

Discussion Paper

Brussels March 1st 2010

CLECAT (www.clecat.org) and FIATA (www.fiata.com) were invited to participate in the ITF Research Round Table "ICT for Innovative Global Freight Transport Systems", Genoa, Italy, 8-9 March 2010 with a view to understanding the impact of ICT implementation to freight and logistics business models, i.e. how ICT implementation in logistics impacts current business models and which are the new business models that can positively influence supply chain operations.

It is unfortunate that the appropriate speaker was unavailable at this time, hence it was deemed appropriate for participants to have the possibility to hear our views in writing.

It must be noted that a number of EU projects and notably the Freight Logistics Action Plan¹ initiated by the EU deal extensively with the relationship between logistics and ICT. This document will then look into the relationship of ICT implementation in logistics and the stimulus that the EU institutions can provide to companies, especially SME's, to resort to ICT as one of their tools for innovation. Noteworthy is a call that was designed to address logistics in particular, presented by DG ENTR at the end of the summer².

Some of the topics which will have to be dealt with or touched upon are the following:

- logistics operation enhancement through technology
- history of the "single window" principle (as first envisioned in [UN/CEFACT Recommendation Nr.33](#))
- the struggle against the lack of common standards, e.g. UNTDED³ mapping

¹http://ec.europa.eu/transport/logistics/freight_logistics_action_plan/doc/action_plan/2007_com_logistics_action_plan_en.pdf

² http://ec.europa.eu/enterprise/newsroom/cf/itemlongdetail.cfm?item_id=3248&lang=en

³ <http://www.unece.org/cefact/standar/docs/tded.htm>

- the pivotal function that the Customs digital reform⁴ will have in overcoming the information gap between the various elements of the supply chain, by offering a (mandatory) common standard
- interoperable ICT implementations examples
- RFID⁵ technology as communication enabler.
- business models such as the WCO data model⁶ (Version 3 available at the end of the year) or ebXML⁷.

CLECAT and FIATA have been very active in a number of bodies that directly or indirectly impact on the introduction of ICT in logistics, such as the WCO (TBG4), the ITPWG (TBG15)⁸, the Commission's RFID Expert Group (with a final result of a recommendation⁹), etc.

Our policy action is heavily involved in the debate at EU level on both logistics (Freight Logistics Action Plan¹⁰, etc.) and Customs (e-Customs and MCC¹¹). CLECAT and FIATA are probably the only interest representatives that embraces all these aspects at the same time.

The alignment of standards and business models to a common, or at least interoperable procedure has certainly been one of the greatest challenges for all those who participated in this work (inter alia, G7¹², ITIGG¹³, UNTDED, WCO Data Model, as well as specific projects like ebXML and Short Sea XML¹⁴).

FIATA was very active in the work that led to the UNeDocs¹⁵ project, one wonders what is happening about it today.

If we come to times that are closer to our own, we cannot forget the more or less recent uptake of automatic identification techniques, bar codes and a relatively new technology, RFID. This looks particularly promising by facilitating the detection of goods throughout the SC, i.e. business-to-business, business-to-government, business-to-goods and even goods-to-goods (i.e.

⁴http://ec.europa.eu/taxation_customs/customs/policy_issues/electronic_customs_initiative/index_en.htm

⁵<http://www.rfidjournal.com/faq>

⁶http://www.wcoomd.org/home_wco_topics_pfoverviewboxes_tools_and_instruments_pftoolsdatamodel.htm

⁷<http://www.ebxml.org/>

⁸http://www.unece.org/cefact/forum_grps/itp/welcome.htm

⁹http://ec.europa.eu/information_society/policy/rfid/documents/recommendationonrfid2009.pdf

¹⁰http://ec.europa.eu/transport/logistics/freight_logistics_action_plan/doc/action_plan/2007_com_logistics_action_plan_en.pdf

¹¹http://ec.europa.eu/taxation_customs/resources/documents/common/whats_new/MCC_press_technical_briefing_en.pdf

¹²http://www.intracen.org/btp/issues/trade_facilitation/publications/trade_facilitation.pdf

¹³<http://www.smdg.org/itigg/>

¹⁴<http://www.shortseaxml.org/>

¹⁵<http://www.unece.org/etrades/unedocs/>

Internet of Things), or even goods-to-government (e.g. tyres sensors could inform authorities about the condition of the road).

Security has come into this picture to both reap from the previous work done and impose new constraints and deadlines to both ICT and logistics industries.

The question on the table is however one and only one: how much of this past and present work managed to filter down into the business and how well has this served the industry?

First of all we think what happens now in Customs rulings, mainly in the EU, is likely to play a pivotal role on how this may impact our future business paradigm.

What we have in mind when we refer to “the pivotal function that the customs digital reform will have in overcoming the information gap between the various elements of the supply chain” is, inter alia, the UCR¹⁶ and the handshake¹⁷ principles. In a way indeed what Customs is creating, or promoting, for revenue and security purposes could serve a much wider purpose. Its mandatory nature could influence other patterns and procedures.

In the business process modelling discussion which we are having in the context of the MCCIP¹⁸, there is an ever recurring question: who, which party in the chain, should be legally obliged to pass information to the authority?

In a very recent presentation made in London, CLECAT presented the following slide, which is self explanatory:

¹⁶http://www.wcoomd.org/home_wco_topics_pfoverviewboxes_tools_and_instruments_pfovercontent.htm

¹⁷ Working document TAXUD/2030/2009 (draft proposal for an amendment of the Customs Code Implementing Provisions) defines the person responsible for notifying the customs office of exit of the goods. This notification shall include the Movement Reference Number (MRN) of the export declaration. To this end, at the latest when handing over the goods, the first holder shall advise the next holder of the MRN.

¹⁸http://ec.europa.eu/taxation_customs/resources/documents/customs/procedural_aspects/general/unity_code/mcc_implement_en.pdf

Advance information: where are we?

■ ICS (Import Control System) for security:

- Entry summary declaration, single filing submitted by carrier, or a third party “instead of” or “on behalf of” the carrier.
- Data elements and person responsible for lodging the declaration: they are very often in different rooms....
 - The legislation does not provide proper linkage of the definitions
 - of the information to be provided,
 - of the person responsible for providing it
 - of the point in time information must be provided

→ EU have adopted a top down approach!



LSP's and Customs service providers are often made aware of information by different parties and their cooperation will be vital.

To answer this question one need know who has the information, or may have it, at the right time. This is a much more difficult exercise than it seems. Simple questions like what is actually “presentation” to Customs, when and where are goods deemed to be “presented”, on the basis of which information delivered by whom... are not easy to answer because they depend on national and maybe even local practices. We cannot forget that the main problem we have in dealing with virtual declarations is that we also have to deal with virtual borders and these virtual borders do not necessarily coincide with the physical ones. Security has pushed these borders far beyond their physical nature.

For example, let us consider the sentence “the SC and logistics are too complex for a top down approach”. It is no coincidence that in the latest amendment of the CCIP (in the handshake article) we find language like “the holder of the goods shall pass on the MRN¹⁹ to the next holder of the goods” (instead of: party so-and-so to party so-and-so). In other words the identity of the parties is no longer certain and may change according to the circumstances and the situations. All of a sudden “the holder of the goods” can effectively be anybody and not a precise entity as in the past.

For this reason, CLECAT has strongly advocated (with other transport related interest representatives) for the introduction of dual filing in the EU, by amending the MCC in this direction. The following slide (CLECAT presenting at BT, London, March 4th 2010) is self explanatory in this direction:

¹⁹ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:125:0006:0051:en:PDF>

Single or dual filing?

- EU approach for ICS security is based on single filing concept
 - Carrier (others only with its knowledge and consent) must submit data
 - third party lodgement was originally discouraged
- Dual or multiple filing is not even envisaged by June 2013 (date of implementation of MCC)
 - For legal reasons (MCC) – Reg. 450/2008 makes no room for it
 - For IT reasons – MS's made investments on single filing....
- Clecat and other industries represented their suggestions to modify the legislation to support dual filing (letter sent Jan 2 010)
- COM publicly admits (Prague, Feb 25th) that Reg. 648 was conceived when “ideas were not so clear yet”
- US understands that risk assessment without dual filing cannot work properly, EU is becoming aware of the same problem
- Yet, COM is contemplating requiring carriers for additional data **they have not got:**
 - buyer and seller (and 8+ HS digit code for temporary storage) for ENS
 - In so doing, there is an issue of commercial confidentiality and inconsistency with long established trade practices

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When talking of standard application and transmission protocols, what came prominently to our attention then was that the most complex animals to harmonize are procedures and users' requirements. This is because these procedures are linked with other procedures, within a network of yet other procedures. And all these are linked with requirements, which are then based on higher level political decisions and political reality. If you move a needle, it is as if the whole house collapses. Just one example: the German "refusal" to use the VAT number as the basis for the EORI²⁰ number was a serious complication. Things would have run much easier if this complication had not been there. But... there is a but. What people tend to overlook is that to make it all happen ... the German Constitution needed to be amended! We use this example to illustrate what we think is the point we are making: top-down harmonisation has its limitations and these could be crippling.

Also interesting to note in this context is that, for instance, E.U. legislation requires data – for instance the so-called "entry key" which are not in conformity with the WCO data model. This is the EU, i.e. the biggest "buyer" in the world, just to bear in mind class of trade that is affected by this "minor" problem. There was little protest, because much of this was done at traders' request, for reasons of simplification, however the dichotomy will become an issue to deal with as soon as we wish to re-use publicly available data.

²⁰http://ec.europa.eu/taxation_customs/resources/documents/customs/policy_issues/customs_security/AEO_note_en.pdf

On top of that, we should not forget that most private sector users have developed their own systems and some of their solutions are now interfaced with public-private systems (such a port and airport community systems) that work well and would be nonsensical to destroy.

Therefore, as seen from far above, one has the impression that SC and logistics still suffer from a series of bottlenecks. These mainly concern physical infrastructure, yet important as they may be, they are not pertaining to the objective of this discussion.

Infrastructure bottleneck are in fact not the only ones. "Soft" bottlenecks are still too many and some interfaces (e.g. business to government) are still far from being integrated. However there seems to be an expectation that something is moving in the right direction and that sooner than later **one** owner will be able to integrate trade facilitation in one solid instrument, able to serve both public and private users.

This is in our view a fallacious perception. This seems to come into the picture unfortunately 25 years too late; most of our members, including Small and Medium Enterprises, have made progress and are now holding their own proprietary solutions. The only long term solution the industry seems to require at this point in time is indeed a kind of translation box/server that could enable the various actors to intercommunicate and cooperate in term of transport and supply chain optimization.

As a matter of interest, we could quote the example of KGH SMART e.SOLUTIONS. This is being developed as suite of security related ICT aid for road transport. There are different products serving different needs, but the most interesting from our point of view is KGH e.BORDER, as they describe it "the ultimate border crossing simplification". It is at this point in time just a pilot and a vision, but its interest for us is the ability to provide one-stop for GPS, alert services and AEO concepts. A trusted trader with a fully authorised supply chain would use the positioning tool, the tracking and tracing facility together with advance notification and book-keeping of the local clearance procedure all in one. There is no ambition to override the entire SC, but this tool may actually work and provide relief to many drivers.

Coming back to the point, there is a fundamental conflict of interest between proprietary systems and interoperability. This fundamental conflict of interest has hampered our past efforts and still risks lambasting our progress now. Some companies, such as SAP or Microsoft have attempted this integration in the past and are still struggling with it now.

In our view the SC, and logistics in particular, is too complex an animal for a top down approach to be successful. The aim of standardised solutions should not hammer the development of alternative business opportunities down.

In this light when commenting the Action Plan on ITS²¹, CLECAT insisted on the need to have standard interfaces that obey a bottom up approach where users' needs are leading the process. In another neighbouring area, regarding the development of e-freight²², CLECAT believes that interoperability standards should be sufficiently flexible to adapt to different existing standards, and that one should therefore refrain from the ambition of forcing the adoption of a new ultimate standard that would be in the end "just another one".

As a metaphor let us look at the human body and understand nature's approach to integration. All our cells have a specific function and they deploy their activity by negotiating their progress with the neighbouring ones. There are some basic common parameters, but one cannot expect a skin cell in one's foot to be in the same format of the neurons of the brain. They obey different imperatives. In logistics it is not so different, we only need the ability to negotiate from one end to the other seamlessly by taking successive steps, and we need efficient systems to create compatibility between direct interlocutors and, sometimes, among multiple users, who have implemented their own systems, that are in principle incompatible.

We do not need to waste our time in trying to establish a "universal" system that will never exist. We should be happy that we can get neighbouring systems to talk to one another.

With the whole picture that we described in mind it is not difficult to understand that the function of logistic service providers in the ICT "paperless" environment is about the same as in the paper-based world: we must come to successfully interfacing all the interlocutors within the SC and this can be done only by a series of different instruments and not by one and only.

The market obliged Freight Forwarders and Logistics Service Providers to find way to interface their customers and their suppliers, the authorities for all kinds of regulatory requirements, starting with Customs, continuing with quarantine, security, dual-use, hazards of various sorts, etc. From some points of view this is

²¹ http://ec.europa.eu/transport/its/road/action_plan_en.htm

²² http://ec.europa.eu/transport/strategies/events/2009_02_17_efreight_en.htm

an acquired ability. At the latest FFC in Brussels on Dec 3rd 2009, DB Schenker made a remarkable presentation²³ on their way of bridging existing gaps by using pdf and tiff products to provide a number of their interlocutors with a seamless stream of relevant documents without “switching to paper” too often.

In this light, one can conclude that ICT has gradually filtered into logistics, starting from the '80's, then being one of forerunners of the internet, and it has now become an integral part of logistics business model. We can also expect that the combination of security and e-Customs requirements will accentuate this trend, without however depleting the role of freight forwarders in designing and implementing innovative SC parameters.

It seems however more likely that the industry will buy into systems that allow for interfacing already existing systems, rather than making large investments in revolutionary all-embracing solutions that may still have to prove their worth.

Quite naturally both CLECAT and FIATA remain at the disposal of the ITF and all other parties concerned to continue the discussion on these items of interest, with a view to sharing existing know-how and to promote innovation in future requirements.

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²³ The presentation is available on the front page of the [CLECAT website](#).