



**TRADE COMPLIANCE:  
A BURDEN OR AN OPPORTUNITY?**  
White Paper



**DINALOG**  
Dutch Institute  
for Advanced Logistics



VERENIGING  
LOGISTIEK  
MANAGEMENT





# TRADE COMPLIANCE: A BURDEN OR AN OPPORTUNITY? WHITE PAPER

**The quality of Dutch Trade Compliance Competences can strengthen our international position as a logistic control centre**

Whitepaper Network Trade Compliance  
Strategic Advisory Board

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## 1 MANAGEMENT SUMMARY

Trade Compliance can be a burden but also a significant opportunity. First research results indicate that smart Trade Compliance concepts have a substantial cost-reduction potential in supply chains. To realize this, industry and government-agencies have identified 3 main innovation-paths to break with the “old way of thinking and acting” within Trade Compliance;

- **System Based Control:** which is the leading innovation in Trade Compliance. It refers to the change from transaction driven control into process-control, working together and exchange information between all partners in the supply chain.
- **Coordinated Border Management:** refers to the development of close co-operation of different government agencies to minimize the disturbances in the supply chain flow of the industry but still fulfil the needed government-functions.
- **Pushing Out the Border:** to determine the place and time for inspections, taking in account the level of interference they can cause in the logistical chain. From a supply chain perspective it is not logical to stop the flow of goods at the border. Industry and government-agencies have to determine whether certain checks that can violate the smooth flow can be executed at the point of loading/unloading and administrative checks or exchange information can be executed separately.



Acceleration of these innovation-paths within the Netherlands will strengthen our position as gateway into Europe, and also our export-position, while smart Trade Compliance concepts will reduce supply chain costs and make us more competitive. To stimulate the acceleration, trade association Vereniging Logistiek Nederland (VLM) has founded the “Network Trade Compliance”, a community where Trade Compliance professionals (industry, government and research) meet and exchange knowledge.

This paper has been initiated by the Network Trade Compliance, which promotes the relevance of Trade Compliance and stimulates the professionals to discuss together. This is of utmost importance because most Trade Compliance Specialists currently are “isolated” within their companies and seen as a burden within the supply chain. Where as a more integrated approach may turn Trade Compliance burdens into attractive opportunities to reduce supply chain costs and add value to the value chain.

Hence, Dinalog has invited the Network Trade Compliance to liaise with the research top-institute for logistics. The co-operation will ensure good interaction between the ongoing research-projects, creating more value and reducing cost and administrative burdens for both the government agencies and the Industry. It can also improve trade relations between countries, thus creating a more efficient and effective logistic flow that will result in delivering goods to the customer against the desired cost level within the agreed time frame and modality. The launch of this white paper is the official start of the liaison and aims to contribute to a top position for The Netherlands in international logistics.

## 2 INTRODUCTION

### 2.1 What is Trade Compliance?

International Trade is one of the cornerstones in Logistics and thus essential for the worldwide economy. Thousands of companies (third-party logistics providers – 3PL's) are actively trading goods or facilitate this. Goods need to be manufactured, packed, shipped and documented before reaching the customer. Products are commonly shipped from one country to another. The manner in which this is done is bounded by laws and regulations that govern export and import. Trade Compliance is the process by which companies transporting goods internationally, comply with all laws and regulations (including safety and security) of the countries that goods are shipped to.

The focus of Trade Compliance is not only on complying with Law and internal company policies & logistic procedures and documentation, but also on reducing direct and indirect logistical cost. This can be achieved by benefiting from simplification and harmonization of Law, from clear & effective company procedures and from following procedures of government agencies. IT control systems are required for supplying and accessing data or information by government agencies and logistic parties. Development and research on Trade Compliance has developed significantly, but there are still challenges to deal with.

### 2.2 Quantifying the benefits of Trade Compliance

Quantifying the benefits of Trade Compliance is not all that easy. TNO continuously does research and has analysed scenario's with regard to the impact of Trade Compliance in the Netherlands. The Netherlands is the 5th export country in the world representing a total export value of about US\$498 billion (40% re-export). It ranks 7th as import country with an applying import value of US\$445 billion. It is estimated that around 9% of the production costs is spent on Compliance and Security, which for the Netherlands, would result to an amount of around 30 – 90 billion (US\$). Thus smart Trade Compliance concepts have a substantial cost reduction potential.

Looking at the containerized trade volumes and corresponding value via the Port of Rotterdam, scenarios of TNO predict a potential cost reduction of US\$1.5 to 4 Billion in handling cost and an increase in transshipment volume of 5% to 15%. The scenario shows that with improvements on compliance, the benefits of reduced trade transaction cost can be substantial. In order to obtain all stakeholders' full commitment on Trade Compliance it is important to fully quantify the benefits and to determine the break down of benefits and cost savings for all parties.



### 2.3 The role of VLM Network Trade Compliance and Dinalog

This paper is the result of collaboration between research and development institutes, Dinalog and the “Network Trade Compliance”, being part of Vereniging Logistiek Nederland (VLM), in cooperation with the Customs Administration of the Netherlands. This paper aims to create awareness about the relevance of Trade Compliance.

The **Dutch Institute for Advanced Logistics (Dinalog)** was established to unroll the national innovation program ‘Logistics & Supply Chains’ in the Netherlands. One of the main objectives of Dinalog is to facilitate the establishment of the leading position of the Netherlands as an international supply chain control centre by 2020. The Dinalog network consists of many private and public organizations and knowledge institutions. The program is funded by the Ministry of Economic Affairs, Agriculture & Innovation and the Ministry Infrastructure & Environment. The Institute is furthermore supported by the Municipality of Breda and the Province of Noord-Brabant.

**Vereniging Logistiek Nederland (VLM)** is a trade association set up for logistic managers and specialists with around 1900 members. Main goal is to support the professional development of logistic specialists by supplying them with a logistic knowledge network. VLM is the official partner of APICS USA and is also a member of the European Logistics Association (ELA).

The **Network Trade Compliance** is an expertise group of specialists that have installed an informal and independent knowledge community within VLM. Their goal is creating more awareness about Trade Compliance by creating an informal platform where all parties, leading shippers, research-institutes, government-agencies and other authorities, can meet, discuss, exchange knowledge, brainstorm, evaluate and, if needed, advise business interests groups like EVO, ACN, TLN, Fenex and Fenedex on topical trends or initiatives. Also the network will function as sounding board for the research-projects.



### 3 ADMINISTRATIVE BURDENS OF INTERNATIONAL TRADE

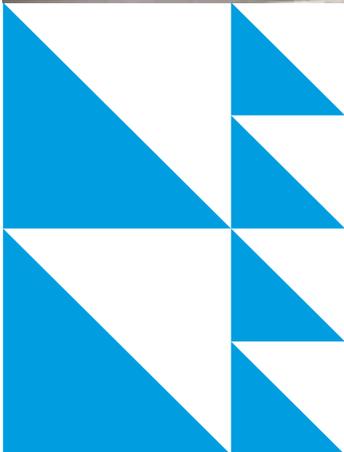
International Trade is complicated. There are various challenges to overcome. Firstly European Law is leading, which tempers national initiatives. Secondly, because of increasing internationalisation, the level of trust, understanding and cultural aspects that vary between government agencies and logistical parties becomes more international and important. A third issue is that most parties involved in creating a transaction (sell-buy) are not or hardly involved in the physical movement process including the compliance rules, law and regulations.

There is no internationally accepted standard set of global trade rules and the amount of different trade regulations increases, depending on which other country is involved in the trade deal or depending on who owns the goods. For example: the shipment of one container comes with about 30+ documents and datasets, which have to be provided to various government agencies, like Customs, Tax administration, food and agricultural inspection agencies and the National Bureau of Statistics. Perishable or dangerous goods have extra rules to comply with. Some countries prevent sending or receiving items to or from certain other countries. In some countries certain transactions are considered prohibited, even when goods do not cross the border (like “deemed exports” in the US).

The way that information (data and documents) is provided to the various government institutions varies from company to company. All data needs to be checked and acknowledged. Even when data can be provided electronically, the information systems of government agencies are typically not interoperable and require that companies provide almost identical information in different data formats to different systems, interfaces or portals.

Also between trade partners, the administrative burden needs to be reduced. Various commercial documents and data in different formats and standards are exchanged between trade partners in supply chains to support the physical movement of cargo and to communicate between the different layers of logistics. Therefore part of the inefficiency to fulfil government obligations is created by trade itself.

One of the main challenges is to establish the right level of ICT Architecture, Security and Technology (a virtual pipeline concept for sharing commercial data in harmonized formats and standards is required). Even the introduction of the Single Window, following the acceptance of the so called “recommendation UNECE 33” about 10 years ago, where governments are encouraged to align their agency accesses and procedures, did not bring the ultimate benefit so far. The financial aspect is also a challenge. Large logistic companies usually have ERP systems in place but are required to invest continuously in updating their systems in order to remain compliant with government systems. Smaller companies mostly cannot afford to invest in these systems nor have the knowledge to maintain such ICT systems. On average the level of ICT within Logistics is very basic. Fortunately, more smaller companies are getting certified (650+ AEO certified in the Netherlands) and invest in knowledge, infrastructure and develop a long term strategy.



Besides the information that is received from the Industry, most of the government agencies conduct their own physical inspections and do not always coordinate with other agencies. This results in situations that goods are being inspected by, for instance, Customs on the day of arrival in the seaport while another agency starts its inspection a few days later, clearly resulting in delaying the logistic flow and extra costs for the concerning parties. In some cases this lack of coordination of inspections can cause serious delays, especially harmful for e.g. perishable goods. Not all parties involved in the supply chain acknowledge this as an issue to deal with. Some parties even benefit financially due to all the intransparancies in the trade flow.

There is also an increase of directives, demands and requirements on safety and security measurements which companies need to comply with. In order to respond to security concerns relating to the international trade in goods, the European Commission presented a series of measures designed to provide a coordinated and effective response. Although necessary, these extra measurements have a serious impact on the trade flows. There is also a lack of mutual recognition between companies for certifications like for instance the Authorized Economic Operator (AEO) or Customs-Trade Partnership Against Terrorism (C-TPAT). Certification is not mandatory but offers the advantage to Customs that they can orient their controls towards goods consignments of companies that are non-certified and by doing so are able to function more efficiently. The certified companies on the other hand, can also benefit from certain advantages. These advantages are included in de European legislation.

All these obstructions result in an inefficient and ineffective working relationship between the international government agencies, between the international traders and between the governments and the traders. The lead time for getting the goods to the customers increases, the exchange, sharing and storing of information is inefficient and trade costs rise. The importance of Trade Compliance is evident but there is still a long way to go.



## 4 INNOVATIONS WITHIN TRADE COMPLIANCE

The ambition to considerably reduce trade transaction costs in Europe (and the Netherlands) has resulted in three concepts for innovation and facilitation of trade logistics. These concepts are based on the philosophies introduced in the strategic vision document "SAFE Framework of Standards of the World Customs Organisation (WCO, 2007)". The concepts can be seen as the subsequent ambition level of innovation and will contribute to overcoming the burdens of Trade Compliance:

1. System Based Control
2. Coordinated Border Management
3. Pushing Out the Border

### 4.1 System Based Control

The first innovation step is to move from (physical) control of goods and containers, to checking the implemented systems of internal control mechanics (quality checks, audits) of the companies that manufacture and transport the goods. The focus of control changes from transaction-based to system-based process control is mainly acknowledged by the larger manufacturing companies that already have implemented an integrated quality- and control system. These companies are relying on an internal "well oiled machine". They have internal processes in place, perform multiple checks within their logistic chain, evaluate and document in detail all sort of information of the manufactured or received goods.

The ultimate goal, which is usually supported by these organisations, is a decrease of logistic interference caused by government control at the border. Government and logistical parties agree on specific process Key Performance Indicators (KPI's) to be determined, monitored and evaluated. Periodical checks from the local governments will not disappear but through "System Based Control" a level of trust and understanding between government agencies and the Industry will be accomplished. The lack of international standards and differences in managing compliance between international governments needs to be addressed and solved.

System Based Control will achieve a level of horizontal supervision that will result in a more seamless logistic flow. Authorities monitor the reliable trade flows and can focus their more traditional supervision activities, i.e. physical checks, on industrial parties that require more specific attention. Also the amount or level of information (data) that needs to be supplied to government agencies is reduced or restricted to the specific KPI's. The Customs Administration of the Netherlands takes a proactive and supportive approach to System Based Control towards other government agencies and trade organisations.

### 4.2 Coordinated Border Management (integration of Single Window Initiatives)

Coordinated Border Management ("CBM") refers to the coordinated approach by border control agencies, both domestic and international, in the context of seeking efficiencies over managing trade and trade flows, while maintaining a sound balance with compliance requirements. Although the word "integrated" is commonly used, the World Customs Organization ("WCO") uses the term "coordinated", to prevent confusion with Integrated Border Management in immigration, that reflects the coordination between border guard and visa-agencies. Meaning: a more controlled



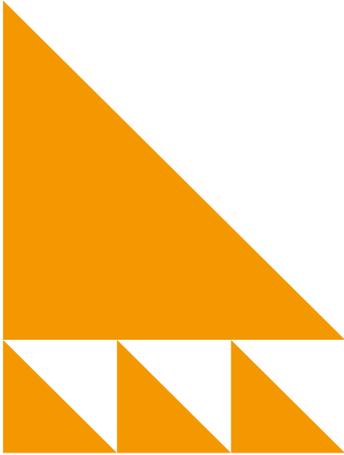
and logical way to oversee border operations to ensure efficient and effective processes and procedures. The major development within CBM approach is the development of a Single Window Environment and One Stop Shop.

By creating a **Single Window Environment ("SW")** logistic parties will be able to electronically submit the required documents at a single entry point (online government portals). Submission of documents is a one time transaction. It will enable government agencies to access and check the data. The next level of coordination is **One Stop Shop (OSS)**. OSS will create coordination, optimization and interlinking of controls to be done by these agencies, resulting in improved coordination among those inspections and harmonization of the linked processes.

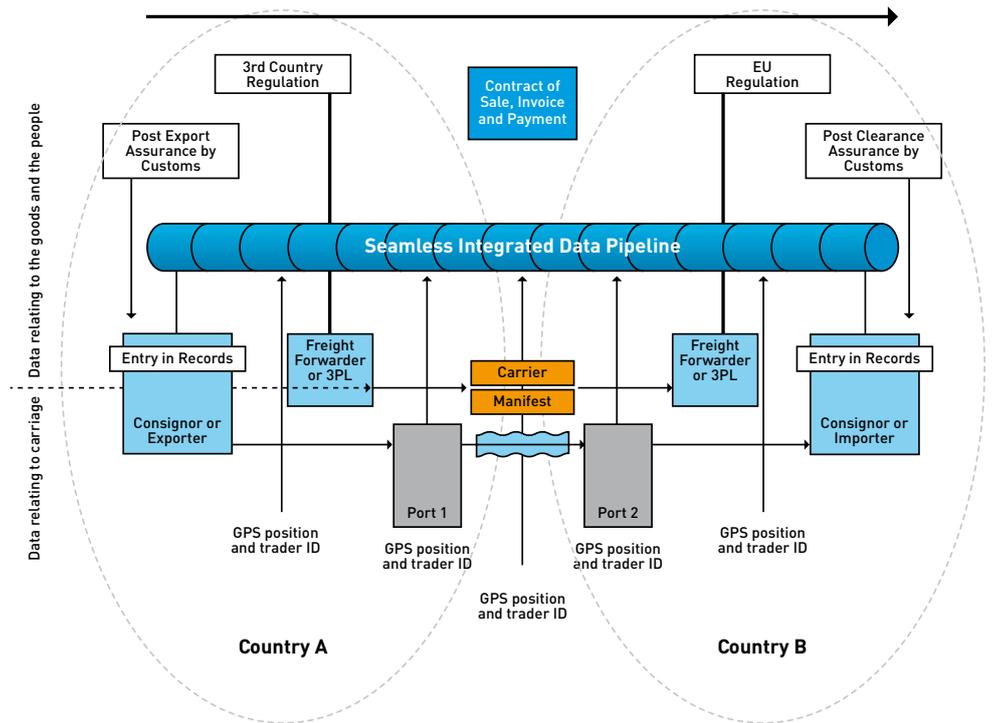
Because of the front-runner position and traditional trade supporting mindset, the Netherlands can be seen as an early adopter and example for the rest of Europe. Already several years ago, the Customs Administration of the Netherlands was appointed in legislation as the stage manager to create an integrated government approach on cross-border movements of goods. The difference between SW and OSS is that SW has a data focus while OSS focuses on the physical cooperation. SW/OSS will result in better cooperation, communication and understanding between government agencies and logistic parties. SW/OSS will achieve a level of horizontal control that will result in a more seamless logistic flow.

But creating efficiency in procedures does not start with the executive government agencies, but at the legislator. Unfortunately European legislation that affects international trade is drafted by different Directorate Generals in the EU with their own internal communication issues. This results in contradictory procedures, lack of coordination in IT-requirements and restrictions for execution agencies to align their daily practise.

Next, a substantial part of the inefficiency in the supply chain and the costs to fulfil government obligations, are not only regulation driven, or in the (lack of) interaction between agencies. Costs are also incurred in the supply chain itself. Partners in the chain use their own language, own codes and datasets. Governments ask information at border crossing moments in the supply chain, where logistic service providers cannot provide the required information or are not interested in having it available. Gathering the required information and transforming this into the format that government require causes high costs and delays.



The Seamless Integrated Data Pipeline, in which all relevant information is stored from the source of the transshipment (the seller's places; who packed the box), to the buyers receipt is a possible solution to overcome this problem.



Source: Heijmann/Hesketh 2010

This model, to be executed in a cloud environment, will possibly offer a solution to many of the pending questions and might resolve many of the inefficiencies in the chain. Developing and testing started within several pilot projects (EU FP7: Cassandra and in the Netherlands the Dialog-project Extended Single Window) where the pipeline is tested and the government is trying to lean on trade internal compliance measures.

### 4.3 Pushing Out the Border

The third innovation step is to push physical controls away from the border. Preferably cargo should be inspected before leaving the country of origin (pre-clearance) or after the goods have arrived at their destination (post-clearance). At least these inspections should be carried out at logical moments and places in the supply chain. By using drive-through equipment, scanning can be done at the point of entry or exit as there is no more interference in the supply chain caused by this inspection. On the other hand cost intensive inspections like physical checks should be performed during loading or unloading. Depending on the sort of goods one or the other could be more appropriate.

The information flow needs to be disconnected from the physical flow. The process movement / flow of goods should not be stopped and halted by administrative procedures (data validation, risk assessment and Trade Compliance verification); this should be done before the goods enter the European Community. The key lies in pushing this disconnection point as much as possible to the beginning (upstream) of the supply chain, to the point of packing or consolidation (also known as Consignment Completion Point – CCP) resulting in sharing the information with government agencies as soon as available. Other administrative processes like fiscal controls

should preferably be done at the end of the supply chain, favourably system based, and periodically.

This will exonerate some of the pressure on certain international hubs (Ports of Rotterdam and Antwerp). The level of trust, understanding and varying cultural aspects between government agencies and logistical parties is evident in this innovation concept. For example: is confidence sufficient with regard to checks claimed to have been performed by the authorities in the country of dispatch of goods (for instance China)? Is confidence sufficient, so that the same checks and procedures do not have to be repeated? In this matter physical controls are very eminent within customs processes. A different mindset is required.

## 5 THE CHALLENGES FOR TRADE COMPLIANCE

Logistic parties have a lot to gain by becoming and remaining Trade Compliant, though they cannot reach this required level by themselves. The government -on a national and international level (main trade countries) - should make Trade Compliance a priority and support the issues by funding (inter)national innovation programmes for further research and development. A pro-active leading and supporting role needs to be taken in creating awareness, simplifying regulations, facilitating set-up and agreements on standards (for instance: WCO Data model) and seeking the input of the logistic parties. Within the EU, the European Commission should become more trade minded. Almost 10 years ago strategic statements on IT-implementation and Trade facilitation were published. But today the current drafts on future legislation have a transaction based focus, do not take into account Trade Compliance and Supply Chain Supervision and show hardly any legislative sign towards an integrated supervision approach of cross-border movements of goods.

The base for Trade Compliance is a fully functioning and implemented Administrative Organization within commercial companies. "Larger" companies should take the responsibility, create and lead the path for the entire supply chain. Because of the time frame "smaller" organisations will follow in due time. All parties in the chain have to benefit (Win – Win). It is estimated that it will take some time before the three innovations are fully piloted, tested, evaluated and implemented, which means that awareness, short term action and research is needed.

The three innovative concepts for Trade Compliance: System Based Control, Coordinated Border Management and Pushing out the Border are the key drivers that will need to be further developed, designed, tested and piloted. Collaborative programs, for Trade Compliance but also Safety & Security, between countries and companies are required, but above all a supportive attitude of the European Legislator is required to further explore these developments. Fact is that Trade Compliance as a whole is still in the early stages of its life cycle. Government and Logistic organisations need to be informed of the importance, risks and benefits of Trade Compliance.

The three concepts complement each other and can work side by side. On the one hand there is a focus on supplying, regulating, and ICT supported, delivery of all sorts of logistic information to government agencies and changing checks/controls upstream or downstream of the supply chain. By simultaneously focussing on processes, thus decreasing government control, but agreeing on periodic checks of KPI's for Trade Compliance and only supply data when needed or in compliance with the pre-defined KPI's. By focussing on the shipper having a system based approach

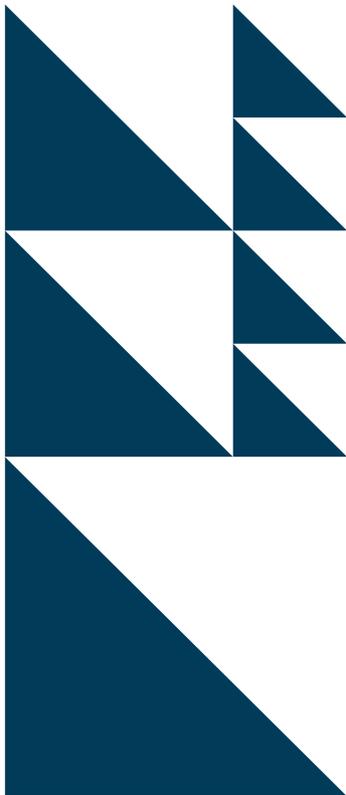


(buyer – seller) and the control processes in place, Trade Compliance will create openness and trust within the supply chain while keeping a competitive edge as it can contribute substantially to decreasing costs.

The Network Trade Compliance supports and recognizes these initiatives as an opportunity and a “work in progress” to improve and optimize the logistic chain, creating more value and reducing cost and administrative burdens for both the government agencies and the Industry. It can also improve trade relations between countries, thus creating a more efficient and effective logistic flow that will result in delivering goods to the customer against the desired cost level within the agreed time frame and modality. This will lead to a stronger position of the Logistic Infrastructure of the Netherlands as THE port into and out of Europe.

## 6 STRATEGIC ADVISORY BOARD

- Ir. Drs. W. Kusters; Chairman Network Trade Compliance; Business Unit Manager Consultancy at Ab Ovo Nederland b.v
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- B. Klieving; Delft University of Technology
- S. Overbeek; Delft University of Technology
- David Hesketh; Her Majesty's Revenue and Customs, United Kingdom
- Mr. F.H.A Heijmann; Head of Trade Relations at Customs Administration of the Netherlands
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Hier wordt geïnvesteerd in uw toekomst!



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