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Position Paper

Digitalisation in transport and logistics

The purpose of this paper is to set out CLECAT's views on digitalisation in transport and logistics and to contribute to the ongoing work of the Digital Transport and Logistics Forum (DTLF. The paper also makes a number of general recommendations with regards to further initiatives to make progress on electronic transport and logistics.

CLECAT commends the achievements of the DTLF since its establishment by the European Commission in 2015; the challenges in digitalisation in transport and logistics have been clearly identified and importantly, there has been a mind-shift of many parties in accepting the importance of moving towards electronic transport environment. It is now generally accepted that moving from paper to electronic means across all modes of transport provides the potential to improve efficiency, reliability and potentially reduce costs in freight transport logistics. Stakeholders from business and Member States agree that digital documents and the digital exchange of data within the supply chain are the way forward. This mind-shift is one the most important factors for change. However, CLECAT now considers that concrete actions are necessary in order to move to a fully digital transport environment, which maximises the potential for both the public and private sector.

In order to achieve this, CLECAT would want to make the following recommendations to DG MOVE and other stakeholders in the DTLF:

- Narrow the scope of the DTLF to issues which are achievable
- Focus less on the problems and more on the solutions;
- Re-use what already works;
- Focus on the legal acceptance by authorities of data provided digitally and meanwhile encourage better interoperability between systems, based on international standards;
- Not to lose focus on the benefits for the private sector;
- Create a healthy environment for innovation within the logistics sector itself;
- and last, but certainly not least; look beyond current procedures.

Background

Digitalisation in transport and logistics is an important driver for efficiency, simplification, lowering costs, and a better use of resources and existing infrastructures. Digitalisation also creates new opportunities for business and has the potential to change the way cargo and traffic flows can be organised and managed in the future. The Digital Transport and Logistics Forum (DTLF) aims at further supporting digitalisation of freight transport and logistics. It brings together the EU Commission, 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.

CLECAT is the European organization representing the interest of freight forwarders, logistics service providers and customs brokers. Freight forwarders are users of all modes of transport and make extensive use of IT systems, dedicated terminals and warehousing to respond to the needs of their customers. Therefore, freight forwarders and other logistics service providers play a crucial role in global supply chains and the exchange of information within these supply chains.

CLECAT is an active participant in the DTLF and fully supports its objectives. Freight forwarders and logistic service providers already process data electronically to a large extent and, where possible, the data is being exchanged electronically with authorities and other parties in the supply chain. Therefore, a vast amount of data is available to these companies.

In the past decade, many initiatives have been launched to digitise information flows in logistics and to enhance the digital exchange of information. Despite different levels of success, all initiatives have in common that they were created to enhance information exchanges between businesses and businesses and government at local, national or regional level. This has led to a multitude of "disconnected information silos", promoting different solutions provided by different actors, countries, and within different transportation modes, addressing diverse layers in information sharing. These disconnected silos together with differences in data standards, message standards and its supporting legislation are causing a halt in the further development and exploitation of the opportunities that modern technology provides. Therefore, CLECAT welcomes the recent initiatives taken by DG MOVE to enable further interoperability and to take away remaining obstacles.

State of play

DTLF Group 1: Acceptance of e-transport documents

The objective of the group on electronic transport documents (e-TD's) is to promote and facilitate the use of transport documents in an electronic format. Several milestones have been defined for Group 1: first, understanding the state of play of digitalisation in the transport and logistics sector; second, identifying barriers and obstacles, and; finally, on this basis, formulate recommendations for actions at EU-level.

There is a steady increase in the acceptance and use of digitalised documents for different modalities. However, there are still obstacles for a complete transition to e-documents. The main obstacle is different authorities in different Member States who have not yet legally accepted the provision of digital data. Another factor which hinders further adoption lays with the supply chain actors themselves. Some of the issues are related to data security, privacy and trust. CLECAT also remains of the view that an important reason for the lack of recognition of e-transport documents, is that until now the focus has mainly been on supporting existing procedures by replacing paper documents with electronic versions. This has not yet led to the intended benefit of less administrative burden, because there might be less paper, but work and processes remain the same.

DTLF Group 2: Cargo flow optimisation across corridors

The objective of Group 2 is to facilitate electronic exchange of information in transport and logistics, by removing technical, operational and administrative barriers between and within transport modes.

In recent years, many authorities and business communities have developed their own solutions to exchange information digitally. However, even though they were created with the best intentions, these individual initiatives have led to a multitude of non-interoperable IT solutions. This non-interoperability has stalled progress in further digitalisation, because of the extra effort and investment needed to exchange information with all different parties in different ways. Group 2 can play an essential role in encouraging and supporting standardisation efforts with a view to ensure interoperability between solutions, but without choosing one specific solution.

The way forward; CLECAT's expectations

Various initiatives from the Commission have generated debate on the way forward. They provide an important contribution towards the electronic exchange of documents/information along the transport and logistic chains. CLECAT is eager to support a real next step towards digitalisation in order to reach the full potential of the DTLF initiatives and to address the urgent need of this next step. Therefore, CLECAT urges for an increased focus on the tangible benefits for trade and to narrow the scope of the ambitions.

More focus on the benefits for trade

1. Primary focus on private sector purposes:

The main purpose of transport documents is to serve as commercial transport contracts between private parties and as proof of the completion of these contracts by those parties. The conventions and agreements supporting those contracts are also created with the support of the private sector. Many different authorities (re-)use these contracts/documents for different kinds of inspection purposes. The (re-)use of these industry contracts/documents, based on standards, is supported by CLECAT as it often makes the creation of separate documents, messages etcetera unnecessary. We remain concerned, however, that much of the debate that has taken place in the DTLF addresses the needs of authorities for these (commercial) documents. Although it remains important for e-TD's to be accepted by governments and authorities as digitalisation will also increase their efficiency, there should be a primary focus on the purposes and standards for the private sector. This has been the case in the past decades with current conventions, agreements and legislation and should not change with the creation and implementation of e-TD's. If the focus is mainly on the needs of authorities, this may lead to more administrative burden and a negative business case for trade to adopt e-TDs. The Reporting Formalities Directive (RFD) / Maritime Single Window (MSW) initiative of DG MOVE has demonstrated that, even though the intentions behind the initiatives were good, these were not effectively translated into benefits for trade. CLECAT would find it very unfortunate if the same negative effects were to occur for the present e-transport initiatives.

2. Look beyond current procedures:

The DTLF has recognised that there has been too much focus on supporting existing procedures by replacing documents with electronic versions, which should not be the way forward. Most of these paper-based procedures originate from decades ago. The UNECE CMR Convention, for example, was created in 1956[1]. At that time, the CMR consignment note was a very innovative way to exchange data between different parties in the supply chain, by standardising the data elements and data exchange, where the paper document served as a means to transfer the data. Today, data can be exchanged without the use of paper, but with the same purpose; providing a means to share data in a cheap and easily accessible way that can be understood and processed by any person, with the least initial investment as possible. The purpose remains the same, however this does not mean the processes should remain the same.

CLECAT regrets that there is a continuing focus in the e-TD transition on maintaining the procedures and on simply replacing paper documents with identical electronic versions. The focus should not be on simply replacing paper documents with a digital equivalent, which would just lead to the continuation of the exact same processes. In order to fully benefit from the potential of e-transport, the concept of a document accompanying the goods should be abandoned entirely. The paper

[1] https://www.unece.org/fileadmin/DAM/trans/conventn/cmr_e.pdf

document used to be, and still is simply an instrument to exchange data and not a goal in itself. Modern technology allows for different ways to exchange data and these possibilities should be explored to the fullest extent. Only by doing so, can real future-proof procedures be created, and the efficiency benefits of e-transport achieved. Therefore, CLECAT considers that the DTLF should not be discussing *documents* anymore, but the *exchange of data*.

3. Create a healthy environment for innovation:

CLECAT fully supports the notion that enterprises should be able to select and implement their particular solution as part of an open environment. In this context, it is important to note that the stakeholders that are part of the DTLF and the European Commission remain neutral and objective towards commercial, market based solutions in support of the non-discrimination principle. CLECAT remains of the view that the DTLF should refrain from referring to specific (commercial) solutions, or to uphold them as the benchmark. Commercial players continue to develop solutions and it should be up to the market to select and implement solutions that best serve their needs.

Next to that, CLECAT considers it very important not only that neutrality is maintained, but also that an environment is created where the actual supply chain participants can develop and pilot their innovations. CLECAT has been involved in a number of EU Commission supported R&D projects which have piloted various innovative approaches. We believe that it is important to align the experiences of these projects and to use their results in the best possible way. These projects have already provided important insight to and proof of concept for possible solutions to be adopted by logistics, trade and authorities. Nonetheless, in the past years there have also been many innovation initiatives by the private sector themselves without the support of research projects funded by the EU. Whereas it remains important to use R&D results, CLECAT believes that the DTLF should not single out one specific solution, service or system (for example one pan-European data platform), but creates and encourages an environment where businesses themselves can create new ways to co-operate and innovate.

Narrowing the scope

1. Less focus on the problems, more on solutions:

As mentioned before, there are several remaining obstacles to overcome in order to fully implement e-transport and digital exchange of information. Most of these obstacles have been discussed for many years, but remain unresolved. CLECAT believes that there has been too much focus on the problems and too little on the solutions. An example is the legal acceptance of signatures and stamps for e-documents. Signatures serve as a proof of identity and intent. For decades, a handwritten, not registered, signature by any employee of a company has been sufficient to provide this proof of identity and intent. Equally, in an e-commerce environment there are no issues. A customer using online services or buying goods online, can simply tick a box stating: “I HAVE READ AND UNDERSTAND THIS AGREEMENT, AND I ACCEPT AND AGREE TO ALL OF ITS TERMS AND CONDITIONS”. And, generally, if a consumer has an account at an online service or shop, these terms need to be agreed only once. The terms often even include shipping terms, arranging the transport and delivery of the goods bought.

CLECAT finds it therefore puzzling that new problems, which did not exist before, have to be solved, when discussing for example how to provide proof of identity and intent for (e-)transport documents.

Transport documents are, in the first place, civil contracts between private parties, just like the terms and conditions for electronic services. In transport and logistics however, where persons deal with transport documents/contracts on a professional and daily basis, discussion concerns extra measures

which have to be taken in order for signatures to be legally binding in the form of e-signatures. This is promoted by the e-IDAS legislation. Proven technology like sign-on-glass has already provided solutions for signatures for e-transport documents, but are not supported by e-IDAS. The issue of cybersecurity does, of course, remain of the highest order, but can and are being addressed elsewhere than in the DTLF (see point 5 – Preconditions). Therefore, in order to accelerate the acceptance and implementation of e-transport documents, CLECAT advises that more focus be given by the DTLF to (already existing) solutions instead of new or irrelevant problems.

2. Re-use what already works

Freight forwarders, customs brokers and other logistics service providers already extensively use electronic tools for (synchro-modal) planning, warehouse management, fleet management, customs declarations and the creation of transport or other documents. Some logistics service providers have even developed their own IT solutions and are beginning to consider themselves more as IT providers. Today, transport documents almost never originate on paper anymore, but electronically. In many cases, however, the transfer of electronic data to another party remains paper-based and needs to be re-typed (manually, with the risk of error) to transform it into electronic data again. In many Member States, (air)ports and business communities, measures have been taken to address this issue. In the A2A and B2A domain for example, customs declarations have to be made in almost every case electronically. The new Union Customs Code of 2016 takes this a step further by enforcing in article 6 that:

"All exchanges of information, such as declarations, applications or decisions, between customs authorities and between economic operators and customs authorities, and the storage of such information, as required under the customs legislation, shall be made using electronic data-processing techniques."

For both B2B and B2A data exchange, many solutions already exist. Fully replacing those solutions would be very costly and burdensome to both the public and private sector. Therefore, CLECAT recommends that DG MOVE does not attempt to replace the existing systems, but re-uses the existing ones and instead focuses on how to make these existing B2A solutions more interoperable. For the B2B environment, no single standard should be imposed on businesses. International conventions can continue to list mandatory data elements, and businesses have proven resourceful in providing integration solutions.

3. DTLF Group 1; Focus on legal acceptance

The aim of Group 1 is 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. After two years, the DTLF has already achieved a lot in terms of identifying challenges and creating "mental" acceptance of digital data in transport. All stakeholders agree that the digital exchange of data within the supply chain is the way forward. This mind shift is one the most important factors for change. However, CLECAT considers it important that the next step is taken by actually making recommendations for measures in order to remove the remaining barriers of legal acceptance of digital data. Many solutions are already available. UNCITRAL[2], for example, provides an extensive library of conventions, contracts and recommendations. The EU Digital Single Market initiatives of the EU Commission[3] have also already provided several solutions. It is now up to the DTLF to pick the

[2] http://www.uncitral.org/uncitral/en/commission/working_groups/4Electronic_Commerce.html
[3] https://ec.europa.eu/commission/priorities/digital-single-market_en

appropriate solutions and to make strong recommendations for Member States and possibly regulatory proposals.

Within the DTLF there does not seem to be one definition of what an e-transport document is. The inception impact assessment defines transport documents as:

"The term "transport documents" is predominantly associated with the documents which constitute the contract of carriage (consignment notes, waybills and bills of lading). It is these transport documents that constitute the focus of this initiative."

The definition used in the survey made by Group 1 however uses a much broader definition. It also includes documents accompanying the goods as evidence of ownership, certificates of origin, phytosanitary certificates, dangerous goods certificates and the like. It even refers to commercial documentation like invoices and packing lists. Having said this, it should not be forgotten that a lot of the processes in logistics are digitalised. CLECAT estimates that over 90% of all processes in freight transport are already digital (planning, booking, warehouse management, customs declarations, etc). The transfer (sharing) data from one system to another and/or between the systems of different parties is also less and less on paper or manually processed.

In order to address the urgent need for progress in digital transport and logistics, CLECAT recommends that the DTLF limit its scope to the definition used in the inception impact assessment, and starts making actual recommendations for the legal acceptance of digital data, while increasing benefits for all parties involved.

4. DTLF Group 2; Focus on standards for interoperability

As noted above, the DTLF has identified the existence of "disconnected information silos", which have led to the patchwork of IT solutions throughout Europe, as a priority to be addressed. DTLF Group 2 has already done a lot of work in terms of researching the state of play and listing possible solutions to address the issue of interoperability. Solutions discussed range from single windows and one-stop-shops, to the private sector granting authorities to access to their systems and using blockchain technology. All these solutions have potential, however CLECAT finds it important that the private sector remains able to develop or select and implement their particular solution as part of an open environment, which is technology-independent, in support of healthy competition and innovation in the logistics sector, while based on accepted international standards to ensure interoperability.

Whereas CLECAT supports the 'reporting once-only' principle, the reality is that many companies have been disappointed by once-only, one-stop-shop and/or single window initiatives since in several cases the (administrative) burden increased, without having extra benefits or facilitation. It should also be taken into account that logistics service providers and (their) IT-providers or port community systems in many cases have made it possible to already submit data to different parties only once. Therefore, as previously mentioned, the goal of the DTLF and/or DG MOVE should not be to recreate already functioning solutions and/or to impose certain solutions on the market.

However, the DTLF and/or DG MOVE can play a crucial role in making reporting only-once and interoperability easier and more accessible throughout Europe by recommending that international standards be set and enforced. CLECAT advises using existing standards such as the various message standards which have been developed by UNCEFACT[4] and are already widely used throughout the

[4] For example; UN/EDIFACT (the United Nations rules for Elec-tronic Data Interchange for Administration, Commerce and Transport) comprise a set of internationally agreed standards, directo-ries, and guidelines for the electronic interchange of structured data, between independent computerized information systems. Recommended within the framework of the Unit-ed Nations, the rules are ap-proved and published by UNECE in the UNTDID (United Nations Trade Data Interchange Directory) and are maintained under agreed procedures.

world. As a standard data model, CLECAT recommends using the World Customs Organization (WCO) Data Model[5]. This model has been developed for B2A and A2A customs purposes and has already proven to work for authorities other than customs. In addition to this, the DTLF and DG MOVE can play an important role in providing clear instructions, definitions and implementation guidelines for these data models and message standards. Effective implementation of this approach would require dedicated and continuous harmonisation of standards across transport mode-specific consignment notes/waybills data. The focus should be on requirements by authorities. If a harmonised set of standards were to be agreed by Member States for acceptance of transport documents/data being transmitted to them, the private sector would develop compliant solutions and will likely adopt those standards for B2B data exchange, as it will make economic sense.

5. Preconditions

Some of the remaining obstacles and concerns identified by the DTLF include:

- cyber/data security,
- data ownership and sharing,
- transition strategy
- data quality,
- easy and affordable access to digital solutions,
- the uptime, performance and scalability of electronic systems and
- in case of system breakdown, fall-back procedures.

Although they are very important to address within the DTLF, these issues are rather a precondition than a goal for the DTLF and cannot all be solved by the DTLF. Some of them, like easy and affordable access to digital solutions, the uptime, performance and scalability of electronic systems and, in case of system breakdown, fall-back procedures, are very important but also very obvious conditions. As mentioned before, many electronic solutions already exist, and companies and authorities have already dealt with these issues before. In most Member States, customs declarations have been made for over 15 years electronically, and have already dealt with these issues. Also in the B2B domain, for example in air freight, companies have been exchanging data electronically since the 1980's and have been dependant on the systems ever since. The positive and negative experiences, conclusions and arrangements of these already existing systems can be re-used by the DTLF. Where work does remain to be done, it can be carried out in other fora besides the DTLF.

In order for all supply chain actors to be able to adapt to a 100% digital environment, companies will need time to adjust. Therefore, a transition period is needed in which both companies and authorities can still use and/or fall back on paper documents if needed. A big-bang scenario is not desirable and could cause serious problems for logistics as a whole. Nonetheless, a need for a transition period with a parallel use of paper based and digital information does not mean clear goals cannot be set to achieve a 100% digital environment.

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http://www.unece.org/cefact/edifact/welcome.html. UNCEFACT also provides several XML schemas: http://www.unece.org/cefact/xml_schemas/index

[5] The WCO Data Model is a set of carefully combined data requirements that are mutually supportive and which will be updated on a regular basis to meet the procedural and legal needs of cross-border regulatory agencies such as Customs, controlling export, import and transit transactions. It is consistent with other international standards such as the United Nations Trade Data Elements Directory (UNTDED). WCO Data Model not only includes data sets for different customs procedures but also information needed by other Cross-border Regulatory Agencies for the cross-border release and clearance at the border. The WCO Data Model supports the implementation of a Single Window as it allows the reporting of information to all government agency through the unique way it organizes regulatory information. http://www.wcoomd.org/en/topics/facilitation/instrument-and-tools/tools/data-model.aspx

The issue of the possible 'lack of data quality' continues to be raised in the debates. CLECAT believes that this is not an issue and there is no reason why there should be lower data quality with full electronic solutions, than when data is transferred on paper and manually transformed into electronic data again (the current situation). If there are clear instructions, definitions and implementation guidelines for data models and message standards, the quality of the data can only improve.

Cyber (data) security is becoming increasingly important because of the nature of the threats. CLECAT believes that it remains important to take this aspect into account, but initiatives to address this have been, or are being launched, in other parts of the European Commission.

The last, and extensively discussed precondition, is the issue of rules on ownership and sharing of data. For CLECAT's member it is of key importance to keep data safe and secure. They must feel that their data is being securely managed and that only those organizations that are authorized to view the data have access to it. However, for the specific goals of the DTLF there do not seem to be many problems at all. In the current situation, the main reason why transport documents are on paper, is to be able to share the relevant data in a cheap, easy and standardised way with every relevant party. A CMR consignment note[6], for example, consists of different parts: a copy for the consignor, copy for the consignee, two copies for the carrier(s) and an extra copy for whoever needs it. If necessary, the different parties can also share the data "stored" in these documents with any authority who needs it, by presenting their paper copy. The data shared through these documents already includes consignor, consignee, carrier, goods description, weights, packages, other documents and proof of delivery. So, the relevant information is already being shared between the relevant business parties and with authorities who need it. In the past decades, there was no discussion about the ownership or sharing of this information through these paper documents.

As long as the DTLF does not recommend to provide/share more data than in the current situation or recommend to share the data with other parties than the relevant parties, there should be no issue with data sharing or ownership. If authorities need more or more specified information, this can be enforced by law. The new Union Customs Code (UCC), for example requires for safety and security purposes more specified information (e.g. goods HS-codes, instead of descriptions) for goods entering the EU[7]. This brings forth quite a few challenges, but if that information is only shared with the relevant authorities and the sharing of the data serves a specific (safety and security) purpose and does not lead to any unnecessary administrative burden, there is no problem for trade to provide this information to authorities. Therefore, CLECAT recommends that, in order to accelerate the much-needed transition to e-transport, the discussions within the DTLF about data ownership and sharing are limited to how the current data can be shared in an electronic way and is not expanded to what information is shared or with which parties.

[6] Article 5 of the CMR convention. https://www.unece.org/fileadmin/DAM/trans/conventn/cmr_e.pdf

[7] UCC Import Control System upgrade (ICS 2); The goal of this project is to strengthen the safety and security of the supply chain for all modes of transport and especially air cargo, by means of improving data quality, data filing, data availability and data sharing as regards the entry summary declaration and related risk and control information (ENS+ lifecycle). The project will also facilitate the collaboration amongst Member States in the process of risk analysis. It will lead to a complete new architecture of the existing trans-European ICS system. https://ec.europa.eu/taxation_customs/business/union-customs-code/ucc-work-programme_en#planning

Conclusion

In transport and logistics many processes are already digitalised or even automated. Companies are perfectly able to use these technologies, especially in a business-to-business environment. For these businesses to grow and to be able to innovate, CLECAT believes that the DTLF and DG MOVE should not single out one specific solution, service or system, but create and encourage an environment where businesses themselves can create new ways to co-operate and innovate. However, in order to operate on a 100% digital basis and to reap its full benefits, two issues need to be tackled: firstly, legal acceptance by authorities of data provided digitally; and secondly encouraging or even enforcing by legal measures the interoperability between authorities.

While doing so, CLECAT finds it important that the DTLF and DG MOVE look beyond the current paper-based procedures in order to improve efficiency. The initiatives should not be about replacing paper documents with electronic equivalents, but about how to exchange data in a future-proof manner. Nonetheless, if there are already systems, standards or processes in place that work, attempts should not be made to replace these. CLECAT also finds it important that while authorities are moving towards digital and automated procedures, the benefits for trade are not lost, as has been the case with previous similar initiatives, and that the initiatives this time lead to tangible, measurable efficiency benefits and cost reductions.

CLECAT has been an active participant of the DTLF and has supported and contributed to other Commission initiatives in the field of digital transport and logistics, and will continue to do so. CLECAT appreciates the efforts taken so far and recognises that the initiatives have led to a mind-shift in both the public and private sectors towards a fully digital environment. However, CLECAT now considers that the time is right to take concrete actions towards a practical implementation of the initiatives which benefit all stakeholders involved.

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CLECAT remains at the disposal of interested parties for any further information.

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