



ECTRI INPUT

***Digital Transport and Logistics Forum (DTLF) survey
“Selection and prioritisation of topics and organisation
of the Forum into working groups”***

September 2015

The European Conference of Transport Research Institutes (ECTRI) is an international non-profit association that was officially founded in April 2003. It is the first attempt to unite the forces of the foremost multimodal transport research centres across Europe and to thereby promote the excellence of European transport research.

Today, it includes 26 major transport research institutes or universities from 19 European countries. Together, they account for more than 4,000 European scientific and research staff in the field of transport. ECTRI as the leading European research association for sustainable and multimodal mobility is committed to provide the scientifically based competence, knowledge and advice to move towards a green, safe, efficient, and inclusive transport for people and goods.

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ECTRI launched its Thematic Groups (TGs) in September 2007 as a means to facilitate exchanges among ECTRI researchers interested in similar research fields and in order to promote joint initiatives and positions.

One of the groups is the **Thematic Group on Freight and Logistics** (TG Freight and Logistics). The main objectives of this group are to define research topics of interest for supporting EC policies and programmes, to increase successful participation in EU projects and to provide a platform for networking and scientific exchanges. The group consists of 54 experts from 21 Transport Research Institutes and Universities representing 14 countries. Most of the institutes are working in the field of freight transport and logistics. Members are: AIT, BME, CDV, CENIT, DEUSTO, DLR, FHG, HIT, IFSTTAR, ITS, KTI, TØI, TRL, TTI, UNEW, UNIZA, UPM, UVEG, VGTU, VTI and VTT. TG Freight and Logistics work focus on E-freight, Door-to-door freight transport and supply chains, Urban logistics and Terminals.

The European Commission has set up the **Digital Transport and Logistics Forum** (DTLF), which aims at supporting digitalisation of freight transport and logistics. It brings together Member States and stakeholders from all transport and logistics communities with the aim to identify challenges and areas where common action in the EU is needed, to provide recommendations, and to work on the implementation of these recommendations where appropriate.

Following the application in May 26th, 2015, ECTRI has been appointed to the Forum as per decision of the European Commission dated June 10th, 2015 with the following representatives: Corinne Blanquart (IFSTTAR, France) and Gernot Liedtke (DLR, Germany) as substitute.

After the first DTLF Plenary Meeting, the Commission sent out a survey to collect stakeholders' views in a more structured way and start defining working groups and their participants. In regards to this survey, the following paper has been prepared by Corinne Blanquart with the support of ECTRI Thematic Group on Freight and Logistics.

Theme 1: Definition and acceptance of electronic transport documents

Problem:

Electronic transport documents have a large potential for decreasing costs and errors, and simplifying the work of both market operators and public administrations. Stakeholders in all modes of transport are working on their development (eCMR, eManifest, digital air waybill etc.). However:

- Electronic documents are often developed in a single-mode or single-country perspective, preventing re-use of information;
- Use of electronic documents is prevented by lack of acceptance/recognition by relevant authorities, banks and insurances.

Possible/expected deliverables of the Forum:

- Identify transport documents currently in use that could be replaced by electronic versions;
- Formulate suggestions, also on the basis of best practice cases, as regards e.g. supporting infrastructure and business cases (how to arrange the use of electronic documents? Can the information be uploaded into/downloaded from an appropriate platform? What would be the cost of such systems?);
- Define what kind of concrete measures could facilitate the recognition of electronic transport documents by public authorities (e.g. should the Commission encourage ratification of the e-CMR protocol, and how? Is EU legislation required to enforce applicability of e-transport documents?), and assess their possible impacts;
- Assess scope for multimodal e-transport documents and related barriers.

Questions:

Do you consider this as a relevant theme for the Forum?

Answer: Yes.

Are there specific topics within this context that should be addressed?

*Answer: Review electronic transport documents previously developed, focussing on the issues which prevented re-use of information.
Inclusion of stakeholders within the process, particularly SMEs who have concerns regarding rising costs.
Question of whether the appropriate platform should be centralised or decentralised.*

Would you have any suggestions for deliverables?

Would you be ready to be personally involved in a group addressing this topic?

Any other comment?

Answer: This is relevant and wide topic but the formulation would need more detailed proposal. One viewpoint is that big global operators are able to do this today but others have deficiencies and SMEs need completely different solutions. The problem is not the diversity of documents but the diversity and non-standardisation of the content (if there was similar content, one document could be translated into another). Public authorities should more recognize electronic documents and make use of these technologies in the facilities they control (customs, ports,).

The ongoing BESTFACT project has initiated an “Implementation Action” called Verkottaja - Standard Business Data Exchange Guidelines Service. BESTFACT repository will include four standard based key transport message definitions with implementation guidelines for logistic and supply chain operations and electronic data exchange handbook. The messages chosen for implementation are:

- *Transport Order*
- *CMR Waybill*
- *Despatch Advice*
- *Transportation Status*

TIEKE repository is introduced on BESTFACT web page: http://www.bestfact.net/wp-content/uploads/2013/08/Bestfact_Quick_info_efreight_3-088_TIEKE.pdf e-Freight project prepared a proposal for multimodal waybill.

Theme 2: Languages/standards for seamless data exchange

Problem: Repeated data submission into different systems because of a mosaic of non-interoperable standards

Tools already exist within specific modes to simplify access to traffic and transport data. However, although a large part of the data that is exchanged along the logistics chain and/or with authorities is common to several information exchanges, when changing mode or when exchanging with a different counterpart, the same data often has to be re-entered, as the formats used in the different systems diverge and hinder the reuse of data from a system to another. This leads to administrative burden and costs and increases the perceived complexity of multimodal transport.

Possible/expected deliverables of the Forum:

- Map available data models
- Identify bottlenecks in implementing the current standards: are these in the development of implementation guides, interfacing with SMEs, complexity and thus costs of interfacing with trade partners, commercial interests of community systems, etc?
- Identify needs for cross-modal harmonisation of standards to enable data reuse from a message/document to another

- Agree on a "common language" / format for data exchange in logistics, based on existing initiatives and projects (e.g. cross-sectorial standard proposed for adoption at ISO). The objective would not be to develop a new standard, but to help communities to agree on a common standard for the parts common to several documents: a "common denominator" across communities' standards. Concretely, that would entail working on:
 - semantics: define and agree on a "common vocabulary" as the "words" being used in all messages for freight transport information exchange
 - messages: agree on the way these "words" are being organised into "forms", or messages for e.g. transport documents (seeking harmonisation in the way the same type of information is reported across different modes of transport), dangerous goods documents, for indicating cargo location / status, for describing available transport services, for information from authorities to companies e.g. on traffic conditions, or for estimation of transport emissions...
- Recommend actions to be taken by the Commission (e.g. publishing the standards proposed by the group and/or issuing recommendations towards other organisations, such as standardisation organisations, including as regards governance questions)

Questions:

Do you consider this as a relevant theme for the Forum?

Are there specific topics within this context that should be addressed?

Answer: To implement standards a critical mass of users will be necessary.

Would you have any suggestions for deliverables?

Would you be ready to be personally involved in a group addressing his topic?

Any other comment?

Answer: It makes no sense to develop ONE common language. Maybe there could be different versions that are subsequently replaced during time. There are enough standards that could be used, stemming also from the non-transport world: cpc for products.

EU has financed uncountable number of projects which have tried to solve these IT questions in logistics. Standardisation is slow and complicated process. That's why e-Freight choose UBL industrial "standard" and not ISO / CEN.

Theme 3: Safe and interconnected systems for data exchange

Problems:

Systems need to be interconnected: Today, several systems supporting data exchange and sharing are developing, using e.g. open platforms or cloud computing tools. However, transport players still need to forward data from one system to another, while interconnected systems could enable e.g. the reuse of traffic management information for transport management or the reuse of data from public procurement processes when the public sector is contracting transport services.

Trust is needed: Various systems generate large quantities of information on transport processes. Increased sharing of such data (including public data) would enable new business opportunities. However, the critical mass for making this happen more widely is not reached yet:

- many transport players still need to be further convinced by a sufficient number of successful pilot cases and to be informed about possible business models.
- there is a lack of trust in the security of information flows, in system reliability, in the identity of the interlocutor online, in the quality of the data received and the protection of sensitive data, as well as questions on data management and on liability for parties transmitting data.

Possible/expected deliverables of the Forum:

- Map what is existing: infrastructures for information exchange, legislation
- Identify barriers to a better access to available data (e.g. competition challenge linked with increased supply chain collaboration, costs / user-friendliness of tools, barriers to trust, etc.)
- Assess whether there is a need to interlink / enlarge existing infrastructures (e.g. interconnection of/with traffic management systems; multimodal single window for reporting formalities; public procurement / transport infrastructures) or to develop new ones
- Identify needs for action, develop concrete proposals and assess their possible impacts, for:
 - secure logistics data exchange (e.g. databases / infras enabling authentication of users and distribution of access rights?)
 - supporting a pragmatic solution where pilots are developed and coordinated at the level of a "TEN-T" corridor – "corridor community systems" showing possible benefits and opportunities, identifying possible business models, exchanging best practices.
- Work on communication actions (e.g. videos)

Questions:

Do you consider this as a relevant theme for the Forum?

Answer: Yes. It is necessary to show the applicability of new concepts and solutions developed by the forum. But it makes no sense if this is done along a corridor since this would create additional incompatibilities of the firms. One could think about a cluster of firms. Other ideas for identifying a test case: nodes (ports, airports, and their hinterland, including public authorities, selected logistics and manufacturing firms).

Are there specific topics within this context that should be addressed?

*Answer: Inclusion of stakeholder analysis potentially through a design and monitoring framework methodology.
Communication actions would be valuable as dissemination, to remove the perceived complexity of multimodal transport due to limited level of information on transport services and of multimodal booking tools.*

Would you have any suggestions for deliverables?

Would you consider "corridor community systems" as a useful tool to ensure implementation of the Forum developments and foster coordination? In that case, should pilots be used in parallel to the Forum to serve as a test bed for recommendations, or afterwards as an implementation field?

Answer: No. There are enough software companies that could do a better job. If possible it would be valuable to implement pilots both in parallel and afterwards so that during the test bed period issues could be ironed out and afterwards monitoring could be undertaken.

Would you be ready to be personally involved in a group addressing these topics?

Answer: DLR (IVF) is interested in contributing. VTT is preparing a report about the impacts of these 45 best practices, should be ready by the end of the year 2015. Could do quick analysis of topics 1 and 3.

- Definition and acceptance of electronic transport documents;*
- Safe and interconnected systems for data exchange;*

In order to see what is happening in Europe.

Any other comment?

*Answer: The development of platforms should be undertaken by private companies on the basis of a common language.
There are also many solutions for secure data exchange on the software market. This is not the problem. But the recognition of these systems (or documents of these systems) by public authorities.
Interoperability of different systems and platforms is the main barrier. Also confidential business relations slow down business to participate.
BESTFACT project contains cluster called "e-Freight" (which is NOT the same concept as in the e-Freight project) which has collected 45 best practice cases, most of them published in BESTFACT web page below.
http://www.bestfact.net/best-practices/cl3_efreight/*

Theme 4: Adaptation of workers and users to digital technologies

Problem: impacts of transport digitalisation need to be assessed and relevant support actions identified.

There is a need to assess possible effects of digitalisation on employees of the transport and logistics sectors: will the types of jobs change? Will there be a change in the number and quality of jobs? Will new jobs be created thanks to the development of new value-added services?

Furthermore, there is also a need to assess what kind of support would be needed from public authorities and employers in this view: how can workers be best involved in the implementation of transport digitalisation? How can they be best prepared to it? Should for instance initial and professional trainings be reviewed?

Possible/expected deliverables of the Forum:

- impact assessment of transport digitalisation on transport and logistics employees
- recommendations e.g. in terms of training

Questions:

Do you consider this as a relevant theme for the Forum?

Are there specific topics within this context that should be addressed?

Answer: If new jobs are created the promotion of young people into the transport and logistics sector could be included.

Would you have any suggestions for deliverables?

Would you be ready to be personally involved in a group addressing this topic?

Should this topic be addressed by a working group, or would the organisation of a workshop involving participants from all working groups be preferable?

Answer: A workshop may be preferable/less restrictive than a working group as it would allow a wide selection of attendees from diverse modes, employers, countries.

Any other comment?

Final questions:

In your view, should some of the working groups begin their work earlier than others? Do some working groups need deliverables from other working groups?

Answer: Themes 1-3 should begin their work before theme 4 as without definition and standards it will be more difficult to measure the impact of adaptation. Theme 1 and 2 should start slightly ahead of Theme 3, as theme 2 will agree on the common language for data exchange.

Before starting the work, it is necessary to have an overlook of the potential overall system and/or future decentral solutions. Then, it is indicated to distinguish between the role of public authorities (standard setting, recognition of documents, legal aspects) and the role of software companies (SAP, start-ups, App-developers).

Do you have any additional comment / suggestion?

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