

GS1 standards enable visibility from port to port



Today's maritime supply chains have become increasingly complex. With the customer at the centre, a large number of players interact every minute of every day to manage vessels as they depart, travel and arrive at ports around the world. To effectively and efficiently operate, all stakeholders require visibility of these vessels—the ability to share up-to-date information on each vessel's location, its speed, the shipments it carries and more. End-to-end visibility is also critical when it comes to maritime transport connecting with other modes of transport such as road, rail or inland waterways.

The value of GS1 in maritime

GS1 standards help to provide all maritime stakeholders with this valuable visibility. GS1 global, open standards enable interoperability between all players in the supply chain via automated identification, data capture and data sharing.

EPCIS is the GS1 standard for sharing visibility event data. It enables shippers, shipping lines, port operators and agents to share information with each other about the what, where, when and why of each event as vessels and their shipments travel from port to port.

Available standards

GS1 closely aligns its standards with the International Organisation for Standardisation or ISO. In fact, EPCIS and the Core Business Vocabulary (CBV), its companion standard, have been published by ISO as ISO/IEC 19987 and 19988, respectively.



Other key standards needed by players in the maritime sector that are already in place, include:

What:

- Vessel identification, managed by the International Maritime Organisation (IMO) under the International Convention for the Safety of Life at Sea (SOLAS). GS1 plans to support the IMO number for the identification of vessels in EPCIS.
- Container identification is managed by the Bureau International de Containers, using BIC code (defined in ISO standard 6346). The GS1 key format for use in EPCIS will be published early 2017.
- The GS1 Serial Shipping Container Code (SSCC), compliant with ISO/IEC 15459-1, can identify logistics units.
- Shipments can be identified via the GS1 Global Shipment Identification Number (GSIN), which is compliant with ISO/IEC 15459-6. The GSIN also meets the Unique Consignment Reference (UCR) requirements of the World Customs Organisation.

Where: Event locations such as ports and berths can be specified with the GS1 Global Location Number (GLN) (ISO standard 6523). EPCIS also supports the inclusion of geographic coordinates.

When: Event date and time (ISO 8601).

Why: Contextual data elements such as business steps (e.g. loading) and dispositions (e.g. in progress) are specified in the Core Business Vocabulary (CBV) and can be augmented by maritime sector-specific elements (e.g. pilot-on-board).

Next steps

New developments for enhanced visibility are foreseen in the areas of identification and sharing of time estimates.

GS1 plans to support the IMO number for the identification of vessels in EPCIS. GS1 is also investigating additional identification needs related to voyages and port calls.

EPCIS is already positioned to accommodate actual times (e.g. actual time of a vessel's arrival at a port or certain traffic area). The maritime sector additionally applies time estimates in order to synchronise processes across stakeholders, including the estimated time of vessel departure (ETD), vessel arrival (ETA) and operation completion (e.g. loading, customs clearance). GS1 plans to broaden its dialogue with the transport and logistics sector to determine how best to accommodate these requirements.

Learn more

Discover how GS1 standards can help the maritime sector gain visibility and so much more. Contact Jaco Voorspuij, Senior Manager Transport & Logistics, at jaco.voorspuij@gs1.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

GS1 Global Office

Blue Tower, Avenue Louise 326, bte 10, Brussels, B-1050, Belgium
T +32 2 788 78 00 | F +32 2 788 78 99 | E contactus@gs1.org
www.gs1.org

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