



The Global Language of Business

# GS1 Standards – Key in Border Procedure Management

White paper describing how companies and authorities can benefit from the use of GS1 standards in border procedure management

*Version 1, January 2015*



## Disclaimer

THIS DOCUMENT IS PROVIDED "AS IS" WITH NO WARRANTIES WHATSOEVER, INCLUDING ANY WARRANTY OF MERCHANTABILITY, NONINFRINGEMENT, FITNESS FOR PARTICULAR PURPOSE, OR ANY WARRANTY OTHERWISE ARISING OUT OF THIS SPECIFICATION. GS1 disclaims all liability for any damages arising from use or misuse of this Standard, whether special, indirect, consequential, or compensatory damages, and including liability for infringement of any intellectual property rights, relating to use of information in or reliance upon this document.

GS1 retains the right to make changes to this document at any time, without notice. GS1 makes no warranty for the use of this document and assumes no responsibility for any errors which may appear in the document, nor does it make a commitment to update the information contained herein.

# Table of Contents

<b>Executive Summary</b> .....	<b>5</b>
<b>1. Introduction</b> .....	<b>6</b>
1.1. Border procedure management .....	6
1.2. Compliance rules management .....	7
1.3. Declaration & documentation management.....	7
1.4. Tracking & inspection.....	8
<b>2. Understanding border procedure regulatory requirements</b> .....	<b>9</b>
2.1. Introduction.....	9
2.2. Import regulatory requirements .....	10
2.3. Export regulatory requirements.....	13
2.4. Transit requirements .....	15
2.5. Product safety compliance .....	16
2.6. Trade facilitation measures .....	18
<b>3. Understanding the GS1 system of standards</b> .....	<b>20</b>
3.1. Introduction.....	20
3.2. GS1 system of standards.....	20
3.3. GS1 Keys .....	21
3.4. GS1 Traceability Standard (GTS) .....	22
<b>4. The value of GS1 standards in border procedure management</b> .....	<b>24</b>
4.1. Global Trade Item Number (GTIN) .....	24
4.2. Global Location Number (GLN).....	25
4.3. Serial Shipping Container Code Unit (SSCC).....	26
4.4. Global Shipment Identification Number (GSIN) .....	27
4.5. Global Identification Number for Consignment (GINC).....	27
4.6. Global Individual Asset Identifier (GIAI) .....	28
4.7. Other GS1 keys.....	29
<b>5. Overview of GS1 initiatives</b> .....	<b>30</b>
5.1. Unique Consignment Reference (GS1 GO & WCO) .....	30
5.2. Anti-counterfeiting (GS1 Global Office, GS1 France & WCO).....	30
5.3. Product information (GS1 US – PIC / ITDS) .....	30
5.4. Single window initiative (GS1 Canada).....	31
5.5. Single-trade window (GS1 New Zealand).....	31
5.6. Single window / uCustoms (GS1 Malaysia) .....	32
5.7. AEO and single window (GS1 Hong Kong) .....	32
5.8. APEC Global Data Standards (GS1 Australia / GS1 Hong Kong).....	33
5.9. GLN in phytosanitary and quality certificates (GS1 Netherlands).....	33
5.10. RFID enabled permanent residency cards (GS1 Canada) .....	34
5.11. Process optimisation at Port Klang (GS1 Malaysia) .....	34



**6. Glossary ..... 35**

**7. References ..... 44**

**8. About this document..... 45**

## Executive Summary

Increasing regulatory requirements, both in number and complexity, combined with growing international trade, make the task of companies that are importing or exporting goods more and more challenging.

Furthermore, border procedure regulatory requirements are undergoing significant changes because of various underlying issues and drivers:

- **National sovereignty** is shifting to regional or even global protocols, changing existing processes and regulatory requirements.
- **Free Trade Agreements (FTA)** at a bilateral and multilateral level are having a major impact on customs procedures.
- With the growth of electronic trade and electronic data exchange, physical borders are transforming into **virtual borders**, requiring different types of regulatory controls.
- Cross border **internet purchasing** has caused the volume of small shipments to explode worldwide, adding extra complexity to the role of border management.
- The ubiquity of advance e-data is creating growing opportunities for risk assessment and clearance of goods much earlier in the international trade transaction.

Customs and other government agencies (OGAs) involved in cross border control are trying to meet these challenges and to increase the efficiency and effectiveness of their processes. At the same time they are acknowledging their responsibility to minimize the challenges faced by companies engaged in international commerce. A best practice for accomplishing a 'win-win' is for OGAs and trade to leverage industry standards and e-commerce data to manage risk, improve compliance, and expedite product movements.

This whitepaper describes how the GS1 standards can help companies comply with regulations and help governments become more efficient and effective, all while enabling shorter and more predictable border crossing times for international shipments.

The goal of this paper is threefold:

1. Provide a 'business centric' view of cross-border product admission management;
2. Highlight innovations that are being implemented in these management processes by customs and OGAs; and
3. Explain how the GS1 system and the GS1 keys in particular can help support these innovative processes and enable companies to leverage their investments in GS1-based solutions.

# 1. Introduction

Previously, GS1 has published various articles and papers on the benefits of GS1 standards in customs processes from a regulator’s perspective. For examples, see the *Customs Value Proposition* and the *T&L and Customs Reference Book*. This GS1 white paper will discuss the value of GS1 standards in the border procedure management process from the perspective of importers, exporters, and logistics services providers.

## 1.1. Border procedure management

**Border procedure management** is the process that aims to ensure companies comply with regulatory requirements of countries they are exporting to or importing from in the most cost effective manner, while following all procedures and providing the correct information to authorities.

Parties involved in Border Procedure Management can be grouped as follows:

1. Exporters such as manufacturers, traders, growers and material suppliers;
2. Importers such as retailers, distributors, manufacturers;
3. Logistic Services Providers (LSPs) including freight forwarders, carriers, clearing agents / customs brokers, terminal/depot/warehouse operators; and
4. Authorities such as customs and other government agencies (OGAs).

**Figure 1** Border Procedure Management – Actors



In this paper the focus is on exporters, importers and LSPs. From their perspective, **border procedure management** can be divided in three main processes:

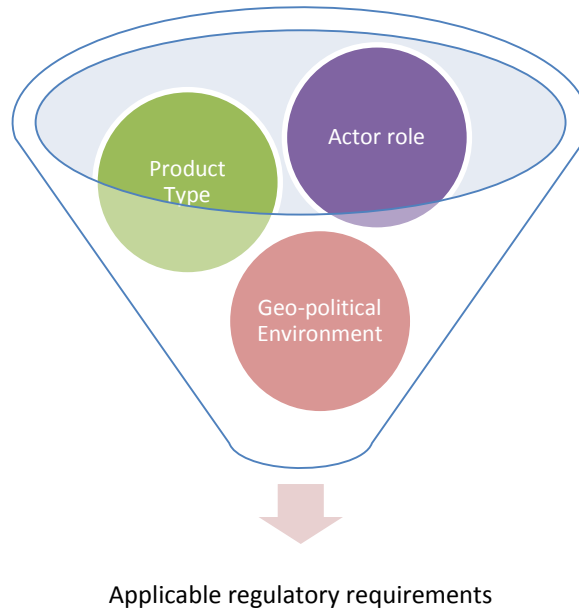
**Figure 2** Border Procedure Management – the three main processes



## 1.2. Compliance rules management

**Compliance rules management** is the process that aims to ensure companies have all required information to comply with regulatory requirements of countries they are exporting to or importing from in the most cost effective manner, taking into account the type or category of product..

**Figure 3** Compliance Rules Management



Companies are seeking to increase automation of their **compliance rules management** process by deploying compliance automation tools. However, significant differences exist between countries that leads to complexities when automating. Examples of rules that cause such complexities are the customs declaration number in Russia (also known as GTD) and the nota fiscal number in Brazil.

- ✔ **Note:** GS1 also provides services for understanding regulatory diversity. For example, the GS1 Healthcare Public Policy Database, <http://healthcare.gs1.org/pp/>, provides the latest relevant regulatory requirements, stakeholder agreements and user requests related to Healthcare product identification, product catalogues and traceability at national, regional and local levels.

## 1.3. Declaration & documentation management

The **declaration & documentation** process helps to ensure a company submits high quality data and documentation to customs and OGAs in a timely manner.

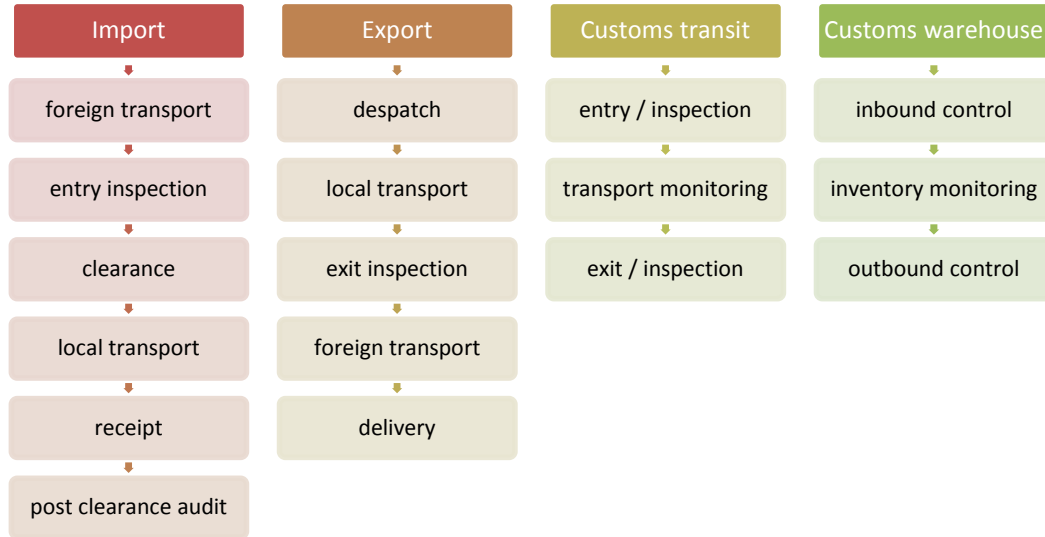
Companies can submit these declarations in various ways. Often OGAs will have a web-portal or offer an EDI interface. In some countries OGAs are cooperating and provide a single-window (see paragraph 2.6, Trade Facilitation Measures).

## 1.4. Tracking & inspection

The **tracking & inspection** process helps to ensure that companies have timely information on goods movements, provide timely information needed for inspections in the field (touch points), and have access to information on border procedure status of shipments.

The diagram below illustrates the various milestones that companies and agencies may wish to track.

**Figure 4** Tracking / Monitoring of physical events





## 2. Understanding border procedure regulatory requirements

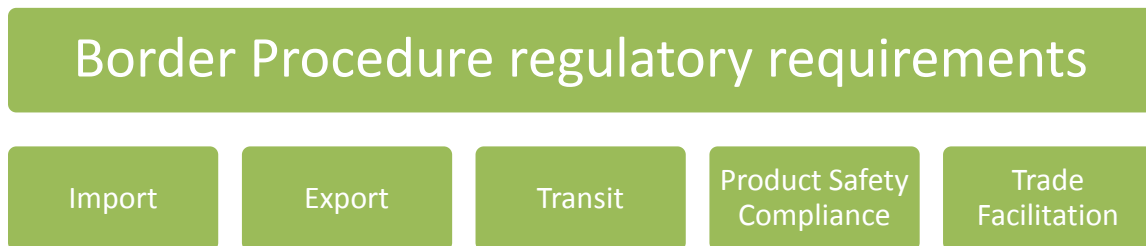
### 2.1. Introduction

When goods need to cross borders, a wide range of documentary and procedural regulatory requirements and trade facilitation measures apply. These regulatory requirements and measures are undergoing significant changes because of various underlying issues and drivers:

- **National sovereignty** is shifting to multi-national or even global protocols, changing existing regulatory and process requirements.
- **Free Trade Agreements (FTA)** at a bilateral or multilateral level are having a major impact on customs procedures.
- With the growth of electronic trade and electronic data exchange, physical borders are transforming into **virtual borders**, requiring different types of regulatory controls.
- Cross border **internet purchasing** has caused the volume of small shipments to explode worldwide, adding extra complexity to the role of border management.
- Additionally, internet purchasing has created some very real **consumption tax** collection challenges as consumers exploit the 'arbitrage' of differing value-added tax (VAT) and goods and services tax (GST) regimes.

From a business perspective, border procedure regulatory requirements may exist related to Import, Transit, Export and Product Safety Compliance. Furthermore companies should be aware of any trade facilitation measures they may be able to benefit from.

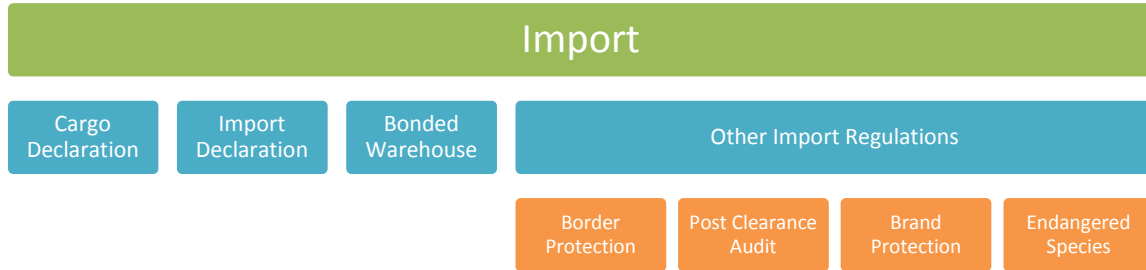
**Figure 5** Border procedure regulatory requirements - Overview



## 2.2. Import regulatory requirements

A variety of import regulation controls may exist as noted below:

**Figure 6** Import regulatory requirements



### Cargo manifest, Bill of Lading and Cargo declaration

For centuries the ship’s manifest was the basis of trade and the foundational document for customs and other border regulators. It was a record of everything on board, the captain, crew, cargo, stores, weapons and any other item on board. Over time, the manifest has adapted to other modes of transport and, typically, has been broken up into crew’s lists, passenger manifests and cargo manifests as well as bonded stores lists, other ship’s stores lists and so on.

The **cargo manifest** remains of critical importance to border regulatory procedures – it is largely a list of individual shipments, in the marine mode being a list of contracts between buyer and seller that confer ownership (negotiable bills of lading) whereas in air and other transport modes, it is a list of the contracts between the parties responsible for the carriage of goods – for example, air waybills.

In early days, the ship’s manifest was the basis for all border controls, including the levying of duties (and any other taxes/fees) on high value goods such as alcohol, tobacco, jewellery and certain textiles. More recently, the manifest information has become the basis of the customs “**cargo declaration**” which is the report by the parties responsible for transport to customs at the port of arrival or departure.

For commercial purposes such as duty collection and trade statistics, typically these days, customs requires an import or export **goods declaration** that is based on commercial contract documentation between buyer and seller such as invoices, letters of credit and other financial forms. For risk assessment, cargo accounting and other control procedures, manifest information remains of critical importance to customs to perform their legislative mandates.

- ✔ **Note:** Since “9/11” there has been increased focus on the use of advance e-data in the air transport mode for early risk assessment, mitigation and/or intervention. That advance data comes from the air cargo manifest and is based upon the IATA standard air waybill.

### Import goods declaration

As briefly mentioned above, the **import goods declaration** is the single most important information exchange between traders and customs for import control, duty/fee/tax calculation, statistical gathering and overall government control over goods entering a legal domain. As a “declaration” the exchange of information carries a legal weight that is more onerous than that associated with many other types of legal exchanges between the private sector and governments.

The **import goods declaration** is a comprehensive list of individual data elements that identify the vessel, its voyage, dates, transport equipment, goods, cost associated with those goods, currency information, and so on. It is not only the legally binding exchange between the trading community and customs, it is also the basis for the subsequent procedures that the goods shall undertake. For example, goods might be allowed entry into free circulation within a customs territory, or they might be warehoused

or held in a secure place pending further information. If the law has not been properly addressed, goods might be seized, destroyed or re-exported. All of these possible outcomes are dictated by the accuracy and timeliness of the import goods declaration.

Import goods declarations are accompanied by cargo declarations in most legislatures. As mentioned briefly above, the latter covers the processes and exchanges associated with the transport of goods and the former is associated with the buying and selling of those same goods. The cargo declaration is important for initial risk assessment and the important matter of admissibility of goods into a country. However, admissibility only means that goods might enter the legislative domain, it does not mean they can enter into free circulation. For that, the goods declaration is needed and it must be fully acquitted by customs. The term for allowing that final movement into free circulation is “**clearance**” and it is defined in the Revised Kyoto Convention as *“the accomplishment of the Customs formalities necessary to allow goods to enter home use, to be exported or to be placed under another Customs procedure.”* In the great majority of importations, the goods enter into home use (i.e.: free circulation) pending acceptance by customs of the goods declaration.

### Bonded warehouse

In essence, **bonded warehouses** are a form of payment deferral for high duty goods such as cigarettes, alcohol, motor vehicles etc. Importers might wish to retain liquidity by “bonding” their imported goods and only paying duty/taxes/fees in more manageable amounts ex-warehouse as they can afford. Customs administrations usually license such warehouses and thus they have a special legal status for cargo, a bit like a free trade zone. Even certain prohibited, restricted and/or dangerous goods can be stored in a bonded warehouse, some dangerous goods are prohibited, but almost anything else can be stored with the usual rules covering entry and clearance being suspended at the importer’s discretion.

The revised Kyoto Convention refers to bonded warehouses as “Customs Warehouses” and goes on to say the following in terms of what can be stored and under what circumstances:

*“Storage in public Customs warehouses should be allowed for all kinds of imported goods liable to import duties and taxes or to prohibitions or restrictions other than those imposed on grounds of :*

- *public morality or order, public security, public hygiene or health, or for veterinary or phytosanitary considerations; or*
- *the protection of patents, trademarks and copyrights, irrespective of quantity, country of origin, country from which arrived or country of destination.*

*Goods which constitute a hazard, which are likely to affect other goods or which require special installations should be accepted only by Customs warehouses specially designed to receive them.”*

### Border protection

There are many government agencies with a role in protecting national sovereign borders from a wide variety of potential risks – these include terrorism, illegal people movements, smuggling, dangerous goods, intellectual property violations, product safety issues, veterinary considerations, biosecurity, endangered species, fair trade issues, and cultural heritage violations. This excess of administrative responsibilities is challenging for all concerned and was one of the major findings in the aftermath of the “9/11” attacks in the US that led to the establishment of one very large Department of Homeland Security.


Since “9/11”, we know customs have been closely scrutinizing the entire global supply chain to secure borders. So while they continue to collect taxes and duties, the WCO and customs are placing a high priority on ensuring global supply chain *security*, verifying authentic and *safe* goods as they cross borders, and facilitating global trade with greater *efficiency*.

The events of “9/11” changed perceptions of border management in several drastic ways. The principal issue has been the intrusion of border security in terms of terrorist activity into previously understood

concepts of border sovereignty. This is leading to many significant changes in international trade and travel. In the former it includes:

- The use of electronic advance data for risk mitigation in all but exceptional circumstances;
- A focus on higher quality data received earlier in the supply chain, ideally from source;
- Customs-trade partnership, culminating in many national “Authorized Economic Operator” (AEO) or trusted trader schemes; and
- Customs-OGA partnership in so-called “Coordinated Border Management” arrangements whereby the many border agencies cooperate in physical or information terms.

Within each broad topic there have been many national and international moves toward best practice and standardization including data/message standards (WCO Data Model), the SAFE Framework, mutual recognition arrangements for AEO schemes, international trade single window systems, one-stop border posts, national targeting centres and many more.

 **Important:** Key to better border management is improved supply chain visibility, highly accurate unambiguous product identification and better trust between parties along the supply chain. The GS1 suite of applications and global standards are extremely relevant in this context, as explained below.

### Post clearance audit

Real-time transaction based border controls play a major role in customs work. Despite this, excessive checking at the point of entry is a waste of resources and does not improve the effectiveness of control. In the 21<sup>st</sup> Century, international commerce works to “just in time” deadlines and all supply chain actors can obtain significant benefit from more effective and efficient goods clearance. The majority of international trade involves multinational companies with complex internal systems and supply chains. The documentation produced at the time of importation does not provide the entire background and business context for an importation and often a high degree of commercial information is needed to determine such technically involved matters as customs value, goods classification and possible entitlement to preferential origin treatment or other duty exemption.

Customs will often be unable to establish an importation’s entitlements in such matters in the limited time frame associated with transactional clearance. As a result, many administrations focus controls on the post-importation environment, whilst retaining targeted risk-assessed checks at the border.


Through such a post-event and risk-based approach, all parties can improve efficiency and compliance rates. The WCO website provides the following definition: “*The **Post-Clearance Audit (PCA)** process can be defined as the structured examination of a business’ relevant commercial systems, sales contracts, financial and non-financial records, physical stock and other assets as a means to measure and improve compliance.*”

### Brand protection (anti counterfeit)

The rise of counterfeit goods in recent years has caused widespread community concern beyond brand protection or intellectual property rights issues as counterfeiters move into medicines and other sensitive areas. Border agencies, particularly customs, are extremely alert to government and community expectations that what is imported into a country is exactly what it claims to be. Increasingly, that is not the case.

Customs is not normally able to detect counterfeit goods without specific intelligence, including assistance from the importing community. Typically, the owner of a registered trade mark or copyright material (or in certain circumstances, the authorised/licensed user of such rights), can protect their rights with a **notice of objection** or other formal notification to customs. This notification will allow customs to seize goods that infringe or appear to infringe property rights when they are imported. The decision to protect intellectual property is one that each rights owner must make based on the damage to trade and

reputation that the rights owner considers may result from infringing goods. This obligation on the importing community varies from country to country, but the scenario outlined above is typical for many customs administrations and intellectual property rights holders.

 **Note:** WCO has introduced a training and education tool on counterfeit techniques and other intelligence called IPM (Interface Public Members). The tool also supports mobile scanning of GS1 barcodes, see paragraph 5.2.

**Endangered species**

Although not necessarily at the forefront of commercial risk assessment for traders when importing or exporting goods, the illegal international trade in fauna and flora (including products made from those plants or animals) has achieved a very high profile at social, community and political levels in many countries. Having an awareness of the dangers to biodiversity implicit in this illegal trade is something that gives companies a badge of social “good citizenship” and in the 21<sup>st</sup> Century, such value judgements are becoming of greater importance to consumers.

The UN Convention on the Trade in Endangered Species (CITES) is the international agreement to protect fragile flora and fauna from unscrupulous traders (criminals) who would exploit such species to extinction.

The range of goods within CITES ambit is enormous and extends well beyond the items in the public mind such as ivory from elephant tusks and rhinoceros horn. This is a growing area of importance in border management reflecting community aspirations in many countries.

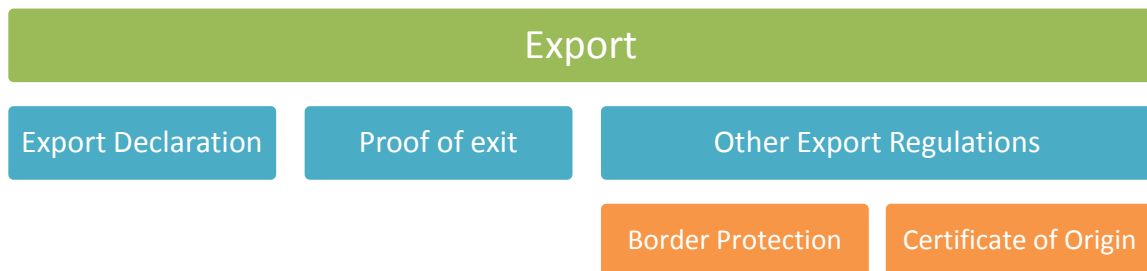
CITES and WCO work closely and collaboratively in this space in a range of different ways ranging from the dissemination of illegal concealment techniques to data harmonization. This is a good example of international Coordinated Border Management.

**2.3. Export regulatory requirements**

It is important to note that until very recently, customs and OGAs tended to have an almost exclusive focus on import management. This reflected community and policy values that are more focused on materials and goods entering a country rather than those leaving it. This “fortress” mentality has been challenged in recent years, especially since “9/11.” Government border regulatory agencies are starting to understand that the international supply chain is a continuum triggering such recent policy changes as a major focus on export controls, the quality of export data, moves toward the international exchange of data (examples include Advance Passenger Information) and changes to legislation affecting exports.

In this paragraph the following export regulatory requirements and related topics will be discussed:

**Figure 7** Export regulatory requirements



**Export declaration**

Export goods and cargo declarations are the same as their import alternatives in most ways. The main differences are related to the obvious chronological differences between imports and exports. In

essence, things occur in reverse order and this has procedural implications for customs and the OGAs in terms of information management and border control procedures.

The **export goods declaration** is the main control and statistical document, as for imports, and it is provided by the trading community actors – usually the exporter, broker or sole trader. All permit considerations managed by the various OGAs must be somehow exercised and controlled as part of the export goods declaration procedure. The declaration will not authorize export until and unless all customs and OGA requirements are met.

Whereas in imports the **cargo declaration** is of great importance for preliminary risk assessment, the different order to events in exports means that it does not serve that purpose. The cargo report – still provided by the transport actors such as international carriers or forwarders – is important to prove that physical export did actually occur and as a means for cargo reconciliation. It is often provided after export for obvious reasons.

### Proof of exit

The term “exit” in international customs terminology refers strictly to the location of a customs office responsible for the physical departure of goods in a transit procedure. It can have a broader meaning of actual physical departure from a customs territory for normal exports as well. “Exportation” is a comprehensive term that includes physical movement, documentary exchanges and a range of procedures and processes by both regulators and commercial actors. “Exit” as mentioned earlier, is the final act of departure from a customs territory and proof of exit (often called “proof of export”) and is commonly acquitted by the lodgement of the cargo report by the transport entity responsible for the international movement.

### Border protection

Export border protection has several components; it remains mainly a mechanism to protect national self-interest (cultural heritage, defence sensitive goods, export quality certification for agricultural goods etc.) but increasingly nations are collaborating across borders on the basis that mutual control of exports is an essential feature of good import control. It remains true to say that the majority of customs and OGA efforts have an import focus, but the difference is becoming less dramatic for reasons mentioned above.

### Certificate of Origin

There are many examples of licences, certificates and permits that are required for import, export or transit of classes of restricted goods before they may cross national borders. The international Certificate of Origin is a ubiquitous example of supplying proof of the origin of goods. This requirement is becoming ever more demanding and complex as supply chains and manufacturing processes cover several different countries which may also differ from the country of origin of the base materials being used.

The country of origin is not the country of provenance (the last country the goods passed through as part of the export process). With tariff classification and valuation, the country of origin is essential in order to establish the amount of the Customs duties and taxes payable and it may determine the application of other trade policy measures such as quotas and anti-dumping duties.

The international **rules of origin** (RoO) are a World Trade Organization competency under the Uruguay Round of trade agreements in 1994. The objective was to try to ensure that origin issues were not used as a way of frustrating legitimate trade through the application of transparent rules. The technical work associated with this WTO competency was agreed to be managed by the WCO through an appropriate committee and this reflects the common fact in global trade that customs ends up having the responsibility to manage the day-to-day mechanics of policy matters discussed elsewhere.

Although there is no international certificate of origin, a distinction is made between **preferential** (involving bilateral or multilateral agreements) and **non-preferential** where countries make their own rules. Much work has been undertaken in order to harmonize the rule governing non-preferential RoO with an aim to ensure transparency, fair and open trading procedures, consistency and non-discrimination. There is a minority of certificates made out for preferential goods allowing reduced tariffs or other import facilitation.

Many countries require a **certificate of origin** (CoO) from the exporting country as part of normal customs clearance. CoO's are usually underwritten by national Chambers of Commerce and they are intended to identify goods and will normally contain a certificate by the chamber, or other empowered body, that the goods in question originate in a specific country.

There is no international standard for the forms to be used but the International Chamber of Commerce has published rules governing the issuance that most countries follow. The International Chamber of Commerce is now working on electronic formats for CoO's which is consistent with moves towards the dematerialization of supporting documents for customs clearance that is gathering pace worldwide.

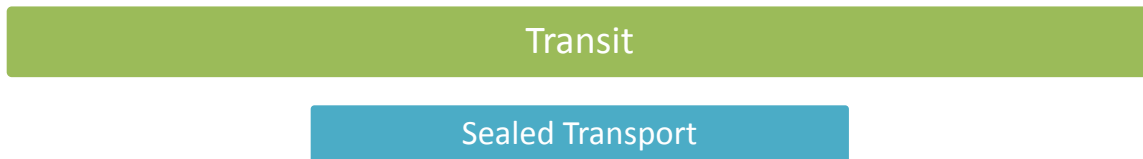
## 2.4. Transit requirements

The term “**transit**” as it applies to international transport can have different meanings, for example, the International Air Transport Association understands it to mean “freight remaining on board” when an aircraft touches down at a given airport. Since this document deals in customs matters, transit shall be taken here to refer to “customs transit” which the international Revised Kyoto Convention (RKC) defines as: *“the Customs procedure under which goods are transported under Customs control from one Customs office to another.”*

Typically, goods can be formally declared to customs for import, export or transit (there are some other special cases such as transshipment that shall not be dealt with here) and for some countries, especially landlocked nations in Europe, Africa and central Asia, goods in transit by road or rail compose a very significant proportion of all goods undergoing transportation within national borders. It is essential that control be maintained over transit cargo since diversion or other unlawful activity can result in significant loss of revenue and other undesirable outcomes for Government.

In this paragraph the following transit regulatory requirements will be discussed:

**Figure 8** Transit regulatory requirements



### Sealed transport

Part of the customs control techniques associated with transit goods is a check of container (or other) seals at either, or both of the customs offices of entry and exit.

**Seals** are an essential aspect of the chain of custody and their importance applies to imported, exported and goods in transit. Section 3.3 of the WCO's SAFE Framework contains a section on security seals for containers which stipulates the parties and their respective responsibilities in ensuring the security of ocean containers by the effective use of seals.

The **TIR Convention** which is owned by the UN but managed by the International Road Transport Union is a major international instrument that describes rules and conditions surrounding secure road transport. It has many provisions for the safe sealing of containers and sections of road vehicles; the

aim, as in the SAFE Framework, is to assure the chain of custody and thereby better secure international and domestic shipments.

Seals themselves can be simple cardboard or paper ranging to expensive tamper-proof electronic devices. The TIR Convention describes attributes of seals that must be met for certain types of transport scenarios, but normally this is a question of commercial practice. Customs seals are commonly affixed to containers or other transport equipment at offices of entry.


## 2.5. Product safety compliance

As previously mentioned, there are many OGAs exercising controls at the border for imports and exports under a very wide array of public policy considerations. Product safety is one such high-profile area, particularly given some instances of highly toxic and other dangerous importations that happened in the USA in recent years.

Product safety can apply to food safety, to veterinary controls over animals, phytosanitary controls over plant products, electrical wiring, small parts on toys that can choke children, toxic paint on toys and other toxic contaminants in things like ceramics, nuclear isotopes and other radioactive material, human health concerns (ebola), explosives, flammable materials, fake goods (especially medicines), weapons and ammunition and so on.

It soon becomes evident just how much legislation and other administrative rules apply at the border in this area alone, yet customs administrations, in partnership with specific OGAs, are expected to act as the guardian for the community.

The stricter product safety regulatory requirements are not limited to goods crossing borders. Local market surveillance rules around product safety tend to be enforced in exporting countries as well, for example European rules will impact exporters in Latin-America, Chinese rules will impact exporters in Europe, etc.

 **Note:** This is an area ripe for public-private partnership and GS1 can be (and, in some cases, is already) a major actor through its combined national expertise and international standards that allow for better product identification and supply chain visibility.

In this paragraph the following product safety compliance regulatory requirements will be discussed:

**Figure 9** Product Safety Compliance



### Consumer Safety

This is one major aspect of product safety and applies to many commonly imported goods from foodstuffs to drugs and other medicines. The rules are set by policy departments such as Health and Food Inspection agencies, but the administration is usually carried out by customs at the border based upon policy guidance from the relevant authorities.

Increasingly in these days of just-in-time deliveries and community expectations of public sector efficiency, customs and OGAs must adopt a risk-based approach to all its controls and consumer safety is no different. In order to be effective, this implies the need for quality information, preferably electronic,



received as early as possible and, ideally, from the entity best able to provide that quality information. Where importers and/or suppliers are known to be low-risk, special procedures can be put in place (akin to AEO provisions) allowing scarce resources to be allocated at areas of high risk. Constant communication amongst the border agencies and the trade/transport communities can improve the overall performance at the border and beyond in this vitally important area.

- ✔ **Note:** The European Commission envisages the creation of an AEO status in the form of a certificate – Security and Safety (AEOS) – for European economic operators. The certificate will allow companies to benefit from particular facilitations in customs controls related to security and safety. See the report from the informal expert group on product traceability [ECRES], for which GS1 has provided research support. In the US, the ITDS Product Information Committee (PIC) was established to recommend and implement new strategies for improved product visibility. The PIC has identified the GS1 standards that could help to provide the relevant product information, see section 5.3.

### Phytosanitary / Veterinary

SPS (the acronym for phytosanitary & veterinary controls) is one of the most contentious issues in global trade. Once again, “food security” which is related to this topic was the reason for stalling the WTO Agreement on Trade Facilitation in July 2014. SPS controls are commonly used as a non-tariff barrier – or a perceived NTB by exporting nations who take their cases to the WTO in Geneva on a regular basis.

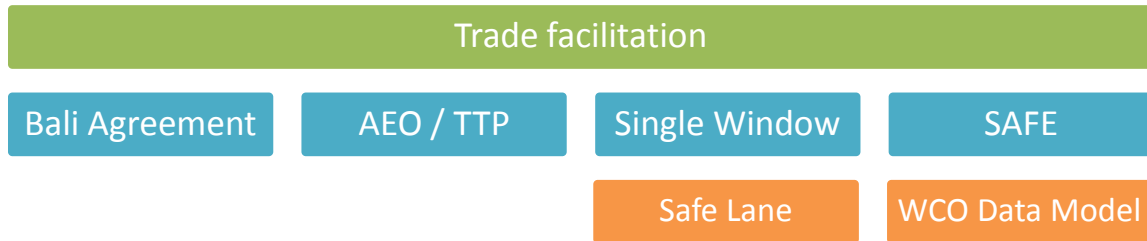
There are many international bodies involved in the SPS area – the WTO, FAO, WHO, OIE, IPPC and CODEX Alimentarius to name the main players. Each has its area of competence and attempts are made to maintain coordination as global standards work continues at a relatively slow pace. This pace is guided by the complexity of the issues plus the political sensitivities surrounding them.

- Inspection – after customs itself, quarantine inspection rates are the most numerous in international trade. Once again, the political and community sensitivities for food, live animals, potential insect and other infestations and the like are such that a low tolerance for error typifies the governance and risk management regimes in most SPS regulatory agencies. This situation is unlikely to change soon and quarantine inspections are one example where customs is not usually seen as competent to manage border risk on behalf of the relevant border agency as they do commonly for other risks.
  - Proof of certification, e.g. Global Gap – private certification agencies are becoming more common, but the international regulatory agencies have expressed great concern about the reliability of their methods and the consistency of their outputs. From discussions at global level on this topic, it appears that despite the growth of such companies, there is a lot of work to be done in the private sector before the WHO and all the others will entrust food safety and other high-risk border issues to those certification agencies.
- ✔ **Note:** In a perfect world, the private and public sectors would work seamlessly to provide a mutually improved environment – this is another area where GS1 standards make a real difference.

## 2.6. Trade facilitation measures

In this paragraph the following trade facilitation topics will be discussed:

**Figure 10** Trade Facilitation



### Bali Trade Facilitation Agreement

The December 2013 Agreement on Trade Facilitation in Bali breathed new life into the WTO. The document makes it plain that trade facilitation is, first and foremost, a matter of customs modernization and simplification so that border regulatory procedures do not hinder legitimate trade. Trade Ministers in all parts of the world will be well aware of this and consequently, customs administrations shall be at the forefront of activity as WTO members seek to ensure that they are following the directives of the Bali agreement. Customs modernization is of vital importance to all stakeholders in trade facilitation – this includes the majority of GS1 members, especially those involved in cross border trade.

The Trade Facilitation Agreement contains provisions for expediting the movement, release and clearance of goods, including goods in transit. It also sets out measures for effective cooperation between customs and other appropriate authorities on trade facilitation and customs compliance issues.

- Note:** The Bali agreement provides the opportunity to discuss the value of GS1 Standards as a contributing factor to trade facilitation – B2B supply chain standards leveraged for Business to Customs and B2G purposes.

### Authorized economic operator (AEO) / Trusted trader programs (TTP)

**Authorised Economic Operators** (AEO, C-TPAT in the US, trusted trader in some countries including Australia) are actors in the international supply chain (traders, forwarders, brokers, transport companies etc.) with a proven record of compliance who are certified by customs to qualify for certain agreed premium procedures – this might include duty deferral, monthly returns (instead of transactional reporting), fewer inspections, more rapid return to normal processing during trade disruptions etc.

The benefits for both customs and the commercial sector are clear, at least in theory. Full benefits cannot be achieved – particularly for trans-national companies – unless countries have mutual recognition arrangements for their respective AEO schemes. Many significant MR arrangements have been put in place, including EU-US, EU-China and EU-Japan.

- Note:** There are moves in some countries to investigate how a company might enhance its position to be accepted in an AEO scheme through its adherence to GS1 global standards.

## Safe lane

Following on from the concept of lower risk entities being afforded premium procedures is the “**safe lane**” idea. The concept is commonly referred to as a “green lane” also and, as it implies (and copying the same concept at passenger processing lines for immigration) low risk consignments are allowed a lesser level of documentary or physical control in agreed carefully managed circumstances.

## Single window

The international trade **single window** is defined as a single point at which all government data related to a trade transaction can be received and from which it can be disseminated.

The central driver for single trade window projects is the need to reduce administrative costs for government as well as for traders. The sharing of services, assets, personnel and, critically, lowering the complexity of data are essential.

There are a tremendous number of other factors to be considered in setting up a single window, but the essence of the concept is very simple. Why should the commercial actors in trade need to put the same data into a very large potential number of different formats depending on the border regulatory agency with which they are dealing? Almost all licences, certificates, permits and customs declarations inherit the same data from invoices, manifests and other commercial documents. There is no reason why today’s IT environment cannot make it relatively simple to provide that data once only in an agreed standard format in order to satisfy all government requirements.

## WCO Data Model

The WCO Data Model is a global data standard that enables single window development. It contains the various data structures and EDI/xml messages that cater for the great majority of exchanges between trade and the many government regulators operating at the border. It is fully aligned with the relevant UN standards and work continues at global level to have it fully aligned with GS1 data and messaging standards as well.

## SAFE

As mentioned earlier, the events of “9/11” had a huge impact on border management worldwide. The WCO acted quickly and, in 2005, produced a comprehensive supply chain facilitation and security standard called SAFE. This has been updated over the years (most recently in 2012) but its central features remain; there are two foundational pillars: 1. customs to customs cooperation internationally and 2, customs to trade partnership.

The **customs to customs** pillar implies better coordination of procedures, information management and risk assessment between countries and a greater focus on export controls. It is built around the concepts of advanced electronic data for early risk assessment and a legally enabling environment for such cooperation.

The **customs to trade partnership** pillar is built around the AEO concept mentioned above. The SAFE Framework is not a binding convention, nonetheless, the great majority of WCO Member countries are working towards the implementation of its provisions.

### 3. Understanding the GS1 system of standards

#### 3.1. Introduction

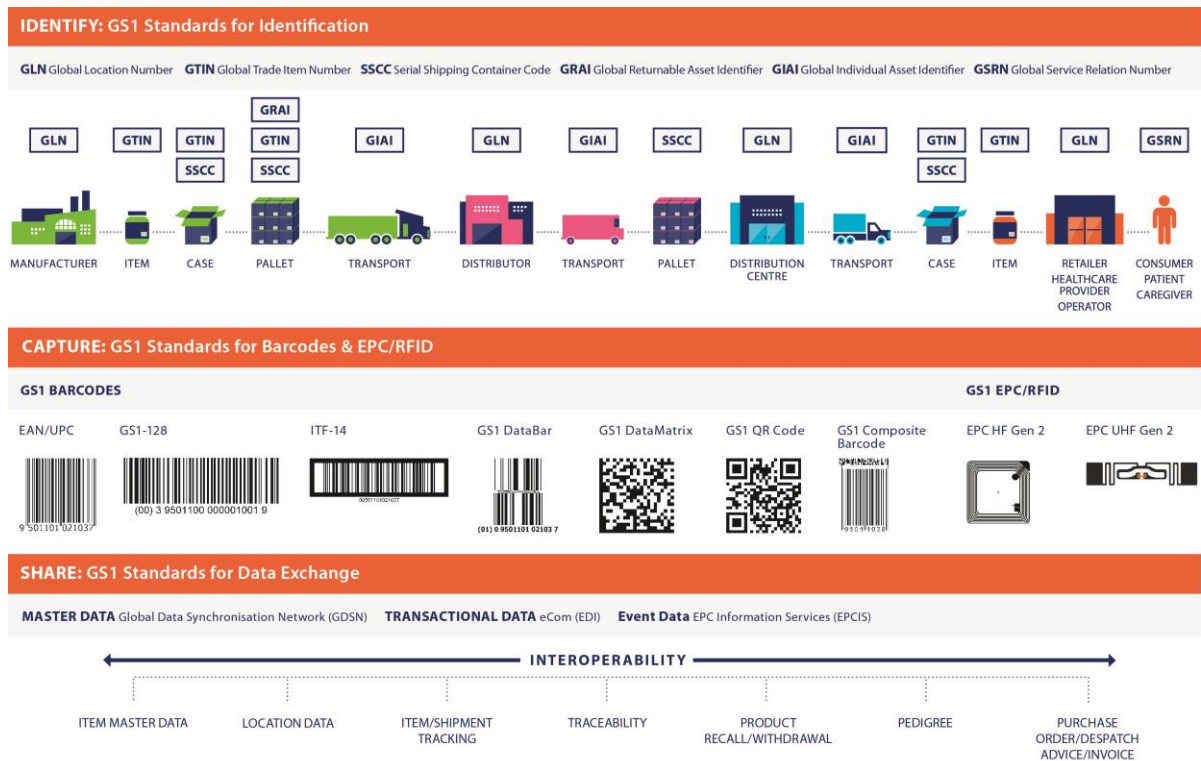
This chapter provides a brief introduction to the GS1 standards and the role they can play in border procedure management.

#### 3.2. GS1 system of standards

The GS1 system architecture is based on three concepts that are linked to each other:

- Standards to IDENTIFY entities in electronic information that can be stored and communicated between trading partners.
- Standards to automatically CAPTURE data that is carried directly on physical objects (bridging the physical world with the world of electronic information).
- Standards to SHARE information, both between trading partners and internally, providing the foundation for electronic business transactions and visibility – knowing exactly where things are at any point in time, or where they have been, and why.

Figure 11 GS1 System of standards



**Note:** Although GS1 offers a comprehensive set of standards, including standards for electronic communication, it is very well possible to leverage the identification and capture standards utilized by companies in combination with customs / OGA standards and solutions. One such example is the support for GS1 keys in the WCO data model.

### 3.3. GS1 Keys

GS1 Identification Keys are unique identifiers that provide companies with efficient and precise ways to access information about their supply chain entities, and provide this same information to their global trading partners.

GS1 keys deliver value to companies by providing secure and portable identifiers for all entities involved in their supply chains: locations, products, cases, pallets, assets, logistics units, documents and more. And when the identification data is automatically captured and shared with trading partners, GS1 keys enable companies to seamlessly connect the physical flow of products to the products' information, leading to increased visibility of the products as they travel through the supply chain.

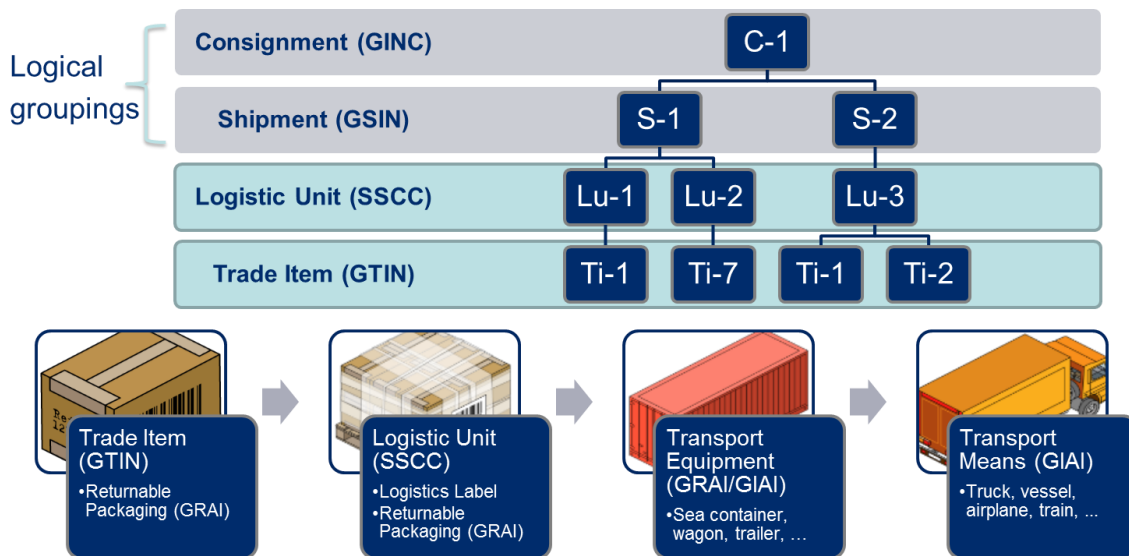
The global uniqueness of GS1 keys makes them especially suitable as identification and reference mechanisms in an international context, enabling interoperability across systems of importers, exporters, logistic service providers, clearing agents, customs agencies and OGAs.

GS1 keys can help to enhance data quality in declarations and documentation, since they correspond with electronic records in databases that can be used to verify information. This also increases transparency and trust, which will help traders to qualify for trusted trader programs.

GS1 keys also add value when tracking and inspecting goods in transport. Scanning a barcode will ease access to related information during inspection, and also will enable the efficient recording of structured data on border procedure related events to enable status monitoring.

One important aspect of the GS1 keys is that they can be used to associate objects with each other, for example which products are contained in a package, which packages are contained in a container, and which packages belong to the same shipment.

**Figure 12** GS1 keys used to link objects



### 3.4. GS1 Traceability Standard (GTS)

Traceability is the ability to identify the past or current location of an item, as well as to know an item's history.

The most well-known use of traceability is locating defective or unsafe foods, pharmaceuticals or other products, in order to remove them promptly from shelves. In some cases, being able to quickly and easily recall an item (or a group of items) can save lives. Speedy recall also greatly reduces the potential negative economic impact, and preserves consumers' trust in the quality of their favourite brands and their confidence in the systems that are designed to protect their safety.

There is however more to traceability than just recall. For example, traceability systems can validate the presence or absence of attributes important to consumers, such as organic farming methods, kosher foods, non-allergenic cosmetics, or sugar-free products. Traceability has become a tool in fighting product counterfeiting and protecting brands. Recently, it has also become a regulatory requirement in some countries in the fight against bioterrorism.

From the authorities' point of view, traceability is also important in identifying the source of the problem and so enabling:

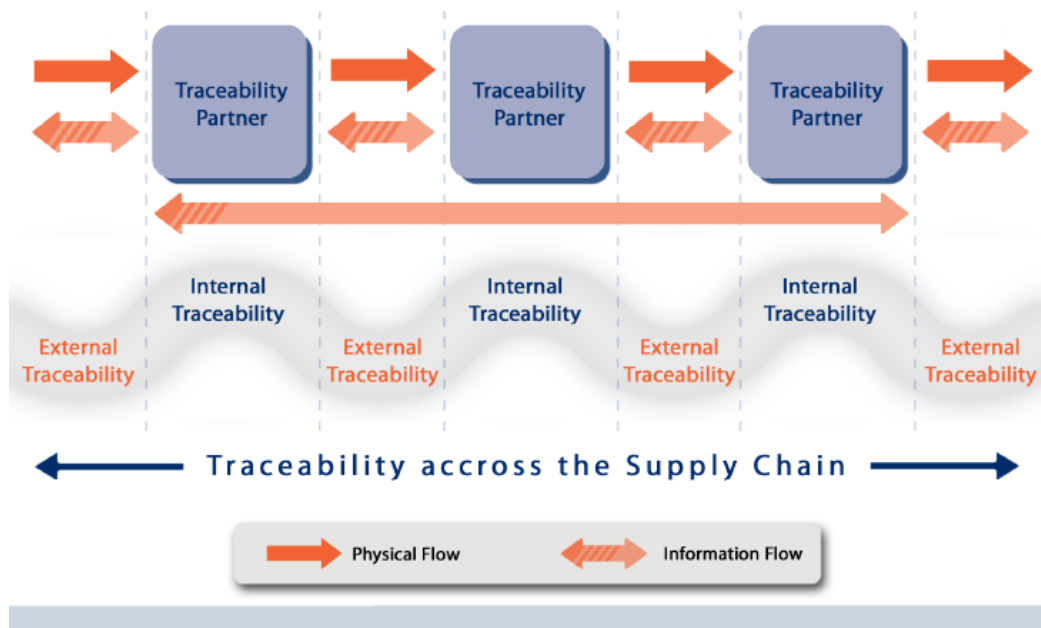
1. to be sure that all products with the same problem are withdrawn from the markets where they have been supplied, and
2. to determine liabilities, who is responsible.

Implementing a traceability system within a supply chain requires all parties involved to systematically link the physical flow of materials and products with the flow of information about them. This requires a holistic view of the supply chain, which is best attained by deploying a common business language.

While businesses recognise the value of traceability, they do not want multiple, potentially conflicting traceability systems, and they do not want to increase costs unnecessarily. Businesses also recognise that an individual company is only one partner in the supply chain, and that a chain is only as strong as its weakest link. In short, businesses want a traceability system that can easily be adopted by just about everyone in the supply chain.

The GS1 Traceability Standard meets this criterion. It defines business rules and minimum requirements to be followed when designing and implementing a traceability system. GS1 standards (such as GS1 BarCodes, EPC/RFID, GS1 eCom, GS1 EPCIS, and more) enable the easy implementation of the GS1 Traceability Standard.

**Figure 13** Traceability across the supply chain



- Note:** Access to real-time status information becomes more and more the norm. Web services are a way for companies to provide real-time access to authorized parties on an ‘as-needed’ basis. The GS1 EPCIS standard provides the message protocols required for such service oriented architectures.

## 4. The value of GS1 standards in border procedure management

Companies can benefit in two main ways when Customs or OGAs adopt or endorse GS1 standards in border procedure management:

1. Reuse of global standards already in place, minimizing the disruption and cost of integrating with government border management systems; and
2. Tighter integration of border procedure management with supply chain and logistics processes. GS1 standards can help companies comply with border management processes around the globe while using many of the same identifiers found in their ERP, warehouse management and transport management systems.

In the following paragraphs these (potential) benefits will be described in more detail by looking at the most relevant GS1 keys.

For each GS1 key, first the value of the key from a customs and OGA perspective is provided. After that, the benefits from a company perspective are given by examining the 3 main compliance management processes (Compliance rules management, Documentation and declaration management, Tracking and inspection).

**Note:** Chapter 5 lists several projects from around the world where GS1 organisations have helped customs / OGAs to successfully implement the GS1 standards.

### 4.1. Global Trade Item Number (GTIN)

The GTIN is the most widely implemented GS1 standard. Companies use the GTIN to identify products in point-of-sale and order-to-cash processes. On most products traded in Retail CPG (Consumer Packaged Goods) the GTIN is present in barcoded form.

The GTIN can be used to identify types of products at any packaging level (e.g., consumer unit, inner pack, case, pallet). Groups of trade items with similar production and usage characteristics such as production batches can be further identified with the help of the batch / lot number, expiry date, and similar data elements. Individual trade items can be uniquely identified using a GTIN plus serial number.

**Figure 14** Value of the GTIN



#### Value for customs and OGAs

Customs and OGAs are starting to inspect products at a more granular level. The GTIN seems to correspond very well to the level required. The GTIN is a globally unique product identification number that allows government to recognize and release low risk products in the supply chain. Additionally, the GTIN helps in identifying the brand owner of the product and thereby enables a monitoring capability that informs anti-counterfeiting defence programs.



The GTIN is also of vital importance for market surveillance. When customs and market surveillance authorities collaborate, it will be easy to follow up on all known instances where that same product of interest has been recently imported into the national market.

The GTIN is often present in barcode format on the product packaging. This provides authorities a reliable and fast way to confirm the identity of the product and allow follow-up action to be taken with confidence.

**Value for traders and logistic service providers**

When looking at the border procedure management processes of a company the GTIN can add value in **compliance rules management** by associating the various types of classification codes and so help companies to point to the applicable regulatory requirements.

Two important classification systems are the HS system and the GPC system:

- The Harmonized Commodity Description and Coding System generally referred to as "Harmonized System" or simply "HS" is the system used by more than 200 countries and economies as a basis for their Customs tariffs and for the collection of international trade statistics. Over 98 % of the merchandise in international trade is classified in terms of the HS. *(source: WCO website)*
- The GS1 Global Product Classification (GPC) is a system that gives both sides of trading partner relationship a common language for grouping products in the same way. It ensures that products are classified correctly and uniformly, everywhere in the world. The GPC classifies a trade item within a taxonomy of product types and defines a set of category-specific master data attributes that apply to that trade item. GPC is the mandatory classification system for the GS1 Global Data Synchronisation Network (GDSN), and it can also be leveraged in other applications such as category management, business intelligence, and international trade data systems.

The GPC system and HS system have different functions and can be applied in combination with each other or with other existing classification systems used by supply chains.

In **documentation and declaration management** the GTIN can be used to unambiguously identify trade items at various packaging levels, ensuring that the goods being shipped are aligned with the goods being declared.

In **tracking and inspection** the GTIN can also add value, mainly in product safety related inspections such as anti-counterfeit and consumer safety. Precise communication on the exact product being inspected will greatly ease the analysis and sub-sequent action when an issue occurs.

**4.2. Global Location Number (GLN)**

GLNs can be used as a standard party/location identifier by all relevant parties. The GLN is widely applied in EDI messaging because is critical to message processing. Therefore most larger size companies and companies trading with larger size companies will have assigned GLNs to its key parties and locations.

**Figure 15** Value of the GLN



### Value for customs and OGAs

The GLN can be used to ease the identification of importers and exporters by providing an alternative to the name and address based identification of companies. This may help to streamline declaration processes.

Customs agencies often operate in large facilities such as harbours, airports and auction premises. The GLN can be used to identify the various parties and locations at the point of entry and across the distribution chain including the point of production (which can be critical for pest management control), and when linked to electronic registries, will help ensure availability of the latest address information.

As regulatory agencies, including customs, adopt a whole-of-supply chain approach to their risk management and other administrative tasks, a common identification system for parties becomes an essential requirement. The GLN has tremendous potential for regulators in this regard.

### Value for traders and logistic service providers

In **compliance rules management** companies can benefit from GLN based identification of trading partners by linking compliance requirements and admission history to each of their recurring trading partners.

In **declaration and documentation management** processes GLN based identification will help to ensure that a company uses the same information as in their supply chain and logistics processes, ensuring that the shipment information is in line with what is being declared. For LSPs that work with large numbers of shippers, the benefit of recognising recurring shippers will have even larger benefits, since they typically do not have access to trader data in their systems.

In **tracking and inspection** processes the GLN offers a way to unambiguously identify the physical location where production, processing, storage, and inspection events have occurred.

## 4.3. Serial Shipping Container Code Unit (SSCC)

The Serial Shipping Container Code can be used by companies to identify a logistic unit, which can be any combination of trade items packaged together for storage and/ or transport purposes such as a case, pallet or parcel.

Figure 16 Value of the SSCC



### Value for customs and OGAs

A declaration often contains references to the packages contained. The SSCC provides a globally unique reference number for the identification of pallets, cases, parcels, bundles etc. Customs and OGAs can use the SSCC to identify all packages belonging to a particular shipment.

**Value for traders and logistic service providers**

GS1 advocates the SSCC as the main key to be marked on packages, providing end-to-end visibility from origin to destination. By scanning the barcoded SSCC or reading the SSCC encoded in an EPC/Rfid tag companies and agencies can efficiently capture the ID and access related information, such as information provided in customs declarations.

**4.4. Global Shipment Identification Number (GSIN)**

The Global Shipment Identification Number (GSIN) is a number assigned by a seller and shipper of goods to identify a shipment comprised of one or more logistic units that are intended to be delivered together. The GSIN can be marked on transport labels to help identify which logistic units belong to the same shipment. Compared to its close relative, the SSCC, adoption of the GSIN by trade is still relatively low.

**Figure 17** Value of the GSIN



**Value for customs and OGAs**

The Shipment is the key entity in customs import and export clearance processes, used as the basis for duty and fee collection, and linked to the importing and exporting trading parties. The GSIN provides a globally unique identification number, and has been approved by ISO and officially noted by the WCO as fulfilling the requirements for the Unique Consignment Reference (UCR). It facilitates customs-to-customs communication to recognize one custom’s export shipment as the next custom’s import shipment.

**Value for traders and logistic service providers**

When companies are already using GTIN, GLN, and SSCC adoption of the GSIN is relatively easy. Companies will be able to benefit from increased interoperability when applying the same key in their internal systems and in their border procedure management communications.

**4.5. Global Identification Number for Consignment (GINC)**

The Global Identification Number for Consignment can be used by companies to identify a consignment comprised of one or more logistic units that are intended to be transported together.

Logistic units in a particular shipment may be associated with different GINCs during various transport stages; for example, when the shipment gets consolidated with other shipments during its journey, and deconsolidated again before it reaches the consignee. The GINC allows freight forwarders and transport providers to keep track of the logistic units being transported together.

The GINC can be marked on transport labels to help identify which packages belong to the same consignment.

**Figure 18** Value of the GINC



**Value for customs and OGAs**

To enter a customs territory, LSPs will be required to provide a manifest of all cargo contained in the truck, vessel, aircraft, railcar or barge. The GINC can be used as a uniform identification scheme encompassing the master bill-of-lading, master air way bill, etc.

**Value for traders and logistic service providers**

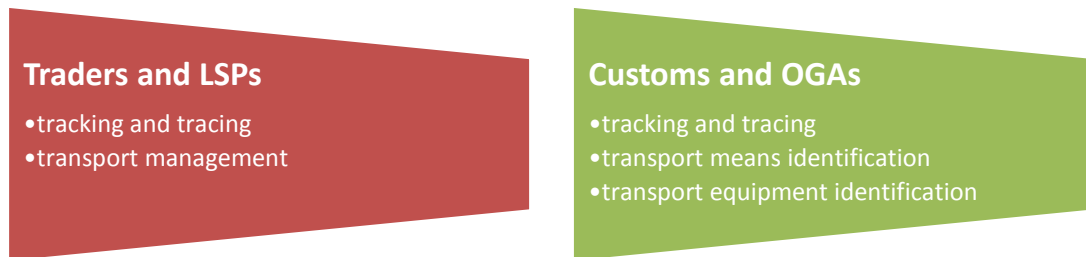
LSPs often apply proprietary or transport mode specific identification schemes for bill-of-lading, air waybills, etc. The GINC provides them with an overarching identification scheme. In this way the GINC can be used to enhance interoperability between the systems of shippers, LSPs and authorities. This will enhance the data quality in the **declaration and documentation management** process, such as the data in cargo manifests, enabling all parties to refer to the consignment using the same identifier. The GINC will also be present on the physical documentation that accompanies the goods in transport, and having a unique and potentially barcoded ID will enable more efficient **inspection and monitoring**.

**4.6. Global Individual Asset Identifier (GIAI)**

For the identification of transport means such as a vessel, aircraft, truck, train, often non-GS1 keys are applied, such as vessel name, license plate. Also for the identification of transport equipment such as containers, rail wagons, trailers, ULDs often other ID keys are applied. The GIAI can be used as a uniform identification scheme to enable interoperability.

In recent years the GIAI is being implemented more and more on transport equipment, to a large extent caused by the success of GS1’s EPC/RFID standard.

**Figure 19** Value of the GIAI



**Value for customs and OGAs**

Officials of customs and OGAs equipped with readers or scanners may benefit from automatic identification of transport equipment, both to locate the equipment and when recording inspection results.

### **Value for traders and logistic service providers**

The GIAI can be used in barcoded or EPC/RFID form to enable the automatic identification of containers, wagons, trailers, ULDs, etc. This can help in identifying the piece of transport equipment that needs to be inspected and so speed up procedures.

In the **inspection and monitoring** process companies can benefit from having access to real-time information on the movements of transport equipment, and in that way have more accurate information on the expected time of arrival, including expected arrival at inspection locations.

## **4.7. Other GS1 keys**

The remaining GS1 keys are less significant from a border procedure management perspective. Still, some of them may provide value in specific applications.

### **Global Document Type Identifier (GDTI)**

May have applications in customs / OGA primary processes. Also may have potential as overarching scheme for the globally unique identification of trade and transport documents, particularly in a single window environment.

### **Global Service Relation Number (GSRN)**

May have potential for application in customs / OGA processes, for example for the identification of the relation between a particular customs agency and a particular company in trusted trader programs (TTP) or for risk assessment purposes.

### **Global Returnable Asset Identifier (GRAI)**

Could become relevant for customs and OGAs, but currently no practical examples exist, although reusable assets have been used frequently to smuggle goods and better identification of these items has potential to be of benefit to regulators.

### **Component / Part Identifier (CPID)**

Less relevant at this point in time.

### **Global Coupon Number (GCN)**

No relevance at this point in time.

## 5. Overview of GS1 initiatives

While regulatory requirement pressures are increasing, at the same time authorities are trying to make it easier for companies by leveraging data standards that are already being utilized by the companies. GS1, as representative of a large number of industries, can help their member companies by promoting the GS1 standards already in use. Adoption / recognition of the GS1 identification standards should be the primary goal.

In this chapter we provide an overview of initiatives developed by GS1 organisations around the world.

### 5.1. Unique Consignment Reference (GS1 GO & WCO)

From 2005 to 2006, the GS1 Serial Shipping Container Code (SSCC) was tested for use by the UK and Australian Customs administrations as a Unique Consignment Reference (UCR) – a standard way of identifying unique shipments for effective risk assessment and audit-based controls. This was the first joint effort between GS1, customs and trade to address issues of supply chain security and trade facilitation.

As a follow-on from this pilot, work was launched to develop a new GS1 identifier – the **Global Shipment Identification Number (GSIN)** – with the aim of fulfilling the requirements of the UCR, which could be used by customs to identify shipments subject to import or export processes.

In 2010, GS1 completed work and ratified the **GSIN** that is fully compliant with the ISO/IEC standard 15459 and, as a direct consequence, with the UCR concept specified by the WCO.

### 5.2. Anti-counterfeiting (GS1 Global Office, GS1 France & WCO)

The WCO has introduced a training and education tool on counterfeit techniques and other intelligence called IPM (Interface Public Members). GS1 and WCO added an addendum to the 2007 MoU between the two organisations in recognition of the importance of anti-counterfeiting action to both. Of all the areas of border risk, this is one that has perhaps the greatest potential for reaping rewards for both GS1 and customs if the various instruments and standards utilized by GS1 members can help to stem the flood of counterfeit goods.

The IPM provides the possibility to use mobile devices to scan GS1 barcodes found on millions of products. The **GTIN** embedded in the GS1 barcode facilitates access to multiple databases providing trusted sources of product information.

### 5.3. Product information (GS1 US – PIC / ITDS)

When it comes to product clearances at U.S. borders, three OGAs – the USDA, Consumer Product Safety Commission, and FDA – all share a similar interest in efficiently facilitating trade while ensuring citizens and the environment are not harmed by products admitted at U.S. borders.

The U.S. International Trade Data System (ITDS) is tackling this problem on behalf of all U.S. OGAs. In 2008, the ITDS Product Information Committee (PIC) was established to recommend and implement new strategies for improved product visibility. Over the past three years, the PIC has identified uses for global standards, and in particular, the GS1 GTIN, that if adopted by governments and industry, could provide the missing product information that OGAs need to modernize and expedite product admission at U.S. borders.

Working with Hasbro, a global importer of toys and games, the PIC examined the use of **GTINs** and **GPC** codes in consumer goods importing. The findings projected that product examinations could be reduced by 80% in the first year alone with a Return on Investment (ROI) rate of 8 to 1.

Another pilot with the Association of Floral Importers of Florida showed the use of United Nations Standard Products and Services Codes® (UNSPSC®) codes could reduce the average time required to inspect flower shipments by 50% with an ROI of 7 to 1.

A third pilot with Tyson Foods, a U.S. major meat supplier demonstrated that connections to global, standard product catalogues could be created and cost effectively used to manage exports of complex products, saving exporters \$1.6 million over the first five years. The business case reported an ROI of 5 to 1.

## 5.4. Single window initiative (GS1 Canada)

Canada and the U.S. represent one of the world's largest commercial trade relationships with \$1.6 billion worth of goods and services crossing the Canadian and U.S. border every day.<sup>1</sup> In December 2011, the Canadian and U.S. governments announced the *Beyond the Border Action Plan*, which includes a commitment to enable and align the Single Window Initiative (SWI) on both sides of the border. Like the ITDS, the SWI is a joint initiative led by the Canada Border Services Agency (CBSA) in collaboration with ten other PGAs to streamline import requirements by facilitating exchange of commercial import data electronically.

As of December 2013, the Canadian Border Services Agency began receiving and storing the Integrated Import Declaration (IID) from, and sharing relevant data with, the following participating government departments and agencies in a test environment: Health Canada, Canadian Food Inspection Agency, Department of Foreign Affairs and International Trade, Transport Canada and Natural Resources Canada. In Fall 2014, the Canadian Border Services Agency started to use the IID as an electronic importation reporting tool between all nine participating government departments and agencies and the trade community for regulated commercial imports. **GTIN** will be utilized as a goods/commodity identifier as part of a pilot study in 2015 between GS1 Canada and the Canadian regulatory agencies.

## 5.5. Single-trade window (GS1 New Zealand)

New Zealand expects greater pressures on border services over the next 10 years with increasing trade volumes. Like many, the Government of New Zealand looks to its agencies for improved productivity and collaboration, including Customs. The Customs organisation is extremely focused on industry with its key principles centred on trade management and efficiency.

As a "trusted trader" of the U.S., New Zealand is also very motivated to keep its status through continual monitoring and enhancement of security-related measures. New Zealand Customs, the Ministry of Primary Industries, and industry are all working together to implement a Joint Border Management System (JBMS) that aligns with the "light touch – high assurance" guiding principles of trade management.

With the JBMS, the New Zealand Customs organisation is the first to have truly implemented the WCO Data Model, version 3.0 as the "single-trade window." Mostly for imports, traders can interface with Customs directly; for example, small businesses will have a web-based interface to upload relevant documents. (The export market is targeted for implementation in the near future.)

Customs has identified GS1 Standards as important to support within the JBMS, and GS1 New Zealand is regarded as a strategic partner. While the use of GS1 standards will not be mandated, they are

---

<sup>1</sup> "Canada/U.S. trade and investment," February 4, 2011, Prime Minister of Canada website, <http://www.pm.gc.ca>.)

supported by the JBMS based on the expected value they deliver for more complete and high-quality data. Customs believes this will help with border requirements for advance advice, and therefore help speed goods through the border. The use of standards will also help minimize corruption.

Businesses hearing about the new trade management system have been “extremely excited” about the potential efficiency gains and reduced costs, especially for large businesses where Customs brokers will no longer be needed.

## 5.6. Single window / uCustoms (GS1 Malaysia)

In Malaysia, exports constitute 80% of the country’s GDP. To remain competitive, exporters must deliver “just in time” based on tight order fulfilment intervals. As a result, highly efficient trade facilitation is needed at Malaysian borders. Any delay in the export and import of goods impacts Malaysian businesses’ credibility and excellent reputations in providing timely delivery of finished goods to customers.

To meet these challenges, Customs is working closely with industry stakeholders, including the Federation of Malaysian Manufacturers (FMM) and GS1 Malaysia, to improve the existing Single Window (uCustoms). By implementing an automated single window process, Customs is gaining visibility, focusing its attention on high-risk cargo. With the transparency of automated Customs Procedure Management, decreased human intervention is expected, resulting in lower costs and shrinkage.

Customs recognises large, multi-national companies that qualify as Authorized Economic Operators (AEOs) – businesses that demonstrate a commitment to security and meet criteria specified by Customs for a simplified and rapid product clearance process. As a large number of FMM members are small and medium enterprises (SMEs), FMM is working with Customs to establish a similar facility for SMEs called the Trusted Economic Operator (TEO) programme.

GS1 Malaysia has been in discussion with Malaysian customs risk management unit and presented the potential benefits of integrating data fields for GS1 identifiers in the new customs system called u-customs which is currently being developed. Following initial discussions Malaysian customs deferred GS1 to instead discuss directly with the other government agencies (OGAs) that would be benefiting from the integration of GS1 in the new customs systems. Engagement with OGAs related to the cross-border procedures is still being developed.

## 5.7. AEO and single window (GS1 Hong Kong)

Hong Kong is the largest trans-shipment market in the world where bulk containers are re-consolidated and re-packed for shipment. It is also a tax-free zone where HS Codes are used only for statistical purposes and not for tax collection.

Top priorities for Hong Kong Customs include trade facilitation and security with emphasis on anti-counterfeit efforts. Since shipments are becoming increasingly smaller and plentiful, inspecting them is becoming more and more of a challenge, adding up to more time and costs.

Hong Kong Customs is moving to a Single Window automated process, investing in risk assessment of inbound shipments and outbound shipments from China. It has implemented an AEO program with nine organisations joining to-date.



## 5.8. APEC Global Data Standards (GS1 Australia / GS1 Hong Kong)

GS1 Asia-Pacific MOs together with GS1 Global Office are further developing cooperation with the APEC Business Advisory Council (ABAC) to drive the implementation and adoption of Global Data Standards in the Asia-Pacific region, including use of GS1 identifiers for product, trader identification and EPCIS for enhanced supply chain visibility.

Recently a joint project between GS1 Australia and Hong Kong has been launched under the auspices of the APEC Business Advisory Council (ABAC). It seeks to contribute to APEC's goal of a 10% improvement in trade efficiency by 2015 through the targeting of acknowledged choke points.

The project will help demonstrate the value of using global data standards to increase visibility, security and transparency across international supply chains. It involves a trade lane for wine exportation from Australia to Hong Kong. The two customs administrations involved have exchanged letters of cooperation in this high-profile project.

## 5.9. GLN in phytosanitary and quality certificates (GS1 Netherlands)

In the Netherlands over 1500 growers of fresh produce apply GLNs to comply with quality assurance requirements in the national and international food markets.

For example, the protocol of phytosanitary requirements between Netherlands and China requires for the export of pear fruit from the Netherlands to China that each exported case is labelled with the following origin information:

- Region of origin (province, city or country)
- Growing location, such as greenhouse, orchard or growing field
- Packing location
- Cold storage location

These elements enable the importing country to validate the phytosanitary export certificate and the process quality certifications of the grower and the packer.

Supported by Frug I Com (Dutch platform for Fresh Chain Information) and GS1 Netherlands, Dutch growers and traders are implementing GLNs for the identification of their growing, packing and cold storage locations.

The **GLN** has an important function through its 1-to-1 link to the legal entity, ensuring the legal responsibilities are clear in case of quality issues with shipments. . Each grower can be found via its GLN through the GS1 GEPIR network.

GLOBALG.A.P (organisation for international food quality certification), KCB (the Dutch quality control agency), and QS Fachgesellschaft Obst-Gemüse-Kartoffeln GmbH (German industry-funded initiative for quality assurance in the production and marketing of fruit, vegetables and potatoes) all accept GLNs for the identification of growers, packers and storehouses, including individual locations where required.

The GLN's are also used in other export applications in the Netherlands. In the Dutch horticultural sector extensive use is made of GLNs, again for product quality assurance requirements in national and export food markets. In fresh produce GLNs are currently being introduced for the export of peppers to China and the export of onions to Indonesia.

In the Netherlands alone the total of GLNs actively used in these sectors is over 30 thousand.

## 5.10. RFID enabled permanent residency cards (GS1 Canada)

The Canadian Border Services Agency has invested in RFID reader technology at border crossings to enable the automated identification of incoming permanent residents. Citizenship and Immigration Canada has purchased a GS1 Prefix to uniquely identify 350,000 to 400,000 new cards a year. The RFID enabled identification documents will be programmed with a **Global Document Type Identifier (GDTI)** to allow for the globally unique identification of that particular entrant, delivering efficient and effective control and fluidity of cross border entry/exit applications.

## 5.11. Process optimisation at Port Klang (GS1 Malaysia)

Port Klang is the main gateway by sea into Malaysia as it is the largest port in the country. Rank Alpha, the system integrator for Port Klang Net, on February 26, 2014 adopted the GS1 standards in the tracking, monitoring, validating and authenticating the port/maritime operational activities by using GS1 keys to identify all registered users/operators at Port Klang including Shipping agents, Forwarding agents, Freight forwarders, Warehouse operators (bonded), Hauliers, Importers/exporters;

In addition, the Port Klang Net system allows submission of Vessel ID and SCN (Ship Call Number) applications and aggregates all information required by the Customs Information System, Port Operator, Port Authority and Shipping Agent such as estimated time of vessel arrival (ETA), actual time of arrival (ATA), actual time of vessel departing (ATD), berthing and vessel cargo details.

Adoption of GS1 standards in Port Klang Net is aimed at:

- Reduced costs and improved supply chain efficiencies.
- Enhanced product traceability and more effective recall process.
- Data interoperability between all stakeholders.
- Improved visibility and supply chain connectivity.

Moving forward, Port Klang Authority is agreeable to the following steps and milestones:

- Use GLNs to identify all registered users and operators in Port Klang to enable real-time visibility and the efficient flow of containers, goods and information between trading partners;
- Implement an integrated track and trace system for commodities of high value as well as security products;
- Engage customs, port authorities, and logistics services providers in driving the adoption of GS1 standards – Identifiers like the GLN and GTIN.

## 6. Glossary

Customs terms have been taken from the WCO GLOSSARY OF INTERNATIONAL CUSTOMS TERMS, November 2013.

[http://www.wcoomd.org/en/topics/facilitation/resources/~/\\_/media/949B39871CE147BAB2667EC6758F29C8.ashx](http://www.wcoomd.org/en/topics/facilitation/resources/~/_/media/949B39871CE147BAB2667EC6758F29C8.ashx)

An extract of the WCO Glossary:

<p>ATA CARNET</p>	<p>An international Customs document which, issued under the terms of the ATA Convention and the Istanbul Convention, incorporates an internationally valid guarantee and may be used, in lieu of national Customs documents and as security for import duties and taxes, to cover the temporary admission of goods and, where appropriate, the transit of goods. It may be accepted for controlling the temporary exportation and re-importation of goods but, in this case, the international guarantee does not apply.</p> <p><i>Notes</i></p> <p>1. The ATA carnet may not, in principle, be used for the temporary admission of means of transport (See Commentary 2 to Article 1, Annex A of the Istanbul Convention).</p> <p>2. Instead of "import duties and taxes" the ATA Convention uses the term "import duties", giving it the same scope as the Glossary gives to the former expression.</p>
<p>AUTHORIZED ECONOMIC OPERATOR (AEO)</p>	<p>AEO is a party involved in the international movement of goods in whatever function that has been approved by or on behalf of a national Customs administration as complying with WCO or equivalent supply chain security standards. AEOs may include manufacturers, importers, exporters, brokers, carriers, consolidators, intermediaries, ports, airports, terminal operators, integrated operators, warehouses, distributors and freight forwarders.</p> <p><i>Note</i></p> <p>1. Authorized Economic Operator (AEO) is dealt with in the WCO SAFE Frameworks of Standards</p>
<p>BOARDING AND SEARCH OF MEANS OF TRANSPORT</p>	<p>The operations under which means of transport are visited by the Customs for:</p> <p>(a) collection of information from the person responsible for the means of transport and examination of commercial, transport or other documents concerning the means of transport, the cargo, stores, crew and passengers; and</p> <p>(b) inspection, examination and search of the means of transport.</p>
<p>CARGO DECLARATION</p>	<p>Information submitted prior to or on arrival or departure of a means of transport for commercial use that provides the particulars required by the Customs relating to cargo brought to or removed from the Customs territory.</p> <p><i>Notes</i></p> <p>1. The nature and contents of Cargo declarations may vary from country to country according to the commercial means of transport used. The particulars of the cargo (freight) may include kind, number, marks and numbers of packages, brief description of the goods, gross weight, etc. In some countries, these particulars may be submitted by electronic means.</p> <p>2. Cargo declarations are often referred to as "manifests"; in some countries Aircraft cargo manifests, Ship's manifests or Goods manifests are accepted in place of the Cargo declarations. Cargo declarations are also sometimes referred to as freight declarations.</p> <p>3. The Annex to the Convention on Facilitation of International Maritime Traffic, London, 1965, provides for a Cargo declaration (Model Form IMO FAL Form 2).</p>

	<p>With regard to air transport, the corresponding declaration is called Cargo manifest (Model Form as on International Civil Aviation, Chicago, 1944)</p> <p>4. Goods declarations may subsequently be presented in respect of the individual consignments covered by the Cargo declarations.</p> <p>5. Cargo declaration is defined in Specific Annex A, Chapters 1 and 2 of the revised Kyoto Convention.</p>
CARGO MANIFEST	<p>A listing of the goods comprising the cargo (freight) carried in a means of transport or in a transport-unit. The Cargo manifest which gives the commercial particulars of the goods, such as transport document numbers, consignors, consignees, marks and numbers, number and kind of packages, descriptions and quantities of the goods, may be used in place of the Cargo declaration.</p> <p><i>Note</i></p> <p>Examples of Cargo manifests are Aircraft cargo manifests, Ship's manifests, Goods manifests and "bordereaux" (road traffic).</p>
CARRIER	<p>The person actually transporting goods or in charge of or responsible for the operation of the means of transport(*).</p> <p>(*) Annex A.1. to the Kyoto Convention of 1974 and Specific Annex A, Chapter 1 and Specific Annex J, Chapter 4 of the revised Kyoto Convention.</p>
CERTIFICATE OF ORIGIN	<p>A specific form identifying the goods, in which the authority or body empowered to issue it certifies expressly that the goods to which the certificate relates originate in a specific country. This certificate may also include a declaration by the manufacturer, producer, supplier, exporter or other competent person.</p> <p><i>Notes</i></p> <p>1. In this definition the word "country" may include a group of countries, a region or a part of a country.</p> <p>2. Specific forms for certificates of origin have been laid down in Annex D.2. to the Kyoto Convention of 1974 and Specific Annex K, Chapters 2 and 3 of the revised Kyoto Convention and in the framework of preferential arrangements such as the Generalized System of Preferences.</p>
CERTIFIED DECLARATION OF ORIGIN	<p>A declaration of origin certified by an authority or body empowered to do so (*).</p> <p>(*) Annex D.2. to the Kyoto Convention of 1974 and Specific Annex K, Chapters 2 and 3 of the revised Kyoto Convention.</p>
CLEARANCE	<p>The accomplishment of the Customs formalities necessary to allow goods to enter home use, to be exported or to be placed under another Customs procedure(*).</p> <p>(*) General Annex, Chapter 2 of the revised Kyoto Convention.</p>
CLEARANCE FOR HOME USE	<p>The Customs procedure which provides that imported goods enter into free circulation in the Customs territory upon the payment of any import duties and taxes chargeable and the accomplishment of all the necessary Customs formalities.</p> <p><i>Note</i></p> <p>Clearance for home use is dealt with in Annex B.1. to the Kyoto Convention of 1974 and Specific Annex B, Chapter 1 of the revised Kyoto Convention.</p>
CN22/23	<p>The special declaration forms for postal items as described in the Acts of the Universal Postal Union currently in force(*).</p> <p>(*) Specific Annex J, Chapter 2 of the revised Kyoto Convention.</p>
CONTAINER	<p>An article of transport equipment (lift-van, movable tank or other similar structure) :</p> <p>(i) fully or partially enclosed to constitute a compartment intended for containing goods,</p> <p>(ii) of a permanent character and accordingly strong enough to be suitable for repeated use,</p>

	<p>(iii) specially designed to facilitate the carriage of goods, by one or more modes of transport, without intermediate reloading,</p> <p>(iv) designed for ready handling, particularly when being transferred from one mode of transport to another,</p> <p>(v) designed to be easy to fill and to empty, and</p> <p>(vi) having an internal volume of one cubic metre or more.</p> <p>"Container" shall include the accessories and equipment of the container, appropriate for the type concerned, provided that such accessories and equipment are carried with the container. The term "container" shall not include vehicles, accessories or spare parts of vehicles, or packaging or pallets. "Demountable bodies" shall be regarded as containers.</p> <p><i>Notes</i></p> <p>1. Temporary admission facilities for containers are dealt with in the Istanbul Convention (Annex B.3.) and in the Customs Convention on Containers, 1972. The latter Convention also stipulates the conditions for the acceptance of containers for international transport under Customs seal.</p> <p>2. The Customs Convention on the international transport of goods under cover of TIR carnets, 1975, also deals with the use of containers in international Customs transit.</p>
<p>COUNTRY OF ORIGIN OF GOODS</p>	<p>Country in which the goods have been produced or manufactured, according to the criteria laid down for the purposes of application of the Customs tariff, of quantitative restrictions or of any other measure related to trade (*).</p> <p><i>Note</i></p> <p>In this definition the word "country" may include a group of countries, a region or a part of a country.</p> <p>(*) Annex. D.1. to the Kyoto Convention of 1974 and Specific Annex K, Chapter 1 of the revised Kyoto Convention.</p>
<p>CUSTOMS</p>	<p>The Government Service which is responsible for the administration of Customs law and the collection of duties and taxes and which also has the responsibility for the application of other laws and regulations relating to the importation, exportation, movement or storage of goods(*).</p> <p><i>Notes</i></p> <p>1. This term is also used when referring to any part of the Customs Service or its main or subsidiary offices.</p> <p>2. This term is also used adjectivally in connection with officials of the Customs, duties and taxes or control on goods, or any other matter within the purview of the Customs (Customs officer, Customs duties, Customs office, Customs declaration).</p> <p>(*) General Annex, Chapter 2 of the revised Kyoto Convention.</p>
<p>CUSTOMS APPROVED ROUTE</p>	<p>Any road, railway, waterway, airway and any other route (pipeline, etc.), which must be used for the importation, Customs transit and exportation of goods.</p>
<p>CUSTOMS CLEARING AGENT</p>	<p>A person who carries on the business of arranging for the Customs clearance of goods and who deals directly with the Customs for and on behalf of another person (*).</p> <p><i>Notes</i></p> <p>1. Examples of Customs clearing agents are Customs agents, Customs brokers and freight forwarders.</p> <p>2. Some countries require that Customs clearing agents or Customs brokers be approved or licensed by the Customs.</p> <p>3. See also the term "Third party".</p>

	(*) Annex G.2. to the Kyoto Convention of 1974.
CUSTOMS CONTROL	<p>Measures applied by the Customs to ensure compliance with Customs law(*).</p> <p><i>Note</i></p> <p>The measures may be general, e.g., in relation to all goods entering the Customs territory, or may be specifically related to, e.g.:</p> <ul style="list-style-type: none"> <li>(a) the location of the goods;</li> <li>(b) the nature of the goods (liable to a high rate of duty, etc.);</li> <li>(c) the Customs procedure applied to the goods (Customs transit, etc.).</li> </ul> <p>(*) General Annex, Chapters 2 and 6 of the revised Kyoto Convention.</p>
CUSTOMS DECLARATION	<p>Any statement or action, in any form prescribed or accepted by the Customs, giving information or particulars required by the Customs.</p> <p><i>Notes</i></p> <ul style="list-style-type: none"> <li>1. This term includes declarations made through electronic means.</li> <li>2. This term also covers action required on the part of passengers under the dual-channel (red/green) system.</li> </ul>
CUSTOMS DUTIES	<p>Duties laid down in the Customs tariff to which goods are liable on entering or leaving the Customs territory (*).</p> <p>(*) General Annex, Chapters 2 and 4 of the revised Kyoto Convention.</p>
CUSTOMS FORMALITIES	<p>All the operations which must be carried out by the persons concerned and by the Customs in order to comply with the Customs law (*).</p> <p><i>Notes</i></p> <ul style="list-style-type: none"> <li>1. These formalities may include those relating to phytosanitary, veterinary, immigration, currency and licensing regulations.</li> <li>2. The Customs formalities in connection with various Customs procedures and practices are dealt with in the Kyoto Convention.</li> </ul> <p>(*) General Annex, Chapter 2 of the revised Kyoto Convention.</p>
CUSTOMS OFFICE	<p>The Customs administrative unit competent for the performance of Customs formalities, and the premises or other areas approved for that purpose by the competent authorities (*).</p> <p>(*) General Annex, Chapter 2 of the revised Kyoto Convention.</p>
CUSTOMS OFFICE OF DEPARTURE	<p>Any Customs office at which a Customs transit operation commences (*).</p> <p>(*) Specific Annex E, Chapter 1 of the revised Kyoto Convention.</p>
CUSTOMS OFFICE OF DESTINATION	<p>Any Customs office at which a Customs transit operation is terminated (*).</p> <p>(*) Specific Annex E, Chapter 1 of the revised Kyoto Convention.</p>
CUSTOMS OR ECONOMIC UNION	<p>A Union constituted by and composed of Members of the CCC (WCO), of the United Nations or its specialized agencies, which has competence to adopt its own legislation that its binding on its Members, in respect of matters governed by the Convention to which it wishes to accede, and has competence to decide, in accordance with its internal procedures, to sign, ratify or accede to that international instrument.</p> <p><i>Note</i></p> <p>The content of the term "Customs or Economic Union" is included in several Conventions, drawn up within the United Nations, under the term "regional economic integration organization".</p>
CUSTOMS PROCEDURE	<p>Treatment applied by the Customs to goods which are subject to Customs control.</p> <p><i>Notes</i></p> <ul style="list-style-type: none"> <li>1. The reference to "goods" includes means of transport.</li> </ul>

	<p>2. There are various Customs procedures which are dealt with in the Kyoto Convention : clearance for home use, Customs warehousing, inward processing, temporary admission, Customs transit, etc.</p>
CUSTOMS SEAL	<p>An assembly consisting of a seal and a fastening which are joined together in a secure manner. Customs seals are affixed in connection with certain Customs procedures (Customs transit, in particular) generally to prevent or to draw attention to any unauthorized interference with the sealed items.</p> <p><i>Note</i></p> <p>Customs seals are generally affixed to packages, containers, load compartments of means of transport, etc. They may also be used as means of identification of the goods themselves.</p>
CUSTOMS TRANSIT	<p>Customs procedures under which goods are transported under Customs control from one Customs office to another.</p> <p><i>Notes</i></p> <p>1. The Customs normally allow goods to be transported under Customs transit in their territory :</p> <p>(a) from an office of entry into the Customs territory to an office of exit from the Customs territory (through transit);</p> <p>(b) from an office of entry into the Customs territory to an inland Customs office (inward transit);</p> <p>(c) from an inland Customs office to an office of exit from the Customs territory (outward transit);</p> <p>(d) from one inland Customs office to another inland Customs office (interior transit).</p> <p>Customs transit movements as described in (a) - (c) above are termed "international Customs transit" when they take place as part of a single Customs transit operation during which one or more frontiers are crossed in accordance with a bilateral or multilateral agreement.</p> <p>2. Customs transit is dealt with in Annex E.1. to the Kyoto Convention of 1974, Specific Annex E, Chapter 1 of the revised Kyoto Convention and the Customs Convention on the international transport of goods under cover of TIR carnets, 1975.</p>
CUSTOMS UNION	<p>Entity forming a Customs territory replacing two or more territories and having in its ultimate state the following characteristics :</p> <ul style="list-style-type: none"> <li>- a common Customs tariff and a common or harmonized Customs legislation for the application of that tariff;</li> <li>- the absence of any Customs duties and charges having equivalent effect in trade between the countries forming the Customs Union in products originating entirely in those countries or in products of other countries in respect of which import formalities have been complied with and Customs duties and charges having equivalent effect have been levied or guaranteed and if they have not benefited from a total or partial drawback of such duties and charges.</li> <li>- the elimination of restrictive regulations of commerce within the Customs Union.</li> </ul>
CUSTOMS WAREHOUSING PROCEDURE	<p>Customs procedure under which imported goods are stored under Customs control in a designated place (a Customs warehouse) without payment of import duties and taxes.</p> <p><i>Notes</i></p> <p>1. Customs warehouses may be for general use (public Customs warehouses) or for the use of specified persons only (private Customs warehouses).</p> <p>2. The Customs warehousing procedure is dealt with in Annex E.3. to the Kyoto Convention of 1974 and Specific Annex D, Chapter 1 of the revised Kyoto Convention.</p>

<b>DECLARATION OF ARRIVAL or DECLARATION OF DEPARTURE</b>	<p>Any declaration required to be made or produced to the Customs upon the arrival or departure of means of transport for commercial use, by the person responsible for the means of transport for commercial use, and containing the necessary particulars relating to the means of transport for commercial use and to the journey, cargo, stores, crew or passengers (*).</p> <p>(*) Specific Annex J, Chapter 3 of the revised Kyoto Convention.</p>
<b>DECLARATION OF ORIGIN</b>	<p>An appropriate statement as to the origin of the goods made, in connection with their exportation, by the manufacturer, producer, supplier, exporter or other competent person on the commercial invoice or any other document relating to the goods (*).</p> <p>(*) Annex D.2. to the Kyoto Convention of 1974 and Specific Annex K, Chapters 2 and 3 of the revised Kyoto Convention.</p>
<b>EXAMINATION OF GOODS</b>	<p>Physical inspection of goods by the Customs to satisfy themselves that the nature, origin, condition, quantity and value of the goods are in accordance with the particulars furnished in the Goods declaration (*).</p> <p>(*) General Annex, Chapter 2 of the revised Kyoto Convention.</p>
<b>EXPORT DUTIES AND TAXES</b>	<p>Customs duties and all other duties, taxes or charges which are collected on or in connection with the exportation of goods, but not including any charges which are limited in amount to the approximate cost of services rendered or collected by the Customs on behalf of another national authority (*).</p> <p>(*) General Annex, Chapter 2 of the revised Kyoto Convention.</p>
<b>EXPORTATION</b>	<p>The act of taking out or causing to be taken out any goods from the Customs territory (*).</p> <p>(*) Specific Annex C, Chapter 1 of the revised Kyoto Convention.</p>
<b>FREE TRADE AREA</b>	<p>Entity formed by the Customs territories of an association of States and having in its ultimate state the following characteristics:</p> <ul style="list-style-type: none"> <li>- the elimination of Customs duties in respect of products originating in any of the countries of the area,</li> <li>- each State retains its Customs tariff and Customs law,</li> <li>- each State of the area remains autonomous in matters of Customs and economic policy,</li> <li>- trade is based on the application of rules of origin, to take account of the different Customs tariffs and prevent deflection of trade,</li> <li>- the elimination of restrictive regulations of commerce within the free trade area.</li> </ul>
<b>FREE ZONE</b>	<p>A part of the Customs territory of a Contracting Party where any goods introduced are generally regarded, insofar as import duties and taxes concerned, as being outside this territory.</p> <p><i>Notes</i></p> <p>1. A distinction may be made between commercial and industrial free zones. In commercial free zones, goods are admitted pending subsequent disposal and processing or manufacture is normally prohibited. Goods admitted to industrial free zones may be subjected to authorised processing operations.</p> <p>2. Free zones are dealt with in Annex F.1. to the Kyoto Convention.</p> <p>3. In some countries free zones are also known under various other names, such as "free ports", "free warehouses" or "foreign trade zones".</p> <p>(*) Specific Annex D, Chapter 2 of the revised Kyoto Convention.</p>



<b>GOODS DECLARATION</b>	<p>A statement made in the form prescribed by Customs, by which the persons interested indicate the Customs procedure to be applied to the goods and furnish the particulars which the Customs require to be declared for the application of that procedure.</p> <p><i>Note</i></p> <p>The persons interested may be the importer, the exporter, the owner, the consignee, the carrier, etc., of the goods or their legal representative, according to the country concerned.</p>
<b>GOODS IN FREE CIRCULATION</b>	<p>Goods which may be disposed of without Customs restriction (*).</p> <p>(*) Specific Annex B, Chapters 1 and 2 of the revised Kyoto Convention.</p>
<b>HARMONIZED SYSTEM CONVENTION (HS)</b>	<p>The expression commonly used to refer to the international Convention of the Harmonized Commodity Description and Coding System, adopted by the Customs Co-operation Council in 1988.</p>
<b>IMPORT DUTIES AND TAXES</b>	<p>Customs duties and all other duties, taxes or charges which are collected on or in connection with the importation of goods, but not including any charges which are limited in amount to the approximate cost of services rendered or collected by the Customs on behalf of another national authority (*).</p> <p>(*) General Annex, Chapter 2 of the revised Kyoto Convention.</p>
<b>IMPORT/EXPORT LICENCE (OR IMPORT/EXPORT PERMIT)</b>	<p>Authorization issued by a competent authority for the importation or exportation of goods subject to restriction.</p>
<b>IMPORTATION</b>	<p>The act of bringing or causing any goods to be brought into a Customs territory.</p>
<b>INTELLECTUAL PROPERTY RIGHTS</b>	<p>The following rights :</p> <ol style="list-style-type: none"> <li>1. Copyright and related rights;</li> <li>2. trademarks : any sign, including words, names, letters, numerals, figurative elements and combinations of colours, or combinations of these used by a manufacturer or merchant to identify its goods and distinguish them from those manufactured or sold by others;</li> <li>3. geographical indications, which identify a good as originating in the territory of a State, or a region or locality in that territory, where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin;</li> <li>4. industrial designs;</li> <li>5. patents which shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application;</li> <li>6. layout-design (topographies) of integrated circuits : either a protected layout-design or an integrated circuit in which a protected layout-design is incorporated;</li> <li>7. protection of undisclosed information such as trade secrets and other business confidential information.</li> </ol> <p><i>Notes</i></p> <ol style="list-style-type: none"> <li>1. This term is defined by the World Intellectual Property Organization.</li> <li>2. This is an overall definition, and Customs administrations should refer to the Agreement on the Trade-Related Aspects of Intellectual Property Rights (TRIPS), including trade in counterfeit goods, in their application of legislation relating to intellectual property rights.</li> </ol>
<b>INTERNAL TRAFFIC</b>	<p>The carriage of persons embarked or goods loaded in the Customs territory for disembarkation or unloading within the same Customs territory.</p> <p><i>Notes</i></p>

	<p>1. The term 'internal transport' is also used with the same meaning.</p> <p>2. Means of transport under a temporary admission procedure may be used in internal traffic, as provided for by the Customs Convention on Containers, 1972, and the Istanbul Convention (Annexes B.3. and C).</p>
INTERNAL TRAFFIC	<p>The carriage of persons embarked or goods loaded in the Customs territory for disembarkation or unloading within the same Customs territory.</p> <p><i>Notes</i></p> <p>1. The term 'internal transport' is also used with the same meaning.</p> <p>2. Means of transport under a temporary admission procedure may be used in internal traffic, as provided for by the Customs Convention on Containers, 1972, and the Istanbul Convention (Annexes B.3. and C).</p>
MUTUAL ADMINISTRATIVE ASSISTANCE	<p>Measures taken by a Customs administration on behalf of or in collaboration with another Customs administration for the proper application of Customs law and for the prevention, investigation and repression of Customs offences.</p>
PACKINGS	<p>All articles and materials used, or to be used, in the state in which they are imported, to pack, protect, stow or separate goods, excluding packing materials such as straw, paper, glasswool, shavings, etc., when imported in bulk. Containers and pallets are also excluded.</p> <p><i>Notes</i></p> <p>1. Temporary admission facilities for packings are dealt with in the Customs Convention on the temporary importation of packings, and in Annex B.3. to the Istanbul Convention.</p> <p>2. The Convention on the valuation of goods for Customs purposes and the Agreement on Implementation of Article VII of the GATT 1994 (commonly referred to as the WTO Agreement on Customs Valuation) contains provisions dealing with the treatment of packings for valuation purposes.</p> <p>3. General Rule 5 (b) for the Interpretation of the Harmonized System (International Convention on the Harmonized Commodity Description and Coding System) contains provisions on the tariff classification of packing materials and packing containers</p> <p>4. In the case of specific duties and taxes, the weight of packings is included in the dutiable weight, gross weight or net weight, as the case may be.</p>
RE-EXPORTATION	<p>Exportation from a Customs territory of goods previously imported into that territory.</p>
RE-IMPORTATION	<p>Importation into a Customs territory of goods previously exported from that territory</p>
RELEASE OF GOODS	<p>The action by the Customs to permit goods undergoing clearance to be placed at the disposal of the persons concerned (*).</p> <p>(*) General Annex, Chapter 2 of the revised Kyoto Convention.</p>
RELIEF CONSIGNMENTS	<p>- Goods, including vehicles and other means of transport, foodstuffs, medicaments, clothing, blankets, tents, prefabricated houses, water purifying and water storage items, or other goods of prime necessity, forwarded as aid to those affected by disaster; and</p> <p>- all equipment, vehicles and other means of transport, specially trained animals, provisions, supplies, personal effects and other goods for disaster relief personnel in order to perform their duties and to support them in living and working in the territory of the disaster throughout the duration of their mission (*).</p> <p>(*) Specific Annex J, Chapter 5 of the revised Kyoto Convention.</p>
RULES OF ORIGIN	<p>Specific provisions, developed from principles established by national legislation or international agreements ("origin criteria"), applied by a country to determine the origin of goods.</p> <p><i>Note</i></p>

	Rules of origin are dealt with in Annex D.1. to the Kyoto Convention of 1974 and in Specific Annex K, Chapter 1 of the revised Kyoto Convention.
SAFE FRAMEWORKS OF STANDARDS	The expression commonly used to refer to the WCO SAFE Framework of Standards to secure and facilitate global trade, adopted by the Customs Co-operation Council in 2005.
SEAL	A piece of metal or other material used to join together two ends of a fastening in a secure manner (*). (*). Council Recommendation concerning Customs sealing systems in connection with the international transport of goods, 1968.
SINGLE WINDOW (SW)	A facility that allows parties involved in trade and transport to lodge standardized information and documents with a single entry point to fulfill all import, export, and transit-related regulatory requirements. If information is electronic, then individual data elements should only be submitted once. (*). (*). UN/CEFACT). Recommendation No. 33.
SCANNING	Capturing information (which may include images or radiation signatures) relating to goods and means of transport by utilising non-intrusive detection equipment.
SCREENING	The evaluation of information and intelligence relating to goods and means of transport in a risk assessment process (manual, automated or otherwise).
SHIP'S GENERAL DECLARATION	Declaration (IMO FAL Form 1) conforming to the provisions of the Annex to the Convention on Facilitation of Maritime Traffic, London, 1965. The general declaration is the basic document on arrival and departure providing information concerning the ship itself and summary information relating to the cargo, crew, passengers and voyage.
TARIFF NOMENCLATURE	Any classification and coding system introduced by national administrations or Customs or Economic Unions to designate commodities or groups of related commodities for Customs tariff purposes. <i>Notes</i> 1. At present, a majority of countries base their tariff nomenclatures on the Nomenclature of the Harmonized Commodity Description and Coding System (generally referred to as the Harmonized System Nomenclature), which comprises General Rules for its interpretation, Section and Chapter Notes and a list of headings arranged in systematic order. 2. Some countries and Customs or Economic Unions combine in one system the requirements for Customs tariff and for external trade statistics.
TEMPORARY ADMISSION	The Customs procedure under which certain goods can be brought into a Customs territory conditionally relieved totally or partially from payment of import duties and taxes; such goods must be imported for a specific purpose and must be intended for re-exportation within a specified period and without having undergone any change except normal depreciation due to the use made of them (*). (*). Specific Annex G, Chapter 1 of the revised Kyoto Convention.
TRADE FACILITATION	The simplification and harmonization of international trade procedures, including activities, practices, and formalities involved in collecting, presenting, communicating, and processing data required for the movement of goods in international trade' <i>Note</i> This concept refers to the WTO definition of trade facilitation
TRANSHIPMENT	Customs procedure under which goods are transferred under Customs control from the importing means of transport to the exporting means of transport within the area of one Customs office which is the office of both importation and exportation. <i>Note</i>

	Transshipment is dealt with in Annex E.2. to the Kyoto Convention of 1974 and in Specific Annex E, Chapter 2 of the revised Kyoto Convention.
TRANSPORT-UNIT	<p>Any means of transporting goods suitable for use in a Customs transit operation or under Customs seal.</p> <p><i>Notes</i></p> <p>1. The term transport-unit means :</p> <p>(a) containers having an internal volume of one-cubic metre or more, including demountable bodies;</p> <p>(b) road vehicles, including trailers and semi-trailers;</p> <p>(c) railway coaches or wagons;</p> <p>(d) lighters, barges and other vessels; and</p> <p>(e) aircraft (*).</p> <p>(*) Specific Annex E, Chapter 1 of the revised Kyoto Convention.</p> <p>2. Approval of transport-units for transport of goods under Customs seal is dealt with in various international instruments, for example, the Kyoto Convention of 1974 (Annex E.1.), the Customs Convention on Containers, 1972, and the Customs Convention on the international transport of goods under cover of TIR carnets (TIR Convention), 1975.</p>

## 7. References

- [GENSPECS] GS1 General Specifications, GS1 2014
- [KEYTL] GS1 Identification Keys in T&L – guideline, GS1 2012
- [KEYEX] GS1 Keys – Executive Summaries, GS1 2014
- [REFBOOK] T&L and Customs Reference Book – 2014, GS1 2014
- [ECRES] Research support for an informal expert group on product traceability - Final Report 09.10.2013, European Commission

## 8. About this document

GS1 would like to specially thank the following experts and colleagues for their contributions to this white paper.

Name	Organization
Gareth Lewis	On behalf of GS1 Australia, former WCO Officer
Douglas Bailey	Chief Information Officer, USDA-AMS
Satya Prasad Sahu	Indian Customs, former WCO Officer
Bonnie Ryan	GS1 Australia
Marcel Sieira	GS1 Australia
Ryan Eickmeier	GS1 Canada
Nicolas Pauvre	GS1 France
Johan den Engelse	Frugicom
Coline Donon	GS1 Global Office
Craig Alan Repec	GS1 Global Office
Diane Taillard	GS1 Global Office
Henri Barthel	GS1 Global Office
Patrik Jonasson	GS1 Global Office
Albert Tsang	GS1 Hong Kong
Goh Chiang Fein	GS1 Malaysia
Hein Gorter de Vries	GS1 Netherlands
Sally King	GS1 New Zealand
Serene Tay	GS1 Singapore
Laurie Denhem	GS1 US
Marc Cox	Philips

Furthermore, we would like to thank all members of the GS1 Customs MO Interest Group and GS1 T&L Leadership Team for their support.

*Audrey Kremer (project sponsor)*

*Coen Janssen (editor & project lead)*

**GS1 Global Office**