Shipments come in from manufacturing plants or distribution centres. They depart toward other warehouses or directly to retail stores, hospitals, restaurants and other destinations. They need to be received, verified, logged, consolidated, stored, and more – sometimes even down to the serialized item level. It is vital to know what is expected to arrive and when; and to know where the outbound shipments are as they make their way downstream.

Furthermore, the increasing frequency of “continuous replenishment” methods creates demands for expedited cross-docking, more frequent deliveries and smaller drop sizes.

Efficient and accurate shipping and receiving processes are absolutely necessary. Trading partners must have a shared and unambiguous way of identifying pallets, cases and communicating related despatch and receipt information.

GS1 Standards can help meet these challenges in a variety of ways.

Delivering value in Shipping and Receiving
Get goods in and out, accurately and quickly

February 2013
Know about shipments before they arrive

GS1 UK has been working with a variety of its member companies to automate their goods receiving process. The key is the Despatch Advice, an electronic message that provides accurate information about the goods that are shipped by suppliers, before they arrive. This allows companies to plan their receiving actions in advance and streamline the process.

Despatch Advice messages also provide better visibility and validation of orders, deliveries and invoices. For example, the message can be checked against the original order automatically before the goods arrive, and any discrepancies or errors can be highlighted and discussed.

UK retailer Tesco is in the process of implementing this standard. They expect it to allow them to be quicker to respond to customer demands, reduce manually intensive activities, and leverage their supplier relationships to reduce costs and capture better quality data.

More information:
www.gs1.org/transportlogistics/implementation

Measurable improvements in speed and accuracy

- More precise and timely information about incoming shipments
- Smoother, quicker matching of deliveries against advance shipment information
- Reduction of time-consuming and error-prone manual intervention
- Reduction of incorrect shipments – an especially pertinent benefit for perishable and/or time-sensitive deliveries
- Prompt and automated feedback on goods received and delivery discrepancies
- Traceability at all levels along the entire supply chain

How?

Identify logistic units (SSCC), trade items (GTIN) and delivery locations (GLN)

Capture the SSCC, GTIN and other data such as best before date and batch number, as included on the GS1 Logistics Label in GS1 Barcodes or in EPC/RFID tags

Share item and location master data via GDSN, despatch advice and receiving advice via GS1 XML or GS1 EANCOM messages, and real-time event data using GS1 EPCIS
More manufacturers and retailers are outsourcing the management of their warehouses and distribution centres to Logistic Service Providers (LSPs). Furthermore, warehouses are no longer used just for storage. LSPs are offering warehouse-based value-added services including the consolidation of goods from multiple transport operators, management of cross-dock deliveries and additional services such as assembly of retail displays.

Changing consumer behaviour also greatly impacts warehousing dynamics as consumers expect a large choice of products at the store. Retailers offer more choices to meet these expectations and avoid empty shelves. That means high frequency replenishment with short lead times.

This is creating a real need for very close collaboration among all trading partners. For this sort of warehouse management to work successfully, all parties need to share accurate information in real time.
Unilever operates several dozen warehouse sites across Europe with a number of different logistics partners. A clear business need was to improve the way Unilever works with these partners.

DHL Supply Chain, the contract logistics division of DHL, was one such partner. The companies developed a business process based on GS1 eCom XML message standards. As of early 2013, this was deployed at DHL sites in UK, Spain, Hungary, Belgium and Slovakia.

The implementation of new sites has become significantly faster. Unilever can roll out more quickly thanks to “develop once, deploy anywhere.” Costs for support and maintenance have decreased. Best practices identified in individual warehouses are now more easily transferred to other sites. The gains in efficiency have led to a decision to deploy the standards to all other sites in Europe, and then to all new sites worldwide.

More information:
www.gs1.org/transportlogistics/implementation

Profitable and efficient value-added warehouse services

- Efficient management of inbound and outbound flows
- Precise and timely exchange of inventory information
- Reduction of safety stock levels and increased on-shelf availability
- Improved consolidation and bundling of deliveries
- Reduction of manual errors

How?

Identify trade items (GTIN), logistic units (SSCC) and warehouse locations (GLN)

Capture the SSCC, GTIN and other data such as best-before dates and batch numbers, as included on the GS1 Logistics Label or on product packaging, using GS1 Barcodes or EPC/RFID tags

Share item and location master data via GDSN, inventory report, despatch instructions and status notifications via the LIM-based GS1 XML or GS1 EANCOM messages, and real-time event data using GS1 EPCIS

Unilever and DHL: Common business standards mean more efficiency
Today’s supply chains demand more frequent, just-in-time deliveries, smaller shipments and more pinpoint distribution in often dense city areas. Additionally this needs to be accomplished at the lowest possible cost, using sustainable methods across multiple transport modes. This creates a highly challenging and dynamic environment, where shippers need to share transport capacity with each other and rely more and more on specialized Logistic Service Providers (LSPs). These LSPs, in turn, increasingly need to orchestrate complex transport operations, which include additional providers. In such complex collaboration, interoperability and the timely sharing of information enable visibility across all involved parties. The GS1 System and the GS1 Logistic Interoperability Model (LIM) are key enablers in this area. The GS1 LIM defines standard protocols by which parties can align their transport management processes. The GS1 System provides a common business language with unambiguous identifiers.
Streamlined processes, faster loading & unloading

Stena Line is a major sea freight operator with 22 routes in Northern Europe, and one of the many firms in the transport industry taking concrete steps to speed up the administrative tasks and paperwork associated with their activities.

Stena Line has seen measurable improvements in speed and efficiency thanks to GS1 Standards. They use the GS1 Serial Shipping Container Code (SSCC) to identify logistics units coupled with GS1 XML to increase transport efficiency.

Thanks to the GS1 LIM, transport instructions, bookings, status messages, electronic manifests and hazardous-goods reports can be shared in advance of a shipment’s actual arrival, and in a uniform way that eliminates the risks of misunderstandings.

Stena Line see their administrative work cut in half as compared to manual processes, and reduce the time needed for loading and unloading as well.

More information: www.gs1.org/transportlogistics/implementation
Managing the flow of goods across land and sea borders poses a major challenge and growing security concerns for government agencies and trading partners. Any given container or pallet imported from abroad could in fact pose a real threat to consumer safety because of counterfeiting, smuggling, infestation or terrorism.

Economic realities are driving governments, importers, and brokers to look for new efficiencies in managing products at international borders. The search for solutions that effectively deliver product visibility has remained a frustrating goal for governments. It is because of this that government officials need help to make prompt and well-informed decisions to admit or deny entry.

The situation calls for logical, efficient ways to know what shipments to target for screening, and what shipments do not need the time and attention of border management agents. This is where GS1 comes in. GS1 Standards can significantly improve product visibility at border crossings, improve consumer security, and deliver cost savings to industry, government, national regulators and customers alike. Existing product data in the supply chain can be leveraged for smarter cargo admission at international Borders by using B2B logistics data to solve B2G supply chain challenges.

Delivering Value in Border Procedure Management (Customs)
Moving products across borders with greater visibility and efficiency
GS1 Standards contributing to Customs and Governments role in the supply chain

- Increasing visibility of products as they travel throughout the global supply chain to international borders.
- Enabling customs to seamlessly interoperate by sharing electronic information with other government agencies, industry and each other.
- Improving customs authentication procedures to verify products and players in the supply chain as genuine and legal.

Helping governments keep their citizens safe

The U.S. International Trade Data System (ITDS) Product Information Committee (PIC) was created to identify new ways to improve the efficiency and effectiveness of product admissions at international borders. Governments play a key role in preventing unsafe or high-risk products and foods from entering their countries.

This is hard to do in the best of circumstances, and especially in a context of tight budgets and sharply rising import volumes. With better visibility into inbound shipments, product admission personnel could make rapid decisions with confidence. GS1 Standards enable just this sort of improved visibility.

In December 2011, ITDS PIC released a report entitled “The Business Case for Using E-Commerce Data to Manage Product Admission at International Borders” that proposed the voluntary use of GS1 Standards and UN standards for greater visibility with product data.

More information:
www.gs1.org/transportlogistics/implementation

How ?

Identify shipments (GSIN), trade items (GTIN), logistic units (SSCC)

Capture information using the GS1 Logistics Label and GS1 BarCodes, using the EPC Protocol and Interface Standards, and/or using the Standard International Logistics Label (STILL) and/or other elements of the GS1 General Specifications

Share item master data including product classification with GDSN and the GS1 Global Product Classification (GPC), shipment data with GS1 XML or GS1 EANCOM, and real-time event data on shipments underway using GS1 EPCIS
Many manufacturers, transporters and logistics service providers use wheeled trolleys, handcarts, plastic bins, pallets and production trays to move goods from one location to another within their own domains, or upstream and downstream in the supply chain.

If these sorts of assets are not always where they are needed when they are needed, replacing them creates delivery delays and increases costs. And yet, they all too frequently go missing, because manually logging their comings and goings is perceived as too time-consuming and often omitted.

All trading partners benefit when individual returnable assets can be identified, tracked and traced across different physical sites. No location ever needs to find itself short of necessary equipment, and inventory management of assets is significantly faster and more accurate.
Know where your reusable transport items and equipment are

- Enhance capacity utilisation of available assets
- Increase on-time delivery
- Reduce costs associated with the loss of returnable assets
- Reduce disputes between trading partners regarding assets whereabouts

How?

Identify reusable transport items such as pallets and crates (GRAI), transport equipment such as intermodal containers, trailers, wagons (GRAI, GIAI), and asset locations (GLN)

Capture information using GS1 BarCodes and/or EPC/RFID

Share information on asset movement with GS1 XML or GS1 EANCOM messages, and real-time event data using GS1 EPCIS

Smother, faster deliveries and reduced costs

To transport ingredients and products across their supply chain, Japanese fresh foods company Kibun uses wheeled metal cage trolleys that travel from location to location. Lost trolleys were generating costs and delays. The company implemented an asset management system built upon GS1 Standards.

Today, each individual Kibun trolley is equipped with an EPC/RFID tag encoded with a GS1 Global Returnable Asset Identifier (GRAI). Destinations in the Kibun supply chain are identified by barcodes. When trolleys are shipped, the destination store’s barcode and each trolley’s EPC tags are read by a handheld scanner. When empty trolleys return to Kibun, they pass through a gate equipped with EPC/RFID readers that automatically record their arrival. Inventory of trolleys can now be done in minutes instead of days, and shipping logistics are smoother and faster because no location is ever without the quantity of cage trolleys it needs.

More information:
www.gs1.org/transportlogistics/implementation