The Global Language of Business

Visibility along the wine supply chain from Australia to Hong Kong

The use of GS1 standards can help automate processes and improve visibility in international supply chains. In a recent APEC pilot focused on the wine supply chain, findings showed improvements in the visibility of supply chain events increased from 35 percent to 73 percent and the tracking of data reduced failed shipments by 5 percent.

Driving cross-border efficiencies

A suite of cross-border pilot projects examined the question: By using a standardised system, could the Asia Pacific region improve efficiencies in its international supply chains?

These projects aimed to show how the use of GS1 standards and the seamless sharing of data between trading partners could help achieve supply chain visibility of products. This, in turn, would help ensure traceability and automate manual processes for greater supply chain efficiency.

To support this initiative, GS1 worked with APEC[1] governments to test the use of global data standards (GDS) in cross-border supply chains between APEC member countries and in close cooperation with the private sector.

APEC researchers have issued the findings, which affirm that when GS1 standards are used to share product data and unambiguously identify products, they drive significant efficiency gains in supply chain processes.

Following are the details and results from one of the pilot projects that focused on the wine supply chain—from Australia to Hong Kong.

Challenge

Messages providing the status of cargo were often sent hours, sometimes days, after the status event. Monitoring and decision-making were delayed, creating higher costs and risks.

Solution

GS1 identifiers encoded in barcodes were used on cases and pallets of wine along with EzTrack EPCIS that provided transport event messages, leading to real-time visibility for all participants.

Results

Improved visibility of supply chain events resulted in reduced failed shipments by 5 percent. The port authority can now automatically notify approved wharf cartage operators of available containers, expediting port clearance.

1 APEC is the premier Asia-Pacific economic forum. Its primary goal is to support sustainable economic growth and prosperity in the Asia-Pacific region. www.apec.org

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Need for real-time visibility

Prior to the wine pilot, there was limited visibility of events in the supply chain with communication taking place either by email or through electronic data interchange (EDI) that transmitted messages to activate business processes. These exchanges primarily focused on commercial milestones such as the submission of purchase orders or invoices. Messages that provided the status of cargo were often sent hours, sometimes days, after the status event. As a result, monitoring and decision-making were delayed, creating higher costs and risks.

The pilot aimed to supplement the existing transactional data with transport event messages and a transport instruction interface, using GS1 standards. EzTrack EPCIS, a GS1 standard, was selected to enable these additional event messages, leading to real-time visibility for all participants.

The pilot also used existing GS1 standards applied on cases and pallets. A GS1 Global Trade Item Number® (GTIN®) encoded in a GS1-128 barcode on a label uniquely identified each case of wine while a GS1 Serial Shipping Container Code (SSCC) encoded in a GS1-128 barcode uniquely identified pallets.

Participants included a wine supplier and 3PL warehouse in Australia, and a stevedore and importer in Hong Kong.

Benefits for trading partners

Prior to the pilot, data encoded in the barcode on the carton or pallet was scanned once the product had left the Australian 3PL warehouse and was not readily available again until the wine was received and stored at the importer's warehouse in Hong Kong.

Therefore, it could not be verified whether the pallet, container, vessel or truck had actually carried the complete and accurate order of cartons or individual wine bottles at any point during the journey. With this process, it was difficult, if not impossible, for the supplier to know about any errors or changes to the shipment at any point along the way.

Using GS1 standards at the carton level allowed the supplier, the 3PL warehouse, and the importer to know precisely what products were shipped since carton-level data was available at every point throughout the shipment.

The use of GS1 standards virtually eliminated errors—from the point of packing to the receipt and storage of the shipment—and helped the supplier control costs, especially in case of shipment failures.

Using EzTrack EPCIS made it possible for all trading partners to pinpoint the event, location, time and "owner" of the shipment in case of potential shipment errors. As a result, the number of failed shipments declined by 5 percent. As part of the pilot, the annual cost of failed shipments was estimated to be US $15,000.

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The ability to provide earlier notification of transport schedules was found to be another benefit of using GS1 standards in the wine supply chain. Shipment schedules provided by the shipping line and transport suppliers are usually "tentative." By using EzTrack EPCIS, the importer could view the actual departure and arrival of the vessel, thus improving the planning of shipment receipts such as preparing the warehouse.

Furthermore, the Hong Kong wine importer identified improvements in its ability to identify trends in the needed supply of product. With the adoption of GS1 standards, data could be precisely captured and efficiently linked to internal planning and reporting cycles, avoiding inconsistency in data reported, wasted time and additional costs.

The ability to track a shipment at the carton level allowed the importer to move toward a more demand-driven supply chain model. This meant a more effective means of "matching supply with demand," eliminating surplus inventory. Since the customer's sales data related to the supplier's stock was made available immediately, the supplier could plan for replenishment without using manual processes.

With infrequent shipments, this could mean a significant efficiency gain, avoiding the need for the importer to keep buffer stocks and allowing the supplier to redeploy surplus stock as well as ensure supply is prepared well in advance of a shipment.

Further improvements on the way

The final study recommended potential future actions to enhance supply chain performance through the application of global data standards.

Building on this existing APEC pilot, the objective is to identify next steps to act on commitments by ministers and leaders related to this issue. This may include policy recommendations to facilitate compatibility among APEC member economy frameworks with the use of GDS.

Based on the first pilot, recommendations to governments may focus on the following:

- Support industry's understanding and acceptance by working with trade and logistics organisations and standards providers.
- Conduct analysis on how GDS might be utilised in gathering data to improve the efficiency of trade regulation activities.

Learn more

To learn more about this pilot, contact Mark Fuller, GS1 Australia, at mark.fuller@gs1au.org.

About GS1

GS1 is a neutral, not-for-profit, global organisation that develops and maintains the most widely used supply chain standards system in the world. GS1 standards improve the efficiency, safety, and visibility of supply chains across multiple sectors. With local Member Organisations in over 110 countries, GS1 engages with communities of trading partners, industry organisations, governments, and technology providers to understand and respond to their business needs through the adoption and implementation of global standards. GS1 is driven by over a million user companies, which execute more than six billion transactions daily in 150 countries using GS1 standards. More information at www.gs1.org.

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