

GS1 Standards and Sustainability Initiatives Overview
March 20, 2010

About GS1

- GS1 is a not-for-profit organization
- 35 years of experience
- 108 member organizations, including GS1 US
- Representing all points in the supply chain
- Over one million companies doing business across 150 countries
- Over 20 represented sectors including retail food, alcohol beverage, healthcare, transport, customs & defence

■ Countries with a GS1 Member Organization
■ Countries served on a direct basis from GS1 Global Office (Brussels)

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Our Role

What GS1 US brings communities together to solve value chain problems by creating and leveraging global GS1 Standards

How

- Industry Insights**
Understanding industry and all its stakeholders
- Standards**
Identify, capture and exchange critical information globally
- Community Leadership**
Connecting communities to identify and resolve industry issues and share best practices
- Solutions and Services**
Delivering collaborative solutions to unlock the value of standards

Why Making your value chain more visible, secure and sustainable

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GS1 Standards - Enabling Sustainability

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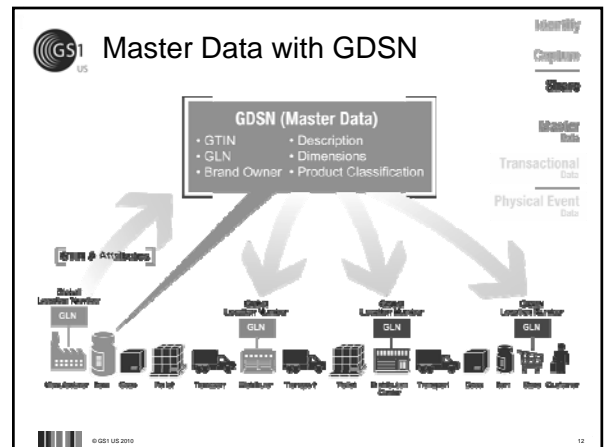
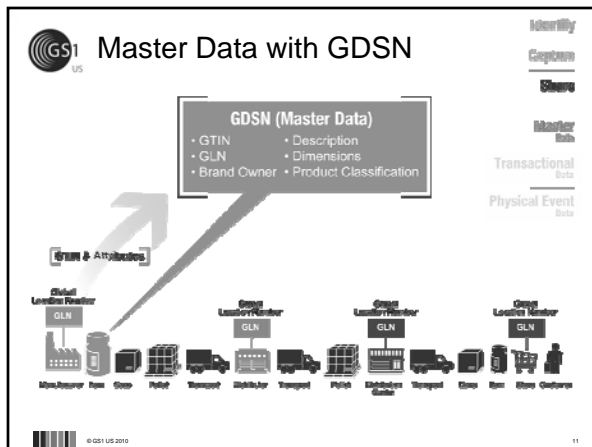
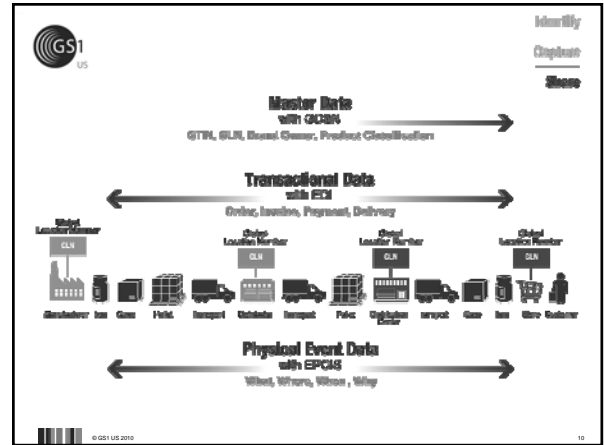
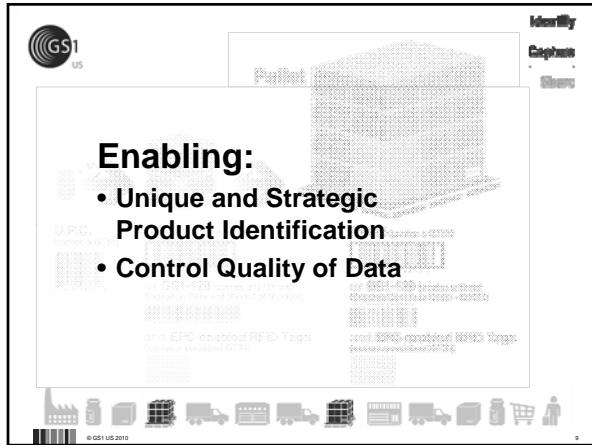
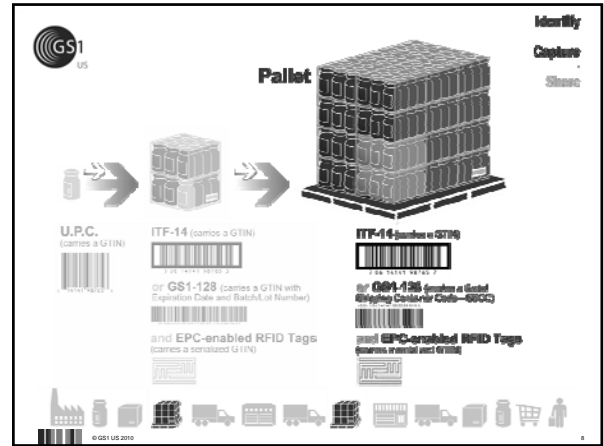
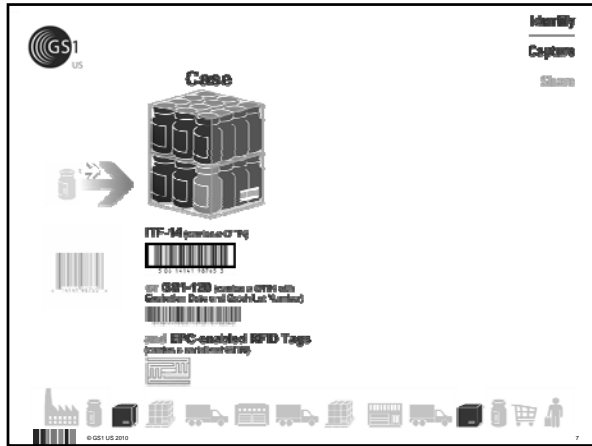
The Foundation: GS1 Company Prefix

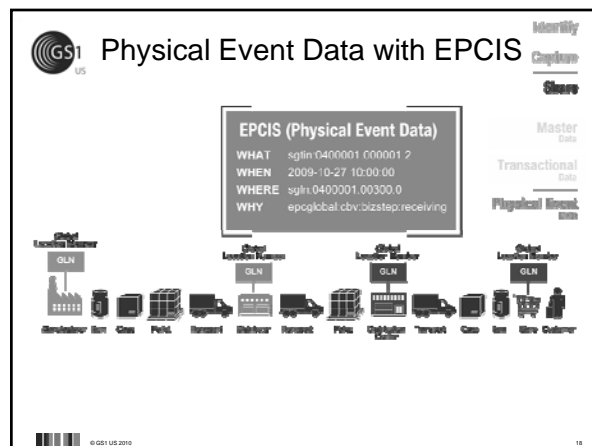
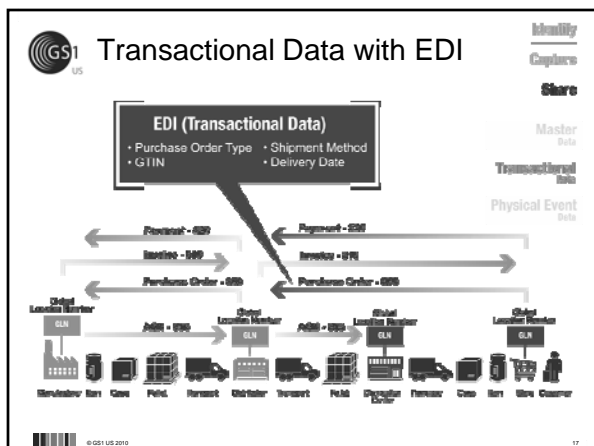
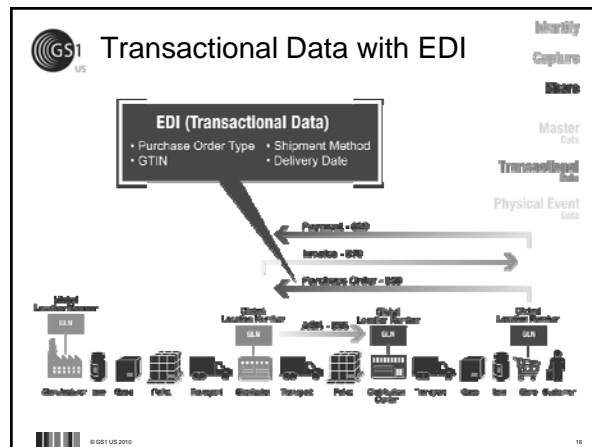
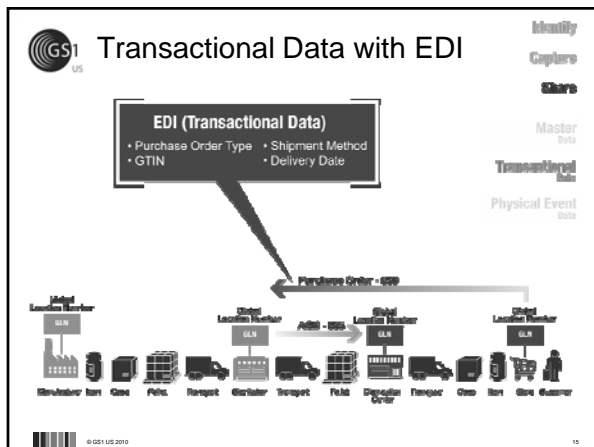
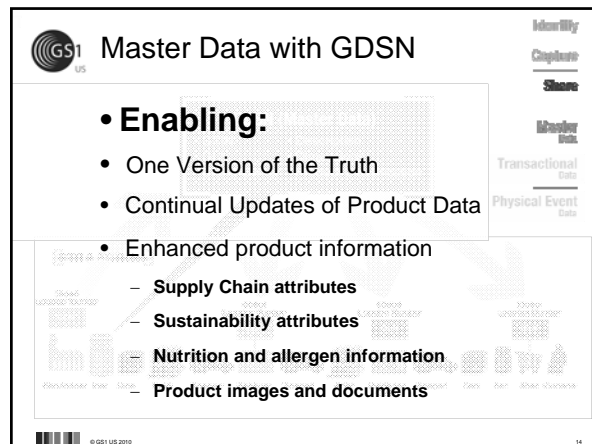
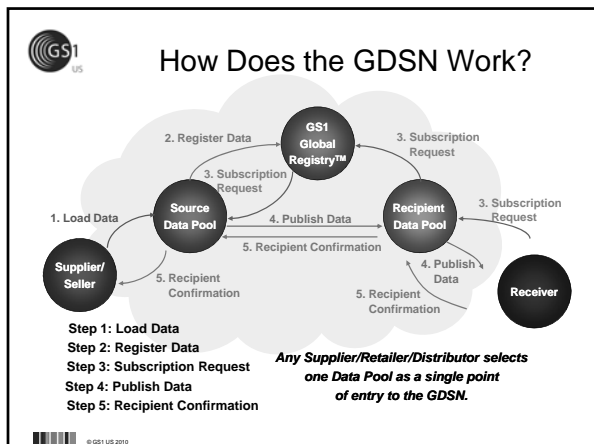
- Assigned to the Brand Owner
- Used to create globally-unique identification numbers for:
 - Products (GTIN)
 - Inner Packs, Cases, and Pallets (GTIN)
 - Locations (GLN)
 - Assets
 - Services

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Item

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Physical Event Data with EPCIS

EPCIS (Physical Event Data)

WHAT: sgin:0400001.000001.2
 WHEN: 2009-10-27 10:00:00
 WHERE: sgin:0400001.00300.0
 WHY: mfg:global.cbr:loading:receiving

Identify, Capture, Share, Master Data, Transactional Data, Physical Event Data

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Physical Event Data with EPCIS

Enabling:

- **Product Track and Trace**
 - Reduced Counterfeiting
 - Reduced Shrink
- **Product Safety**

Identify, Capture, Share, Master Data, Transactional Data, Physical Event Data

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Adopting the GS1 System

Identify: compare trade items, locations, assets, services
 Clean: your data
 Share: your data with trading partners
 Collaborate: with your trading partners
 Visibility: throughout the value chain
 Interchange Data: Physical Data

Identify & Capture, Share, Master Data, Transactional Data, Physical Event Data

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Proposed- Sustainability Solution Design

Raw Material Suppliers, Manufacturers, Distributors
 GS1 Standards
 Solution Partner Program
 GDSN
 Industry Average Data
 Distributors, Retailers, GOs, NGOs, Consumers

Identify & Capture, Share

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How can GS1 support Sustainability?

1. Standards
 - Provide a standards based approach to Identify, Capture, Share and monitor sustainability metrics
 - Across the value chain – upstream and down stream
 - Facilitate new standards development, if required
2. Community alignment and enablement
3. Help align global requirements with CGF/GPP
4. Drive global adoption in other countries through GS1 Member Organizations

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Proposed - Roles & Relationships

Industry alignment
 (Define priorities, piloting & publishing packaging sustainability attributes)
 CGF/GPP (Global); CCGD, FCPC, CFIG, RCC (CA); FMI, GMA, RILA (US)


Standards and Implementation Support
 (Global standards for identification and data sharing, community management and support for local implementation)

Research and Sciences
 (Building solutions to define & measure)

Trading Partners Supplying Input and Requirements
 Retailers, Distributors, Operators, Manufacturers, Raw Material Suppliers Governmental and Non-Governmental Organizations, Academia


Technology and Solution Partners Supplying Solutions
 Dashboards, Data Pools, ERPs, Reporting Tools

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Unique Identification – Key Definition

GS1 Company Prefix: A globally unique number assigned to companies by GS1 Member Organizations to create the identification numbers of the GS1 System. It comprises a GS1 Prefix and a Company Number.


Global Location Number (GLN): The globally unique GS1 System identification number for legal entities, functional entities, and physical locations. The Global Location Number is 13 digits, which comprises a GS1 Company Prefix, Location Reference, and Check Digit.

- ✓ Supply side trading partner locations generally include corporate headquarters, regional offices, warehouses, plants, and distribution centers.
- ✓ Demand side trading partner locations generally include corporate headquarters, divisional offices, stores, and distribution centers.


Global Trade Item Number (GTIN): The globally unique GS1 System identification number for products and services. A Global Trade Item Number may be 8, 12, 13, or 14 digits in length, represented as GTIN-8, GTIN-12, GTIN-13, and GTIN-14 respectively.

Serialized Shipping Container Code (SSCC): The globally unique GS1 System identification number for logistic units. The Serial Shipping Container Code is an 18-digit number comprising (from left to right) an extension digit, GS1 Company Prefix, Serial Reference, and Check Digit.

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Capture – Key Definition

UPC: A generic term that refers to the GTIN-12, Coupon-12, RCN-12, or VMN-12 encoded in a UPC-A or UPC-E barcode symbol.

ITF-14: A barcode symbol used by the GS1 System to carry Global Trade Item Numbers


GS1-128 barcode symbol: A subset of Code 128 that is utilized exclusively for GS1 System element strings. Code 128 symbols have a special start code pattern to designate the data that follows will comply with GS1 System standards.

EPC ID System (EPC tags and readers): The ID System is a component of the EPCglobal Network that consists of EPC tags and readers.

- ✓ EPC tags are radio frequency identification devices that consist of a microchip and an antenna attached to a substrate.
- ✓ The Electronic Product Code (EPC) is stored on this tag, which is applied to cases, pallets, and/or items.
- ✓ EPC tags communicate their Electronic Product Codes to EPC readers using radio frequency identification.
- ✓ EPC readers communicate with EPC tags via radio waves and deliver information to local business information systems using EPC Middleware.

GS1 DataBar: A linear barcode symbology that is part of the GS1 System and has seven different configurations: GS1 DataBar Omnidirectional, GS1 DataBar Stacked Omnidirectional, GS1 DataBar Truncated, GS1 DataBar Stacked, GS1 DataBar Limited, GS1 DataBar Expanded, and GS1 DataBar Expanded Stacked.

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