



BE LOGIC

DELIVERABLE D7.1

REPORT OF EXISTING STANDARDS IN TRANSPORT LOGISTICS

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1. Summary

The objective of this document is to present the work conducted within Task 7.1 (examine and classify the existing standards) of the BE LOGIC project. BE LOGIC is a Collaborative Project co-founded by the European Commission in the scope of the 7th Framework Programme for Research and Development. The Project has officially started on September 1st, 2008, with duration of 30 months. The aim of BE LOGIC project is to support the development of quality and efficiency within and across different modes of transport, by means of benchmarking in logistics and co-modality.

More specifically, Task 7.1 falls within the scope of WP7 “Quality standards for transport logistics” of the BE LOGIC project, which is explicitly conducted with the purpose of:

- Collecting and analysing existing standards for logistics quality.
- Classifying existing standards.
- Identifying strengths and weaknesses of existing standards.
- Reviewing market take up and standards acceptance by customers and operators.
- To consult with industry actors and stakeholders in order to develop one or more quality standards to which the logistics industry and their customers can aspire to.

Methodological Approach and its Implementation

The methodological approach followed in fulfilling Task 7.1 consists of the following steps:

1. Collection and analyses of relevant data from international and European organisations as well as stakeholders of transport logistics.
2. Identification of segments for quality performance in transport logistics and classification of existing standards and initiatives.
3. Evaluation of existing standards and initiatives by obtaining stakeholders’ opinions
4. Identification and recommendations of priority segments for quality performance in transport logistics to be considered for standardization and further actions.

The implementation of the foregoing methodological approach has been achieved, as follows:

- A document database consisting of standards and initiatives in international and European organisations and stakeholders of transport logistics was created and analysed.
- Two different inventory lists with relevant documents were provided.
- Stakeholders of the transport logistics were contacted and interviewed at a suitable date. This way the Stakeholders’ opinions were obtained and considered in evaluating existing standards and initiatives.
- A number of segments for quality performance in transport logistics were identified and existing standards and initiatives were classified accordingly.

- Next, priority segments for quality performance in transport logistics were provided and recommended to be considered for further actions (input to Task 7.2).

Summary of the Obtained Results

- Step 1: Collection and analyses of relevant data from international and European organisations as well as stakeholders of transport logistics.

This research has identified 14 valid standards, all developed in the CEN/CT 320 working group (“Transport – Logistics and Services”), 6 of which are of significant interest for the whole supply chain. Further to this, with the support of the stakeholders, 32 initiatives addressing quality performance in transport logistics launched by different transport actors and operators (involving all transport modes) have been collected and analysed; a discussion of which is provided later on in this deliverable.

- Step 2: Identification of segments for quality performance in transport logistics and classification of existing standards and initiatives.

Before proceeding with the market take up, the following classification has to be introduced. And, to better understand and specify the transport logistics processes that may require standardizations, the collected documents (both standards and quality initiatives), which are 46 in total, have been classified in eight groups, as follows:

- 1 Individual service quality provisions/criteria;
- 2 Standardization in segments of the supply chain;
- 3 Quality contracts;
- 4 Quality labelling;
- 5 Standard Combined Transport product;
- 6 Quality management along supply chain;
- 7 Quality management along transport corridors; and
- 8 Standards of Professional Competence.

In studying the market take up, it has been found that the segments are not equally implemented and used by the organizations in question. Among all eight classes as identified above, it has been found that the highest percentage falls within three segments. Together these three segments represent more than 50% of all and they are, as follows:

- Quality Contracts (with 22%),
- Individual service quality provisions/criteria (with 19%) and
- Standards of Professional Competence (with also 19%).

- Step 3: Evaluation of existing standards and initiatives by obtaining stakeholders’ opinions

As a result from the interviews with the stakeholders, it has been found that the stakeholders globally agree with both inventory lists provided and identified segments for quality performance in transport logistics (please refer also to the next step). In the meanwhile, the list of initiatives was extended with several other statements, technical papers of organizations on quality standards, good practices and industry reports on quality. Among the respondents it has been found that benchmarking and standardization are important elements for improving the overall quality level of performance in transport logistics. But the majority of the respondents reported that quality standards themselves do not ensure the level of required quality. Nevertheless a tendency towards implementation of standards in transport logistics has been observed.

Next, it has been found that neither standard committees nor working groups have been established in the majority of the organizations examined in this work.

Finally, it has also been found that operators and users of current intermodal freight transportation services are not fully satisfied with the overall quality of the service provided, especially when it comes to the railway sector.

- Step 4: Identification and recommendations of priority segments for quality performance in transport logistics to be considered for standardization and further actions.

The defined segment priorities and actions are to be used as a key material in Task 7.2.

Research activities that come next in Task 7.2 will involve a detailed evaluation of the available standards and initiatives. More specifically, the BE LOGIC project within Task 7.2 will employ a Delphi study as a major tool for evaluation and developing the right model for standards such that they do not duplicate the core standards of ISO9001 and ISO14001, but that a similarly aspirational standard can be developed by CEN, the European Committee for Standardization, can draw up as voluntary standards to support the Single Market in Europe.

2. Introduction

Background

Differences in the performance of various modes within the transport sector of a given country, and between the transport systems of different countries, imply that there is a significant potential for improvement. Ongoing technological advances and changes in economic and institutional approaches ensure that this potential is constantly evolving. The transportation sector is influenced and moulded by ongoing economic, environmental and political (usually in the form of public finances) pressures to realise its potential for improvement.

In the BE LOGIC project it is believed that the major improvement potential in logistics performance is among small and medium sized enterprises (SMEs'), including shippers with relative small transport volumes. Therefore, the focus of BE LOGIC lies on applying the logistics benchmark methodology on SMEs, where the key objectives are twofold:

1. Improve the efficiency within and across different modes of transport.
2. Support the development of a quality logistics system.

The scope of work in BE LOGIC project has identified “six” derived objectives and research questions, as follows:

1. Develop a methodology to assess transport logistics performance in quantitative terms at different levels in Europe and globally.
2. Applying the benchmark methodology to assess logistics and intermodal policies of Member States and other countries.
3. To assess transport logistics choices and performance from shippers/LSP.
4. To assess transport logistics performance from transshipment points.
5. Examine existing quality standards (e.g. ISO, CEN) for transport logistics.
6. Consider the need for new quality standards for transport logistics.

Task 7.1, the subject of this deliverable, spans item No 5 from the derived objectives and research questions in BE LOGIC, namely to examine existing quality standards transport logistics.

But before proceeding, a few basic definitions of standard(s) have to be introduced.

According to some e-Dictionaries (e.g. www.english-test.net, consulted on 16th September 2009) the word “standard” means:

- model; criterion; norm; average; commodity which backs a monetary system.

Roughly speaking “standard” is generally recognized as a document, being a set of rules or method, describing a definitive procedure, giving a set of instructions for performing

operations or functions, controlling products, services, technologies, processes, production, etc.

According to EU project ISIC, the role of standards is to provide requirements (technical, organizational, etc.), definitions, guidelines, codes of best practice and measurement methods (*ISIC 2005*).

Standards are intimately connected with quality and vice versa. It is said that:

- Quality is always relative to a set of inherent characteristics and a set of requirements;
- Quality is a question of degree to which the product or service meets the customer's expectations.

For example, ISO 8402-1986 standard defines quality as "the totality of features and characteristics of a product or service that bears its ability to satisfy stated or implied needs." Also, Quality Manual for Combined Transport UIC 2001 associates with this as defines quality as "an underlying part of each product that we identify as a service; it is a guarantee of adherence to what was agreed upon. Indeed the concept actually goes one step further; quality implies a match between the customer's requirements and the service-provider's technical capacity".

An important element to be considered is the "*quality assurance*" which is to prevent defects by deployment of a quality management system and implementation of prevention activities. E.g. ISO refers to standards as agreements reflecting some market requirement because its members must agree upon content and give formal approval by technical committees before they are published.

The International Trade Procedures Working Group (ITPWG-TBG15) of UN/CEFACT International Trade and Business Processes Group (TBG) identifies, simplifies, harmonizes and aligns public and private sector practices, procedures and information flows related to international trade and services.

European Committee for Standardization (CEN) develops standards and other publications used as a rule, guideline and/or definition on a large number of subjects. Essentially, they are a consensus-built by bringing together all interested parties such as manufacturers, consumers, and regulators of a particular material, product, process, or service. In addition to European Standards (ENs), CEN also develops CEN Workshop Agreements (CWAs), Technical Specifications (TSs) and Technical Reports (TRs).

Next element worth considering is the "*quality control*" which is to detect defects, most commonly associated with testing that takes place in a quality management system typically referred to as verification and validation. E.g. the Euro NCAP (European New Car Assessment Programme) is the European Car Safety Performance Assessment Programme founded by the Transport Research Laboratory for the UK Department of Transport in 1997 and now is spreading throughout Europe. More specifically, NCAP is a vehicle safety rating system which originated in the UK but now is being supported by the

European Commission, governments, motoring and consumer organisations in all over European Union.

According to our knowledge, when it comes to transport logistics, there is nether strict definition of standard/quality nor commonly approved classification of models for standards. Therefore, it might be of interest to define transport logistics quality as:

... the “degree to which the performance of the freight transportation systems across modes meets the expectations of the customers identified by a set of criteria”...

Recalling Task 7.1 is the first task of WP 7 “Quality Standards of Transport Logistics” and is conducted with the purpose of examining and classifying existing standards in transport logistics. The second (and last) task of WP 7, Task 7.2 shall make use of the results obtained and the input provided from Task 7.1 and shall be fulfilled with the purpose of developing new models for logistics quality standards. More generally, given that enforced quality standards for what is a purely commercial activity in a liberal economy would be wholly inappropriate and have been previously opposed by shippers, operators and customers, it is expected that this work is to develop various quality standards which are voluntary, which have differing standards of service and levels of compliance so that operators can offer different levels of service versus price and customers can choose a quality product at different levels of service and cost.

It has been previously seen that a model based on the Passengers Charter for Air Travel is not appropriate here since the procurers are more knowledgeable of the parameters than passengers in the air passenger sector. And in this context, quality is not a fixed variable in commercial matters but a synthesis of price and service, service being a multi-varied entity in itself.

In setting new quality standards, we look to successful aspirational standards such as ISO9001 e.g., which govern how a company develops, implements and audits its quality systems; such issues are discussed in later stages in this deliverable.

Objectives

The objective of WP7 is to analyse existing standards for logistics quality, to identify their strengths and weaknesses, to review market take up and their acceptance by customers and operators. In particular, the objectives of Task 7.1 fall within WP7 as the scope of work is mainly concentrated on analysing existing standards.

The whole WP 7 is envisaged to work with the results of the work in WP3 and WP4 and consult with industry actors and stakeholders to develop one or more quality standards to which the logistics industry and their customers can aspire to, which is main objective of Task 7.2 to be fulfilled next.

Within the scope of WP 7, it is our intention to evaluate and develop the right model for standards such that they do not duplicate the core standards of ISO9001 and ISO14001,

but that a similarly aspirational standard can be developed by CEN, the European Committee for Standardization, can draw up as voluntary standards to support the Single Market in Europe.

Description of Work

There are several different models of quality standard. The key commercial standard ISO9001 is in fact a standard that defines how a company should setup, run and monitor its own internal quality standards. It does not define the nature or type of service or the quality levels to be achieved, this would be impossible in such a wide ranging standard. To some extent ISO14001 follows a similar approach except that it must take account of the defined regulatory and legislative requirements re the environment that a company needs to adhere to. ISO14001 is therefore partially about achieving a defined level, relative to external requirements.

Next, Euro NCAP is a standard which is wholly external to the party being assessed, the external body defines standards for car safety and the car is judged against it. A similar scheme is the Freight Operator Recognition Scheme (FORS) in London which is currently being trialled. Whilst having been developed by Transport for London and the Freight Transport Association, the standard is defined objectively and then applied to carriers, the result being an award of a Bronze, Silver or Gold standard.

It is not clear which type of model of standard may best suit logistics at the EU scale, and therefore there is a need to examine and classify all current standards and evaluate their relative utility. This WP is envisaged to evaluate, classify and rate such previous initiatives as, for example, the UIC (International Union of Railways) Quality Charter Initiative: Definition, verification and coordination of a UIC Quality Policy for the establishment of quality standards in international railway freight traffic. The text of the Quality Charter was approved by the Freight Commission in June 2001 and has been signed by 26 railway directors to date. The Quality Charter is implemented at operational level via the strategic projects of the UIC Quality Section.

As part of this evaluation, a focus group of leading EU actors such as the European Shippers Council, IRU, UIRR, AMRIE, CER, UIC, etc are held and their experiences and input requested. Several of these organisations are also represented in the High Level Support Group (HLSG). The HLSG is established to guarantee and further enhance the quality of the implementation of the entire project. This Group consists of relevant stakeholder representations and experts which will provide advice on the proceedings of the project and they serve as a valuable source of knowledge and secure that the project is being useful for the end-user.

Methodological Approach and its Implementation

The methodological approach followed in fulfilling Task 7.1 is graphically illustrated in Figure 1 and consists of the following steps:

1. Collection and analyses of relevant data from international and European organisations as well as stakeholders of transport logistics. Two different inventory lists were compiled with documents (see annex):
 - a list of existing international and European standards for transport logistics quality (using official sources of authorized bodies such as ISO and CEN);
 - list of quality initiatives, developments, agreements, good practices (further – initiatives) launched by different European transport logistic stakeholders for the establishment of international standards for logistics (all transport modes).

2. Identification of segments for quality performance in transport logistics and classification of existing standards and initiatives.

This analytical step is performed with the aim of preparing a ground for T.7.2 where new possible standards will be explored. This analysis covered by all the identified standards and initiatives. They were grouped into 8 segments, delineated between them by methods of influence on the performance quality in supply chain (a subject of the project BE LOGIC).

3. Evaluation of existing standards and initiatives by obtaining stakeholders' opinions.

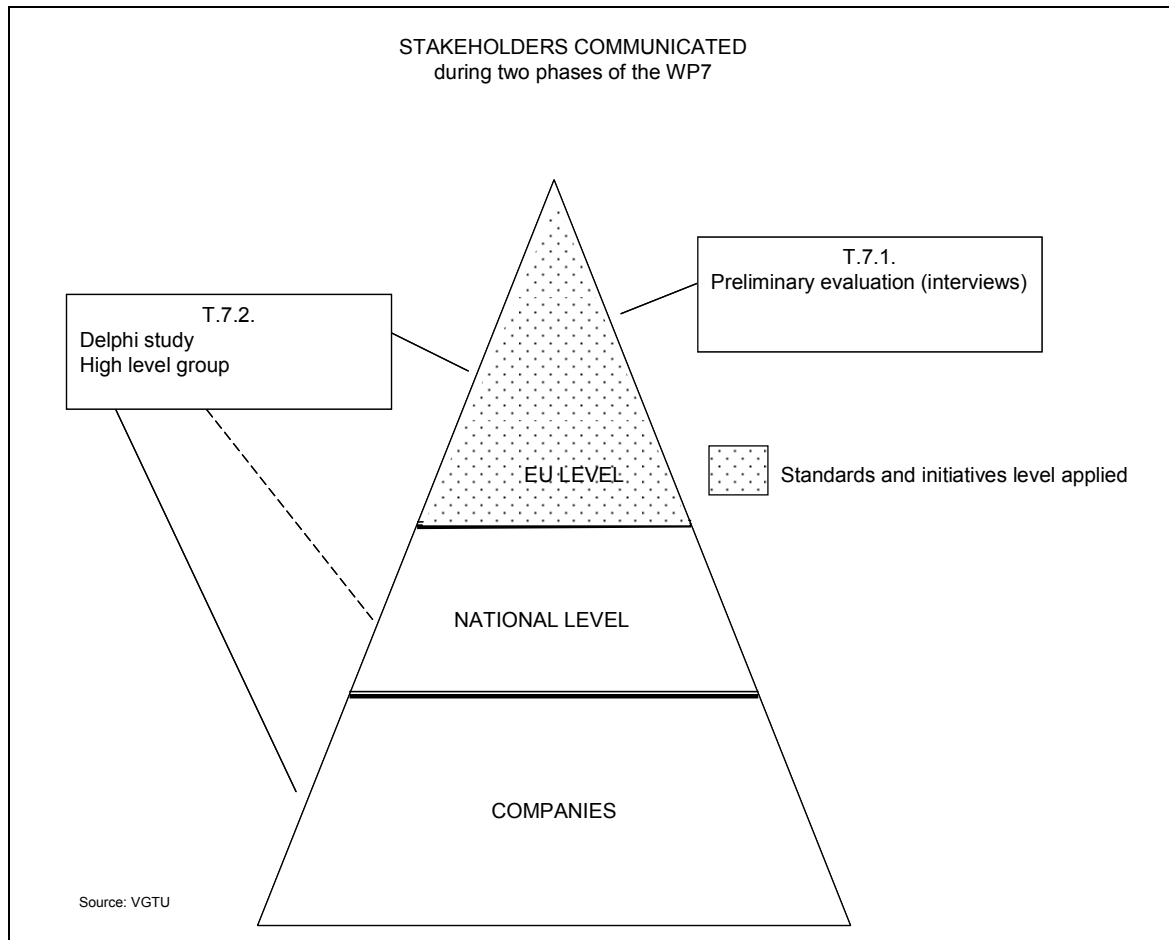
At this stage, the stakeholders of the transport logistic market (see Annex 3) were contacted and interviewed in December 2008-February 2009 to perform a preliminary evaluation of both inventory lists of official standards and sector initiatives. The results of this stage are presented in the chapter 4 of the current deliverable.

4. Identification and recommendations of priority segments for quality performance in transport logistics to be considered for standardization and further actions.

A priority segments, as baseline for development of new standards by T.7.2, is extracted according to the coverage of those segments by existing standards and initiatives. Some of the existing standards may indicate reduced demand for new standards. Similarly some quality initiatives may indicate concentration of problems. The findings of the research activities of task 7.1 are a list of possible priority segments to be further covered by standardization (see conclusions of this report).

The research work in task 7.1 covers the existing standards and initiatives adopted at international and European level and focuses on transport logistics performance quality only. Therefore an analysis of specific technical (such as UIC leaflets for the railway sector), administrative or security/safety issues (e.g. SQAS standards for chemicals products or ADR/RID legislation for dangerous goods) are not part of the research.

Figure 1. A Graphical Illustration of the Methodological Approach Employed



The implementation of the foregoing methodological approach has been achieved, as follows:

1. A document database consisting of standards and initiatives in international and European organisations and stakeholders of transport logistics was created and analysed.
2. Two different inventory lists with relevant documents were provided.
3. Stakeholders of the transport logistics were contacted and interviewed at a suitable date in December 2008- February 2009. This way the Stakeholders' opinions were obtained and considered in evaluating existing standards and initiatives.
4. A number of segments for quality performance in transport logistics were identified and existing standards and initiatives were classified accordingly.
5. Next, priority segments for quality performance in transport logistics were provided and recommended to be considered for further actions (input to Task 7.2).

Deliverable Organization

This document includes analyses of existing standards and initiatives in transport logistics and is organized as follows:

Chapter 3 Analysis of Existing Standards for Logistics Quality introduces and analyzes documents on current standards relevant to transport logistics. Also within the scope of this chapter a suggestion of classification of quality standards and initiatives is provided.

Chapter 4 Interviews (see annex 1 for details) with Stakeholders discusses in general the findings obtained during conducted interviews with stakeholders from transport logistics.

Chapter 5 Market Take Up of Existing Quality Standards, in brief, the estimated market Take Up of Existing Quality Standards is presented.

Chapter 6 Conclusion that integrates the conclusion of the report on the existing standards in transport and logistics.

Chapter 7 Use of Obtained Results elaborates on the use of the obtained results for further work being conducted within the scope of WP7 “Quality Standards for Transport Logistics” of the BE LOGIC project (and beyond).

Extension of the subject of the T.7.1 to the T.7.2.

The examination of the relative utility of the standards, identification of strengths and weaknesses, review their market take up and acceptance by the stakeholders will be continued during the task T.7.2 of the WP7 due to additional involvement of new method for the WP7 - a Delphi study with the experts, industry actors and other stakeholders. The T.7.2 will explore pragmatic new standards for transport logistics quality.

The second stage of WP7 (T7.2) will concentrate on quality contracts and standards for professional competence, as issues, mostly required and taken-up by market. The experiences and good practices, indicated and collected during the current research, will be a starting point to consult with industry actors and stakeholders to develop one or more quality standards to which the logistics industry and their customers can aspire to.

The effectiveness of the outcome of the research work in the second phase of the WP7 is expected to be enriched by constructive suggestions from the High Level Support Group (HLSG) that are comprised of the main stakeholders of the co-modal transport logistics sector. The findings of the Delphi study will be presented in the meetings and the input of the HLSG will complement as well as validate the findings of Delphi study.

The results of the evaluation procedures will be recommendations, which will (or not) propose to update existing current standards or to implement new norms for the transport logistics. Anyway concrete measures will be proposed to really improve the quality of the performance in co-modal transport chains.

3 Analysis of Existing Standards and Initiatives for Logistics Quality

When the procurers are more knowledgeable of the parameters than customers (e.g. the case of passengers in the air passenger sector), quality is not a fixed variable in commercial matters but a synthesis of price and service, service being a multi-varied entity in itself.

In setting new quality standards, we look to successful aspirational standards such as ISO9001 which govern how a company develops, implements and audits its quality systems.

ISO 9001 is now by far the world's most established quality framework, currently being used by over $\frac{3}{4}$ million organizations in 161 countries, and sets the standard not only for quality management systems, but management systems in general.

This standard is highly sought after by customers and suppliers in manufacturing and service industries, and is often the minimum requirement for a company to be short listed as a supplier.

E.g., ISO 14001 is an internationally accepted standard that sets out how to go about putting in place an effective Environmental Management System (EMS). The standard is designed to address the delicate balance between maintaining profitability and reducing environmental impact. This standard is also a minimum requirement for many companies to access a supplier shortlist.

Not all standards need to be accepted industry-wide before acceptance, ISO9001 was largely developed and adopted by the automotive industries and its acceptance was made a requirement on the supply base. Once adopted by a sector seen as prestigious it was adopted by many companies to help sell their services or to assure supplier quality. A similar standard to which an industry 'aspired' to, eventually but resisted at first is the Euro NCAP standard. Euro NCAP's aim is to provide motoring consumers - both drivers and the automotive industry - with a realistic and independent assessment of the safety performance of some of the most popular cars sold in Europe. It was resisted by the manufacturers who believed that 'safety did not sell' but when consumers began to judge their buying decisions on the safety results being published, the industry responded.

In the following sections we provide a discussion on existing standards for transport logistics; subject of this task (e.g. T 7.1).

It is worth noting that the outline of T7.1 was drawn by the definition of the transport logistics quality as suggested in the Introduction of this deliverable, namely: the *“degree to which the performance of the freight transportation systems across modes meets the expectations of the customers identified by a set of criteria”*. Following this definition, the

conducted research encompasses cross-modal standards, applied to both single transport mode and entire supply chain.

3.1. Standards under Study

For the objectives of this discussion studied have been standards such as:

ISO standards

CEN standards

- Standards related to road transport
 - CEN/TC 150 Industrial trucks. Safety.
 - CEN/TC 271 Surface treatment equipment. Safety.
 - CEN/TC 278 Road traffic and travel information.
 - CEN/TC 301 Road vehicles.
 - CEN/SS T03 Road vehicles.
- Standards related to railways transport
 - CEN/TC 256 Railway. Equipment. Safety.
 - CEN/SS I 17 Machinery in general (Including safety).
- Standards related to air transport
 - CEN/TC 274 Aircraft ground support equipment.
- Standards related to inland waterways transport
 - CEN/TC 15 Inland navigation vessels.
- Standards related to transport -logistics
 - CEN/TC 320 Logistics.

Two formats (see annex 2 for details) were produced to collect information for the inventory lists. One format is for collecting information of the existing standards and another format for collecting information of the documents and initiatives that are somehow related to existing standards. Identified were 14 (CEN/TC 320) standards (see annex 3 for details) related to quality of the performance in freight transport operations across modes in the supply chains, adopted by The Technical Committee CEN/TC 320 “Transport – Logistics and services” of European Committee for Standardization (The reader is advised to consult Annex 3 of this document), where 6 of which are inter-modal-transport-user-oriented in the supply chains. These 6 documents are, as follows:

- 1) EN 14310: 2002 Declaration and reporting of environmental performance in freight transport chains.
- 2) EN 12507: 2005 Guidance notes on the application of EN ISO 9001:2000 to the road transportation, storage, distribution and railway goods industries.
- 3) EN 12798:2006 Quality management system requirements to supplement EN ISO 9001 for the transport of dangerous goods with regard to safety.

- 4) EN 13011: 2000 Declaration of quality performance in transport chains.
- 5) EN 13876:2002 Code of practice for the provision of cargo transport services.
- 6) EN 15696:2007 Specification for self storage services.

Below, a presentation of the foregoing 6 documents is given.

1) EN 14310: 2002 Declaration and reporting of environmental performance in freight transport chains

This document is a Technical Report, which is a guideline for preparing environmental declarations and reporting. The guideline recommends the content and structure for documentation and evaluation of environmental performance in freight transportation. It is applicable to freight transport purchasers and freight transport operators.

Reliability and trustworthiness are essential to the use and acceptance of eco reporting. When specific data is not available it is therefore paramount to use commonly acknowledged data.

The calculations and results should be presented in a transparent and true way that aids the evaluation of the environmental performance of a given freight transport. As a rule of thumb, it can be said that when the method, used for calculating the energy consumption and emissions for one customer, is extended to all the costumers of a transport company, then all transport related energy consumption and emissions from that transport company should be accounted for.

Information and declaration of energy consumption and of exhaust emissions should include the following as a minimum:

- Transport profile;
- Basic transport data, per mode;
- Calculated transport data, per mode;
- Documentation of calculation method and data used;
- Issuer responsible for the declaration.

2) EN 12507: 2005 Guidance notes on the application of EN ISO 9001:2000 to the road transportation, storage, distribution and railway goods industries

This European Standard provides guidelines for the application of EN ISO 9001, Quality management system, to the provision of freight transportation services by road and rail, including storage and distribution activities.

Quality management system should include information on:

- quality aspects of the procedures;
- published rules, regulations, work instruction, etc.;
- quality records;
- contracts on co-operation between forwarding, transit and receiving service providers;
- contracts for performance with sub-contractors;
- training procedures quality system objectives.

All documentation should be cross-referenced for ease of use. When preparing procedures and instructions, the skills/training of personnel should be considered. Operating procedures should address the requirements of legislation applicable, e.g. speed limits and driving time according to the European Regulation or ADR/RID Directives.

Documents required by the quality management system should include, in addition to the required documented procedures for the provision of the service, applicable national or international standards, codes of practice, legislative requirements, service manuals and data (when maintenance or repair work is completed by the organization) etc.

The organization and management structure including lines of authority and communication are usually documented in an organization chart. Responsibilities and levels of authority for the personnel (including drivers) may be in the form of specific job description or covered within individual documented processes.

In the transportation industry the requirements related to the product can be identified by:

- means of quotations (tenders), wherein the intended service and conditions are provided in detail;
- means of transport agreements with specification of the services agreed upon and the general terms;
- means of consignment notes, wherein the general physical terms for the transport of goods (contract of carriage) are specified.

Transport feasibility should be checked before submission of tenders, the signing of a transport agreement or acceptance of a consignment note.

Only the parties that have conducted the contract, or their authorized-representatives, should be permitted to make amendments to the contract. All amendments should be acknowledged and confirmed by all of the parties of their authorized representatives.

The purchased product can be services or equipments, facilities etc., which are incorporated in the service process offered to the customer.

The selection and control of a supplier and his performance should be based on their ability to meet the requirements defined in the purchasing document.

Evaluation of subcontractor supplies and services should be correspondingly documented. These records may take the form of lists, files, or computer files in a specified form. These

documents should contain information regarding the selection guidelines employed for the evaluation procedure. Selection guidelines should be reviewed on a regular basis with regard to validity.

3) EN 12798:2006 Quality management system requirements to supplement EN ISO 9001 for the transport of dangerous goods with regard to safety

This European Standard specifies quality management system requirements, supplementary to those of EN ISO 9001:2000, for the management of safety in the field of the transport of dangerous goods by road, rail and inland navigation.

Each specific quality management system requirement, unless otherwise indicated in this European Standard, shall apply to both quality and safety. The quality management system of the company shall address the relevant safety requirements of the regulations for the transport of dangerous goods.

The documents of external origin mentioned in 4.2.3 of EN ISO 9001:2000 should include all applicable standards, regulations, codes of practice, service manuals, and general documentation related to safety practices in the transport of dangerous goods. The company shall document its policy for quality and safety and these documents shall be signed by the manager in charge. The responsibility for the safety management system shall be specifically allocated to a named individual.

EN ISO 9001:2000 requirements shall also cover provisions for refresher training on safety aspects of changing regulations, product knowledge and technology, recruitment and selection of personnel involved in the transport of dangerous goods, based on criteria such as experience, capability, education, proficiency and technical ability.

The company shall have a system for monitoring the location and load details of all means of transport and loading units carrying dangerous goods.

4) EN 13011: 2000 Declaration of quality performance in transport chains

This European Standard is intended to be a tool for the definition, declaration and control of services involved throughout the transport chains. It can therefore be used by both shippers and providers within the framework of their contractual relationship, in order to define and declare the relevant performance conditions. A purpose of this standard is to facilitate the provision or information by the transport industry so as to assist shippers to meet their obligations under the Directive of Packaging and Packaging Waste (94/62/EF).

Further, this European Standard specifies requirements for making declarations with regard to the quality of performance of a goods transport service. EN 13011 :2000 standard incorporates by dated or undated reference, provisions from other publications (EN 12830, EN 13485: 1999, EN 13486: 1999, EN 22248, EN 22872, EN 22873, EN 28318, EN 28768).

The service provider of transport service shall be responsible for at least:

- a) Defining the extent of his responsibility within the overall transport chain;
- b) Determination of quality criteria applicable to each stage for which he is responsible;
- c) Preparation of a written declaration with regard to a) and b).

The service provider shall incorporate in the declaration those criteria, selected from table below that are relevant to the transport chain for which the declaration is being prepared.

The service provider shall submit details with regard to frequency and method of measurement and produce on demand the original verification. Measurement instrumentation shall meet the requirements of the relevant standards identified in Table 1 and shall be traceably calibrated to an internationally recognized standard at least once in 24 months.

Table1. Quality criteria

Performance elements:	Verification by:
Packaging operations	Quality control system
Preparing and dispatching operations	Quality control system
Handling and storing operations	Quality control system
Transportation	Quality control system
Transfer operations	Quality control system
Tracking and tracing operations	Quality control system
Auxiliary operations	Quality control system
Collection and delivery time	Confirmed receipt
Collection and delivery place	Confirmed receipt
Temperature	Quality control system
Humidity	Quality control system
Air pressure	EN 22873
Controlled atmosphere	Quality control system
Drop and shock	EN 22248
Compression	EN 22872
Vibration	EN 28318
Orientation	EN 28768

Source: VGTU, 2009

The respective validations of documents or computerized data by the service providers responsible for dispatch and delivery shall be used as proof of conformity of the operations.

A service provider can declare the quality of the performance criteria in the transport chain by:

1. General quality declaration: a general quality declaration may be used when a service provider declares himself to be in compliance with all the performance

conditions in his own declaration for all services except services delivered under contractual quality declaration(s).

2. Contractual quality declaration: A contractual quality declaration is limited to one specific contract between service provider and a purchaser of transport service.

In both quality declarations a service provider shall make:

- 1) Limitation of responsibilities.

The service provider shall define the limits of the redress in the declaration text. The provider of transport services shall make such a description in economical terms, but shall never make such limits under international and national legislation, etc.

- 2) Description of arbitration.

The service provider shall in the declaration, define the authorities' i.e. legal court and/or testing laboratory responsible for verification and decision of dispute.

5) EN 13876:2002 Code of practice for the provision of cargo transport services

This European Standard specifies in the form of a Code of Practice' the management controls and key performance indicators necessary for the effective and efficient management of customer's cargo throughout the transport process. Code of Practice strongly recommends that the service provider carry out regular self assessment of performance against defined criteria with the objective of continually improving the quality of services provided and is prepared in a manner which facilitates independent audit of the service provider's performance in order to give confidence to customers that the integrity of performance measurement is maintained.

The service provider should have clearly defined management systems and controls in place, which enable the agreed service to be completed, the delivery process monitored and the service quality measured.

It is the responsibility of the service provider to ensure full understanding of the requirements of the customer in order to plan, schedule, manage and monitor the movement of freight from initial collection through to delivery to the consignee or end user.

The service provider is responsible to provide adequate facilities, which ensure that the quality of cargo received does not deteriorate or suffer loss or damage during times of storage whilst in transit on trailers or other forms of transport, or when off loaded for trans-shipment. It is also the responsibility of the service provider to ensure that suitable and secure facilities are provided, appropriate to the nature of the cargo to be transported.

The service provider is responsible to ensure the availability of complete and correct documentation appropriate to the nature of the cargo, the type of load, the destination and mode of transport and to take such action as necessary to correct any discrepancies.

It is also the responsibility of the service provider to ensure that there is evidence of collection and delivery confirmed by persons authorized to provide such confirmation on behalf of the customer or consignee.

The service provider is responsible to ensure that, in the event of subcontracting any part of the service, such subcontractors (SME) operate an effective management system and the controls necessary to ensure that there is no deterioration in the quality of service provided.

The service provider will be responsible for monitoring the management and performance of all subcontractors utilized in the service.

It is recommended that the service providers' management system should meet the requirements of an appropriate and recognized standard. Whilst not mandatory, it should be the objective of all service providers to attain independent evaluation and certification as a declaration of the integrity of their management system. This Code of Practice recommends that such a standard should meet the requirements of EN ISO 9001. It is recommended that service providers declare performance conditions in the transportation by using EN 13011. It is recommended that customers of transport services purchase services with declarations meeting the requirements in EN 13011 and design the combination of packaging/product under the requirement of EN 13428.

It is the responsibility of the service provider to identify damage or deterioration of the packaging at any stage during the provision of the service, which may adversely affect the quality of cargo.

The service provider is responsible to ensure that details of all agreements with the customer relating to the preparation, loading, stowing, securing and dispatch of packaged products are available to the personnel responsible for this part of the service performance, including subcontractors. It is the responsibility of the service provider to ensure that the means of transport provided throughout the provision of the service are suitable for the nature of the cargo to be transported and that vehicles are operated in accordance with legal requirements and with requirements as agreed with the client and the highest standards of operating practices within the industry, It is also the responsibility of the service provider to ensure that subcontractors apply equivalent standards of legal and operational control.

Where any part of the distribution process is subcontracted there must be clear instructions regarding the nature of the load, the nature and scope of the subcontractors responsibilities in regard to transport, storage and handling, the means of communication and nature of information to be communicated and any other information regarding commitments agreed with the customer, e.g. delivery times, locations etc. It is also the responsibility of the service provider to have established formal systems for measuring the performance of

subcontractors and for subsequent action should there be a failure or likely to be a failure in the service performance caused by the actions of a subcontractor.

It is the responsibility of the service provider to prepare quality plans in response to the requirements of the customer where specifically required to do so. Such plans may require the identification of dedicated resources training, equipment, health & safety and risk management.

6) EN 15696:2007 Specification for self storage services

This European Standard specifies requirements for the provision of self storage facilities and related services, for both personal and business purposes. Given the various implications attaching to the provision of such services, it is recognized that the applicable legislative framework may be subject to change and it is therefore strongly recommended that service providers establish a system designed to identify European, national or local legislation applicable to such facilities and ensure that they are kept abreast of changes as they occur.

The service provider shall enter into a written self storage contract with its customers. The self storage contract including the Terms and Conditions shall be presented to the customer in a clearly legible typeface. Contract shall define the unit(s) to be occupied, the charge period, any deposit, the storage charge, and method of payment.

The service provider shall require that the self storage contract be signed by the customer in connection with which there shall be acknowledgement by the customer that he/she has read and understood the contract and the Terms and Conditions, particularly:

- any additional charges to be made for late payment;
- procedures and entitlements in the event of payment default (including the service provider's lien over the stored items, and hence its right to sell and/or dispose of stored items);
- method or procedure for registering complaints;
- customer obligations to secure the unit;
- prohibited goods;
- customer obligation to check suitability of the unit for the specific goods to be stored;
- that the service provider does not insure the goods under the contract and the requirement that the customer insure his/her own goods;
- termination of the contract and notice period;
- use of personal data.

The service provider shall establish and operate procedures designed to recruit and train employees to a standard appropriate to the role to be undertaken and shall maintain record of:

- work instructions and procedures appropriate to each role in the organization;

- the standard of competency required of employees in fulfilling those roles;
- the training/development required and undergone and the standard achieved, for each employee.

The service provider shall allocate and communicate responsibility for the application of specific clauses of the standard to appropriate roles within his/her organization. The nature and extent of that responsibility shall be clearly defined, documented and reviewed at pre-determined intervals. For small/medium sized service providers, the primary functions may all be fulfilled by one person e.g. manager/owner or an individual specifically appointed for this purpose.

3.2. Classification

Having missioned to prepare ground for T.7.2., the research aimed to explore right appliance for new possible standards.

By analyzing the collected documents and initiatives it was noticed that the market stakeholders are aiming the same target – supply chain of high performance quality – independently from each other, but are applying sometimes similar, other times different methods. For example, they agree on particular performance indicators, seek for quality in individual transport mode, develop entire transport corridor, improve practice of contracts etc. etc.

Considering the commonality of content and influence on the performance quality in supply chain (a subject of the project BE LOGIC), they can be grouped into eight delineated domains of quality activities

1. Determination of Individual Service Quality Provisions/Criteria.
2. Standardization in Segments of the Supply Chain (transport modes, terminals etc)
3. Setting standard Quality Contracts.
4. Quality Labelling.
5. Qualifying the standard combined transport product.
6. Quality Management along Supply Chain.
7. Quality Management along Transport Corridors.
8. Standards of Professional Competence.

The descriptions that come next are organized along the 8 segments of the suggested classification. Before proceeding, however, note that the 6 inter-modal-transport-user-oriented standards fall within different classes of the suggested classification and they are shown in Table 2 below.

Table 2 Standards vs. quality activities segments in table.

Standards:	Classes:	Individual Service Quality Provisions/Criteria	Standardization in Segments of the Supply Chain	Quality Contract	Quality Labelling	Standard CT Product	Quality Management along Supply Chain	Quality Management along Transport Corridors	Standards of Professional Competence
CEN/TR 14310:2002	-	-	-	-	-	-	1	-	-
EN 12507:2005	-	-	-	-	-	-	1	-	-
EN 12798:2006	-	-	-	-	-	-	1	-	-
EN 13011:2000	-	-	-	-	-	-	1	-	-
EN13876:2002	1	-	-	-	-	-	-	-	-
EN 15696:2007	-	1	-	-	-	-	-	-	-
TOTAL	6	1	1	-	-	-	4	-	-

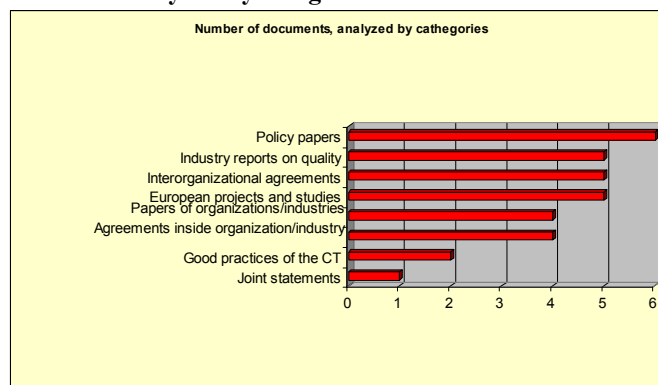
3.3 Initiatives (quality initiatives, developments, good practice made by different stakeholder’s categories on the European level

The research has targeted documents, generated at the European level and did not included technical and safety issues.

Documents about achievements and progress in industry were collected during the direct meetings at European organizations and associations or interviewing them by telephone (see annex 4).

As *Graph 1* gives general characteristics of analysed initiatives, developments, good practices made by different stakeholder’s categories on the European level (listed in the Annex 8).

Graph 1. Number of documents analyzed by categories



Source: VGTU, 2009

Individual Service Quality Provisions/Criteria

A study carried out in the framework of the PACT (Pilot Actions for Combined Transport) program involving Six UIRR operators played an important role and led to the achievement of the Quality Charter (2003). This study regarded that the severe deterioration of quality was the main reason for the stagnation in the CT and accepted “Availability” as major criterion. As a result several attempts have been made to create a continuous working flow (over 24 hours), but these have been rejected by local government and customers not wishing to keep their facilities open at night. Cost was recognized as significant followed by lead-time, reliability and control. Speed is not a distinguishing factor as over the longer distance rail already has some natural advantages over road haulage, and over the short haul. Information provided to the customer is increasingly becoming an important part of standards in many transportation products and therefore has to be considered.

In the Thirty-seventh Session “The role of the railways in the promotion of combined transport” of United Nations, Economic Commission for Europe and Inland transport Committee as well as Working party on combined transport, held on 18 and 19 April 2002, the primary problem pointed out by several representatives is related to the issue of quality, in particular the lack of reliability and punctuality of the rail service.

Next, the Freight Quality Charter (Freight Quality Charter-2003 CER- UIC – CIT) is the first document for setting out a voluntary commitment by the European Railway Undertakings on the service quality offered to their customers (in terms of freight services). The Charter expresses is a collective commitment of the railways to enter, whenever requested, into agreement with their customers on the following service areas:

1. Responsibility. Specified in line with the CIM conditions.
2. Safety as highest priority. To move freight in secure conditions, free of damage, with respect for environment.
3. Planning. The service planned for the customer – service frequency, departure, arrival times and transport order deadlines.
4. Punctuality and reliability. Contracts shall provide compensation if unacceptable reliability and punctuality.
5. Information. Transport status information.
6. Rolling stock. Sufficient, clean freight rolling stock in a timely manner.
7. Billing. Transparent billing arrangements.
8. After-sale service. The timely resolution of any matters under the terms of the contract.

The third report on “Rail Freight Quality: Progress in a Competitive Market” (Update Report on the CER-UIC-CIT Charter CER 2005) being published and dealt with the implementation of the CER-UIC-CIT Freight Quality Charter illustrates concrete results and progress achieved by the railways in the context of rail freight quality. It was detected two years after the adoption of the Charter express in July 2003. As two most sensitive indicators for freight quality were indicated:

1. The use of quality contracts between the railways and their customers.
2. The punctuality of freight trains.

An example for service quality parameters comes from Trenitalia charter and includes: train punctuality, service reliability, transport safety, flexibility, and speed of transport, availability of rolling stock, information and customer relations.

According to FIATA, UIC and CIT 2006, Guidelines for the development and implementation of quality agreements for specific trainloads in international conventional rail freight traffic, quality indicators fixed contractually between the railway undertakings and the clients constitute a basis for measuring the *agreed* quality, and can include:

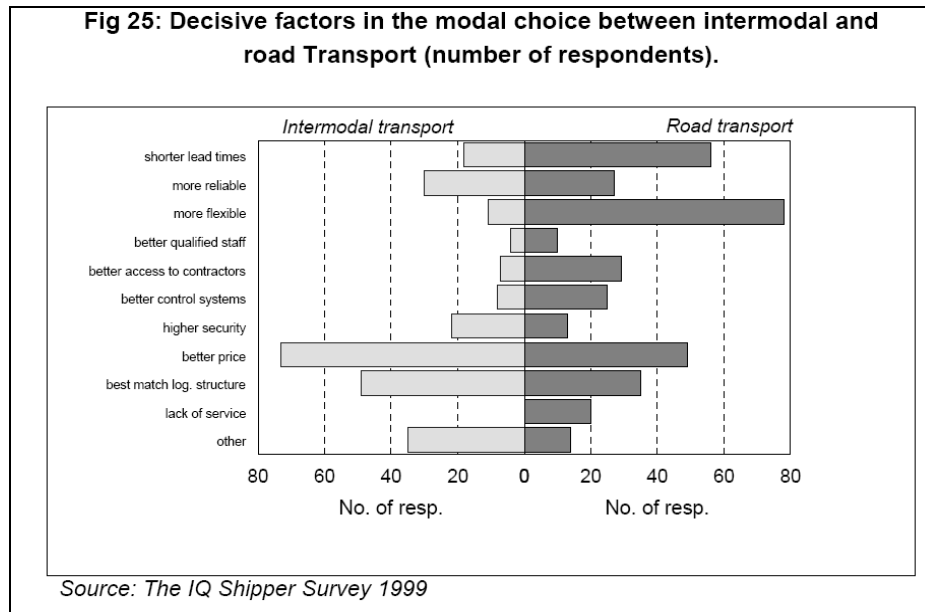
- Punctuality and reliability with transport-specific time allowances;
- Claim settlements and accounting;
- Secure loading conditions;
- Wagon supply (model-specific dispatch and availability);
- Train cancellation;
- Reliable information; e.g. punctuality, wagons out of sequence;
- Frequency: e.g. level, measuring points;
- After-sales service.

In TREND - Towards new Rail freight quality and concepts in the European Network in respect to market demand in EC, based on interviews with stakeholders discussing quality topics defined in “CER-UIC-CIT Freight Quality Charter”, issues to be considered in contracts are such as:

- Planning.
- Punctuality/reliability.
- Information.
- Rolling stock.
- After-sale service.

Next, Graph 2 illustrates that most important criteria to choose an inter-modal transport are: better price, best matching logistic structure, reliability and security. At the same time disadvantages of the inter-modal transport are flexibility and lead time.

Graph 2. Decisive Factors in Modal Choice between Inter-modal and Road Transport



In Table 3 one observes a set of priority criteria and content perceived by customers of the ZSSK Cargo.

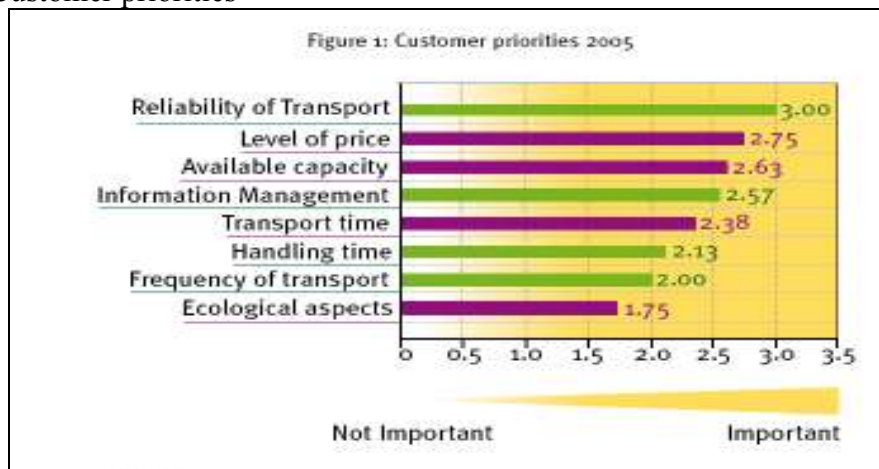
Table 3. ZSSK Cargo’s basic quality criteria of provided services

Accessibility	⇒	Contact availability and easiness
Communication	⇒	Constant client information in an understandable manner
Proficiency	⇒	Skills and knowledge necessary for service provision
Politeness	⇒	Devotion and respect, identification with the client’s opinion (requirements)
Credibility	⇒	Honesty, trust
Reliability	⇒	Performance readiness, error-proof system, accuracy of requirement satisfaction
Responsibility	⇒	Will and readiness to perform the service
Safety	⇒	Elimination of risks and mistakes, avoidance of material damages
Tangibility	⇒	Physical aspect of service, its appearance, driving units, material equipment
Time disposition	⇒	Appropriate duration of service and its provision in agreed time
Understanding	⇒	Effort to understand client’s needs, fulfilment of specific needs

Source: TREND

Quality is a multifaceted concept as can be seen in Graph 3.

Graph 3. Customer priorities



Source: PWC, 2006

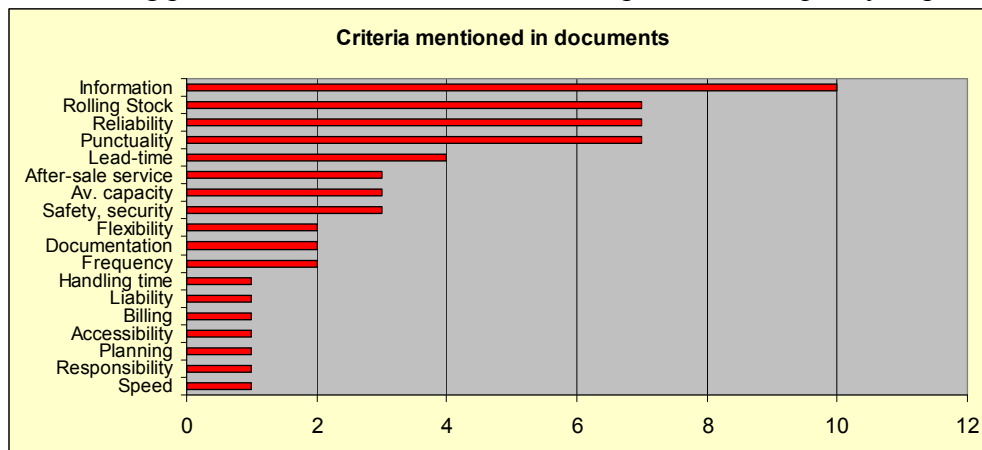
In BRAVO project, quality objectives have been agreed between the project partners. These objectives are listed in Table 4.

Table 4. Quality objectives agreed in the BRAVO project.

The following Quality Objectives are agreed between the partners:	
Criteria	Objectives
Punctuality*	1. 90% rate of punctuality of MAD: <ul style="list-style-type: none"> from railway undertaking to terminal operator conditions of application: <ul style="list-style-type: none"> objective relates to every service and regular train time frame: 2007 (will be checked then) max. tolerance: 15 min not applicable for the following events: force majeure (Art. 32/36?); rail construction site notified four weeks prior start
Reliability*	1. Volatility: max. train delay of 180 min (related to 10% of non-punctual trains) 2. Intermodal operators keep contracted annual train programme 3. modifications of annual train programme on following conditions: <ul style="list-style-type: none"> cancellations of trains: Thursday the week prior application
Flexibility	1. Cancellation of regular trains up to 48 hours prior departure without (extra) charge 2. Interim (Unterjährige) time-table modifications within three months after submittal of request.
Customer Information	1. Time allowed for railway undertaking to respond to customer request for implementing a new service: (new regular train)* <ul style="list-style-type: none"> max 1 week for commercial issues max 4 weeks for operational issues max 3 months for implementation of actions after acceptance of offer and timetable (time of order) 2. real time monitoring of every train, updated every 10 minutes (requirements to RA5) 3. reporting of ETA 4. co-ordinated international reporting system on actual train journeys including train n° & wagon n°
Wagon Management	1. monthly evaluation and agreement wagon sets 2. 95% rate of employment of agreed wagon set
Transport of Documents	3. 99.9% rate of reliability of transport of accompanying documents, i.e. a loss of 1 doc per 1.000 shipments

As a result of our analyses Graph 4 was drawn where one observes a graphical presentation of all the criteria for quality elaborated in studied documents.

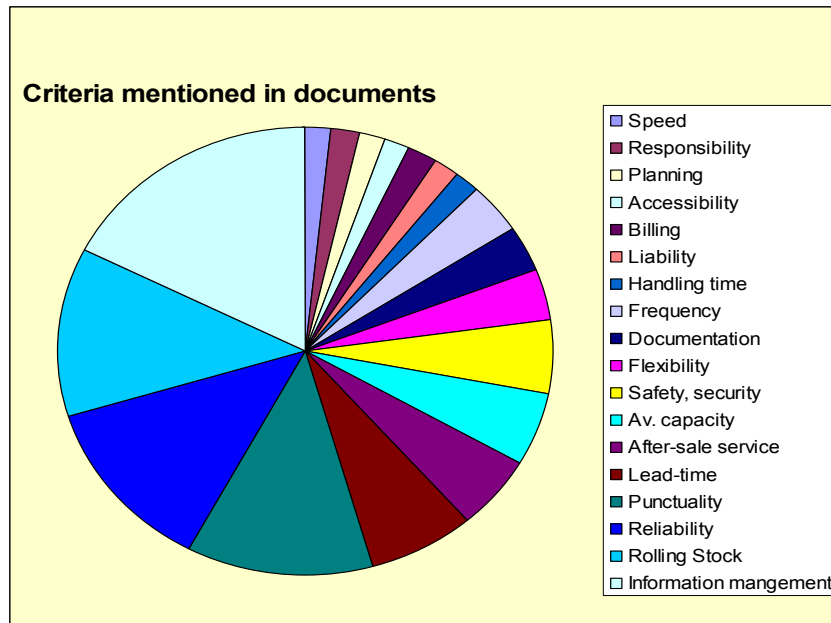
Graph 4. How often criteria were used in documents and initiatives (number of analysed documents, stating particular criteria as instrument for performance quality improvement)



Source: VGTU, 2009

In conclusion of this section Graph 5, which is just another form of the graph 4, imaginatively demonstrates that four of all used by stakeholders quality criteria (information, rolling stock, reliability and punctuality) are mostly recognized by the market quality criteria. The next priority groups of used service quality criteria are lead time, after-sale service, availability of the capacities, safety and security.

Graph 5. General view of take-up of criteria by documents and initiatives.



Source: VGTU, 2009.

Standardization in Segments of the Supply Chain

Railways are indicated as the malfunctioning segment of the transport logistics chain, mainly because of delay occurrence in the provided service. Information, reliability and punctuality are connected with delay occurrence in freight transportation services. In this context an outstanding example to be considered is the Delay attribution guide, the UK railway industry agreement.

1) Delay attribution guide (UK, 2004; 2007) is adopted by Delay Attribution Board, which is a joint industry body remitted to provide guidance to the industry on delay attribution issues. Industry vision of Delay Attribution is that “For all parties to work together to achieve the core objective of delay attribution to accurately identify the prime cause of delay to train services for improvement purposes”.

It is intended that the Delay Attribution Guide is the source of guidance on the delay attribution process as a whole to all Track Access Parties, and others involved in the delay attribution process. The Delay Attribution Guide is incorporated into the Network Code. However, the use of the word “Guide” is important as the document is not intended to cover every particular circumstance. A complete set of “rules” would be a constraint in the contract management by the parties.

The prime objective of Delay Attribution is to identify the prime cause of delay and hence suggest improvements in the services provided by rail. These causes are reported in the

Train Management Systems. In the shape of schemes and tables we briefly illustrate the contents of this document.

The document itself contains 125 pages, grouped into 15 sections, as follows:

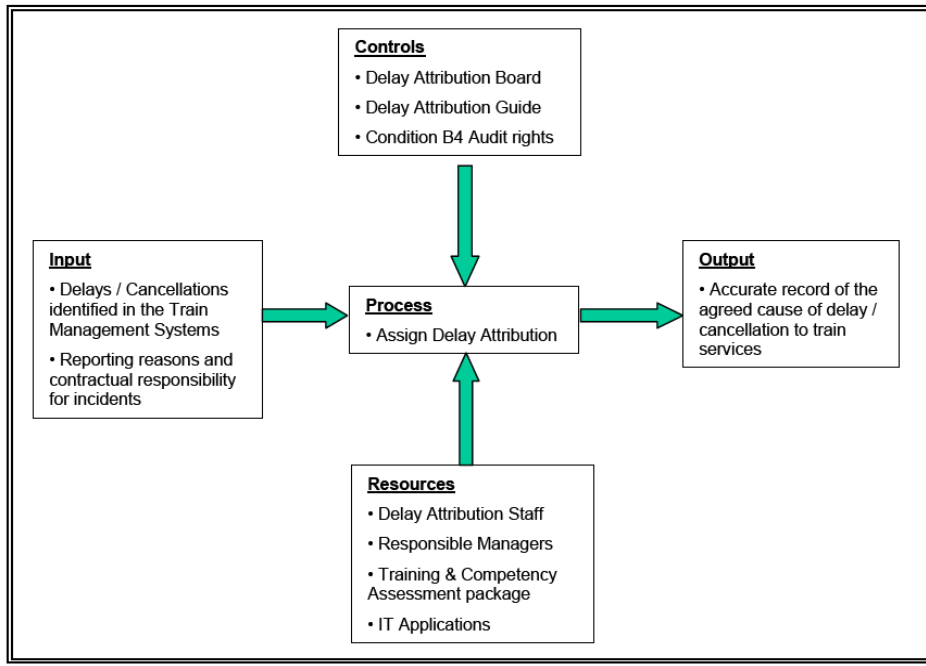
SECTION A	FREIGHT TERMINAL OPERATING COMPANY CAUSES
SECTION F	FREIGHT OPERATING COMPANY CAUSES
SECTION I	INFRASTRUCTURE CAUSES
SECTION J	FURTHER INFRASTRUCTURE CAUSES
SECTION M	MECHANICAL / FLEET ENGINEER CAUSES
SECTION N	OTHER MECHANICAL / FLEET ENGINEER CAUSES
SECTION O	NETWORK RAIL OPERATING CAUSES
SECTION P	PLANNED OR EXCLUDED DELAYS / CANCELLATIONS
SECTION Q	NETWORK RAIL NON-OPERATING CAUSES
SECTION R	STATION OPERATING COMPANY CAUSES
SECTION T	PASSENGER OPERATING COMPANY CAUSES
SECTION V	PASSENGER'S CHARTER EXCLUDABLE – TOC RESPONSIBILITY
SECTION X	PASSENGER'S CHARTER EXCLUDABLE - NETWORK RAIL
SECTION Y	REACTIONARY DELAYS
SECTION Z	UNEXPLAINED DELAYS / CANCELLATIONS

Each section (A – Z) consists of a set of codes for possible causes of delay.
The adapted delay attribution process is shown in Scheme 2 below.

Scheme 2. Delay Attribution Process.

1.1.3 The Delay Attribution Guide deals with the process of identifying the cause of delays / cancellations on the Network (that are reported in the Train Management Systems) and the process can be shown in diagrammatic form as seen in Diagram 1 below.

Diagram 1: Delay Attribution Process



Source: Delay attribution guide UK,

A sample of the delay cause codes is given in Table 5.

Table 5. Delay Cause Codes (sample)

APPENDIX A1		
Delay Causation Codes		
SECTION A - FREIGHT TERMINAL OPERATING COMPANY CAUSES		
Abbreviated Departmental Cause Code: FTO		
These codes are to be used for delays caused by Freight Terminal Operators including the customers of Freight Operating Companies and by the Operators of Res terminals (including passenger stations). Incidents are attributable to the company running the train, and not the operator of the yard.		
For delays that are not specific to terminal operations see F-codes.		
CODE	CAUSE	ABBREVIATION
AA	Waiting Terminal/Yard acceptance	ACCEPTANCE
AB	Waiting Customer release of documentation	DOCUMENTS
AC	Waiting train preparation or completion of TOPS list/RT3973	TRAIN PREP
AD	Terminal/Yard staff shortage including reactionary congestion caused by the shortage	WTG STAFF
AE	Congestion in Terminal/Yard	CONGESTION
AF	Terminal/Yard equipment failure - cranes etc	EQUIPMENT
AG	Adjusting Loaded wagons	LOAD INCDT
AH	Customer equipment breakdown/reduced capacity	BREAKDOWN
AJ	Waiting Customer's traffic including ship/road/air connections and Mail deliveries.	TRAFFIC
AK	Fire in freight yard / terminal (including private sidings, and stations – where it affects FOC services)	INF FIRE
AX	Failure of FOC-owned infrastructure	FOC INFRA
AY	Mishap in Terminal/Yard or on Terminal/Yard infrastructure	FTO MISHAP
AZ	Other Freight Operating Company, cause to be specified	FTO OTHER

Source: Delay attribution guide UK,

In summary, parties are working together to identify correctly the cause of an incident, regardless of the fact to whom a given incident is attributed. All parties involved develop key indicators on the accuracy of the delay attribution process that enable each party to identify areas where the process is not being applied effectively and agree to identify and implement action plans to improve the process.

Another issue to be considered is that the quality of services provided in terminals is of high importance to achieve satisfactory levels of reliability, punctuality and availability of moving assets (rolling stock in particular). It should be noted that the ISIC (EC, ECORYS 2005) project has been dedicated to the terminal performances, where covered are:

- Terminal infrastructure planning and design.

- Terminal equipment (such as transshipment equipment, gate procedures, IT-Systems)
- Terminal processes and services (including terminal management)
- Benchmarking and standardization applied exclusively for inter-modal terminals.

Standardization at terminals is (quality labelling and benchmarking) indicated as a third instrument to improve quality and efficiency of inter-modal terminals. Within this context interoperability problems, standardization needs and proposals related to Inter-modal Terminals were identified within the scope of the ISIC project. Identified needs for standardization in terms of intermodal terminals are given in Table 6 below:

Table 6. Inter-modal terminal standardization needs.

	ISO	CEN	National Standardisation
Type of terminals	Seaport Terminals	Inland intermodal terminals rail/road/ inland waterway	Seaport and inland terminals
Planning and design of terminals			
Terminal location planning	small needs	medium needs	small needs
Terminal planning and design	medium needs	big needs	small needs
Terminal construction and realisation	small needs	small needs	medium needs
Terminal equipment			
Information and communication systems	big needs	medium needs	small needs
Identification Systems	big needs	big needs	small needs
Transshipment technologies	medium needs	medium needs	small needs
Automation of terminal internal transport processes	medium needs	medium needs	small needs
Terminal management systems	medium needs	big needs	small needs
Security Systems	big needs	big needs	small needs
Services and processes at terminals			
Services and processes (including security)	medium needs	big needs	small needs

small needs

medium needs

big needs

Source – ISIC project Final report

Terminal processes and services standardization issues, identified by the ISIC project are presented in Table 7 followed by the project developed actions for improvements of the quality of inter-modal terminals as presented in Table 8.

Table 7 Terminal processes and services standardization issues, identified by the ISIC project

Area	Aspects to be standardized	ISO	CEN	National
Processes and Services at Terminals	Quality Management requirements in addition to ISO and CEN EN 12507 Terms and definitions Responsibilities Requirements for information, cooperation and communication Terminal procedures Security procedures Handling procedures relating to dangerous goods (in addition to prEN 12798) Definition of quality and performance dimensions Definition of quality and performance indicators Measurement procedures for quality and performance indicators Monitoring and controlling of performance and quality indicators	Eventually extension of ISO 9000 Series Eventually is a standardisation on CEN level sufficient	CEN TC 320 /WG 8 Freight Terminals (or Freight Platforms) CEN BT WG 161/EG (security aspects)	Nationals standardisation organisation (completion of national aspects, if necessary)

The work can be done by the existing CEN TC 320 Transport, Logistics and Services. The WG 8 "Freight terminals" could be reactivated and a new work item defined based on the ISIC results.

Source: ISIC

Table 8. The project developed actions for improvements of the quality of inter-modal terminals

Action	Responsible actor(s)	Other actors involved	Time frame
• Discussion of standardisation proposals for intermodal terminals and consultation	DG TREN, CEN	ISO, Intermodal associations, market parties	2005 Q1-Q2
• Consultation on quality label and benchmarking for intermodal terminals and (including linking state aids with the presence of a quality label)	DG TREN, EIA	Intermodal associations	2006Q1-Q2
• Definition of standardisation mandates and new work items	DG TREN, CEN	ISO, Intermodal associations, market parties	2005 Q2-Q3
• Development of new standards for intermodal terminals	CEN, ISO	DG TREN, market parties	from 2006 Q3
• Detail design for a quality label and benchmarking system (including linking state aids with quality label and design of a regulatory framework)	DG TREN, EIA	Intermodal associations, European Shippers Association	2006-2007
• Terminal database extension and actualisation (incl. terminal maps), including proof of feasibility for further development of a training and planning tool in intermodal transport	DG TREN, EIA	Eurostat, intermodal associations	2005 -2007
• Identification of terminal demand and location for 2015/2025	DG TREN	Intermodal associations	2005 -2007
• Integration of terminals of European importance in TEN-T network	DG TREN	Intermodal associations	2008
• Implementation of a quality label and a benchmarking system	EIA	Intermodal associations	2008
• Implementation of regulatory framework on linking terminal funding with quality label	DG TREN	National governments	2008

Source: ISIC

Quality Contracts

In analysing quality contracts, analysed have been:

1. Quality development charter FNTR, SNCF, NOVATRANS, GNTC France 2000
2. Quality Manual for Combined Transport UIC 2001
3. Rail Freight Quality: the challenge. CER report 2003
4. Freight Quality Charter-2003 CER- UIC – CIT
5. Joint Commitment by railway Undertakings,
6. Rail Freight Quality: Progress in a Competitive Market. Update Report on the CER-UIC-CIT Charter. CER September 2005
7. Guidelines for the development and implementation of quality agreements for specific trainloads in international conventional rail freight traffic. FIATA, UIC and CIT 2006

The foregoing seven sources are presented below, as follows:

1) Quality development charter FNTR, SNCF, NOVATRANS, GNTC France 2000

This is one of first inter industrial agreements on quality contracts. This agreement is between rail and road, and has advantages for shippers, carriers and the community as it provides an efficient response to the problems of congestion, safety and environment. SNCF and NOVATRANS aim at a high level of quality in rail transport; NOVATRANS and its customers involve the quality of road-rail interface; FNTR and the GNTC undertake to increase the level of traffic on selected inter-modal routes by 20 per cent through the haulers. A mutual commitment is for a reliability of 95 %.

Next, this Charter also stipulates mutual responsibilities in the operational processes to ensure shipments are made available for carriage on time. The scope of the service is in compliance with:

1. Forwarding time from depot to depot;
2. Railway hand-over deadlines and delivery deadlines;
3. Road hand-over deadlines and delivery deadlines.

2) Quality Manual for Combined Transport UIC 2001

The guidelines for combined transport, given in the Quality Manual for Combined Transport UIC 2001, are derived from existing quality management system configurations and drawn upon the experience gained through the UIC labelling system for combined

transport on the UK - European mainland and Benelux – Switzerland routes, the creation of a multilateral service point (Brenner) to manage the Denmark/ Germany – Italy route and the development of a quality management system on the Germany – Iberian Peninsula route.

Quality contracts are highly recommended for combined transport. The differences between Commercial agreement and Quality contract are summarized in Table 9 below:

Table 9. Commercial Agreement and Quality Contract

	Commercial agreement	Quality contract
Character	commercial	legal
Form	Agreement	contract
Link to the haulage contract	Indirect	appended to the haulage contract
Characteristics	product group, no right to compensation	compensation entitlement
Procedure	May vary, to be agreed	strict procedure to be followed
Nature of payments	Fines for poor quality	compensation
Amounts paid out	Low	high
Agreement on the volume of Traffic	Optional	necessary, annual volume

Source: VGTU, 2009.

3) Rail Freight Quality: the challenge. CER report 2003

Standard Quality Contract (in French) is given in Appendix B of the document. It should be voluntary, specific to customer groups and requirements.

4) Freight Quality Charter-2003 CER- UIC – CIT



Freight Quality Charter - 2003 CER - UIC – CIT is a milestone document for introducing quality contracts into combined transport practices. The Charter expresses the commitment of the railways to enter, whenever requested, into agreement with their customers on the following service areas:

- Responsibility,

- Safety,
- Planning,
- Punctuality and reliability,
- Information,
- Rolling stock provision,
- After-sales service and billing.

Contracts between Freight Customers and Railway Undertakings shall include customer service quality provisions in one or more of the given service areas, depending on Customers requirements and Railways service quality provided.

Any contractual commitment resulting from these negotiations can be seen as an addition to the standard CIM provisions.

5) Joint Commitment by railway Undertakings, members of the UIC Freight Forum and Combined Transport Operators, members of UIRR, to develop the quality of scheduled trains operating Combined Transport Services and of contracts covering this quality. INTERUNIT 2005

This document lists essential components to be taken into account in establishing practical/specific “route-by-route” and “contract-by-contract” arrangements.

The main (different) elements being considered between Railway Undertakings (RUs) and Operators in the framework of the quality contracts by route are, as follows:

1. The scheduling of trains (e.g. the maximum gross tonnage, the maximum length origin/departure points, in principle terminals, the itinerary, the timetable)
2. The procedures and communication circuits for implementing quality contracts (monitoring, analysis of causes, information feedback ...)
3. Reciprocal penalties, charged to the defective party in case of delays or cancellations
4. The different penalty rates shall be set at jointly determined level
5. Cases of exemption
6. Cases of capacity reduction
7. The operational information to be supplied
8. Force majeure

To ensure that their contracts for the quality of service provided are as effective as possible, the parties shall arrange similar agreements with their suppliers and sub-contractors.

6) Rail Freight Quality: Progress in a Competitive Market. Update Report on the CER-UIC-CIT Charter. CER September 2005

Two most sensitive indicators for freight quality are, as follows:

- The use of quality contracts between the railways and their customers.
- The punctuality of freight trains.

Freight customers across large parts of Europe can currently choose between several different price/quality mixes for rail freight services. Good commercial practice is to provide a “*menu of price-quality mixes*”, not a single “one-size-fits-all” contract.

7) Guidelines for the development and implementation of quality agreements for specific trainloads in international conventional rail freight traffic. FIATA, UIC and CIT 2006

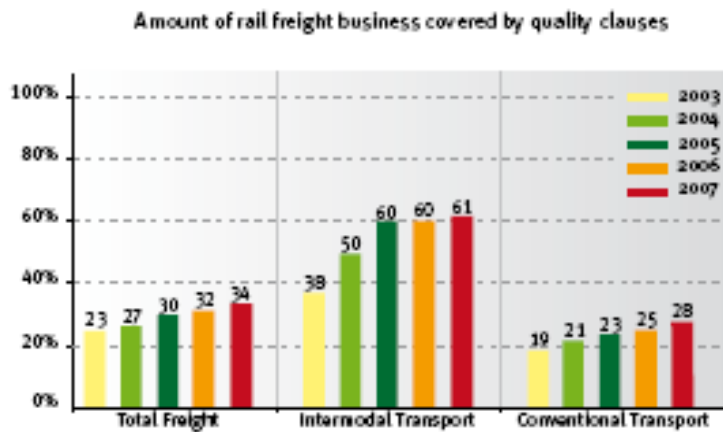
Following the drawing up of the guidelines on quality agreement for inter-modal and conventional block train services, further guidelines for conventional traffic have been developed. The guidelines are valid for selected international full trainloads as well as selected groups of at least 10 wagons in conventional rail freight traffic, specifically and contractually agreed between railway undertakings (RUs) and their clients.

Service specifications are agreed between RUs and clients, and constitute as a complete package the purpose of the respective quality agreement. Service specifications that can be agreed upon are:

- Transport quantities;
- Train capacity, i.e. capacity per train, the number of trains per year;
- Departure and destination points;
- Routing;
- Timetable, i.e. transport days, latest delivery date (inclusive of transport-specific time allowance), departure, arrival and release date;
- Order and cancellation periods;
- Information: content and frequency.

Graph 6 illustrates how quality is regarded in rail freight business contracts. It is evident that since 2003, when the Freight Quality Charter was signed, quality issues in inter-modal transport have been regarded nearly twice more often, overcoming significantly the conventional transport.

Graph 6. Amount of rail freight business covered by quality clauses



Source: 2008 CER report

Quality Labelling

In this section we encompass:

- 1) Integrated Services in the Inter-modal Chain (ISIC) EC, ECORYS 2005.
- 2) Freight Operator Recognition Scheme Freight Operator Recognition Scheme (FORS) UK 2006.

1) Integrated Services in the Inter-modal Chain (ISIC) EC, ECORYS 2005

The ISIC project is on the opinion that in the first line of Quality Label (QL) should serve as an orientation for customer in their decision-making process. But a quality label can also support political authorities in their evaluation (e.g. regarding funding of terminals).

The indicators should be selected with direct regard to the aim of this QL. They also have to address the today's key problems.

The certification and labelling authority should be neutral and should have a high acceptance.

Proposal for Quality Label indicators to be considered, as follows:

- Quality indicators: Cut-off-time, Waiting times, Turnaround times for trucks, train, barge and vessel, Opening hours, Possibility for short time deliveries, Accessibility / connection to main road or rail net, Hinterland connection, Slotting availability, Damage frequency, Damage to loading unit, Security features and control.

- Performance indicators (in addition): Terminal productivity, Labour productivity, Energy consumption per load unit.

The final selection of the indicators have to be made taking into account the specific purpose and design of a quality label and benchmarking system.

If a QL helps support customers in their decision making process and if a QL ensure the terminal quality, the awareness for inter-modal transport is on the increase, in general. This can support also a modal shift towards more environmentally-friendly transport modes and also underpin political objectives.

The ISIC Project recommends having only one QL for all inland terminals road-rail, one QL for IWW terminals and one for seaport-terminals (SSS). The argument of the diversity in the terminal landscape is often indicated as reason against a unified Quality Label. But on the other hand all quality labels are faced with the problem of differences in products and services. For the development of an external QL for all terminals, the suggested design of a QL can be taken. But the thresholds have to be approved within a detailed survey involving terminal operators. The thresholds used are only initial suggestions and have to be analysed in detail.

2) Freight Operator Recognition Scheme Freight Operator Recognition Scheme (FORS) UK 2006

FORS aims to develop standards for road freight operators in London by promoting sustainable development. FORS is a scheme for road freight operators which encourages and incentives them to adopt best practice. It could potentially be a one stop-shop for getting assistance and reducing the burden of administration on freight operators in London. FORS may be a good sample in conceptual phase of the Quality Label task.

Standard Combined Transport Product

Within the context of “Standard Combined Transport Product” we discuss the following 2 issues:

1) Rail Freight Quality: Progress in a Competitive Market. Update Report on the CER-UIC-CIT Charter CER 2005

2) Developing a Quality Strategy for Combined Transport. UIRR, supported by DG TREN funded through the PACT(Pilot actions for combined Transport) facility. Consultant Booz, Allen & Hamilton (BAH)

1) Rail Freight Quality: Progress in a Competitive Market. Update Report on the CER-UIC-CIT Charter CER 2005

This report presents good commercial practice that provides a menu of price-quality mixes; not a single “one-size-fits-all” contract.

Stinnes AG and Railion launched the three wagon-load products “Classic”, “Quality” and “Prime”. These products allow for different transit times for single wagons, offer proactive customer information, monthly quality reporting and guaranteed transit times of up to 48 hours (Quality) and 24 hours respectively (Prime).

In 2003, Stinnes AG and Railion Deutschland introduced three new “block trains” products: “Plantrain”, “Variotrain” and “Flextrain”, which are differentiated by the flexibility they offer to orders and required deadlines by the customers.

2) Developing a Quality Strategy for Combined Transport. UIRR, supported by DG TREN funded through the PACT (Pilot actions for combined Transport) facility. Consultant Booz, Allen & Hamilton (BAH)

This standard is seen as a reliable product because it involves scheduled block trains with standardized procedures such that haulers can book on a specific train at a specific time and a specific schedule. These three variables together will define the expected time of arrival of the freight at its destination point.

Information provided to the customer is considered as a standard in many transportation products as well as costs. DB and Kombiverkehr report considerable progress as well in building their Kombi-Netz 2000. This is a scheduled, terminal to terminal set of block trains in a network of 26 trains. Here, Kombiverkehr takes all the commercial risks and makes the complete train available, so that DB only has to provide traction. This has indeed resulted in clear volume increases, and so a 90 % reliability was achieved.

Quality Management along Supply Chain

For the purposes of this discussion, studies have been:

- 1) Developing a Quality Strategy for Combined Transport UIRR, supported by DG TREN funded through the PACT (Pilot actions for combined Transport) facility. Consultant Booz, Allen & Hamilton (BAH) 2000
- 2) Building transparency into supply chains. Service performance. FTA, UK Materials for workshop on Service Performance in Brussels on 15 July 2003

Next, a presentation of the analysis is given, as follows:

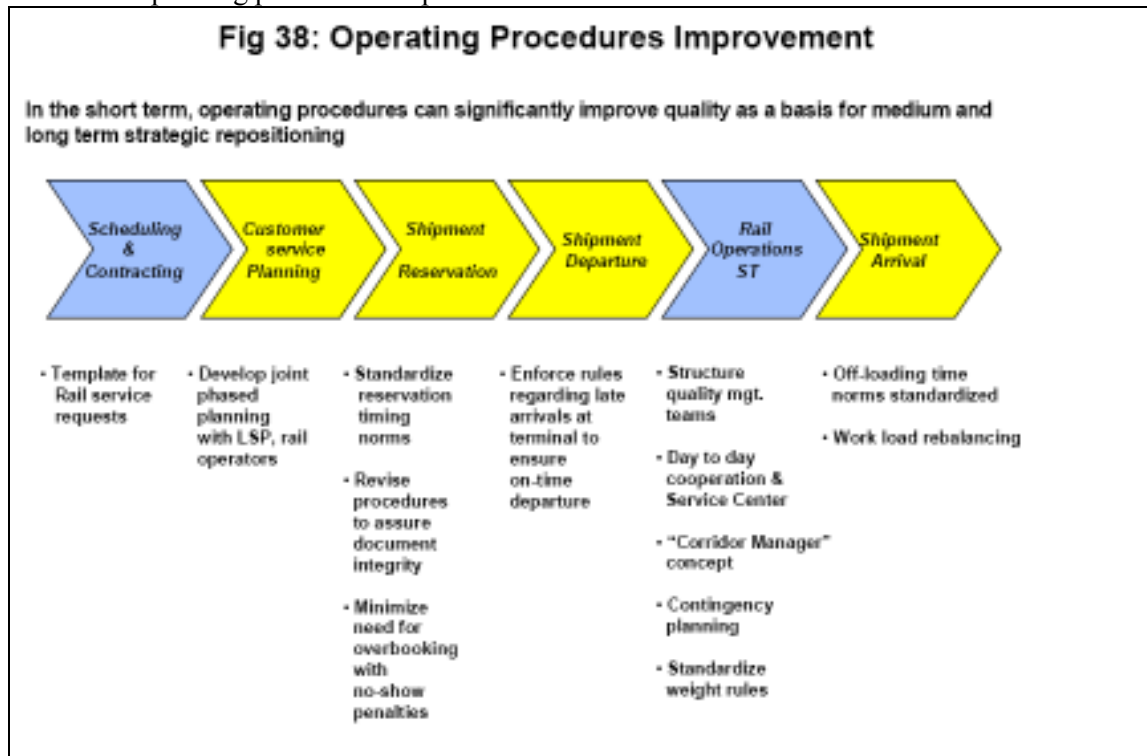
1) Developing a Quality Strategy for Combined Transport UIRR, supported by DG TREN funded through the PACT (Pilot actions for combined Transport) facility. Consultant Booz, Allen & Hamilton (BAH) 2000

Commercial and operational issues identified during this investigation:

- Improved planning procedures between UIRR members and the railway operators, using service request templates and joint, phased planning procedures
- Clear and common booking rules and procedures to address timing norms, overbooking and late acceptance issues.

- Enforcement of existing procedures in accepting late arrivals so as to avoid late departure of trains and revised procedures to assure document integrity
- Establishment of corridor quality teams and corridor service centres, using best practice problem resolution approaches as demonstrated by the parties themselves, particularly on the Brenner Pass, but also at Modane, at Port Bou/Cerbere, and at Irun/Hendaye border crossings
- Appointing a lead carrier as corridor manager on each corridor so as to provide a clear and accountable interface to the UIRR members
- Development of back up and contingency operations plans, so as to be prepared for inevitable service breakdowns
- Redefinition of technical standards such as weights and rounding off rules so as to avoid off-loadings and unnecessary disputes
- Rebalancing workload across the system throughout the day to reduce peak loads.

Scheme 3 Operating procedures improvement



Source: UIRR

2) Building transparency into supply chains. Service performance, FTA, UK Materials for workshop on Service Performance in Brussels on 15 July 2003

This document indicates the minimum requirement of standards for service along supply chain to ensure 100% accuracy. FTA was hosting a free inter-modal workshop on Service Performance in Brussels on 15 July 2003. Shippers, providers and terminal managers in air, deep-sea, short-sea, rail and road from all over Europe met to discuss how the demand-side, service focused agenda can be pushed forward consistently for all modes of freight transport. As demonstrated in Table 8 below, following service performance indicators (SPI) were agreed upon for Short Sea Shipping projects.

Similar project for the air freight sector has been fulfilled, which resulted in 12 SPIs.

Quality Management along Transport Corridors

In this section we discuss:

- 1) BRAVO - Brenner Rail Freight Action Strategy. FP6, 2004-2007
- 2) Developing a Quality Strategy for Combined Transport. UIRR, supported by DG TREN funded through the PACT (Pilot actions for combined Transport) facility. Consultant Booz, Allen & Hamilton (BAH) 2000
- 3) Rail Freight Quality: the challenge. CER report 2003.
- 4) Interoperability of the trans-European rail system. MoU: UIC, UNIFE, CER, EIM 2005.
- 5) EAST WEST Transport Corridor Strategy and Action Plan. Interreg IIIB 2005-2007

- 1) BRAVO - Brenner Rail Freight Action Strategy. FP6, 2004-2007

BRAVO Quality Manual was provided, applicable for the Brenner route and designed also as a blueprint mark to other pan-European freight corridors. It describes the processes and activities, necessary for the achievement of a high level of quality and thus for meeting the demands of the customer to drive both quality assurance and improvement.

In terms of intermodal transport, a main target of quality is to achieve and maintain high levels of quality in rail freight service. Thereby attention should be paid to the following key performance indicators, which are defined for the Brenner Corridor in particular:

- Scheduled and reliable transportation (punctuality, reliability, planning, responsibilities, wagon management).
- Safe and a free of damage transportation (safety).
- Adherence of the agreed information flows (information management).

The realization of the Quality Target lies within the responsibility of all participants involved.

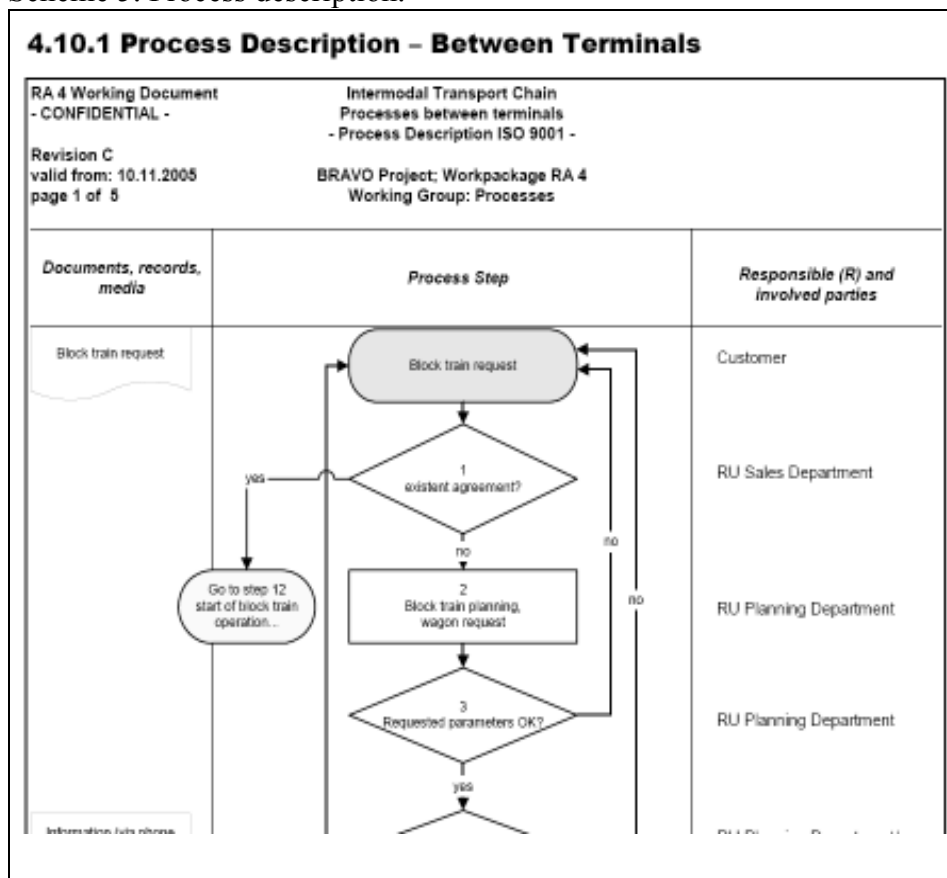
The Quality Manual describes all processes and activities necessary for high levels of quality in meeting the demands of the customer. All responsibilities, competencies, procedures and structures according to quality measures within the Brenner – Corridor are defined therein, to drive both quality assurance and improvement. To realize the set Quality Policy, the partners together developed and implemented a coherent Quality

Management System, based on elements of international certification models such as ISO 9001:2000. The quality manual provides regulations for:

- Transport processes.
- Measures for quality improvements.
- Information flow management.
- Quality measurement system.
- Comprehensible and standardized documents.
- Clearly defined responsibilities over the whole transport chain.

The Quality Manual is a binding regulation for all participants concerned. In the pictures (Schemes 5 & 6) below presented are samples of how the processes are described.

Scheme 5. Process description.



Source: BRAVO

Scheme 6. Text version of process description.

4.10.2 Text version of Process Description "Between Terminal"		
Steps / timeline (examples)		Responsible (R) and involved partners
<p>Step 1: existing agreement / 1 hour</p>	<p>Before the incoming block train request from the Customer will be processed, it has to be checked by the RU Sales Department for sufficiency and an existing agreement. If an agreement can be found by the contract-number embodied in the request, and it is sufficient as well in regard of all parameters necessary as per agreement, the proceeding goes directly to step 12 "start of block train operation", provided that the given parameters did not change.</p>	<p>RU Sales Department</p>
<p>Step 2-3: Block train planning, Wagon request, Requested parameters ok? 4 hours</p>	<p>In case of that and if there is no existing agreement, all organisational steps must be taken for a full planning of the train (train path, resources), but whereas the missing agreement should not affect an efficient proceeding of the request. First the RU Sales Department employee forwards the block train request to the RU Planning Department, who checks the parameters of the requested train in respect of length, gross and other necessary information.</p>	<p>RU Planning Department</p>

Source: BRAVO

It should be noted that BRAVO is the very first effort towards development of a Quality Manual for a whole corridor. This quality manual is recommended to be used in other routes and corridors as well.

2) Developing a Quality Strategy for Combined Transport (CT). UIRR, supported by DG TREN funded through the PACT (Pilot actions for combined Transport) facility . Consultant Booz, Allen & Hamilton (BAH) 2000

The in-transit and border disruptions are probably one of the most critical aspects of the whole CT quality challenge, and also one of the most difficult to solve. The interface between two national railway companies is problematic and has everything to do with commitment, intent, availability and priorities. The CESAR system represents a major step in linking all the parties in the chain through the Internet provide basic functionality for booking and for tracking and tracing. The scope of the customer IT needs is evolving, from basic tracking and tracing to full shipment life cycle control, and beyond, into full logistics work flow management with intelligent agents steering events.

3) Rail Freight Quality: the challenge. CER report 2003.

UIC projects on quality in corridors with SAPPI, VOEST, UMICORE, AUDI and corridors Gothard, Loetschberg, Brenner are analysed. Target is 100% coverage of North-South combined transport via Switzerland with quality agreements including penalty clauses.

4) Interoperability of the trans-European rail system. MoU: UIC, UNIFE, CER, EIM 2005.

A joint European-wide approach along Europe's key passenger and freight corridors is needed in order to avoid isolated national applications. As mentioned above elements to be considered between Railway Undertakings and Operators in the framework of the quality contracts by route are, as follows:

- The scheduling of trains (e.g. the maximum gross tonnage, the maximum length origin/departure points, in principle terminals, the itinerary, the timetable, etc.).
- The procedures and communication circuits for implementing quality contracts (monitoring, analysis of causes, information feedback ...).
- Reciprocal penalties, charged to the defective party in case of delays or cancellations.
- The different penalty rates shall be set at jointly determined level.
- Cases of exemption.
- Cases of capacity reduction.
- The operational information to be supplied.
- Force majeure.

5) EAST WEST Transport Corridor Strategy and Action Plan. Interreg IIIB 2005-2007

EWTC is a unique multi-modal transport corridor from Esbjerg, western port of Denmark to eastern border of Lithuania, linking Denmark, Sweden, and Lithuania with Russia, Byelorussia, Ukraine and extending towards Asia. KIPIS (the Information System for cargo and Goods), initially developed as Klaipeda Seaport is no being integrated with information systems of the "Lithuanian railways", operating shuttle trains up to the Black Sea. Later through twin-ports Klaipeda – Karlshamn process the IT system will be linked to short sea shipping and Scandinavian part of the corridor. Hence all stakeholders along the corridor will be using standard documents and standard IT applications.

Standards of Professional Competence

In the context of Standards of Professional Competence, the following sources have been studied:

- 1) ELA standards of personal competence. European Logistics Association (ELA) 2004.
- 2) Integrated Services in the Inter-modal Chain (ISIC) EC, ECORYS 2005.
- 3) Developing a Quality Strategy for Combined Transport. UIRR, supported by DG TREN funded through the PACT (Pilot actions for combined Transport) facility. Consultant Booz, Allen & Hamilton (BAH) 2000.
- 4) The role of the railways in the promotion of combined transport. United Nations, Economic Commission for Europe; Inland transport committee Working party on combined transport Thirty-seventh session, 18 and 19 April 2002.

5) FIATA Minimum Standards.

1) ELA standards of personal competence. European Logistics Association (ELA) 2004

Standards of competence provided by the European Logistics Association Certificate (ELA Certificates) are to certify individuals who meet a set of Standards in Supply Chain / Logistics Management. The European Certification Board for Logistics (ECBL) is the custodian of the Standards, and is responsible for updating the Standards as and when required. The Board set up a system to monitor the performance of National Certification Centres established in different countries, and ensures that the Standards operating in each country are in line with the European directive.

The standards at three management levels are presented in Table 10 below.

Table 10. Standards at management levels.

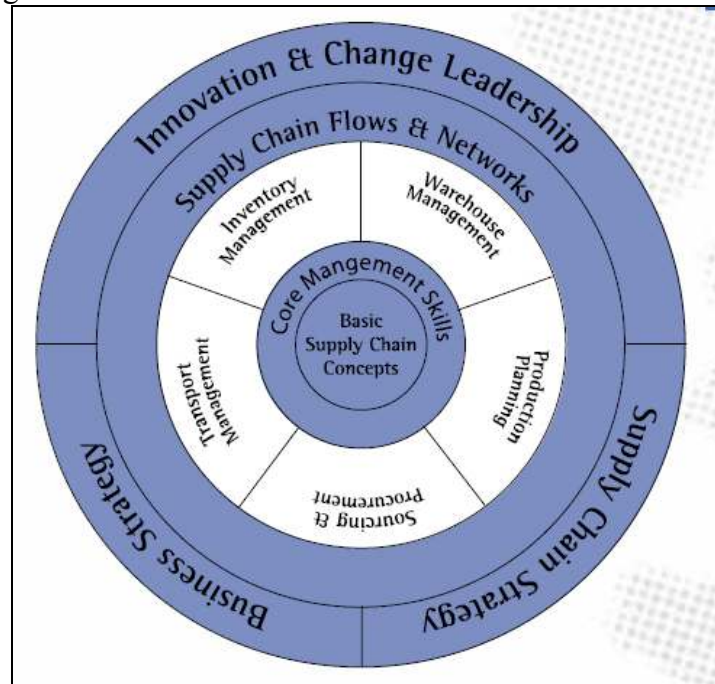
There are Standards at three management levels:

Level	Target Audience	Competence	Key Outcomes
Strategic Level	<ul style="list-style-type: none"> o Senior managers, senior consultants or directors with considerable experience in logistics management (Strategic managers) o Senior executives who have assumed logistics responsibilities from another business discipline 	<p>Requires the application of fundamental principles and complex techniques across a wide range of unpredictable contexts.</p> <p>Usually involves responsibility for substantial human, physical and financial resources.</p>	<p>The candidate must</p> <ul style="list-style-type: none"> o understand logistics strategies and processes, the interrelationships between and within logistics networks, and the role of logistics within the total business context o have special skills and knowledge in logistics strategies o to be able to define and optimise the logistics strategies within his/her area of responsibility.
Senior Level	<ul style="list-style-type: none"> o Managers or consultants planning, coordinating and controlling different parts of the logistics network o Graduate entrance to the profession who are on the fast track to senior management 	<p>Involves specialist skills and knowledge in a broad range of work activities, usually performed in a wide variety of tasks, mainly complex and non-routine.</p> <p>Has a substantial degree of personal autonomy and responsibility. Usually is responsible for the work of others.</p>	<p>The candidate must</p> <ul style="list-style-type: none"> o understand logistics strategies and processes, the interrelationships between and within logistics networks o have special skills and knowledge in management of processes and projects o to be able to define and optimise the logistics processes within his/her area of responsibility.
Supervisory/ Operational Level	<ul style="list-style-type: none"> o Supervisors in an operational role o First line managers 	<p>The candidate requires knowledge and skills in a broad range of work activities, usually performed in a wide variety of tasks, some of which are complex and non-routine.</p> <p>Could be responsible for the control or guidance of others.</p>	<p>The candidate must</p> <ul style="list-style-type: none"> o understand logistics strategies and processes, the interrelationships between and within logistics networks (generic knowledge) o have special functional skills and knowledge o to be able to optimise activities within his/her area of responsibility.

Source: ELA

Content of standards for different management levels is presented in the figures (Schemes 7 – 9) below.

Scheme 7. Strategic Level



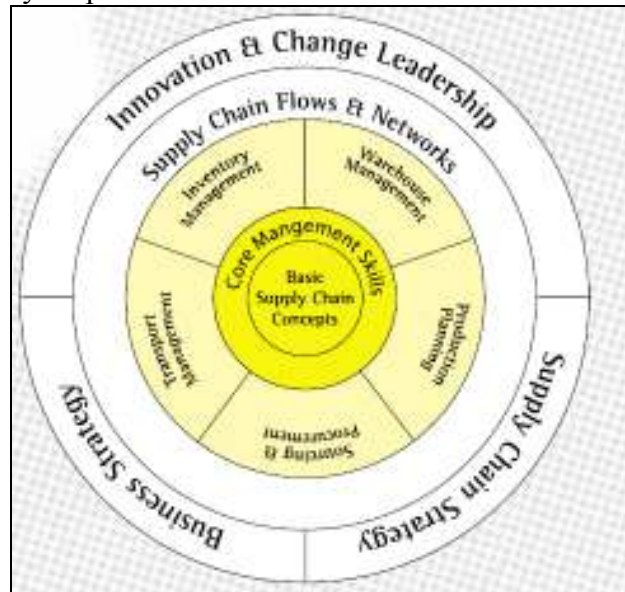
Source: ELA

Scheme 8 Senior Level



Source: ELA

Scheme 9. Supervisory / Operational Level



Source: ELA

2) Integrated Services in the Inter-modal Chain (ISIC) EC, ECORYS 2005

A Task (Task E to be precise) of the ISIC project proposes quality standards, training and certification systems for the staff that is responsible for modal shift decisions in the business environment (the inter-modal supply chain integrator).

3) Developing a Quality Strategy for Combined Transport. UIRR, supported by DG TREN funded through the PACT (Pilot actions for combined Transport) facility. Consultant Booz, Allen & Hamilton (BAH) 2000.

This document recommends foundation for creating a learning environment and framework in which improvement in European combined transport system will be a continuous process. One of the measures is to create a website-supported learning infrastructure in which parties can upload information. This is to facilitate the will of the individual parties to work together conducting rational dialogues in achieving a common goal.

4) The role of the railways in the promotion of combined transport. United Nations, Economic Commission for Europe; Inland transport committee Working party on combined transport Thirty-seventh session, 18 and 19 April 2002.

Where rail combined transport is concerned it could take the form of standardization of training. Training could be ensured by a European training centre or under bilateral agreements between railway companies (principle of the “Eurostar” and “Thalys” passenger trains). The objective is that the train should not stop, while ensuring that working time is compatible with safety (e.g. long-distance bus drivers in France). Driver training would involve only one country in addition to the driver’s own. This could be made part of the enhancement of the profession of goods train drivers.

It is important for the management of trans-shipment terminals to be of optimum quality in order to ensure proper regularity in the transport of goods and customer satisfaction.

5) FIATA Minimum Standards

FIATA member countries voluntarily agreed to share the Standards of Competence for freight forwarding. FIATA has validated the training material of around 40 National Associations. These courses are based on the "FIATA Minimum Standards". Those Associations who have successfully validated their training programme are entitled to deliver courses leading to the renowned "FIATA Diploma in Freight Forwarding by Vocational Training and Examination". The FIATA Diploma is recognised worldwide by the industry.

The FIATA programme for recognition of professional competence in freight forwarding consists of 200 hours training, where the following subjects are incorporated:

- an introduction to freight forwarding;
- sea transport (general);
- maritime containers;
- air transport;
- road transport;
- rail transport;
- national/international carriage by inland waterway;
- customs procedures;
- logistics;
- warehousing, storage and distribution;
- transport insurance;
- dangerous goods;
- information & communication technologies in forwarding.

In brief, considering the commonality of content and influence on the performance quality in supply chain (a subject of the project BE LOGIC), we are able to summarize and suggest the following "8 itemized" classification of quality standards:

- 1 Individual Service Quality Provisions/Criteria.
- 2 Standardization in Segments of the Supply Chain.
- 3 Quality Contracts.
- 4 Quality Labelling.
- 5 Standard Combined Transport product.
- 6 Quality Management along Supply Chain.
- 7 Quality Management along Transport Corridors.
- 8 Standards of Professional Competence.

The descriptions that come next are organized along the 8 items/classes of the suggested classification. Before proceeding, however, note that the 6 inter-modal-transport-user-oriented standards fall within different classes of the suggested classification and they are shown in Table 2 below.

Table 2 Standards vs. segments in table.

Standards:	Classes:	Individual Service Quality Provisions/Criteria	Standardization in Segments of the Supply Chain	Quality Contract	Quality Labelling	Standard CT Product	Quality Management along Supply Chain	Quality Management along Transport Corridors	Standards of Professional Competence
CEN/TR 14310:2002	-	-	-	-	-	-	1	-	-
EN 12507:2005	-	-	-	-	-	-	1	-	-
EN 12798:2006	-	-	-	-	-	-	1	-	-
EN 13011:2000	-	-	-	-	-	-	1	-	-
EN13876:2002	1	-	-	-	-	-	-	-	-
EN 15696:2007	-	1	-	-	-	-	-	-	-
TOTAL	6	1	1	-	-	-	4	-	-

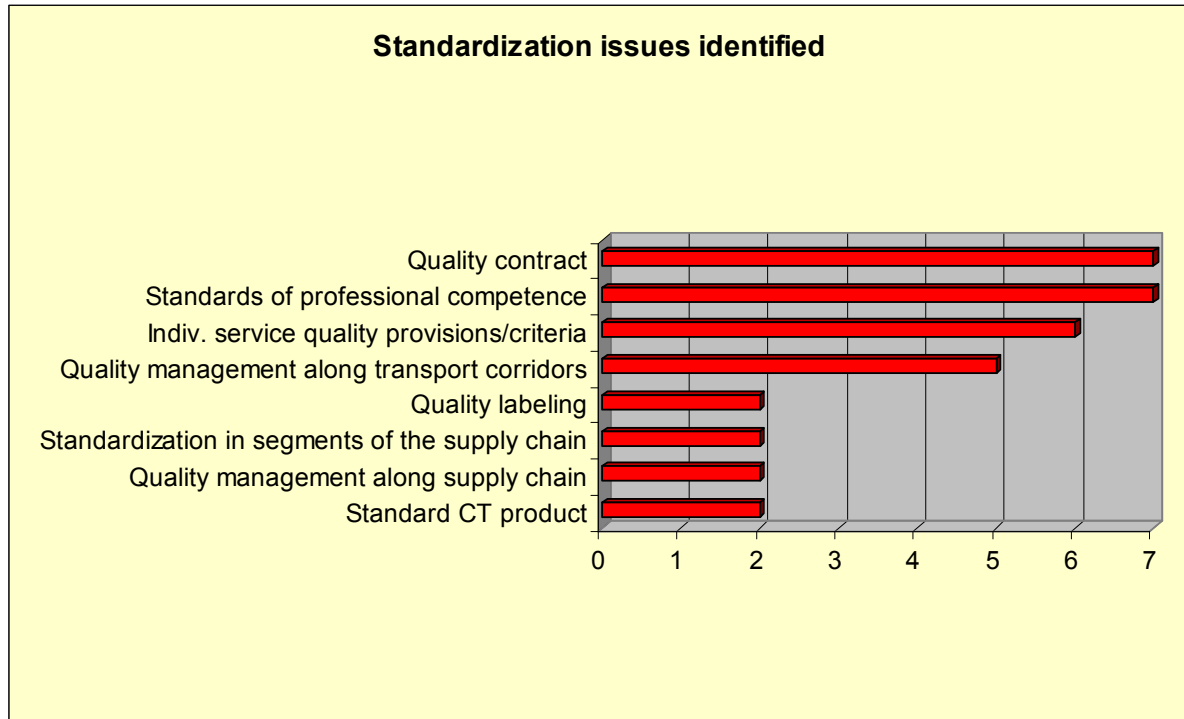
In fulfilling the Analysis of Quality initiatives, developments, good practices for Logistics Quality, a total of 32 documents, initiatives and sources (see annex 4 for details) have been reviewed, analysed and classified. They are summarised in Table 11 and Graph 7 below.

Table 11. Analysed Sources per segment

		Individual service quality provisions/criteria	Standardization in segments of the supply	Quality contract	Quality labelling	Standard CT product	Quality management along supply chain	Quality management along transport corridors	Standards of professional Competence
Policy papers	6	1	–	–	–	–	–	–	3
Joint statements on performance quality	1	–	–	–	–	–	–	1	–
Statements, position papers of organizations/industries on quality standards	4	–	–	–	–	–	1	–	–
Agreements inside organization/industry on quality standards	4	–	1	2	–	1	–	1	1
Interorganizational agreements on quality standards	5	2	–	3	–	–	–	–	–
European projects and studies	5	2	1	–	1	–	–	3	2
Good practices of the Combined Transport	2	–	–	–	1	–	1	–	–
Industry reports on quality	5	1	–	2	–	1	–	1	–
TOTAL	32	6	2	7	2	2	2	5	7

Source: VGTU, 2009

Graph 7. Analysed Sources on Standards (number of documents, reflecting the segment)



Source: VGTU, 2009.

Because of the rapid expansion of combined transport in Europe since the mid-nineties, quality-related shortcomings have emerged on a large number of routes and urged attempts to tackle them. Activities during preparation of the White paper „European transport policy for 2010: time to decide“ and succeeding processes, shifting goods from road to rail in the EU, brought all combined transport market stakeholders to new level of cooperation aiming to achieve competitiveness of the combined transport due to the increasing quality of service performance, adequate to expectations of its consumers.

4 Interviews with Stakeholders

Stakeholders of the European transport system (as listed in Annex 1 of this document) have been contacted for a discussion on: what segments should be involved in shaping the quality level of performance along the supply chain, what efforts towards standardising operations across modes are in existence, how a number of identified segments related to quality should be prioritized and what is the market take up of the identified quality segments.

A preliminary list of stakeholders was jointly developed by BE LOGIC WP7 partners and then it was discussed in the WP7 kick-off meeting held in Newcastle on 8th January in Newcastle. In the meeting it was decided that all most important European associations of transport logistics stakeholders will be contacted directly or thorough telephone. .

Accordingly the lead partner (VGTU) of the T.7.1 contacted the stakeholders with an introduction letter to every head of managing body of the institution.

Two types of interviews were foreseen: direct meeting at premises of the interviewee or by phone. Activities of several inter-modal transport related associations which were not available for direct interview were analysed through web sources.

Interviewees were not limited by questionnaire, just guideline with four main issues of interview:

- To comprehend the existing standards and initiatives for quality in logistics;
- To ascertain if the existing quality standards in transport logistics meet the level of satisfaction of the stakeholders, involved in the standardisation processes;
- To understand how quality contracts are used by parties and how the KPIs elaborated during the research activities in WP2 coincide with those used by the industry.
- To indicate, if possible, other factors being important for the quality level of performance in the transport logistics.

No pre-informed perceptions regarding definition of quality or limitations of the scope was used. The interviews attempted to explore deeper into the problems of existing standards accordingly specific activities, covered by association and its stakeholders. In this way essential information about the standards and initiatives were explored.

As a result from the interviews with the stakeholders, it cab be observed that generally all the interviewed stakeholders agree upon the inventory lists of standards and quality initiatives provided in this document (please refer to the Annexes). Further to this, the stakeholders accepted our suggestion for classification of standards and quality initiatives. (Let us be reminded that in the previous chapter we have classified standards and quality initiatives in eight groups).

In the meanwhile, the list of initiatives has been extended with several other statements, position papers of organizations on quality standards, good practices and industry reports on quality.

Based on the results obtained from the interviews with stakeholders in gathering their opinions, one is able to summarize as follows:

The respondents (the interviewed stakeholders) agreed that benchmarking and standardization are important elements for improving the overall quality level of performance in transport logistics, but the majority of them reported that quality standards themselves do not ensure the required level of quality. Therefore, the implementation and execution of quality standards have to be analysed, evaluated and monitored. Due to a broad diversity in logistic services and consumer needs, the most effective quality measures are quality standards which are implemented and utilized by the actors themselves. Standards have to be conventional, applicable and tangible. Groundless and motiveless standards frequently turn only into bureaucratic burden.

The interviewees (the interviewed stakeholders) indicated the possibility to manage and monitor the quality standards as a very important condition. It is therefore very important that an authorized body is able to successfully manage, control, monitor and update the quality standard.

The majority of interviewed stakeholders indicated that an equally effective measure may be the set-up for a comprehensive system of KPIs (Key Performance Indicators) and SPIs (Service Performance Indicators). However, there is a difficulty to keep a distinctive line between quality standard and KPI/SPI system. KPIs/SPIs, being set between contracting parties are suitable initiatives to ensure a certain level of quality in the service provided. Being specified at the time of contracting and monitored by the contracting parties themselves, such product or service standards agreed by all the parties, do not become intrusive and less bureaucracy papers are consuming, which should be absolutely avoided in the world of continuous technology improvements, leading us towards paperless handling. In most of the cases, if the logistics operators' performance is inadequate, he will lose the business.

Next, the interviewed stakeholders agreed that most of the parameters for quality such as information management, availability, reliability, punctuality, lead-time, speed, documentation, security etc., are commonly used KPIs by industrial contracting parties. In parallel to this, it was stated that the criteria can be significantly different according to services, terminals, and transport chains.

For a transport choice between single-mode supply chain (mainly road transportation) and combined transport chain (for example Road-Rail), the decisive factors depend upon the customers' needs but time and price remain the most important criteria and especially in difficult moments such as the current financial crisis. Commercial advantage of hauling industry appears recently during global crisis. The in-transit and border interchanges (disruptions) are probably one of the most critical quality aspects of the whole transport chain, and also one of the most difficult to solve.

The majority of the interviewed stakeholders indicated SMEs as having important role in the transport logistics operations. This category of service suppliers should be supported by all necessary instruments.

But some stakeholders have other views on some other aspects.

It has been found that organizations representing operators using transport services from its suppliers stand for more obligatory contractual enforcements and strict standards.

Next, it has been found that organizations representing transport service supply stand for more flexible contractual framework and standards, where the desirable level of service is just as agreed.

Railways have been indicated as the malfunctioning part in the transport logistics chain, mostly because of the delays in the service provided. Railway companies, often being still in a monopolistic position, try to avoid clearly fixed quality standards for service performance or parameters and often conclude quality contracts or clauses, which are very often too favourable for them and therefore not meeting the quality objectives of their customers. Obtaining information from the railway undertakings still remains problematic for most of the logistic operators.

Most of the stakeholders agreed that improvements in the quality of the services provided by rail are needed. Changes in the concept and service vision are needed more than standardization.

Some of the stakeholders did not agree that efforts made after the declaration of the Rail Quality Charter in 2003 were enough to improve effectiveness of contracts between railways and logistic operators.

The opinions of the stakeholders differ when it comes to quality standards for inter-modal terminals and possible state aid for terminals, fulfilling technical and service standards. Negative tendency has been observed based on opinions of terminal operators, who are worried about possible distortion of competition.

Hidden interests and lobbying have been mentioned by some of the interviewed stakeholders as an obstacle and limiting factor for the adoption of more strict standards for the quality of transport logistics.

Other conclusions were made after the interviews.

The tendency of weakening the efforts for implementation of standards in transport logistic has been observed. Standard committees or working groups are not established, even have been removed in the majority of the organizations.

In parallel to this, consumers of the transport services are not fully satisfied with the level of quality of the service provided. The use of quality contracts should be further

developed. Standard Quality Contract, developed at the CER report from 2003 is in a very early stage of development and implementation in the industry.

Main reason of slowing down implementations of quality standards for services in inter-modal transport chains is the unequal competition observed in different groups of transport service providers.

Higher competition is observed in the road transport. Standards in road haulage industry are not requested, while high competition in industry is a good regulator of the service quality.

Competition in railway and inland water transport is at noticeably lower level. Shippers do not have alternatives to choose an alternative operator and often are determined by service quality indicators in the service contracts.

Some of the interviewed stakeholders are on the opinion that additional efforts of political forces (e.g. European commission) with standardization attempts may have a positive impact on areas, where competition due to different circumstances does not play a stimulating role for services of better quality.

There are efforts of several stakeholders towards standardization at a supply chain level. The concept could be that instead of establishing the system of indicating figures, the aim is to split the supply chain into components and standardize appropriate procedures. The process contains standardized planning procedures between stakeholders, establishment of quality teams and service centres, using best practice, problem resolution approaches, appointing a lead carrier, development of back up and contingency operations plans, redefinition of technical standards etc. For example the initiative of ESC and CLECAT to develop standard procedures along supply chain should be underlined (more information on <http://www.fta.co.uk/assets/files/spi.pdf#search=%22> , consulted on 21st September 2009).

Next, all the interviewed stakeholders that Quality Labels, if well managed and monitored, could be accepted by the market of logistics services. It should be voluntary and include motivations for the suppliers of transport and logistics services. Other efforts in establishing Quality Label is the certification of compliance, based on quality, measurement, complying, where service supplier has to prove his ability to comply with the certificate.

In the next phase of WP7 (Task 7.2) industries will be invited to evaluate the results of the current deliverable through a Delphi study and also in close cooperation with members of the High-Level group and project partners conducting interviews with stakeholders in the framework of WP4, WP5 and WP6 of the BE LOGIC project.

5 Market Take Up of Existing Quality Standards

The analysis of existing quality standards (the objective of task 7.1) for logistics supply chain has not been constrained only to existing standards such as ISO and/or CEN norms. Instead, it also endeavours to identify and classify sector efforts and initiatives towards standardization, which would have an impact on the overall performances of the transport logistics chain.

As far as the logistics supply chain is concerned, the research has identified 14 current standards, all developed in the working group CEN/CT 320 (“Transport – Logistics and Services”), 6 of which are of interest for the whole supply chain. In Table 11, applications of existing quality standards for inter-modal transport performance are given.

Table 11. Applications of Existing Quality Standards for Inter-modal Transport Performance.

Standard reference	Quality standards application for inter-modal transport performance			
	Whole logistics chain	Transport operations	Terminal operations	SMEs
CEN/TR 14310:2002	Yes	Yes	Yes	yes
EN 12507:2005	Yes	Yes	Yes	yes
EN 12522-1:1998	No	No	No	no
EN 12522-2:1998	No	No	No	no
EN 12798:2007	Yes	Yes	Yes	yes
EN 13011:2000	Yes	Yes	Yes	yes
EN 13816:2002	No	No	No	no
EN 13876:2002	Yes	Yes	Yes	yes
EN 14873-1:2005	No	No	No	no
EN 14873-2:2005	No	No	No	no
EN 14892:2005	No	No	No	no
EN 14943:2005	No	No	No	no
EN 15140:2006	No	No	No	no
EN 15696:2008	No	No	Yes	yes

Source: VGTU

Furthermore, with the support of the main stakeholders, the project partners of WP7 has collected and analysed 32 quality initiatives launched by different transport actors and operators, covering all transport modes. The collected documents encompassing current standards and quality initiatives are 46 (14 + 32) in total (Graph 9 below) and can be classified into the following eight classes/groups of quality activities or segments:

1. Individual service quality provisions/criteria,
2. Standardization in segments of the supply chain,
3. Quality contracts,

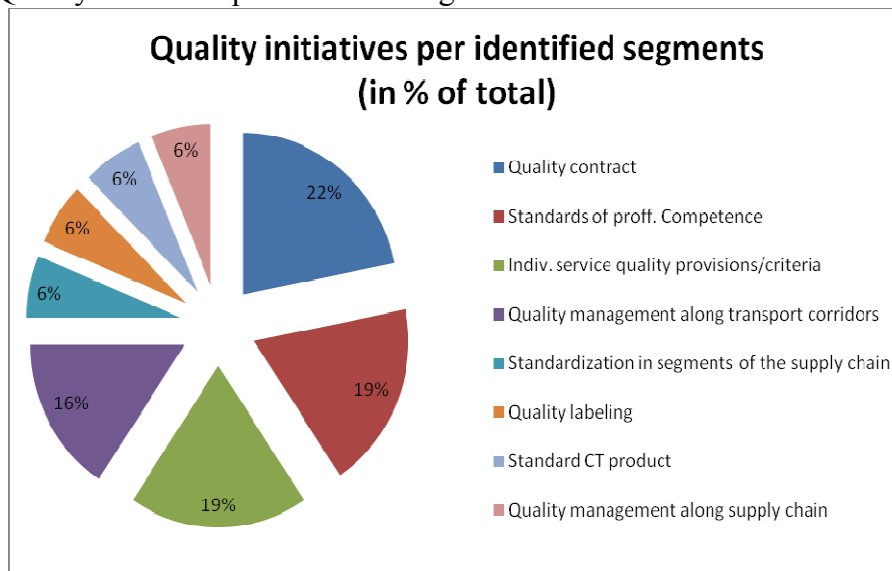
4. Quality labelling,
5. Standard Combined Transport product,
6. Quality Management along Supply chain,
7. Quality Management along Transport corridors,
8. Standards of Professional Competence.

This classification is suggested to better understand the current situation with the existing quality standards relevant to transport logistics and further to define the transport logistics processes which are (or not) under study for standardization.

Based on the foregoing classification per quality activity, it was important to define the exact bounds of quality standard efforts initiated in the transport logistics industry and to estimate their market take up. The following figure, Graph 8 below, illustrates that the highest market take-up falls within three segments of the transport logistics process, which together represent more than 50% of all standards and quality initiatives. They are, as follows:

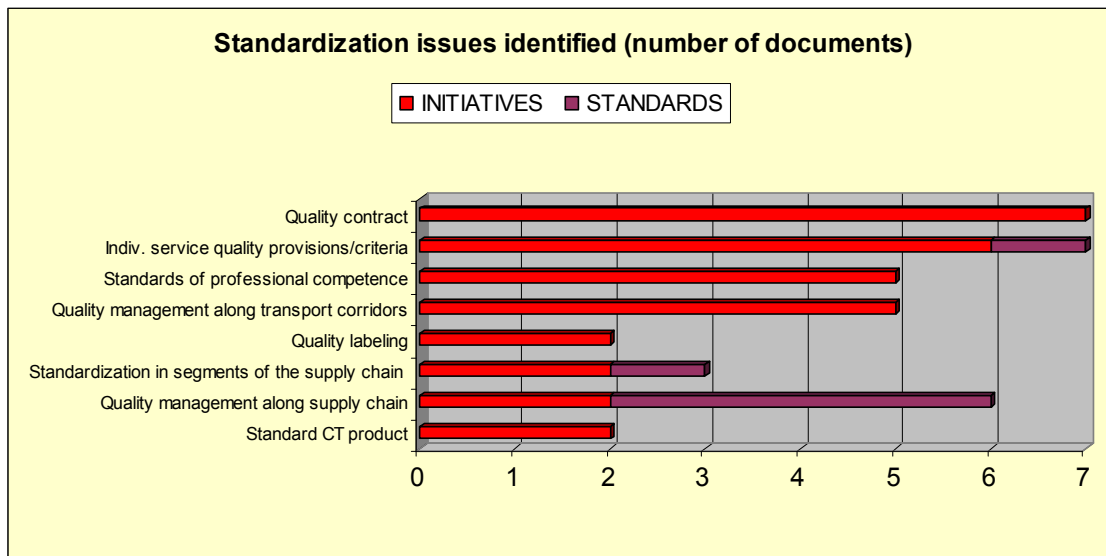
- The quality contracts (with 22%),
- The individual service quality provisions/criteria (with 19%) and
- The standards of professional competence (with also 19%).

Graph 8. Quality initiatives per identified segments.



Source: VGTU, 2009

Graph 9. Quality standards per segments (all documents)



Source: VGTU, 2009

6 Conclusions

This work has identified 14 current standards, all developed in the CEN/CT 320 working group (“Transport – Logistics and Services”), 6 of which are of significant interest for the whole supply chain. Further to this, with the support of the stakeholders, 32 initiatives addressing quality performance in transport logistics launched by different transport actors and operators (involving all transport modes) have been collected and analysed; a discussion of which is provided in this deliverable.

A number of interviews with stakeholders from transport logistics have been conducted and as a result from this exercise, it has been found that the stakeholders globally agree with both inventory lists provided within the scope of this work and identified segments for quality performance in transport logistics. In the meanwhile, the list of initiatives was extended with several other statements, technical papers of organizations on quality standards, good practices and industry reports on quality. Among the respondents it has been found that benchmarking and standardization are important elements for improving the overall quality level of performance in transport logistics. But the majority of the respondents reported that quality standards themselves do not ensure the level of required quality. Nevertheless a tendency towards implementation of standards in transport logistics has been observed.

Next, it has been found that neither standard committees nor working groups have been established in the majority of the organizations examined in this work.

Finally, it has also been found that operators and users of current intermodal freight transportation services are not fully satisfied with the overall quality of the service provided, especially when it comes to the railway sector.

Market take up among existing standards has been studied. Before proceeding with the market take up, a classification has been introduced. And, to better understand and specify the transport logistics processes that may require standardizations, the collected documents (both standards and quality initiatives), which are 46 in total, have been classified in eight groups, as follows:

1. Individual service quality provisions/criteria.
2. Standardization in segments of the supply chain.
3. Quality contracts.
4. Quality labelling.
5. Standard Combined Transport product.
6. Quality management along supply chain.
7. Quality management along transport corridors, and
8. Standards of Professional Competence.

Next, it has been found that the segments/classes are not equally implemented and used by the organizations in question. Among all eight classes as identified above, it has been

found that the highest percentage falls within three segments. Together these three segments represent more than 50% of all the groups and they are, as follows:

- Quality Contracts (with 22%),
- Individual service quality provisions/criteria (with 19%) and
- Standards of Professional Competence (with also 19%).

In conclusion, one is advised that the segment priorities and actions identified and recommended are to be used as a key material in Task 7.2 of the BE LOGIC project.

7 Use of Obtained Results

The results obtained in Task 7.1 provide input to Task 7.2, where new quality standards are foreseen to be drafted. Important is that we do not foresee acceptable solutions from enforcing new standards. Examples like the take up of EuroNCAP by the market are seen as best practice for the implementation of quality standards for transport logistics.

Draft models of new transport logistics standards are envisaged to be prepared on the basis of the results of benchmarking and best practices using Task 7.1 but also from other sources. The existing ISO and CEN standards are mostly focused on quality management, environmental management, safety and security issues, but not on logistics as a whole system. Standards in transit time and average speed of various logistics operations should be outlined as important standards seeking to improve logistics service level. In defining a system wide approach it is important to include these standards as they are already much used. Interoperable standards on RFID in logistics will also be taken into account.

One possible outcome might be to have an objective standard like the FORS which requires a functioning ISO9001 system to be in place to achieve one level of the standard, and perhaps ISO14001 for another. The challenge for BE LOGIC is to resolve the issues of internalisation of the standard as a process, the need to allow multiple service offerings to be made to market, and the wish to have some objective standard for benchmarking and comparison as a simple process of checking which standard and at what level a company meets it. We can envisage proposing the draft model of a standard, and maybe of two, one internal and one external.

Once the draft logistics standards are identified, they will be proposed for further development by CEN or other organisations.

Thus, T 7.1 provides input to T 7.2 which is envisaged to provide input to lessons learned and recommendations of (new) standards in transport and logistics.

8 References

BRAVO – Brenner Rail Freight Action Strategy FP6, 2004-2007;

Building transparency into supply chains. Service performance. FTA, UK Materials for workshop on Service Performance in Brussels on 15 July 2003;

Comments by CLECAT to CEN Enquiry on the development of standardization in the field of services Brussels, November 6th 2003;

Communication from the European Commission on Freight Transport Logistics Action Plan 18.10.2007;

Communication of the European Commission from 18 October 2007 „The EU's freight transport agenda: Boosting the efficiency, integration and sustainability of freight transport in Europe“

Delay attribution guide UK, Delay Attribution Board - a joint industry body remitted to provide;

Developing a Quality Strategy for Combined Transport UIRR, supported by DG TREN funded through the PACT (Pilot actions for combined Transport) facility. Consultant Booz, Allen & Hamilton (BAH) 2000;

EAST WEST Transport Corridor Strategy and Action Plan. Interreg IIIB 2005-2007;
ELA standards of personal Competence. European Logistics Association (ELA) 2004;
FIATA minimum standards. FIATA;

Freight Integrator Action Plan “Supporting the organisers of inter-modal freight transport” European Commission Consultation Paper, 1st October 2003;

Freight Operator Recognition Scheme Freight Operator Recognition Scheme (FORS). UK 2006;

Freight Quality Charter-2003 CER- UIC – CIT;

From Truck to Train Thirteen examples of successful modal shift in European freight transport. Alliance pro Schiene, CER, UNIFE April 2008;

Guidance to the industry on delay attribution issues. 2004;

Guidelines for the development and implementation of quality agreements for specific trainloads in international conventional rail freight traffic. FIATA, UIC and CIT 2006;

Integrated Services in the Inter-modal Chain (ISIC) EC, ECORYS 2005;

Interoperability of the trans-European rail system Memorandum of Understanding (MoU) UIC, UNIFE, CER, EIM 2005;

ISIC (2005) *Integrated Services in the Inter-modal Chain*, EC, ECORYS

Joint Commitment by railway Undertakings, members of the UIC Freight Forum and Combined Transport Operators, members of UIRR, to develop the quality of scheduled trains operating Combined Transport Services and of contracts covering this quality. INTERUNIT 2005;

Joint Declaration on "Quality in international conventional and combined railway freight traffic". UIC/CER and FIATA/CLECAT. (15 April 2005);

Quality development charter FNTR, SNCF, NOVATRANS, GNTC France 2000;
Quality Manual for Combined Transport UIC 2001;

Rail Freight Quality Progress Report 2007/2008 CER 2008;

Rail freight quality: meeting the challenge A Report on the first year of the CER-UIC-CIT Freight Quality Charter CER, December 2004;

Rail Freight Quality: Progress in a Competitive Market. Update Report on the CER-UIC-CIT Charter September 2005;

Rail Freight Quality: the challenge – CER report 2003;

Report on Road Transport Best Industry Practices IRU 2002;

Strategy adopted by the Quality Priority Line UIC 2002;

The role of the railways in the promotion of combined transport United Nations, Economic Commission for Europe; Inland transport committee Working party on combined transport Thirty-seventh session, 18 and 19 April 2002;

TREND Towards new Rail freight quality and concepts in the European Network in respect to market Demand EC, FP6 2005-2006;

UIC Quality policy UIC Freight commission 2001;

WHITE PAPER European transport policy for 2010: time to decide. EC, 2001.

9 Annex 1: Organizations and interviewees involved in research and evaluation

UIRR – International Union of combined Road-Rail transport companies – is a partner of the BE LOGIC project: Martin Burghard (Secretary general).

Visited: (December 2008- February 2009)

DG TREN – Department General for Transport and energy of the European Commission: Mr. John Berry;

ELA – European Logistics Association: Nicole Geerkens (Executive Officer), Ivana Oceano.

EIA - European Inter-modal Association: Klaus Ebelling (Secretary general), Peter Wolters (Deputy Secretary general).

ESC - European Shippers Council: Nicolette van der Jagt (Secretary general).

CLECAT– European Association for forwarding, transport, logistic and customs services, Marco Leonardo Sorgetti (Secretary general).

Interviewed by phone: (in February 2009)

IRU – International Road Union: Michael Nilssen (project manager).

CER – The Community of European Railway and Infrastructure Companies: Libor Lochmann (project manager).

UIC – International Union of Railways: Eric Peetermans (leader of UIC-freight committee).

ERFA – European Rail Freight Association: Monika Heiming (secretary general).

Analysed via web-sources (in February 2009):

FEPOR – Federation of European Private Port Operators,

ESPO – European Seaport Organization

and related organizations

10 Annex 2: Formats used for inventory lists of existing standards and initiatives

Two specific inventory list formats were used: 1) inventory list for existing due standards and 2) inventory list for initiatives, good practices, and achievements made by different transport logistics stakeholders organizations and other documents

BE LOGIC FORMAT FOR STANDARD INVENTORY LIST

Feature	Description
Standard name	
Country, editing institution	
Edition date or implementation state (if under development)	
Subject of the standard, general characteristic	
Applied services, modes, facilities, stakeholders	
If applicable to SMEs	
KPIs stated	
Quality/performance measurement	
Market take-up	
If mandatory/voluntary	
If aspirational (desirable by stakeholders)	
If auditable	
Is it used and contracted?	
Certifying authority	
Recognition procedure	
Web source of the standard	
Available sources and supporting material	
Recommendations for further link to BE LOGIC	
Contacts inside editing institution	
Inventoried by:	
Date	

Inventory list for initiatives, good practices, achievements made by different transport logistics stakeholders organizations and other documents

BE LOGIC FORMAT DOCUMENT INVENTORY LIST No.

Feature	Description
Document name	
Editing institution	
Edition date	
Type of the document	
General characteristic	
Applied fields of the CT	
Standardization issues covered	
Key criteria	
Viability	
Recommendations for further link to BE LOGIC	
Other relevant information	
Web source	
Inventoried by:	
Date	

11 Annex 3. Inventory list of existing standards

BE LOGIC STANDARD INVENTORY LIST No1

Feature	Description
Standard name	CEN/TR 14310 : 2002 Declaration and reporting of environmental performance in freight transport chains
Country, editing institution	EN, Technical Committee CEN/TC 320
Edition date or implementation state (if under development)	2002
Subject of the standard, general characteristic	Freight transportation services. This Technical Report is targeted at the information exchange in and between companies, as well as from companies to authorities. It should therefore be used for delivering transport data e.g. For green accounting, environmental declarations, certification (EMAS, ISO 14000), LCA (Life Cycle Analysis), KPI (Key Performance Indicators), environmental benchmarking, environmental labelling etc. That will become management activities in companies in the coming years.
Applied services, modes, facilities, stakeholders	This Technical Report specifies the content and structure of a declaration of environmental performance in freight transport. The principles may be applied for documentation of environmental performance of any mode or relevant combination of transport modes in a goods transport chain.
If applicable to SMEs	Yes
KPIs stated	Information and declaration of energy consumption and of exhaust emissions should include the following as a minimum: A) Transport profile B) Basic transport data, per mode C) Calculated transport data, per mode D) Documentation of calculation method and data used E) Issuer responsible for the declaration
Quality/performance measurement	The calculations and results should be presented in a transparent and true way that aids the evaluation of the environmental performance of a given freight transport. As a rule of thumb, it can be said that when the method, used for calculating the energy consumption and emissions for one customer, is extended to all the costumers of a transport company, then all transport related energy consumption and emissions from that transport company should be accounted for
Market take-up	Actively used
If mandatory/voluntary	Voluntary
If aspirational (desirable by stakeholders)	Desirable by stakeholders
If auditable	Yes

Is it used and contracted?	Yes
Certifying authority	Transport operator
Recognition procedure	In the transport operator web page
Web source of the standard	European Committee for Standardization
Available sources and supporting material	ISO 14000, ISO 14001, EN ISO 9000:2000, EN ISO 9001:2000
Recommendations for further link to BE LOGIC	Implement in the selected transport companies and inter-modal transport chains
Contacts inside editing institution	
Inventoried by:	VGTU
Date	2009

BE LOGIC STANDARD INVENTORY LIST No2

Feature	Description
Standard name	EN 12507 : 2005 Guidance notes on the application of EN ISO 9001:2000 to the road transportation, storage, distribution and railway goods industries
Country, editing institution	EN, Technical Committee CEN/TC 320
Edition date or implementation state (if under development)	2005
Subject of the standard, general characteristic	Transport - Logistics and services. The guidance provided in this European Standard is designed to assist in resolving these difficulties by highlighting those clauses of EN ISO 9001 where such differences of application, between the more usual (reduction environment and that of transport services, are likely to be found and by indicating what additional actions or precautions should be taken to ensure that the resulting quality management system is effective.
Applied services, modes, facilities, stakeholders	This European Standard provides guidelines for the application of EN ISO 9001, Quality management system, to the provision of freight transportation services by road and rail, including storage and distribution activities.
If applicable to SMEs	Yes
KPIs stated	In the transportation industry the requirements related to the product can be identified by: <ul style="list-style-type: none"> - means of quotations (tenders), wherein the intended service and conditions are provided in detail; - means of transport agreements with specification of the services agreed upon and the general terms; - means of consignment notes, wherein the general physical terms for the

	transport of goods (contract of carriage) are specified. Transport feasibility should be checked before submission of tenders, the signing of a transport agreement or acceptance of a consignment note.
Quality/performance measurement	The identified processes should include information on: quality aspects of the procedures; published rules, regulations, work instruction, etc.; quality records; contracts on co-operation between forwarding, transit and receiving service providers; contracts for performance with sub-contractors; training procedures quality system objectives.
Market take-up	Actively used
If mandatory/voluntary	Voluntary
If aspirational (desirable by stakeholders)	Desirable by stakeholders
If auditable	Yes
Is it used and contracted?	Yes
Certifying authority	Transport operator
Recognition procedure	In the transport operator web page
Web source of the standard	European Committee for Standardization
Available sources and supporting material	EN ISO 9000:2000, EN ISO 9001:2000
Recommendations for further link to BE LOGIC	Implement in the selected inter-modal transport chains and terminals
Contacts inside editing institution	
Inventoried by:	VGTU
Date	2009

BE LOGIC STANDARD INVENTORY LIST No3

Feature	Description
Standard name	EN 12798 :2006 Quality management system requirements to supplement EN ISO 9001 for the transport of dangerous goods with regard to safety
Country, editing institution	EN, Technical Committee CEN/TC 320
Edition date or implementation state (if under development)	2006
Subject of the standard, general	Transport - Logistics and services. This European Standard specifies quality management system requirements, supplementary to those of

characteristic	EN ISO 9001:2000, for the management of safety in the field of the transport of dangerous goods by road, rail and inland navigation.
Applied services, modes, facilities, stakeholders	The management of safety. Road, rail and inland navigation.
If applicable to SMEs	Yes
KPIs stated	Training requirement
Quality/performance measurement	Each specific quality management system requirement, unless otherwise indicated in this European Standard, shall apply to both quality and safety. The quality management system of the company shall address the relevant safety requirements of the regulations for the transport of dangerous goods. The company shall document its policy for quality and safety and these documents shall be signed by the manager in charge.
Market take-up	Actively used
If mandatory/voluntary	Voluntary
If aspirational (desirable by stakeholders)	Desirable by stakeholders
If auditable	Yes
Is it used and contracted?	Yes
Certifying authority	Inter-modal transport operator
Recognition procedure	In the inter-modal transport operator web page
Web source of the standard	European Committee for Standardization
Available sources and supporting material	EN ISO 9001: 2000, EN ISO 9000:2005
Recommendations for further link to BE LOGIC	Implement in the inter-modal transport chains where are transported dangerous goods
Contacts inside editing institution	
Inventoried by:	VGTU
Date	2009

BE LOGIC STANDARD INVENTORY LIST No4

Feature	Description
Standard name	EN 13011 :2000 Declaration of quality performance in transport chains
Country, editing institution	EN, Technical Committee CEN/TC 320
Edition date or implementation state	2000

(if under development)	
Subject of the standard, general characteristic	Transport - Logistics and services. This European Standard specifies requirements for making declarations with regard to the quality of performance of a goods transport service. It is intended to establish a means whereby service providers can set out specific data with regard to the performance criteria relevant to the service being provided that will enable shippers/packers to adequately plan their requirements and to meet their obligations under the packaging and packaging waste directive.
Applied services, modes, facilities, stakeholders	This European Standard is intended to be a tool for the definition, declaration and control of services involved throughout the transport chains. It therefore can be used by both shippers and providers within the framework of their contractual relationship, in order to define and declare the relevant performance conditions. A purpose of this standard is to facilitate the provision or information by the transport industry so as to assist shippers to meet their obligations under the Directive of Packaging and Packaging Waste (94/62/EF). Accordingly, a quality declaration should be prepared with references to international packaging testing standards.
If applicable to SMEs	Yes
KPIs stated	Packaging operations , preparing and dispatching operations, handling and storing operations, transportation, collection and delivery time, transfer operations, tracking and tracing operations, auxiliary operations, collection and delivery place, temperature, humidity, air pressure.
Quality/performance measurement	The service provider shall submit details with regard to frequency and method of measurement and produce on demand the original verification. Measurement instrumentation shall meet the requirements of the relevant standards identified by service provider and shall be traceably calibrated to an internationally recognized standard at least once in 24 months.
Market take-up	Actively used
If mandatory/voluntary	Voluntary
If aspirational (desirable by stakeholders)	Desirable by stakeholders
If auditable	Yes
Is it used and contracted?	Yes
Certifying authority	Inter-modal transport operator
Recognition procedure	In the inter-modal transport operator web page
Web source of the	European Committee for Standardization

standard	
Available sources and supporting material	EN 12830, EN 13485: 1999, EN 13486: 1999, EN 22248, EN 22872, EN 22873, EN 28318, EN 28768
Recommendations for further link to BE LOGIC	Implement in the selected inter-modal transport chains
Contacts inside editing institution	
Inventoried by:	VGTU
Date	2009

BE LOGIC STANDARD INVENTORY LIST No5

Feature	Description
Standard name	EN 13876 :2002 Code of practice for the provision of cargo transport services
Country, editing institution	EN, Technical Committee CEN/TC 320
Edition date or implementation state (if under development)	2000
Subject of the standard, general characteristic	Transport - Logistics and services – Goods transport chains. This European Standard specifies in the form of a Code of Practice' the management controls and key performance indicators necessary for the effective and efficient management of customer's cargo throughout the transport process. It is intended for use by the providers of the service and as general guidance by purchasers of such services (customers) and it defines the principles, best practices and obligations of the provider as well for the client as providing advice with regard to contribution by the customer that will facilitate the most effective outcome.
Applied services, modes, facilities, stakeholders	The management controls and key performance indicators necessary for the effective and efficient management of customer's cargo throughout the transport process.
If applicable to SMEs	Yes
KPIs stated	Delivery time, damage, not delivered, documentation.

Quality/performance measurement	It is recommended that the inter-modal transport service providers management system should meet the requirements of an appropriate and recognized standard. Whilst not mandatory, it should be the objective of all service providers to attain independent evaluation and certification as a declaration of the integrity of their management system. Such standard should meet the requirements of EN ISO 9001. It is recommended that customers of transport services purchase services with declarations meeting the requirements in EN 13011 and design the combination of packaging/product under the requirement of EN 13428.
Market take-up	Actively used
If mandatory/voluntary	Voluntary
If aspirational (desirable by stakeholders)	Desirable by stakeholders
If auditable	Yes
Is it used and contracted?	Yes
Certifying authority	Inter-modal transport operator
Recognition procedure	In the inter-modal transport operator web page
Web source of the standard	European Committee for Standardization
Available sources and supporting material	EN ISO 9001, EN 13011, EN 13428:
Recommendations for further link to BE LOGIC	Implement in the selected inter-modal transport chains
Contacts inside editing institution	
Inventoried by:	VGTU
Date	2009

BE LOGIC STANDARD INVENTORY LIST No6

Feature	Description
Standard name	EN 15696 :2007 Specification for self storage services
Country, editing institution	EN, Technical Committee CEN/TC 320
Ed. date or implementation state (funder development)	2008
Subject of the standard, general characteristic	Transport - Logistics and services. This European Standard has been drafted at an early stage in the development of self storage services in the European Community in order to promote a customer focussed approach

	to the commercial provision of customer direct access space for storage purposes.
Applied services, modes, facilities, stakeholders	Specifies requirements for the provision of self storage facilities and related services, for both personal and business purposes.
If applicable to SMEs	Yes
KPIs stated	Logistics training, storage space, lift, escalator, rolling staircase, ramp
Quality/performance measurement	The service provider shall enter into a written self storage contract with its customers. The self storage contract shall define the unit(s) to be occupied, the charge period, any deposit, the storage charge, and method of payment. The service provider shall require that the self storage contract be signed by the customer in connection with which there shall be acknowledgement by the customer that he/she has read and understood the contract and the Terms and Conditions. The service provider shall operate procedures for regularly monitoring levels of customer satisfaction, (e.g. by means of a questionnaire to be completed by the customer). Following completion of a customer satisfaction monitoring exercise, review of the responses shall be undertaken by a representative having sufficient knowledge/experience in self storage matters and the amicable resolution of complaints.
Market take-up	Actively used
If mandatory/voluntary	Voluntary
If aspirational (desirable by stakeholders)	Desirable by stakeholders
If auditable	Yes
Is it used and contracted?	Yes
Certifying authority	Inter-modal transport operator
Recognition procedure	In the inter-modal transport operator web page
Web source of the standard	European Committee for Standardization
Available sources and supporting material	CEB/TR 14310:2002, EN 12507:2005, EN12798:2007, EN 13011:2000, EN 13876:2002, ISO 9001:2000
Recommendations for further link to BE LOGIC	Implement in the selected inter-modal transport chains
Contacts inside editing institution	

Inventoried by:	VGTU
Date	2009

12 Annex 4. Inventory list of documents and initiatives

(initiatives, good practices, achievements made by different transport logistics stakeholders organizations and other documents).

BE LOGIC DOCUMENT INVENTORY LIST No. 1

Feature	Description
Document name	WHITE PAPER European transport policy for 2010: time to decide
Editing institution	European Commission
Edition date	2001
Type of the document	Policy paper
General characteristic	In this white paper and in keeping with the sustainable development strategy adopted by the European Council in Gothenburg in June 2001, the Commission proposes some 60 measures aimed at developing a European transport system capable of shifting the balance between modes of transport, revitalising the railways, promoting transport by sea and inland waterways and controlling the growth in air transport.
Applied fields of the CT	Inter-modal, modal shift from road to rail and waterborne transport
Standardization issues covered	Strategic statements
Key criteria	“Important is promotion of measures to safeguard the quality of rail services and users’ rights. In particular, a directive will be proposed to lay down the terms of compensation in the event of delays or failure to meet service obligations. Other measures on the development of service quality indicators, terms of contract, transparency of information for passengers and mechanisms for out-of-court settlement of disputes will also be envisaged“.
Viability	A basic document for development of the EU inter-modal transport system and quality of services particularly.
Recommendations for further link to BE LOGIC	As guiding policy document
Other relevant information	No
Web source	http://ec.europa.eu/transport/strategies/2001_white_paper_en.htm
Inventoried by:	Vladas Sturys
Date	November 2008

BE LOGIC DOCUMENT INVENTORY LIST No. 2

Feature	Description
Document name	The role of the railways in the promotion of combined transport

Editing institution	United Nations, Economic Commission for Europe; Inland transport committee Working party on combined transport
Edition date	Thirty-seventh session, 18 and 19 April 2002,
Type of the document	Policy paper
General characteristic	The Joint Meeting emphasized the importance of a continuous dialogue between all partners in the combined transport chain in order to resolve the issue of service quality in combined transport, which was considered by the Joint Meeting to be the main obstacle for developing further the combined transport market segment.
Applied fields of the CT	Railways
Standardization issues covered	Individual service quality provisions/criteria Standards of professional (personal) Competence
Key criteria	- The primary problem pointed out by several representatives is related to the issue of quality, in particular the lack of reliability and punctuality of the rail service. - The objective is that the train should not stop on borders due to enhancement of the profession of goods train drivers.
Viability	Interim role
Recommendations for further link to BE LOGIC	During preparation of recommendations for training standards (idea: training could be ensured by a European training centre
Other relevant information	There are no longer borders today between the 15 members of the European Union, and yet they still exist for reasons that are mainly technical and administrative.
Web source	http://www.unece.org/trans/wp24/wp24-official-docs/24docs-1.html
Inventoried by:	Vladas Sturys
Date	January 2009

BE LOGIC DOCUMENT INVENTORY LIST No. 3

Feature	Description
Document name	Freight Integrator Action Plan “Supporting the organisers of inter-modal freight transport”
Editing institution	European Commission Consultation Paper
Edition date	1st October 2003
Type of the document	Policy paper
General characteristic	The overall aim of actions, which have been described in the “Freight Integrator Action Plan”, is to improve the quality, efficiency and transparency of inter-modal transport chains.
Applied fields of the CT	Roads, railways, waterborne transport
Standardization	No particular issue

issues covered	
Key criteria	Standardization of the equipment and information
Viability	Interim role
Recommendations for further link to BE LOGIC	No
Other relevant information	<p>4.4 Lack of standardisation</p> <p>4.4.1 Equipment The equipment used in transportation needs to be as interoperable as possible so that greater use can be made of vehicle capacity and transshipment equipment. More harmonised features of containers, swap bodies, semi-trailers, chassis and pallets would facilitate co-operation and improve efficiency.</p> <p>4.4.2 Information The format and medium for the transfer of information along supply chains is far from standardised: carried in paper ; in different according to the mode used; verification often still done manually etc.</p>
Web source	http://ec.europa.eu/transport/logistics/documentation/freight_integrators/index_en.htm
Inventoried by:	Vladas Sturys
Date	November 2008

BE LOGIC DOCUMENT INVENTORY LIST No. 4

Feature	Description
Document name	Communication from the Commission. Freight Transport Logistics Action Plan
Editing institution	European Commission
Edition date	18.10.2007.
Type of the document	Policy paper
General characteristic	The Freight Logistics Action Plan is one of a series of policy initiatives jointly launched on 2007 by the European Commission to improve the efficiency and sustainability of freight transport in Europe. It presents a number of short- to medium-term actions to help Europe address its current and future challenges and ensure a competitive and sustainable freight transport system in Europe.
Applied fields of the CT	Road, rail, waterborne, supply chain.
Standardization issues covered	Strategic statement
Key criteria	Establish, in consultation with the stakeholders, a core set of generic indicators that would best serve the purpose of measuring and recording performance
Viability	Basic policy document for increase of the quality in CT
Recommendations for further link to BE	Applied as policy guideline

LOGIC	
Other relevant information	<p>2.2. Sustainable quality and efficiency Establish, in consultation with the stakeholders, a core set of generic indicators that would best serve the purpose of measuring and recording performance (e.g. sustainability, efficiency etc.) in freight transport logistics chains to encourage a switch to more efficient and cleaner forms of transport and generally improve logistics performance. The Commission will then consider incorporating them into a code of best practice or recommendation. Deadline: By end of 2009.</p> <p>3.4. Freight transport quality Quality of service in freight transport needs to be improved, especially if modal alternatives to road are to be rendered more attractive. Rail in particular should strive to improve its performance while the integration of waterborne modes in the transport logistics chain should be enhanced. The Freight Logistics Action Plan suggests ways to improve performance in logistics chains and specifically looks at the service levels in multi-modal transshipment hubs.</p>
Web source	http://www.ertms.hu/modulok/DOK_MoU_signed.pdf
Inventoried by:	Vladas Sturys
Date	November 2008

BE LOGIC DOCUMENT INVENTORY LIST No. 5

Feature	Description
Document name	Interoperability of the trans-European rail system Memorandum of Understanding (MoU) Memorandum of Understanding establishing the basic principles for the definition of an EU deployment strategy for ERTMS
Editing institution	European Commission, UIC, UNIFE, CER, EIM
Edition date	2005
Type of the document	Joint statements on performance quality
General characteristic	Representatives of the European rail sector (manufacturers, infrastructure managers and companies) have signed a Memorandum of Understanding on the deployment of the European Rail Traffic Management System (ERTMS) to create an interoperable European rail network. ERTMS is a radio system used to send information to trains from the ground. A computer on board uses the information to calculate the maximum permitted speed and automatically slows the train down if necessary. ERTMS deployment means there will be one system for European trains, instead of the twenty different ones used at present; it will reduce infrastructure and maintenance costs and make the European rail network safer.
Applied fields of the CT	Railways

Standardization issues covered	Technical standards (not approached in T.7.1.)
Key criteria	Interoperability
Viability	Extended in 2008 with European commission
Recommendations for further link to BE LOGIC	Not relevant at the WP 7
Other relevant information	No
Web source	http://www.uic.asso.fr/compresse.php/commun/MoUexpl_en.pdf
Inventoried by:	Vladas Sturys
Date	December 2008

BE LOGIC DOCUMENT INVENTORY LIST No. 6

Feature	Description
Document name	UIC Quality policy
Editing institution	UIC Freight commission
Edition date	2006
Type of the document	Statements, position papers of organizations/industries on quality standards
General characteristic	The aim of the UIC railway freight carriers is to provide their customers with high- quality, punctual, reliable and environmentally friendly services. One of the most important ways of achieving this is by applying international quality standards.
Applied fields of the CT	Railways
Standardization issues covered	Strategic statement
Key criteria	Members of UIC will seek to achieve following quality features as direct components of their company policy: Reliability and punctuality with competitive transport times, based on despatch and delivery times geared to market requirements; Rapid availability and adequate capacity of clean and functional vehicles; Unambiguous responsibility through the whole of the transport chain, the focus being on safe and damage-free transport; Data flowing freely through interfaces during the whole of the transport process; Simple and readily comprehensible documents and invoices.
Viability	Interim role
Recommendations for further link to BE LOGIC	Not in WP7

Other relevant information	No
Web source	http://www.uic.asso.fr/uic/plugins/UIC_SPIP_kit/doc_download.php?id=2650
Inventoried by:	Vladas Sturys
Date	December 2008

BE LOGIC DOCUMENT INVENTORY LIST No. 7

Feature	Description
Document name	Strategy adopted by the Quality Priority Line
Editing institution	UIC
Edition date	23.4.2002
Type of the document	Statements, position papers of organizations/industries on quality standards
General characteristic	Short and substantial statement of the UIC quality policy 2002-2006
Applied fields of the CT	Railways
Standardization issues covered	Strategic statement
Key criteria	UIC Quality policy: 1) Reliable and punctual services with competitive lead times based on departure and delivery times that reflect market requirements 2) Adequate capacity in terms of clean and efficient transport resources made available swiftly 3) Clearly established liability throughout the transport chain, with the emphasis on security and damage prevention 4) End-to-end information flows throughout the transport chain 5) Straightforward, easy-to-understand papers and invoices
Viability	Interim role
Recommendations for further link to BE LOGIC	Good sample of the sequence in the quality strategy implementation
Other relevant information	Project sequence in UIC Q Policy =Guidelines on ISO 9001:2000 =Quality measurement systems =Quality agreements =Quality corridors
Web source	http://www.uic.asso.fr/download.php/fret/strategie-qualite_en.pdf
Inventoried by:	Vladas Sturys
Date	January 2009

BE LOGIC DOCUMENT INVENTORY LIST No. 8

Feature	Description
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Document name	Building transparency into supply chains. Service performance.
Editing institution	FTA, UK
Edition date	15 July 2003
Type of the document	Statements, position papers of organizations/industries on quality standards
General characteristic	Materials for workshop on Service Performance in Brussels
Applied fields of the CT	Inter-modal supply chain
Standardization issues covered	Quality management along supply chain
Key criteria	<p>SPIs among the supply chain indicate the minimum standards of service to ensure a 100% accuracy.SP</p> <p>BOOKING I THE BOOKING Bookings made by the shipper clearly specifies dates, times, locations, weight and any special instructions</p> <p>COLLECT SHIPMENT/ DELIVER TO TERMINAL COLLECT SHIPMENT The collection begins and ends at the time agreed DELIVER TO TERMINAL The shipment is delivered to the agreed terminal, with the required documentation</p> <p>OUTBOUND TERMINAL ACTIVITY/SHIPPING GOODS TERMINAL HANDLING & THE VOYAGE I The shipment arrives at the destination port at the time agreed</p> <p>INBOUND TERMINAL ACTIVITY TERMINAL HANDLING & THE VOYAGE II The shipment is cleared for collection (normally within eight hours) following the arrival of the vessel</p> <p>COLLECT SHIPMENT FROM TERMINAL AND DELIVER TO CONSIGNEE I All shipments are collected from the terminal as agreed in the contract</p> <p>COLLECT SHIPMENT FROM TERMINAL AND DELIVER TO CONSIGNEE II Gate in–Gate out time as agreed in the local contract</p> <p>DELIVER TO CONSIGNEE COLLECT SHIPMENT FROM TERMINAL AND DELIVER TO CONSIGNEE III The shipment arrives at the agreed time and location with no Damaze</p>
Viability	Under further development by ESC
Recommendations for further link to BE LOGIC	May be useful for WP7
Other relevant information	FTA was hosting a free inter-modal workshop on Service Performance in Brussels on 15 July 2003. Shippers, providers and terminal managers in air, deep-sea, short-sea, rail or road from all over Europe are meeting to discuss how the demand-side, service focused agenda can be pushed forward consistently for all modes of freight transport.
Web source	http://www.fta.co.uk/assets/files/spi.pdf#search=%22
Inventoried by:	Vladas Sturys

Date	February 2009
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BE LOGIC DOCUMENT INVENTORY LIST No. 9

Feature	Description
Document name	CEN Enquiry on the development of standardization in the field of services. COMMENTS by CLECAT
Editing institution	CLECAT
Edition date	November 6th 2003
Type of the document	Statements, position papers of organizations/industries on quality standards
General characteristic	COMMENTS by CLECAT to CEN Enquiry on the development of standardization in the field of services.
Applied fields of the CT	Freight transport in general
Standardization issues covered	Policies
Key criteria	<p>1. We need rules and norms that are applicable as widely as possible and they are going to be fully market oriented only if they are used worldwide. Therefore we recommend that CEN work in this particular field of action be always undertaken in close contact with ISO.</p> <p>2. Imperfect normalisation of ICT sector, where a much greater interoperability should be granted both in hardware and software, especially in telematics and in exchange protocols (EDI, ebXML, SOAP, etc.). This is definitely a priority area.</p> <p>3. Harmonization of equipment that can be used indifferently everywhere in the world and irrespective of the mode of transport.</p>
Viability	No information
Recommendations for further link to BE LOGIC	Not useful
Other relevant information	The need for standardization is very high, as long as a few conditions are satisfied, and this is the very core of our contribution, which must be seen both from the providers' viewpoint and the users'. Harmonization and interoperability is aim of service providers.
Web source	http://www.clecat.org/dmdocuments/PPStandardServices.pdf
Inventoried by:	Vladas Sturys
Date	January 2009

BE LOGIC DOCUMENT INVENTORY LIST No. 10

Feature	Description
Document name	Quality Manual for Combined Transport

Editing institution	UIC
Edition date	1.06.2001
Type of the document	Agreements inside organization/industry on quality standards
General characteristic	Guidelines for Inter-modal Quality Management Systems
Applied fields of the CT	Roads, railways
Standardization issues covered	Quality contracts
Key criteria	No particular
Viability	Interim role
Recommendations for further link to BE LOGIC	For T.7.2 - the differences between the commercial agreement and quality contract are summarised
Other relevant information	No
Web source	http://www.uic.asso.fr/download.php/tc/manuel-qualite_en.pdf
Inventoried by:	Vladas Sturys
Date	December 2008

BE LOGIC DOCUMENT INVENTORY LIST No. 11

Feature	Description
Document name	Standards of personal Competence
Editing institution	European Logistics Association (ELA)
Edition date	2004
Type of the document	Agreements inside organization/industry on quality standards
General characteristic	Standards of Competence that lead to the European Logistics Association Certificate (ELA Certificates)
Applied fields of the CT	Logistics industry
Standardization issues covered	Standards of professional (personal) Competence
Key criteria	Professional Competence
Viability	Actively acting system
Recommendations for further link to BE LOGIC	T.7.2. – for the topic „Standards of professional Competence“
Other relevant information	<p>The European Certification Board for Logistics (ECBL) is the custodian of the Standards, and is responsible for updating the Standards as and when required.</p> <p>The Board set up a system to monitor the performance of National Certification Centres , established in different countries, and ensures that the Standards operating in each country are in line with the European directive.</p>
Web source	http://www.elalog.org/
Inventoried by:	Vladas Sturys

Date	December 2008
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BE LOGIC DOCUMENT INVENTORY LIST No. 12

Feature	
Document name	Delay attribution guide
Editing institution	UK, Delay Attribution Board - a joint industry body remitted to provide guidance to the industry on delay attribution issues.
Edition date	28th January 2007 This Guide will be updated and distributed, in its complete form, not more than twice per year. From 28th January 2007 this document supersedes the previous version of the Delay Attribution Guide that was issued on December 12th 2004
Type of the document	Agreements inside organization/industry on quality standards
General characteristic	Industry vision of Delay Attribution: "For all parties to work together to achieve the core objective of delay attribution – to accurately identify the prime cause of delay to train services for improvement purposes",
Applied fields of the CT	Railways
Standardization issues covered	Standardization in segments of the supply chain
Key criteria	Punctuality
Viability	Implemented actively functioning and permanently updated
Recommendations for further link to BE LOGIC	In T.7.2., WP 5
Other relevant information	The Delay Attribution Guide is incorporated into and forms part of the Network Code.
Web source	http://www.networkrail.co.uk/
Inventoried by:	Vladas Sturys
Date	January 2008

BE LOGIC DOCUMENT INVENTORY LIST No. 13

Feature	Description
Document name	Quality development charter
Editing institution	FNTR, SNCF, NOVATRANS, GNTC
Edition date	March 2000
Type of the document	Inter organizational agreements on quality standards
General characteristic	Novatrans and its partners FNTR, SNCF and GNTC agreed in March 2000, a quality Charter stipulating responsibilities and roles with the common goal of achieving a high quality service and strong growth in CT traffic at the same time. A mutual commitment is for a 95% reliability and a 20% growth in traffic to be generated by the CT operators through the hauliers. The Charter also stipulates mutual responsibilities in the operational processes to ensure shipments are made available for carriage

	on time.
Applied fields of the CT	Roads, railways
Standardization issues covered	Quality contracts
Key criteria	Responsibility The scope of the service covers compliance with: -forwarding time from depot to depot -railway hand-over deadlines (RHOD) and delivery deadlines (DD) -road hand-over deadlines and delivery deadlines. Compliance with the agreed service shall achieve a rate of consistency of 95 per cent per half-hour on the three services and for the trains indicated.
Viability	Viable
Recommendations for further link to BE LOGIC	For T.7.2 – on topic quality contracts
Other relevant information	No
Web source	http://www.unece.org/trans/wp24/documents/wp24-0201e.pdf
Inventoried by:	Vladas Sturys
Date	December 2008

BE LOGIC DOCUMENT INVENTORY LIST No. 14

Feature	Description
Document name	Freight Quality Charter-2003
Editing institution	CER- UIC – CIT
Edition date	2003
Type of the document	Inter organizational agreements on quality standards
General characteristic	Rail Freight Charter sets out a voluntary commitment by the European Railway Undertakings on the service quality offered to their Freight Customers. This initiative is intended to meet the requirements of the market, respecting contractual quality provisions.
Applied fields of the CT	Railways
Standardization issues covered	Quality contracts
Key criteria	The Charter expresses the commitment of the railways to enter, whenever requested, into agreement with their customers on the following service areas: 1. Responsibility. Specified in line with the CIM conditions. 2. Safety as highest priority: to move freight in secure conditions, free of damage, with respect for environment 3. Planning. The service planned for the customer – service frequency, departure, arrival times and transport order deadlines.

	<p>4. Punctuality and reliability. Contracts shall provide compensation if unacceptable reliability and punctuality</p> <p>5. Information -transport status information.</p> <p>6. Rolling Stock - sufficient, clean freight rolling stock in a timely manner</p> <p>7. Billing - transparent billing arrangements</p> <p>8. After-sale service - the timely resolution of any matters under the terms of the contract.</p> <p>Any contractual commitment resulting from these negotiations can be seen as an addition to the standard CIM provisions.</p>
Viability	Viable as initial document.
Recommendations for further link to BE LOGIC	T.7.2. for the topic "Quality contracts"
Other relevant information	3 progress reports.
Web source	http://www.cer.be/
Inventoried by:	Vladas Sturys
Date	December 2008

BE LOGIC DOCUMENT INVENTORY LIST No. 15

Feature	Description
Document name	Joint Declaration "Quality in international conventional and combined railway freight traffic"
Editing institution	UIC/CER and FIATA/CLECAT
Edition date	(15 April 2005)
Type of the document	Inter organizational agreement on quality standards.
General characteristic	To join efforts to boost quality standards in international rail freight traffic, both conventional and combined.
Applied fields of the CT	Rail freight
Standardization issues covered	No particular issues covered
Key criteria	<p>Voluntary nature of standards</p> <p>Recommended to to develop a set of quality indicators, building on the Quality Charter published by CER and UIC in July 2003 in conjunction with the CIT.</p>
Viability	Interim effect
Recommendations for further link to BE LOGIC	As market approach towards standardization
Other relevant information	<p>Agreed that, in an open market, an improvement in the quality of rail freight services can only be introduced and developed by the market protagonists themselves.</p> <p>Any intervention on the part of the EU would distort the free play of market forces and consequently jeopardise the economic viability of the</p>

	transport operations, with the railway undertakings liable to lose business as a result.
Web source	http://www.cer.be/
Inventoried by:	Vladas Sturys
Date	December 2008

BE LOGIC DOCUMENT INVENTORY LIST No. 16

Feature	Description
Document name	Joint Commitment by railway Undertakings, members of the UIC Freight Forum and Combined Transport Operators, members of UIRR, to develop the quality of scheduled trains operating Combined Transport Services and of contracts covering this quality.
Editing institution	INTERUNIT
Edition date	16.06.2005
Type of the document	Inter organizational agreement on quality standards.
General characteristic	The further development of CT requires that the railway undertakings and operators voluntary set the different standards ensuring delivery of CT services that are competitive with road transport on quality, in the spirit of Article 4 of the UIC/CER/CIT Quality Chart. The present document lists the essential components which will be duly taken into account by the practical and specific arrangements to be developed route-by-route and contract-by-contract.
Applied fields of the CT	Railways
Standardization issues covered	Quality contracts
Key criteria	The main different elements to be developed between RUs and Operators in the framework of the quality contracts by route are especial: -the scheduling of trains (e.g. the maximum gross tonnage, the maximum length origin/departure points, in principle terminals, the itinerary, the timetable) -the procedures and communication circuits for implementing quality contracts (monitoring, analysis of causes, information feedback ...) -reciprocal penalties, charged to the defective party in case of delays or cancellations -the different penalty rates shall be set at jointly determined level -cases of exemption -cases of capacity reduction -the operational information to be supplied -force majeure
Viability	Interim role
Recommendations for further link to BE LOGIC	For development of the quality contract issue
Other relevant information	No

Web source	Report on the newsletter http://www.uirr.com/uirr/files/File//downloads/CM/Newsletters/UIRR-Newsletter2-en.pdf Original available at UIRR office
Inventoried by:	Vladas Sturys
Date	January 2009

BE LOGIC DOCUMENT INVENTORY LIST No. 17

Feature	Description
Document name	“Guidelines for the development and implementation of quality agreements for specific trainloads in international conventional rail freight traffic”.
Editing institution	FIATA, UIC and CIT
Edition date	19 October 2006
Type of the document	Inter organizational agreement on quality standards.
General characteristic	Following the drawing up of the guidelines on quality agreement for inter-modal and conventional block train services, further guidelines for conventional traffic have been developed. The guidelines are valid for selected, international full trainloads as well as selected groups of at least 10 wagons in conventional rail freight traffic, specifically and contractually agreed between railway undertakings (RUs) and their clients.
Applied fields of the CT	Railways
Standardization issues covered	Quality contracts
Key criteria	Quality indicators fixed contractually between the RU and the clients constitute a basis for measuring the agreed quality, and can include: <ul style="list-style-type: none"> • punctuality and reliability with transport-specific time allowances; • no-claims bonus, claim settlements and accounting; • secure loading conditions; • wagon supply (model-specific despatch and availability); • train cancellation; • reliable information: <ul style="list-style-type: none"> • content: e.g. punctuality, wagons out of sequence; • frequency: e.g. level, measuring points; • after-sales service.
Viability	Acting
Recommendations for further link to BE LOGIC	In T.7.2. for “Quality contracts” topic
Other relevant information	No
Web source	http://www.fiata.com/uploads/media/Guidelines_of_Quality_Agreement.pdf
Inventoried by:	Vladas Sturys

Date	January 2009
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BE LOGIC DOCUMENT INVENTORY LIST No. 18

Feature	Description
Document name	Developing a Quality Strategy for Combined Transport
Editing institution	UIRR , supported by DG TREN funded through the PACT(Pilot actions for combined Transport) facility . Consultant Booz, Allen & Hamilton (BAH)
Edition date	2000
Type of the document	European projects and studies
General characteristic	Examination of the relationships between railway operators, UIRR members and the logistic service providers (LSP's) and inherent conflicts of interest therein, as well as the development of more stringent performance regimes Issues relating to operating processes and procedures covering both commercial and operational aspects of the entire CT transport chain
Applied fields of the CT	
Standardization issues covered	Individual service quality provisions/criteria Quality management along supply chain Standards of professional (personal) Competence
Key criteria	Availability: several attempts have indeed been made to create a continuous work flow across 24 hours, but these have been frustrated by local government, or by unions, or by customers not wishing to keep their facilities open at night. Message from the various segments summarised seems to be that cost is significant, but lead-time, reliability and the associated controls are very critical indeed. Speed is itself not a distinguishing factor as over the longer distance rail already has some natural advantages over road haulage, and over the short haul, speed is by definition not so critical.
Viability	Interim role: before to Freight quality charter
Recommendations for further link to BE LOGIC	For WP 5
Other relevant information	-The standard product is what we are here trying to define and stabilise as to being a reliable product. This is a scheduled block train with standardised procedures such that hauliers can book on a specific train at a specific time and a specific schedule will define its expected time of arrival (ETA) at destination. -Information provided to the customer is increasingly becoming a standard part of many transportation products and must be made clear up front, also as to costs -The in-transit and border disruptions are probably one of the most critical aspects of the whole CT quality challenge, and also one of the most difficult to solve. The interface between two national railway companies is problematic and has everything to do with commitment, intent,

	availability and priorities. - Foundation for creating a learning environment and a learning framework by which improvement will be a continuous process.
Web source	http://www.uirr.com/?action=page&page=84&project=11&title=Finished
Inventoried by:	Vladas Sturys
Date	December 2008

BE LOGIC DOCUMENT INVENTORY LIST No. 19

Feature	Description
Document name	Integrated Services in the Inter-modal Chain (ISIC)
Editing institution	European Commission, ECORYS
Edition date	2005
Type of the document	European projects and studies
General characteristic	The main objective of the ISIC-project is to provide all necessary information for the Commission to successfully prepare and implement the actions that have been described in the Freight Integrator Action Plan.
Applied fields of the CT	Terminals – mainly
Standardization issues covered	Standardization in segments of the supply chain Quality labelling Standards of professional (personal) Competence
Key criteria	Based on requirements taking into account problems to solve, cover different quality and performance dimensions, comparability, measurability, data availability and access a comprehensive list of quality and performance indicators has been produced.
Viability	
Recommendations for further link to BE LOGIC	Benchmarking and standardization apply exclusively inter-modal terminals. But conceptional issues are applicable to the whole supply chain – a subject of the WP5
Other relevant information	Standardisation fields covered Standardisation at terminals is besides quality labelling and benchmarking a third instrument to improve quality and efficiency of inter-modal terminals. Within this subtask interoperability problems, standardisation needs and standardisation proposals relating to Inter-modal Terminals were identified. The following standardisation fields for inter-modal terminals are covered: -Terminal infrastructure planning and design; -Terminal equipment (incl. transshipment equipment, gate procedures, IT-Systems); -Terminal processes and services (incl. terminal management).
Web source	http://english.ecorys.nl/projects/isic-integrated-services-in-the-inter-modal-chain-4.html http://www.eia-ngo.com/file/Final%20Overall%20Report%20ISIC.pdf
Inventoried by:	Vladas Sturys

Date	January 2009
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BE LOGIC DOCUMENT INVENTORY LIST No. 20

Feature	Description
Document name	TREND Towards new Rail freight quality and concepts in the European Network in respect to market Demand
Editing institution	European Commission, FP6
Edition date	2005-2006
Type of the document	European projects and studies
General characteristic	<p>Main objectives of the TREND project</p> <p>Gathering of information to asses the general progress in the establishment of an European Railway Area (Implementation of change)</p> <p>Developing of an evaluation scheme for integration and interoperability ready to be exploited by European Railway Agency (ERA)</p> <p>Recommendation of a coherent conception of individual actions towards innovative European rail freight services(new concepts for business cases of improved service)</p> <p>Elaboration of appropriate models for the envisaged Integrated Project as a basis for international co-operation in corridors</p> <p>Recommendation of suitable corridors, priority themes and players to be involved</p>
Applied fields of the CT	Railways
Standardization issues covered	Individual service quality provisions/criteria
Key criteria	<ul style="list-style-type: none"> -Planning -Punctuality/reliability -Information -Rolling stock -After-sale service
Viability	Under implementation
Recommendations for further link to BE LOGIC	For the WP5
Other relevant information	No
Web source	http://www.trend-project.com/content/view/59/150/
Inventoried by:	Vladas Sturys
Date	January 2009

BE LOGIC DOCUMENT INVENTORY LIST No. 21

Feature	Description
Document name	BRAVO - Brenner Rail Freight Action Strategy Aiming At Achieving A Sustainable Increase of Inter-modal Transport Volume by enhancing Quality Efficiency and System Technologies

Editing institution	Project Co-ordinator Organisation name: KombiConsult GmbH Project funded under the 6th Framework Programme
Edition date	Period covered: from 17.05.2004 to 16.05.2007
Type of the document	European projects and studies
General characteristic	The BRAVO Quality Manual was finalized, applicable for the Brenner route and designed also as a blueprint applicable to other pan-European freight corridors. It describes the processes and activities, which are necessary for the achievement of a high level of quality and thus for meeting the demands of the customer to drive both quality assurance and improvement. Its overall objective is to develop and demonstrate an action strategy on inter-modal rail-road transport services comprising major scientific and technological as well as pragmatic activities.
Applied fields of the CT	Railways, roads, terminals
Standardization issues covered	Quality management along transport corridors
Key criteria	Quality Criteria -Punctuality and reliability -Flexibility -Information flows -Planning. Service frequency, departure, arrival time and transport order deadlines - Responsibilities - Rolling stock / wagon management - Safety
Viability	Under implementation
Recommendations for further link to BE LOGIC	For the WP5
Other relevant information	This Quality Manual describes, documents and shows all processes and activities, which are necessary for a high level of quality and to meet the demands of the customer. All responsibilities, competencies, procedures and structures according to quality measures within the Brenner- Corridor are defined therein, to drive both quality assurance and improvement. To realise the set Quality Policy, the partners together developed and implemented a coherent Quality Management System, based on elements of international certification models such as ISO 9001:2000.
Web source	http://www.bravo-project.com/bravo/deliverables.shtml
Inventoried by:	Vladas Sturys
Date	December 2008

BE LOGIC DOCUMENT INVENTORY LIST No. 22

Feature	Description
Document name	From Truck to Train. Thirteen examples of successful modal shift

	in European freight transport
Editing institution	CER, UNIFE, Alliance pro Schiene
Edition date	April 2008
Type of the document	Good practices of the Combined Transport
General characteristic	This document shows how enterprises from across the EU have successfully turned to rail as a solution in solving their freight transport logistics challenges and continue to grow if the right conditions are achieved. The case studies also effectively demonstrate how a modal shift makes a considerable contribution towards more environmentally friendly.
Applied fields of the CT	Road, rail, short sea
Standardization issues covered	No particular
Key criteria	Above anything else, the logistics managers' main focus is on reliability and punctuality. The number of different train operators, track access prices that are hard to calculate, and bureaucratic obstacles all combine to make freight transport by rail more difficult in some cases.
Viability	Useful as good practices
Recommendations for further link to BE LOGIC	May be applied during discussions with members of the High Level Group
Other relevant information	No
Web source	http://www.cer.be/
Inventoried by:	Vladas Sturys
Date	December 200 8

BE LOGIC DOCUMENT INVENTORY LIST No. 23

Feature	Description
Document name	Freight Operator Recognition Scheme Freight Operator Recognition Scheme (FORS).
Editing institution	London Municipality
Edition date	2006
Type of the document	Good practices of the Combined Transport
General characteristic	FORS is a scheme for road freight operators which encourages and incentivises them to adopt best practice. It could potentially be a one stop-shop for getting assistance and reducing the burden of administration on freight operators in London. FORS aims to raise standards for road freight operators in London by promoting sustainable distribution.
Applied fields of the CT	Roads
Standardization issues covered	Quality Labelling
Key criteria	Harmonization with local transport network; positive environmental

	impact
Viability	Acting
Recommendations for further link to BE LOGIC	T.7.1. – for topic “Quality label”
Other relevant information	No
Web source	http://www.tfl.gov.uk/businessandpartners/freight/1286.aspx
Inventoried by:	Vladas Sturys
Date	February 2009

BE LOGIC DOCUMENT INVENTORY LIST No. 24

Feature	Description
Document name	Report on Road Transport Best Industry Practices
Editing institution	IRU
Edition date	2002
Type of the document	Industry reports on quality
General characteristic	The IRU Report on Best Industry Practices presents best practices for sustainable development from the road transport industry.
Applied fields of the CT	Road
Standardization issues covered	No
Key criteria	In context, sustainable development practices are those that reduce environmental impact while continuing to satisfy market demand and maintaining the economic survival of the company.
Viability	Interim role
Recommendations for further link to BE LOGIC	No
Other relevant information	Document recommended by IRU secretariat
Web source	http://www.iru.org/index/cms-filesystem-action?file=en_Publications/bip_2001-gb.pdf
Inventoried by:	Vladas Sturys
Date	January 2009

BE LOGIC DOCUMENT INVENTORY LIST No. 25

Feature	Description
Document name	Rail Freight Quality:the challenge – CER report
Editing institution	CER
Edition date	2003
Type of the document	Industry reports on quality
General characteristic	CER makes a point of keeping the European Commission services informed regularly of the progress made by the railway community on

	freight quality issues. In this case, CER used the opportunity of the top level meeting of 8 July 2003 with the European Commission to present the findings of this report to the Commission's Vice President Loyola de Palacio.
Applied fields of the CT	Railways
Standardization issues covered	Quality contracts Quality management along transport corridors
Key criteria	Target is 100% coverage of North-South CT via Switzerland with quality agreements incl. penalty clauses.
Viability	Interim role
Recommendations for further link to BE LOGIC	T.7.2 for topic 'Quality contracts' May be used for quality policy improvement purposes
Other relevant information	Standard Quality Contract (given in Appendix B) Quality Improvement procedures Quality control procedures Information management UIC projects on quality in corridors with SAPPI, VOEST, UMICORE, AUDI. 3 corridors analysed: Gothard, Loetschberg, Brenner.
Web source	http://www.cer.be/force-download.php?file=/media/publications/Br_01_07_2003_EN.pdf
Inventoried by:	Vladas Sturys
Date	December 2008

BE LOGIC DOCUMENT INVENTORY LIST No. 26

Feature	Description
Document name	Rail freight quality: meeting the challenge A Report on the first year of the CER-UIC-CIT Freight Quality Charter
Editing institution	CER
Edition date	2004
Type of the document	Industry reports on quality
General characteristic	This report examines the state of quality in the current rail freight market, one year on from the introduction of the CER-UIC-CIT 2 Quality Charter. It also shows how further increases in quality are possible.
Applied fields of the CT	Railway
Standardization issues covered	Briefly - Standard Combined Transport (CT) product
Key criteria	Flexibility; standard block trains
Viability	Interim role
Recommendations for further	No particular

link to BE LOGIC	
Other relevant information	Early in 2003, Stinnes AG and Railion Deutschland introduced three new “block trains” products: so-called plantrains, variotrains and flextrains, which are differentiated by the flexibility they offer in customer order deadlines. Two new single-wagon load products (“classic” and “quality”) were also launched in autumn 2003 and allow for different transit periods for single wagons. More and more customers are being attracted to the single-wagon load “quality” product offer, with its proactive customer information specification, monthly quality reporting and, above all, guaranteed transit time. With the guaranteed transit time, Stinnes gives a commitment that at least 95% of the “quality” single wagons transported.
Web source	http://www.cer.be/
Inventoried by:	Vladas Sturys
Date	January 2009

BE LOGIC DOCUMENT INVENTORY LIST No. 27

Feature	Description
Document name	Rail Freight Quality: Progress in a Competitive Market. Update Report on the CER-UIC-CIT Charter
Editing institution	CER
Edition date	2005
Type of the document	Industry reports on quality
General characteristic	This is the third report to be published on the implementation of the CER-UIC-CIT Freight Quality Charter. As in earlier reports, it illustrates concrete results and progress achieved by the railways in the field of rail freight quality two years after the adoption of the Charter in July 2003.
Applied fields of the CT	Railways
Standardization issues covered	Individual service quality provisions/criteria Quality contracts Standard Combined Transport (CT) product
Key criteria	Two most sensitive indicators for freight quality: <ul style="list-style-type: none"> • the use of quality contracts between the railways and their customers • the punctuality of freight trains The use of quality contracts between the railways and their customers
Viability	
Recommendations for further link to BE LOGIC	T.7.2 – for topic “Quality contracts”.
Other relevant information	As no uniform regulations can fit into market reality CER is grateful that the proposal for state intervention at this point was not supported by the European legislative authorities, neither by the competent committee of the European Parliament nor by the Council of EU Transport Ministers. In general, economists have shown that quality in a liberalised market is best handled by the market actors themselves, whether through the natural

	<p>functioning of competition or within the frame of contractual relations. Freight customers across large parts of Europe can currently choose between several different price/quality mixes for rail freight services. Good commercial practice is to provide a menu of price-quality mixes, not a single “one-size-fits-all” contract.</p> <p>Stinnes AG and Railion launched the three wagon-load products “Classic”, “Quality” and “Prime”. These products allow for different transit times for single wagons.</p> <p>“Quality” and “Prime” offer proactive customer information, monthly quality reporting and guaranteed transit times of up to 48 hours (Quality) and 24 hours respectively (Prime)</p> <p>Earlier in 2003, Stinnes AG and Railion Deutschland had also introduced three new “block trains” products: “Plantrain”, “Variotrain” and “Flextrain”, which are differentiated by the flexibility they offer in customer order deadlines.</p>
Web source	http://www.cer.be/
Inventoried by:	Vladas Sturys
Date	January 2009

BE LOGIC DOCUMENT INVENTORY LIST No. 28

Feature	Description
Document name	Rail Freight Quality Progress Report 2007/2008
Editing institution	CER
Edition date	2008
Type of the document	Industry reports on quality
General characteristic	Fourth edition of the CER Freight Quality Report. Since the first edition in 2003, the rail freight landscape has dramatically evolved. One important change is the full opening of the market to competition, resulting in today 701 freight operators having an active license in Europe. This has been achieved with the determination of many political and business stakeholders.
Applied fields of the CT	Railways, terminals
Standardization issues covered	Briefly – quality contracts
Key criteria	<p>Quality indicators fixed contractually between the RU and the clients constitute a basis for measuring the agreed quality, and can include:</p> <ul style="list-style-type: none"> • punctuality and reliability with transport-specific time allowances; • no-claims bonus, claim settlements and accounting; • secure loading conditions; • wagon supply (model-specific despatch and availability); • train cancellation; • reliable information: • content: e.g. punctuality, wagons out of sequence; • frequency: e.g. level, measuring points;

	• after-sales service.
Viability	Interim role
Recommendations for further link to BE LOGIC	T.7.2. – for topic “Quality agreements”
Other relevant information	<p>More importantly, BSL shows that the failures attributed to rail freight operators are often the “secondary” consequence of a “primary” infrastructure cause and that secondary delays grow as an exponential function of infrastructure utilisation</p> <p>Significant improvements in the time needed to transport goods by rail from China to Europe have been made thanks to the development of a common transport document for both Europe and Asia. Intercontinental freight traffic by rail between Europe and Asia also has to cross an invisible interface between two legal regimes (the CIM in the West and the SMGS in the East). For this reason, the CIT, in conjunction with the OSJD, has developed the common CIM/SMGS consignment note as part of the project to make the CIM and the SMGS legally interoperable. The common CIM/SMGS consignment note is recognised in both legal regimes as a transport and customs status document. It has been freely available to customers and carriers since 1 September 2006. The common CIM/SMGS consignment note reduces errors and allows a saving of some thirty to forty minutes per wagon and frontier crossing.</p>
Web source	http://www.cer.be/force-download.php?file=/media/Publications_2/cer_freight_quality_report_2008.pdf
Inventoried by:	Vladas Sturys
Date	January 2009

BE LOGIC DOCUMENT INVENTORY LIST No. 29

Feature	Description
Document name	East West Transport Corridor Strategy and Action Plan
Editing institution	Project consortium. Lead partner - region Blekinge, Sweden
Edition date	2007
Type of the document	Final report
General characteristic	EWTC is a unique multi-modal transport corridor from Esbjerg, western port of Denmark to eastern border of Lithuania, linking Denmark, Sweden, Lithuania with Russia, Byelorussia, Ukraine and extending towards Asia.
Applied fields of the CT	Short Sea shipping, railways, roads, terminals, logistic hubs.
Standardization issues covered	Quality management along transport corridors Standards of professional (personal) Competence
Key criteria	Hub development IT implementation along the corridor
Viability	Application for extension to East-West II project is launched in March 2009.
Recommendations for further link to BE LOGIC	Policies and terminals topics may be applied during research in WP 4 and WP6
Other relevant information	KIPIS , “ the Information System for cargo and Goods) , initially developed as Klaipeda Seaport is no being integrated with information systems of the “Lithuanian railways”, operating shuttle trains up to the Black Sea. Later through twin-ports Klaipeda- Karlshamn process the IT system will be linked to short sea shipping and Scandinavian part of the corridor. Hence all stakeholders along the corridor will be using standard documents and standard IT applications.
Web source	www.eastwesttc.org
Inventoried by:	Vladas Sturys, VGTU
Date	February 2009

BE LOGIC DOCUMENT INVENTORY LIST No. 30

Feature	Description
Document name	FIATA Minimum Standards
Editing institution	FIATA
Edition date	
Type of the document	Agreement inside organization/industry on quality standards
General characteristic	FIATA member countries who voluntarily agreed to share the Standards of Competence for freight forwarding. FIATA has validated the training material of around 40 National Associations. These courses are based on the "FIATA Minimum Standards".
Applied fields of the CT	Forwarding in sea transport (general);maritime containers;air transport;road transport;rail transport;
Standardization	Standards of professional competence

issues covered	
Key criteria	200 hours course. Professional competence
Viability	Acting
Recommendations for further link to BE LOGIC	T.7.2.
Other relevant information	Those Associations who have successfully validated their training programme are entitled to deliver courses leading to the renowned "FIATA Diploma in Freight Forwarding by Vocational Training and Examination". The FIATA Diploma is recognised by the industry world wide.
Web source	www.fiata.org
Inventoried by:	VGTU
Date	February 2009

BE LOGIC DOCUMENT INVENTORY LIST No. 31

Feature	Description
Document name	COUNCIL DIRECTIVE 98/76/EC of 1 October 1998 amending Directive 96/26/EC 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
Editing institution	European Council
Edition date	1 October 1998
Type of the document	Policy Paper
General characteristic	Directive is 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. Council directive application is mandatory for everybody road transport operator
Applied fields of the CT	Road transport
Standardization issues covered	Standards of professional competence
Key criteria	Good repute, appropriate finance standing and professional competence.
Viability	Acting
Recommendations for further link to BE LOGIC	In T.7.2.
Other relevant information	No
Web source	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31998L0076:EN:HT

	ML
Inventoried by:	R. Palsaitis, VGTU
Date	February 2009

BE LOGIC DOCUMENT INVENTORY LIST No. 32

Feature	Description
Document name	Council Directive 95/18/EC of 19 June 1995 on the licensing of railway undertakings
Editing institution	European Council
Edition date	19 June 1995
Type of the document	Policy paper
General characteristic	The Directive concerns the criteria applicable to the issue, renewal or amendment of licenses by a Member State intended for railway undertakings which are or will be established in the Community. Council directive application is mandatory for everybody railway transport operator
Applied fields of the CT	Railways
Standardization issues covered	Standards of professional (personal) Competence
Key criteria	Good repute, appropriate finance standing and professional competence
Viability	Acting
Recommendations for further link to BE LOGIC	For T.7.2.
Other relevant information	A railway undertaking must be able to demonstrate to the licensing authorities of the Member State concerned before the start of its activities that it will at any time be able to meet the requirements relating to good repute, financial fitness, professional competence and cover for its civil liability.
Web source	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31995L0018:EN:HTML
Inventoried by:	R. Palsaitis, VGTU
Date	February 2009

13 Annex 5: Abbreviations

ADR/RID	ADR/RID Directives –Directives of United Nations, defining regulations in order to standardize the requirements for the transportation by road (ADR) or by rail (RID) of dangerous goods.
AMRIE	the Alliance of Maritime Regional Interests in Europe,
CER –	The Community of European Railway and Infrastructure Companies
CIM	Uniform Rules Concerning the Contract for International Carriage of Goods by Rail (CIM)
CIT	The International Rail Transport Committee (CIT)
CLECAT	European Association for forwarding, transport, logistic and customs services
EIA	European Inter-modal Association
EIM	European Rail Infrastructure Managers
ELA	European Logistics Association
ERFA	European Rail Freight Association
ESC	European Shippers Council
ESPO	European Seaport Organization
Euro NCAP	European New Car Assessment Programme
FEPOR	Federation of European Private Port Operators
FIATA	International Federation of Freight Forwarders Associations
FNTR	National Federation of Common Carriers
HLSG	High Level Support Group
IRU	International Road Union
SNCF	Société Nationale des Chemins de fer français (French National Railways)
SQAS	Standardization and Quality Assurance Section
UIC	International Union of Railways
UN/CEFACT	United Nations Centre for Trade Facilitation and Electronic Business,
UNIFE	Association of the European Rail Industry (formerly Union des Industries Ferroviaires Européennes)
ZSSK Cargo	Železničná spoločnosť Cargo Slovakia