



Possible Future Border Environment

WCO Inter-Agency Forum

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June 30th, 2009





The role of GS1

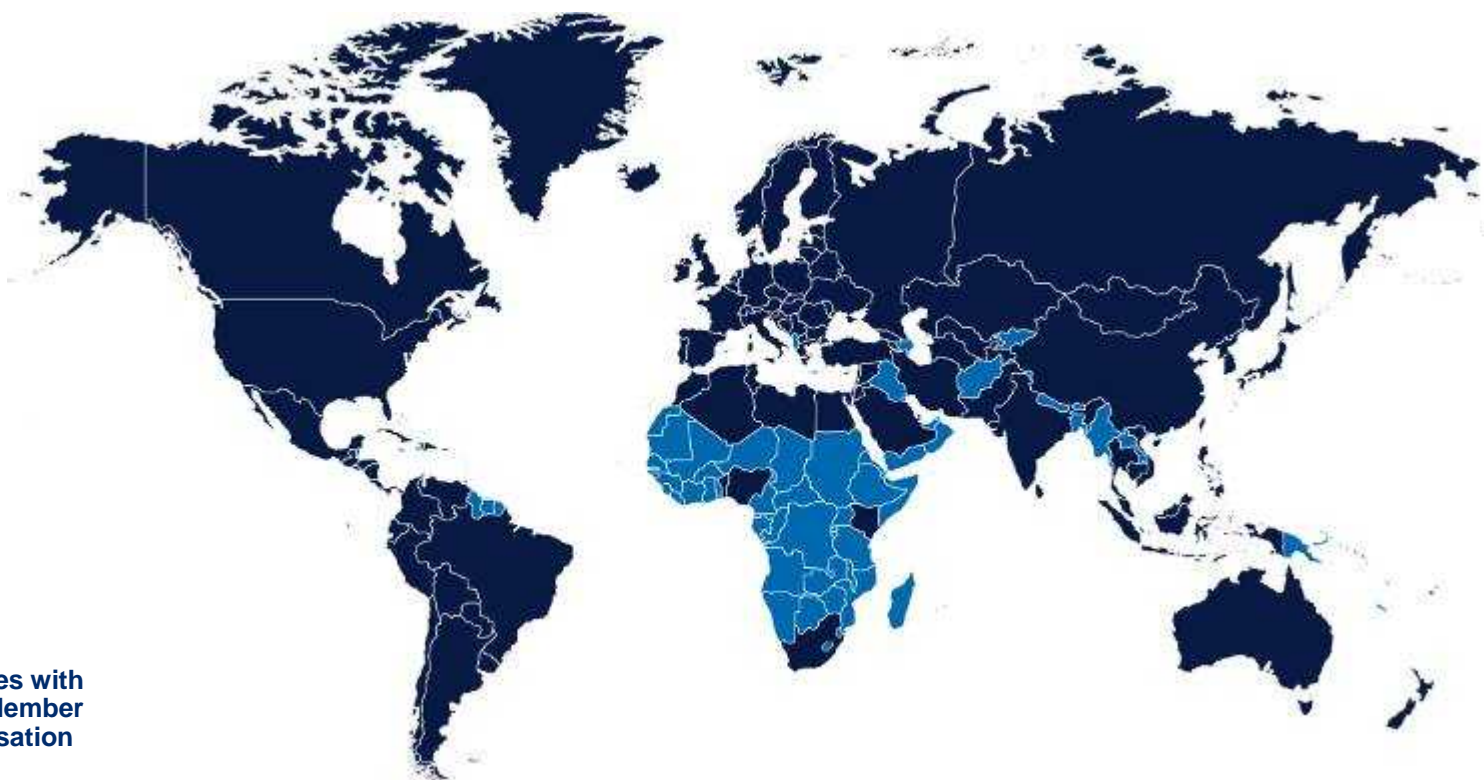
GS1 is a not-for-profit organisation dedicated to the design and implementation of **global standards, solutions and services** to improve the efficiency and visibility of **supply chains** globally and across sectors

- **30** years of experience
- **Neutral** platform for all supply chain stakeholders
- Serving over **1.2 million** companies doing business across **150** countries
- Over **6 billion** transactions a day

GS1 is the most widely used supply chain standards system in the world



Used by millions of companies



 Countries with a GS1 Member Organisation

 Countries served on a direct basis from GS1 Global Office (Brussels)

**108 Member Organisations.
150 countries served.
2,000 people**



Working with International Standards Bodies



- GS1 is active in a number of ISO groups
- ISO/IEC/JTC1/SC31 - Automatic Identification and Data Capture (AIDC)
- TC 104 (Container Identification), TC154 (EDI), TC215 (Healthcare), TC46 (Books), TC122 (Packaging)



- GS1 works with UN/CEFACT to enable eCom in a multi sectoral environment
- GS1 is active in a number of work groups: TBG 1 Trade, TBG 3 – Transport, TBG 17 – Harmonisation, TBG 19 – eGovernment and several technical committees

GS1 is also active with the IEEE, ETSI, IETF and other organizations



GS1 System of Standards



The global language of business

OVERALL BENEFIT: Improving efficiency & visibility in supply and demand chains

GS1 SOLUTIONS & SERVICES USING GS1 STANDARDS

Solutions: POS / Inventory Management / Asset Management / Collaborative Planning / Traceability

Services: Global (GSMP, GEPIR, Global Registry, Training and Accreditation) & Local (e.g. Certification, Implementation, Training)



System - Integrated system of standards



Global standards for automatic identification

Rapid and accurate, item, asset or location identification



Global standards for electronic business messaging

Rapid, efficient & accurate business data exchange



The environment for global data synchronisation

Standardised, reliable data for effective business transactions



Global standards for RFID-based identification

More accurate, immediate and cost-effective visibility of information

GS1 Identification Keys (e.g. GTIN, GLN, SSCC, GRAI, GIAI, GSRN, EPC) & Attribute Data (e.g. Best Before Date)



Data Submission to Customs

Today

- Product information based on the goods **classification** - Harmonised System (HS)

Tomorrow



- HS augmented with more **detailed** information to perform efficient risk assessments
 - Who is the manufacturer?
 - Where was it made?
 - Additional product characteristics?

GS1 has standards for identification and communication of data throughout the supply chain



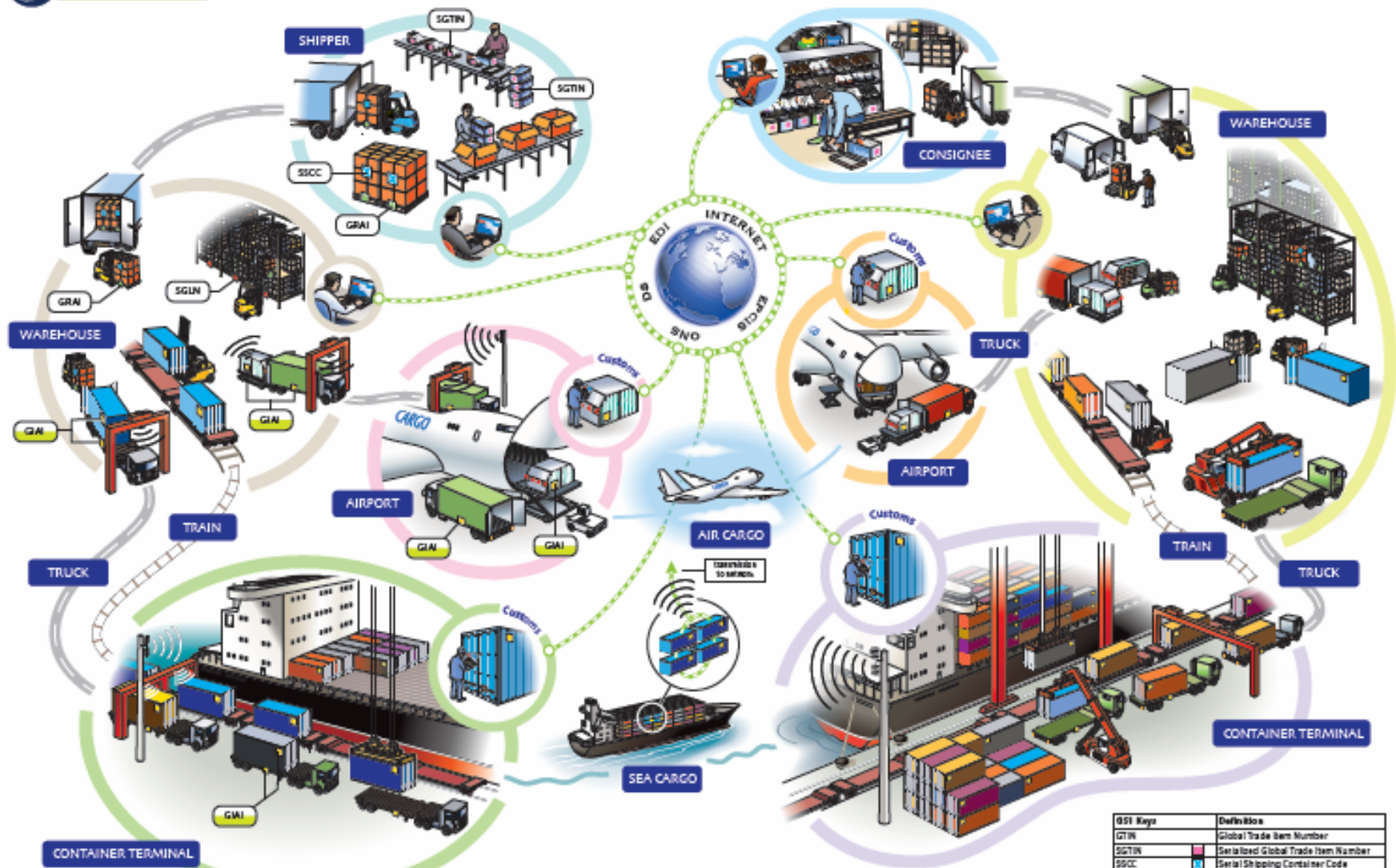


Industry Information



- **GS1 Users** include Manufacturers, Transporters, Logistic Service Providers, Freight Forwarders, Wholesalers, Distributors, Retailers, etc.
- When goods are manufactured all **detailed** information about the product is **recorded** in the **internal databases**.
- As goods move across supply chain relevant **information** is **communicated** to partners in a standardised format.

GS1 Keys in the Transportation and Logistics Services Supply Chain



GS1 Key	Definition
GTIN	Global Trade Item Number
SGTIN	Serialized Global Trade Item Number
SSCC	Serialized Shipping Container Code
GRAI	Global Individual Asset Identifier
GLN	Global Location Number
SGLN	Serialized Global Location Number
GRAI	Global Returnable Asset Identifier

GS1 codes such as serialized GTNs, SSCCs etc. can be embedded into EPCs. No migration to a new coding scheme is necessary. For more information about the GS1 Keys, access the following link: <http://www.gs1.org/prod/education/barcodes/technical/identifiers.html>



Swift, smooth global communication ... with less paper!



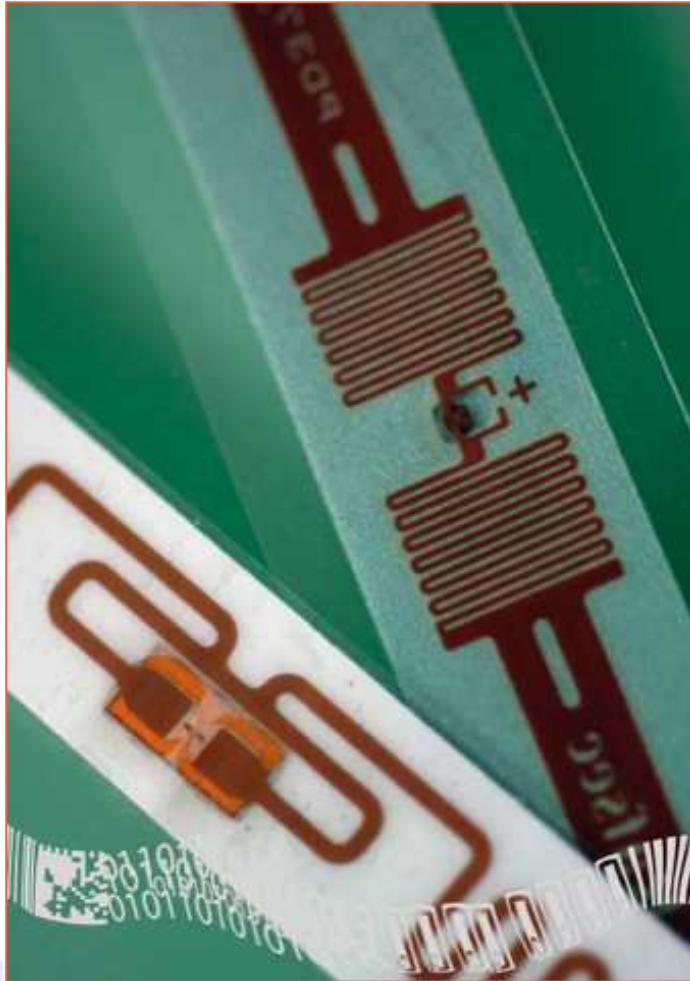
Business is global: You need to be able to communicate easily, effectively and accurately with clients and partners around the world

GS1 eCom standards provide clear guidelines for creating electronic versions of many business documents, enabling trading partners to smoothly exchange information electronically.

This means faster, better work ... with less wasted paper!



Better visibility throughout the supply chain



GS1 EPCglobal® standards put RFID technology to work for businesses and for people

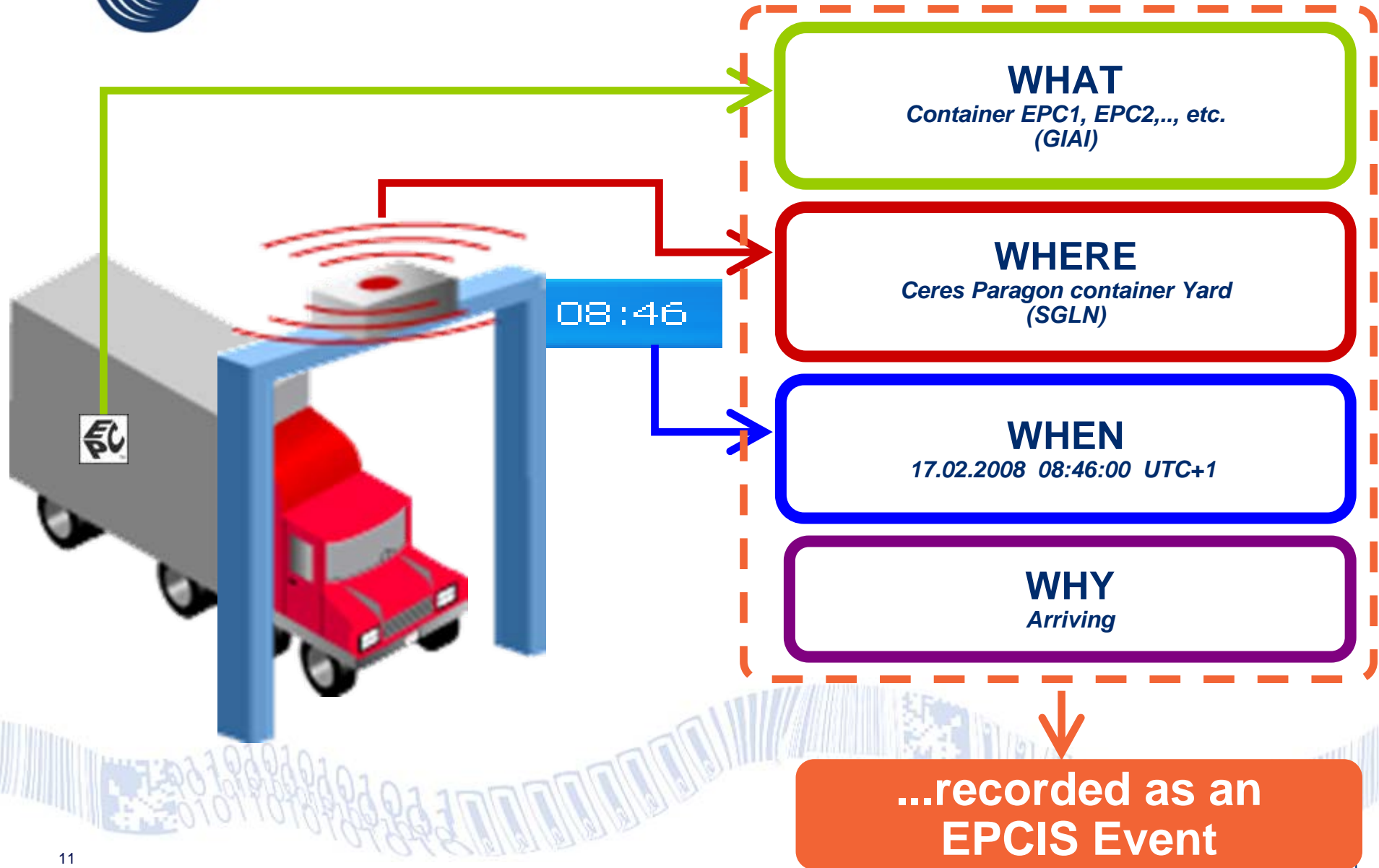
With GS1 standards encoded onto RFID tags, business people can know not only what an item is, but also where it is now and where it has been before;

This data can be shared in a global standard way regardless of the application;

This added visibility means more effective and streamlined processes



EPCIS Event at TLS Read Points

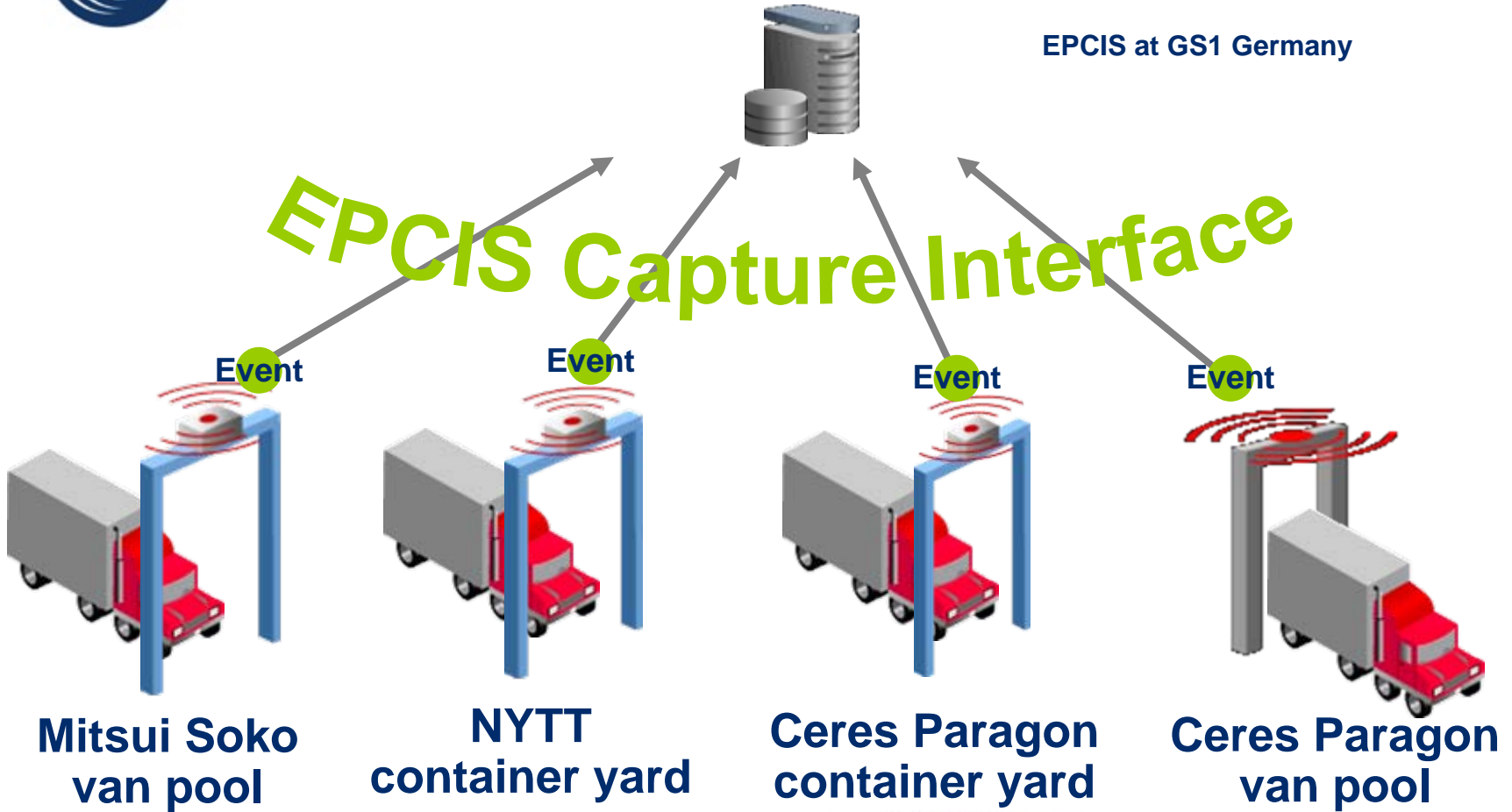




EPCIS capture of supply chain events

EPCIS at GS1 Germany

EPCIS Capture Interface



WHAT: GIAI 4912345.0101401CAXU8052010
WHERE: SGLN 8712345.67813.213
WHEN: 16.02.2008 09:25:00 UTC+1
WHY: Inspecting



EPCIS query of supply chain events

EPCIS at GS1 Germany

EPCIS Query Interface



manufacturer



logistics
provider



distributor

Dutch
Customs



“What is the current status of my order?”

“How many containers do I need to pick up today?”

“Which products arrived at the Port of Amsterdam today?”

“What does the shipment history look like?”

Status

Active

Friendly EPC codes

Last updated

2009-02-11 16:24:36 GMT

Next Update in

Updating

Friendly Locations

gsin:4912345.000000004

Status Summary

Type	Current Location	Step	Disposition	Count
Containers	MISC Vessel	loading	in_transit	20
	Contents: 953Pallets 2521Cartons			

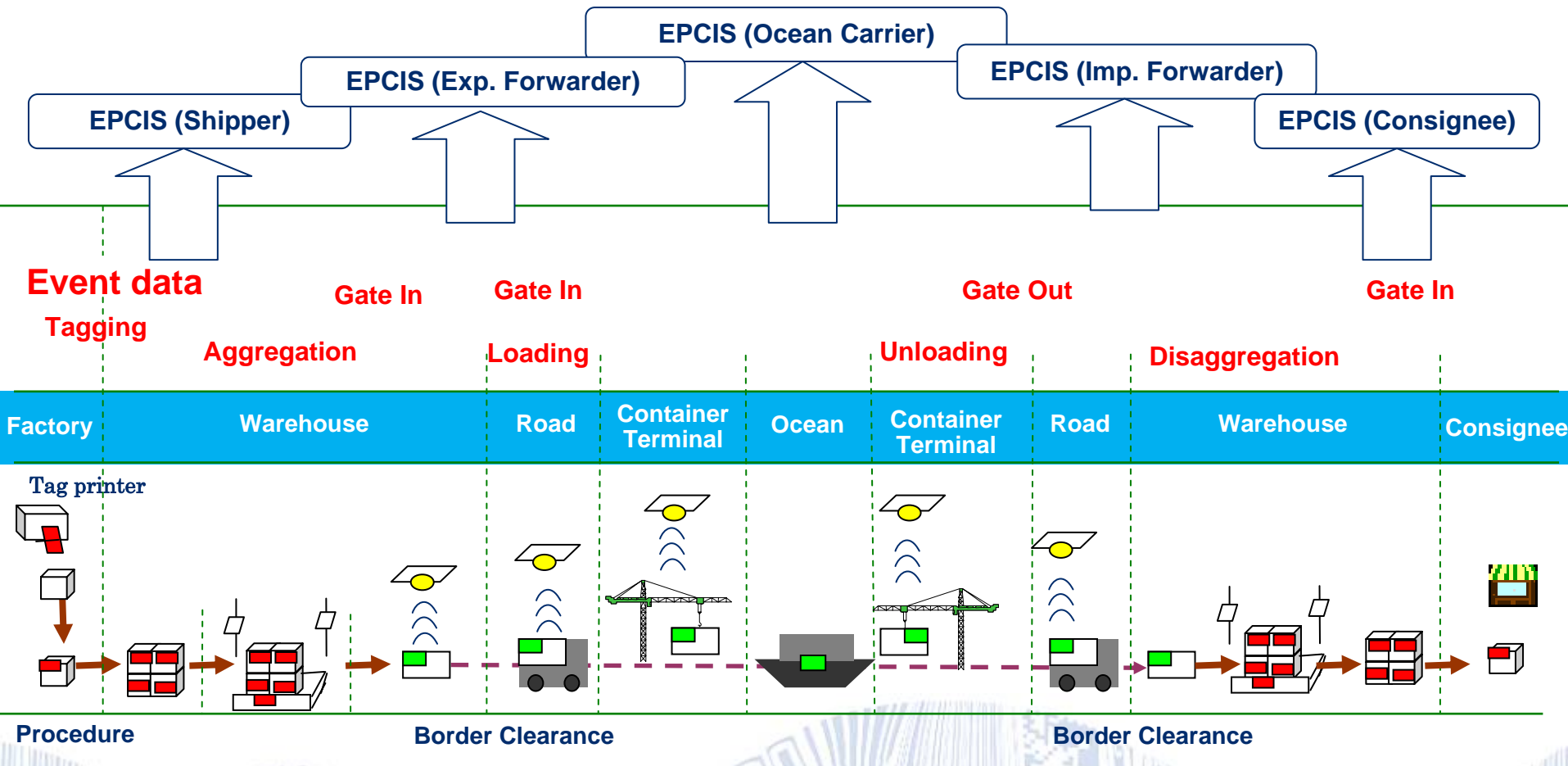
Details

EPC	Location	Event Date
▶ giai:4912345.0101401CAIU8083030 custodian custodianshipHandedOverTo	MISC Vessel	2009-01-16 03:14:18 GMT
▶ giai:4912345.0101401CAIU8099355 custodian custodianshipHandedOverTo	MISC Vessel	2009-01-18 06:46:45 GMT
▶ giai:4912345.0101401CAIU8099416 custodian custodianshipHandedOverTo	MISC Vessel	2009-01-22 10:17:51 GMT
▼ giai:4912345.0101401CAIU8100306 custodian custodianshipHandedOverTo	MISC Vessel	2009-01-22 05:07:47 GMT
Container		
▼ ssc:4912345.0120000150	Pallet	
sscc:4912345.0100006500		
sscc:4912345.0100006501	Carton	
sscc:4912345.0100006502		
sscc:4912345.0100006503		
sscc:4912345.0100006504		
sscc:4912345.0100006505		
sscc:4912345.0100006506		
sscc:4912345.0100006507		
sscc:4912345.0100006508		
sscc:4912345.0100006509		
sscc:4912345.0100006510		
sscc:4912345.0100006511		
sscc:4912345.0100006512		
sscc:4912345.0100006513		
sscc:4912345.0100006514		
sscc:4912345.0100006515		

GSIN Query on shipment status



Visibility – read tags, share data

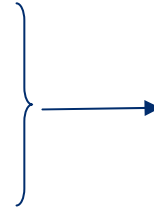




Business Case for Visibility

Inventory Visibility

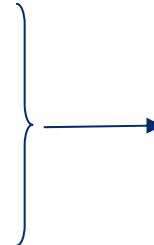
- Product Visibility
- Asset Visibility
- Recalls



Visibility enables **traceability** of products

Brand Protection

- Counterfeit
- Diversion, Gray Market
- Channel Management



Visibility enables **traceability** and **authentication** of products

Chain of Custody

- Track and Trace
- Electronic Pedigree



Visibility supplies the custody information for creating **authenticated chain of custody**



Pilots summary



Phase 1 (2006/2007)

- SSCC as UCR
- Included wines and spirits supply chain, trade associations, customs and GS1 MOs
- Australia / UK

Phase 2

- Test GSIN as UCR for complex scenarios
- Participants and countries to be confirmed



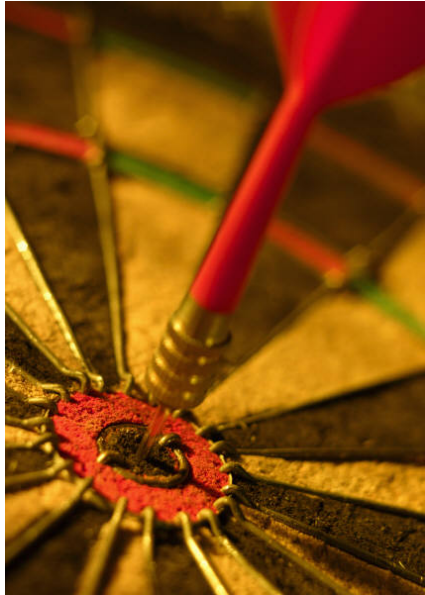
Benefits of using industry information



- ✓ Industry is the **owner** of large amounts of granular commercial, financial and transport information
- ✓ Product and parties' information is **critical** for efficient Customs risk assessment
- ✓ Industry controls and **manages** end-to-end global supply chain and bears all related costs
- ✓ Industry **provides information** to Customs when and where Customs control is requested: at import, export and transit points



GS1 Standards enable...



- ✓ unique systems for identification of products, parties, shipments, etc.
- ✓ efficient communication systems
- ✓ improved visibility for all partners in the supply chain
- ✓ traceability systems to ensure link from export to import of goods

Standardised industry information will help Customs administrations to implement a Coordinated Border Management system



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