideration but more could be done.
- ‘Take action’ towards establishing a framework for freight transport logistics in Europe
  - economic impact (*competitiveness, operating costs, consumer costs and macroeconomic environment*): positive. Training and certification of logisticians might influence logistics efficiency and quality in a positive way thereby improving know-how and competitiveness. Improved knowledge of different possibilities for transportation in the supply chain and aspects like tendering and contracting might improve logistics efficiency. Shippers, clients and operators have the opinion that the required skills, knowledge and competences for making the right decisions on modal choice should be improved. Training targeted to all employees in the logistics chain could also increase performance (knowledge is power) and increase dedication. When supply of training and education matches the demand, the quality of freight transport logistics services is expected to improve considerable.<sup>24</sup> Industry seems to be divided whether training would have a significant effect on price, but increased efficiency should lead to lower costs.
  - social impact (*employment, public health*): slightly positive. Trained and certified individuals would have an advantage when marketing their human resources.

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<sup>24</sup> Impact Assessment of the proposal for a Communication on “Logistics for Promoting Freight Intermodality”, Final Report, ECORYS Transport, Rotterdam, April 2006.

Furthermore, companies employing these individuals would have the assurance of know-how. Individuals that have been trained to take aspects, such as congestion and risk of accidents and damage, into consideration would be able to make reasoned decisions of the use of modes to the benefit of the employer and the society. Furthermore, training could have a positive impact on the behaviour of transport users. Uniformity in certification would also contribute to uniformity in training. Life-long learning would help employees keep up with rapid developments in the logistics sector. Slight positive effects could also be foreseen for employment.

- environmental impact (*air and soil quality, climate change, land use, consumption of energy*): towards slightly positive for the same reasons as above (see the social impact).

<b>Economic impact</b> (Logistics training)				
	Competitiveness	Costs	Macroeconomic environment	
Do nothing	+	0/+	+	
Include this area of action for consideration towards establishing a framework for freight transport logistics	++	0/+	++	
<b>Social impact</b> (Logistics training)				
	Employment		Public health	
Do nothing	0/+		0/+	
Include this area of action for consideration towards establishing a framework for freight transport logistics	+		+	
<b>Environmental impact</b> (Logistics training)				
	Air and soil quality	Climate change	Land use	Energy consumption
Do nothing	0/+	0/+	0	0/+
Include this area of action for consideration towards establishing a framework for freight transport logistics	+	+	0/+	+

### 5.1.2.3. Bottleneck exercise within a dialogue on freight transport logistics

Obstacles need to be identified and made concrete before they can be addressed and solved. Based on contacts with the stakeholders and Member States, it is obvious that such obstacles

(“bottlenecks”) exist in the field of transport and logistics. Therefore, work should be started to identify these concrete obstacles to the development of freight transport logistics.

A “bottleneck exercise” has been going on for six years in short sea shipping.<sup>25</sup> The impact of this exercise has been highly positive. The original list of 161 bottlenecks collected in 2000 has shrunk to 35 items today. Both the Member States and industry have put considerable efforts to carrying out this exercise which brings added value to all parties. In a recent consultation with the Member States and industry on short sea shipping, this exercise was considered valuable and worthwhile.

At the moment there is no comprehensive picture of concrete obstacles in freight transport logistics. A similar exercise that is ongoing in short sea shipping could be undertaken at a wider level.

A group of Focal Points could 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.

- ‘Do nothing’ and not take action towards establishing a framework for freight transport logistics in Europe but continue to work as has been the case so far
  - economic impact (*competitiveness, operating costs, consumer costs and macroeconomic environment*): slightly negative. A transport chain, whether unimodal or multimodal, is only as good as the weakest link in it. Bottlenecks in the system contribute to weaknesses and decrease logistics efficiency. This entails friction costs and delays. It also affects the optimal choice of the mode. Without identifying and bite-sizing these bottlenecks, co-ordinated efforts could not be undertaken to address and solve them. A European dialogue between the Member States and industry on problem areas would not take place. Innovative ideas or solutions would not surface. Competitiveness would be affected in a negative way. The negative effects that these bottlenecks have on transport and logistics in Europe would continue and worsen with increased freight flows. This would lead to a negative effect on the macro-economic environment. Multimodality requires streamlined logistics chains in which any bottlenecks can be detrimental. Without a dialogue, stakeholders would feel that they were left out of policy development, which would add to resistance of any proposed actions.
  - social impact (*employment, public health*): towards slightly negative. Decreased efficiency and frictions in the transport logistics system can affect employment, for instance, in terms of relocation of jobs. Bottlenecks contribute to congestion, noise and accidents. They might even create black spots in the system.
  - environmental impact (*air and soil quality, climate change, land use, consumption of energy*): slightly negative. Inefficiencies in logistics and the transport system lead to increased consumption of energy and air pollution (e.g. in terms of congestion). The impact on land use would stay mostly neutral.

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<sup>25</sup> See: [www.ec.europa.eu/comm/transport/maritime/sss/bottlenecks/index\\_en.htm](http://www.ec.europa.eu/comm/transport/maritime/sss/bottlenecks/index_en.htm).

- 'Take action' towards establishing a framework for freight transport logistics in Europe
  - economic impact (*competitiveness, operating costs, consumer costs and macroeconomic environment*): positive. The identification of bottlenecks and addressing them is a process that increases co-operation and co-ordination at European level. Weaknesses in the system that result from bottlenecks could be streamlined. Solving bottlenecks would increase logistics efficiency. Friction costs and delays would be decreased. This would have a positive effect on costs. Multimodal solutions would become more competitive. European competitiveness as a whole would increase. A European dialogue between the Member States and industry would be enhanced. Innovative ideas or solutions could surface. By solving bottlenecks, Europe's transport system would be able to absorb more freight growth. The macro-economic environment would be positively affected. The stakeholders have been particularly positive about the impacts of a bottleneck exercise. They expect this exercise to have a slightly positive impact on the efficiency and quality of transport services. Impact on price is expected to be neutral but slightly positive on costs. A dialogue between the Member States, stakeholders and the Commission services would improve co-operation and create opportunities for the parties to be better involved in European decision-shaping. Dissemination of best practise would also be positive.
  - social impact (*employment, public health*): towards slightly positive in the medium term. Less friction and more efficiency might affect employment, but this cannot be evaluated. The external social effect of transport (congestion, accidents and noise) could be positively influenced by addressing bottlenecks. Dialogue between the parties would strengthen, thereby adding to cohesion and openness.
  - environmental impact (*air and soil quality, climate change, land use, consumption of energy*): slightly positive in the medium term. Abolishing inefficiencies in the system could improve the consumption of energy and decrease air pollution (e.g. in terms of congestion). The impact on land use would stay mostly neutral. Solving bottlenecks could have a positive impact on increasing multimodality and, consequently, on energy consumption and climate change.

<b>Economic impact</b> (Bottleneck exercise within a dialogue on freight transport logistics)			
	Competitiveness	Costs	Macroeconomic environment
Do nothing	-	0/-	-
Include this area of action for consideration towards establishing a framework for freight transport logistics	++	+	++
<b>Social impact</b> (Bottleneck exercise within a dialogue on freight transport logistics)			
	Employment	Public health	
Do nothing	0/-	-	

Include this area of action for consideration towards establishing a framework for freight transport logistics	0/+	0/+		
<b>Environmental impact</b> (Bottleneck exercise within a dialogue on freight transport logistics)				
	Air and soil quality	Climate change	Land use	Energy consumption
Do nothing	-	-	0	-
Include this area of action for consideration towards establishing a framework for freight transport logistics	+	+	0	+

#### 5.1.2.4. Statistics

Information on Europe's logistics performance at macroeconomic level is currently not sufficient. Therefore, statistical and other relevant indicators need to be developed to have a reliable picture of the situation and its evolution over time.

Progress on the development of logistics could be measured in terms of kilometres performed by modes vis-à-vis the corresponding tonne-kilometres because advanced logistics solutions should allow more goods to be carried while performing fewer modal kilometres. Some data is already available for road transport but further reliable data would be needed for all modes.

An indicator, in particular for multimodal solutions, could also be the relative growth, in tonne-kilometres, of the modes in relation to each other. Currently the growth of short sea shipping is almost parallel to that of road and rail and inland waterway transport have recently started a positive growth.

- 'Do nothing' and not take action towards establishing a framework for freight transport logistics in Europe but continue to work as has been the case so far
  - economic impact (*competitiveness, operating costs, consumer costs and macroeconomic environment*): almost neutral but slightly towards negative. No obvious change in the short to medium term. In the longer term, lack of statistics and ability to follow market developments might have a negative effect on decision shaping.
  - social impact (*employment, public health*): neutral (no change).
  - environmental impact (*air and soil quality, climate change, land use, consumption of energy*): neutral (no change).
- 'Take action' towards establishing a framework for freight transport logistics in Europe
  - economic impact (*competitiveness, operating costs, consumer costs and macroeconomic environment*): from more neutral in the short term but towards slightly positive in the medium-to-long term. Devising statistical indicators and

starting the collection of necessary data on freight transport logistics would take a few years. Some data, such as vehicle-kilometres in road transport is currently available to a certain extent. Very slight positive affect might occur already in the medium term on competitiveness and the macroeconomic environment because decisions could be better based on statistical evidence. Statistical data might also help identify inefficiencies and target measures in a better way. Costs would not be influenced.

- social impact (*employment, public health*): from neutral in the short term towards slightly positive in the medium-to-long term, when suitable statistical data with trends would be available. Increased ability to follow market developments might have a slight positive effect on targeting measures in a more appropriate way. This might influence employment and public health very slightly positively.
- environmental impact (*air and soil quality, climate change, land use, consumption of energy*): almost neutral with a tendency towards positive. In the longer term better targeting of measures might help more the environment.

<b>Economic impact (Statistics)</b>			
	Competitiveness	Costs	Macroeconomic environment
Do nothing	0/-	0	0/-
Include this area of action for consideration towards establishing a framework for freight transport logistics	0→+	0	0→+
<b>Social impact (Statistics)</b>			
	Employment	Public health	
Do nothing	0	0	
Include this area of action for consideration towards establishing a framework for freight transport logistics	0→+	0→+	



<b>Environmental impact (Statistics)</b>				
	Air and soil quality	Climate change	Land use	Energy consumption
Do nothing	0	0	0	0
Include this area of action for consideration towards establishing a framework for freight transport logistics	0→/+	0→+	0	0→+

#### **5.1.2.5. Budgetary consequences for public administrations**

If all or a certain number of specific areas of action mentioned above are implemented, budgetary consequences for public administrations will emerge. These consequences will depend on the level of costs required to realise any particular action.

Budgetary consequences for the administrations cannot, in any reasonable or reliable manner, be assessed today with the known level of detail. Much more details would be needed to consider these consequences. Therefore, no attempt or guesstimate is done in the context of this impact assessment. A more detailed description of actions will follow in the Action Plan for Freight Transport Logistics planned for 2007 as a follow-up of the present Communication and subsequent consultations.

## **SECTION 6: COMPARING THE OPTIONS**

### **6.1. Summary of impacts**

The following tables summarise the short-listed options so as to allow consideration of their strengths and weaknesses.

The weighting factor used for each indicator in this chapter is one.

#### *6.1.1. Specific impacts of possible areas of action*

##### **6.1.1.1. Information and communications technology**

<b>Summary table of impacts (Information and communications technology)</b>			
	Economic impact	Social Impact	Environmental impact
Do nothing	0/+	0	0/+
Include this area of action for consideration towards establishing a framework for freight transport logistics	++	0/+→+	+

### 6.1.1.2. Logistics training

<b>Summary table of impacts (Logistics training)</b>			
	Economic impact	Social Impact	Environmental impact
Do nothing	+	0/+	0/+
Include this area of action for consideration towards establishing a framework for freight transport logistics	++	+	+

### 6.1.1.3. Bottleneck exercise and a dialogue on freight transport logistics

<b>Summary table of impacts</b> (Bottleneck exercise within a dialogue on freight transport logistics)			
	Economic impact	Social Impact	Environmental impact
Do nothing	-	0/-→-	-
Include this area of action for consideration towards establishing a framework for freight transport logistics	++	0/+→+	+

### 6.1.1.4. Statistics

<b>Summary table of impacts</b> (Statistics)			
	Economic impact	Social Impact	Environmental impact
Do nothing	0→0/-	0	0
Include this area of action for consideration towards establishing a framework for freight transport logistics	0/+	0/+	0→0/+

## 6.2. Ranking the options

This ranking contains both the results of assessing the overall impacts (see chapters 5.1.1.1. and 5.1.1.2) and the impacts of specific areas of action. **Fifty per cent** of aggregated impacts arise **from the overall impacts** and **fifty per cent from the impacts of specific areas of action** (for this purpose, the specific areas of action have been weighted as equal, that is a weighting of one between them).

<b>RANKING THE OPTIONS</b>	
	<b>Aggregated impacts in total</b>
Do nothing	0/- (towards slightly negative)
Take action towards establishing a framework that can lead to a strategy for freight transport logistics	+→++ (from slightly positive to positive)

## 6.3. The preferred option

The impacts of taking action towards establishing a framework that could lead to a strategy for freight transport logistics seem to be more positive than those of the option ‘do nothing’. Therefore, the preferred option that seems to have added value is to present a Communication

towards establishing a future framework that could lead to a coherent strategy for freight transport logistics to be implemented by a combination of soft and legislative measures.

## **SECTION 7: MONITORING AND EVALUATION**

### **7.1. Core indicators of progress<sup>26</sup>**

Managing the complexity of transport flows in the modern world requires high efficiency from transport modes, on the one hand, and seamless co-operation between them, on the other. Advanced and integrated logistics solutions can help optimise freight transport operations, favour growth, and make Europe globally more competitive. For this, it is important to work towards establishing a clear strategy of the way forward within a framework that will benefit Europe. The profile of logistics needs to be kept high on the agenda. Such an approach will, on the one hand, encourage the development of advanced logistics solutions and, on the other, help concentrate on the core issues.

A core indicator of progress will be the presentation of an Action Plan for Freight Transport Logistics in 2007 following from the present Communication and consultations with the European institutions, stakeholders and other interested parties. If EU action is found to have added value, a further indicator could be the preparation of appropriate soft and legislative measures with positive impacts on freight transport logistics in Europe.

One possible area of action is to devise suitable statistical indicators for monitoring European logistics performance. When these indicators are in place, progress on the development of logistics could be measured in terms of kilometres performed by modes vis-à-vis the corresponding tonne-kilometres because advanced logistics solutions should allow more goods to be carried while performing fewer modal kilometres. Data on vehicle-kilometres in road transport and on tonne-kilometres in all modes is already available. A reliable methodology for evaluation needs to be established.

An indicator, in particular for multimodal solutions, could also be the relative growth of the modes in relation to each other. Currently the growth of short sea shipping is almost parallel to that of road and rail and inland waterway transport have recently started a positive growth.

Another plausible measurement could be the importance that Member States give to logistics in their transport policy. The Finnish Presidency (second half 2006) has announced that logistics will constitute a Presidency priority. The following Presidency (Germany) has also expressed a specific interest in this work.

Furthermore, the priority given by industry and relevant European social partner organisations to logistics solutions can be assessed.

A further measurement could be the overall level of acceptance of EU actions in the field of logistics.

Future identification of obstacles to freight transport logistics and finding solutions to them is also measurable.

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<sup>26</sup> See also the SMART criteria under chapter 3.1 above.

Logistics expenditure is growing in Europe. It should, at least, stabilise in the medium-to-long term.

## **7.2. Broad outline for possible monitoring and evaluation**

The Commission services will consult the European institutions, stakeholders and other interested parties on areas of action where the EU could offer added value to freight transport logistics. The Commission services will also follow up developments with the Member States and industry. A suitable platform for this work could be the planned group of Focal Points for Freight Transport Logistics. The Commission services also plan to devise and collect appropriate statistical information to monitor market developments. External studies might be used to examine specific developments and trends.

The planned Action Plan for Freight Transport Logistics in 2007 will also serve as a milestone for reassessing the situation.

<b>FINANCIAL STATEMENT</b>			[...]	
1. BUDGET HEADING: <a href="#">Internal Market and optimisation of transport networks – 06 02 04 01</a>		APPROPRIATIONS: None		
2. TITLE: <a href="#">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.</a>				
3. LEGAL BASIS: <a href="#">Articles 71 and 80(2) of the Treaty</a>				
4. AIMS: <a href="#">The present Communication on Freight Transport Logistics identifies and presents areas that could be developed to optimise the efficiency and integration of road, inland waterways, rail, short sea shipping and deep-sea shipping, operating individually or in multimodal chains, towards fulfilling the objectives of the Lisbon agenda and the mid-term review of the White Paper on European Transport Policy. Following consultations with the European institutions, stakeholders and other interested parties, this work should lead to a framework for freight transport logistics in Europe, and, possibly, a comprehensive strategy. The present Communication and subsequent consultations are planned to show the way towards an Action Plan for Freight Transport Logistics in 2007. This Plan may, if appropriate, be accompanied by proposals</a>				
5. FINANCIAL IMPLICATIONS	12 MONTH PERIOD (EUR million)	CURRENT FINANCIAL YEAR [n] (EUR million)	FOLLOWING FINANCIAL YEAR [n+1] (EUR million)	
5.0 EXPENDITURE - CHARGED TO THE EC BUDGET (REFUNDS/INTERVENTIONS) - NATIONAL AUTHORITIES - OTHER	None	None	None	
5.1 REVENUE - OWN RESOURCES OF THE EC (LEVIES/CUSTOMS DUTIES) - NATIONAL	None	None	None	
	[n+2]	[n+3]	[n+4]	[n+5]
5.0.1 ESTIMATED EXPENDITURE	None	None	None	None
5.1.1 ESTIMATED REVENUE	None	None	None	None
5.2 METHOD OF CALCULATION: <a href="#">N/A</a>				
6.0 CAN THE PROJECT BE FINANCED FROM APPROPRIATIONS ENTERED IN THE RELEVANT CHAPTER OF THE CURRENT BUDGET?				YES
6.1 CAN THE PROJECT BE FINANCED BY TRANSFER BETWEEN CHAPTERS OF THE CURRENT BUDGET?				YES
6.2 WILL A SUPPLEMENTARY BUDGET BE NECESSARY?				NO
6.3 WILL APPROPRIATIONS NEED TO BE ENTERED IN FUTURE BUDGETS?				NO
OBSERVATIONS: <a href="#">Any further Communications or legislative proposals that might emerge, at a later stage, from the ideas presented in the present Communication will be examined separately for possible budgetary implications.</a>				