Big Benefits for Small Business—The Value of Unique Product Identification

Open Industry Webinar for Foodservice and Retail Grocery

Kevin Otto – Sr. Director Foodservice Industry Engagement, GS1 US

Jeff Cowan– Director Retail Grocery & Data Quality Industry Engagement, GS1 US

April 19, 2018

Anti-trust Slide

GS1 US is committed to complying fully with antitrust laws.

We ask and expect everyone to refrain from discussing prices, margins, discounts, suppliers, the timing of price changes, marketing or product plans, or other competitively sensitive topics.

If anyone has concerns about the propriety of a discussion, please inform a GS1 US representative <u>as soon as possible</u>.

Please remember to make your own business decisions and that all GS1 standards are voluntary and not mandatory.

Please review the complete GS1 US antitrust policy at:
http://www.gs1us.org/gs1-us-antitrust-compliance-policy

Agenda

- About GS1 and GS1 US

- Business Case for Standards

- What GS1 Standards Can Do

- Educational Opportunities

About GS1

GS1 makes it possible for industries and companies of all kinds to move their business forward by adopting GS1 Standards as the foundation of their business processes.

GS1 by the Numbers

1.5 million companies around the world use GS1 Standards.

More than 5 billion GS1 barcodes are scanned every day.

17 million products are assigned U.P.C.s in the GS1 US Data Hub® | Product tool.

More than 25 million products are registered by brand owners in the GS1 Global Data Synchronization Network™ (GDSN®).

110+ Member Organizations
Serving Business Around the World

About GS1 US

GS1 US serves more than 300,000 businesses across 25 industries in the United States.

- Leading industry initiatives in **Apparel and General Merchandise, Foodservice, Healthcare, and Retail Grocery**
- Administrating the GS1 System of Standards
- Providing support services, tools, education, and training
- Connecting communities through events and online forums

GS1 US is the pioneer of the Universal Product Code (U.P.C.) and the Electronic Product Code (EPC®).

Our Value to Industries and Companies

Adoption & Usage

More and more companies using the standards

Leadership

Industry working together to break new ground

Increased Scale & Efficiency

PROGRESS

100% USAGE

50% ADOPTION AND USAGE

0% ADOPTION

Business Case for Standards

Challenges Facing the Foodservice Industry Today

The "business of food" is changing fast. Margins are thin, competition is fierce, and consumer demands for transparency around product information are stronger than ever. The Food Safety Modernization Act (FSMA), menu-labeling legislation, plus a growing consumer demand for more and better nutritional and allergen product information underscore the need for a standards-based system to ensure accurate and timely product information.

Challenges Facing the Grocery Industry Today

The grocery industry, including consumer packaged goods, fresh foods, and retail, continues to find new ways to collaborate with the use of standards and technology to support operations.

Faced with increasing demands for rich product data, efficiency in e-commerce operations, and supply chain visibility, companies are utilizing GS1 Standards to help ensure product traceability and food safety while also streamlining business processes.

Regulatory Compliance

Recent government regulations have raised the bar for food safety and transparency. **The Food and Drug Administration's Food Safety Modernization Act (FSMA)** focuses on the creation of a new food safety system with broad preventative measures and accountability. It will lead to an increase in domestic food inspections and give the government more power to issue recalls.

By implementing GS1 Standards based on unique identification of products, companies are improving traceability processes to meet regulatory requirements while also enhancing their enterprise risk management capabilities.

"With GS1-128 barcodes, we can now track products by batch/lot number, anywhere between our processing facilities, distribution centers, and stores or restaurants."

Paul Lothian, Business Solutions Architect, Tyson Foods

Source: *GS1 US Case Study—Tyson Foods Putting customers and consumers first by leveraging GS1 Standards for stability and velocity*

Consumers Want to Know…

The Rising Risks of Poor Data Quality...

Supply Chain Operations

Product information
Data quality
impacts the entire system. *Unique product identification is the essential foundation for getting the right information to the consumer.*

Data sharing
Increased labor costs
Use of inaccurate transactional data can cost up to 25% more in labor.[1]

Freight and warehouse management
¼" error in case height =
- 1,000 fewer cases per truckload
- 20 fewer cases per pallet
- 6 more trucks than necessary[2]

In-Store Operations and Sales

80% of retailers
are not confident in their product data.[3]

84% of shoppers use their devices to help them shop in store.[7]

Planogram compliance
Less than 50%
achieved planogram compliance (primarily in grocery sellers).[4]

Inventory accuracy and availability
8.7% lost sales
due to inventory inaccuracy.[5]

71% of shoppers expect to view in-store inventory online.[8]

In-store fulfillment picking accuracy
50% failure rate
for Buy-Online-Pickup-In-Store (BOPIS) shopping experiences.[6]

15% to 30% of sales lift when dynamic buy-online-pickup-in-store fulfillment option is available.[9]

E-Commerce Paths to Purchase

Product information
86% of consumers
are unlikely to buy products from a brand after an experience with inaccurate product information.[11]

"Guests who shop online and in our stores are spending more than twice as much as store-only guests. Our online guests are quickly becoming our most valuable guests as well as our most demanding ones. That's why we are investing in data quality. We're transitioning from data as simply foundational to data as a strategic asset that fuels revenue growth."

Angela Schulz, Senior Director, Item Center of Excellence, Target

3 top errors
caused by a lack of data validation:
- *Listing the wrong products*
- *Listing inaccurate product attributes*
- *Duplicate listings or content[12]*

Flexible fulfillment
If you don't deliver what a consumer thinks they ordered the consequences are dissatisfaction, loss of loyalty, and potential loss of future sales.

Overstocks and returns are costing retailers $1.75 trillion a year.[10]

1. GS1 US Land O'Lakes Case Study, 2017
2. GS1 US Data Quality ROI Calculator, 2016
3. E-retailers beware: 3 perils of unvalidated product information. *Internet Retailer*, December 2016
4. Planogram compliance—how boring...unless it might save billions. *Cosy*, 2016
5. Kurt Salmon RFID in Retail Study, *Kurt Salmon Part of Accenture Strategy*, October 2016
6. Dr. Bill Hardgrave, Auburn University, NRF 2016
7. How Mobile Is Transforming the Shopping Experience In Stores. *Google Shopper Marketing Council*, May 2013
8. Customer Desires Vs. Retailer Capabilities: Minding The OmniChannel Commerce Gap. *Forrester Research*, January 2014
9. Customer Desires Vs. Retailer Capabilities: Minding the OmniChannel Commerce Gap. *Forrester Research*, January 2014
10. Why bar code numbers matter. *Internet Retailer*, December 2016
11. Retailers Are Losing $1.75 Trillion Over This. *CNBC.com*, November 2015
12. Jason Lavik, Sr. Item Operations Manager, Target

...and Its Impact on Your Entire Business

Standards

What are standards? Standards are:

- Agreements that structure any activity or industry
- Guidelines everyone applies

Restaurant/
Retailer

Manufacturer

**Consistent
information**

Distributor

Broker, RDC
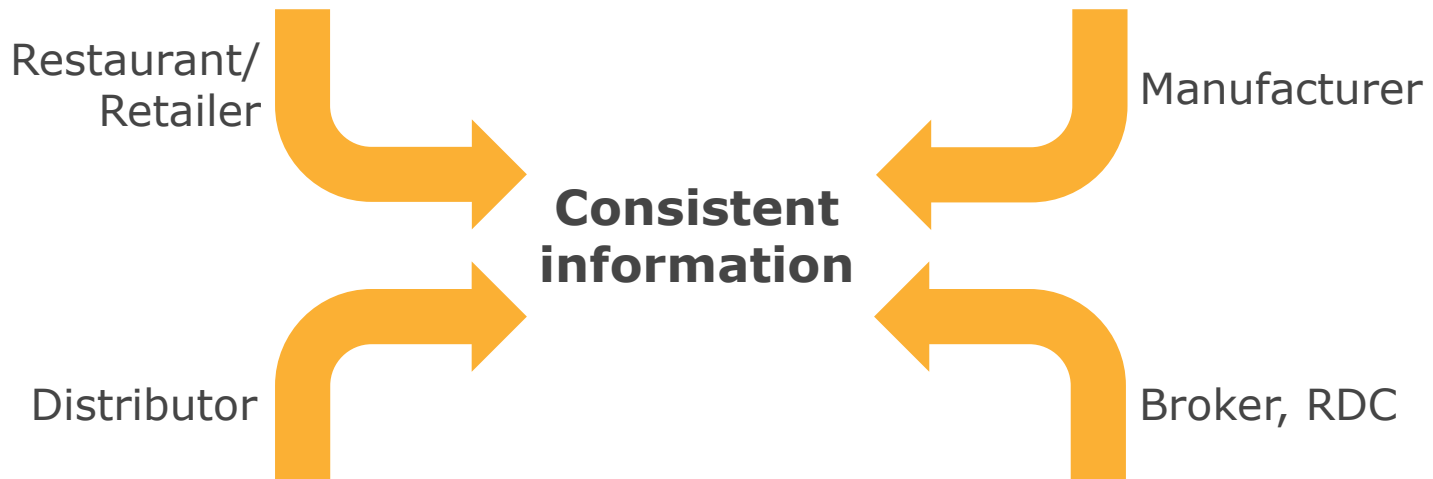
One of the easiest ways to understand the usefulness of standards is think about what happens when there are no standards…
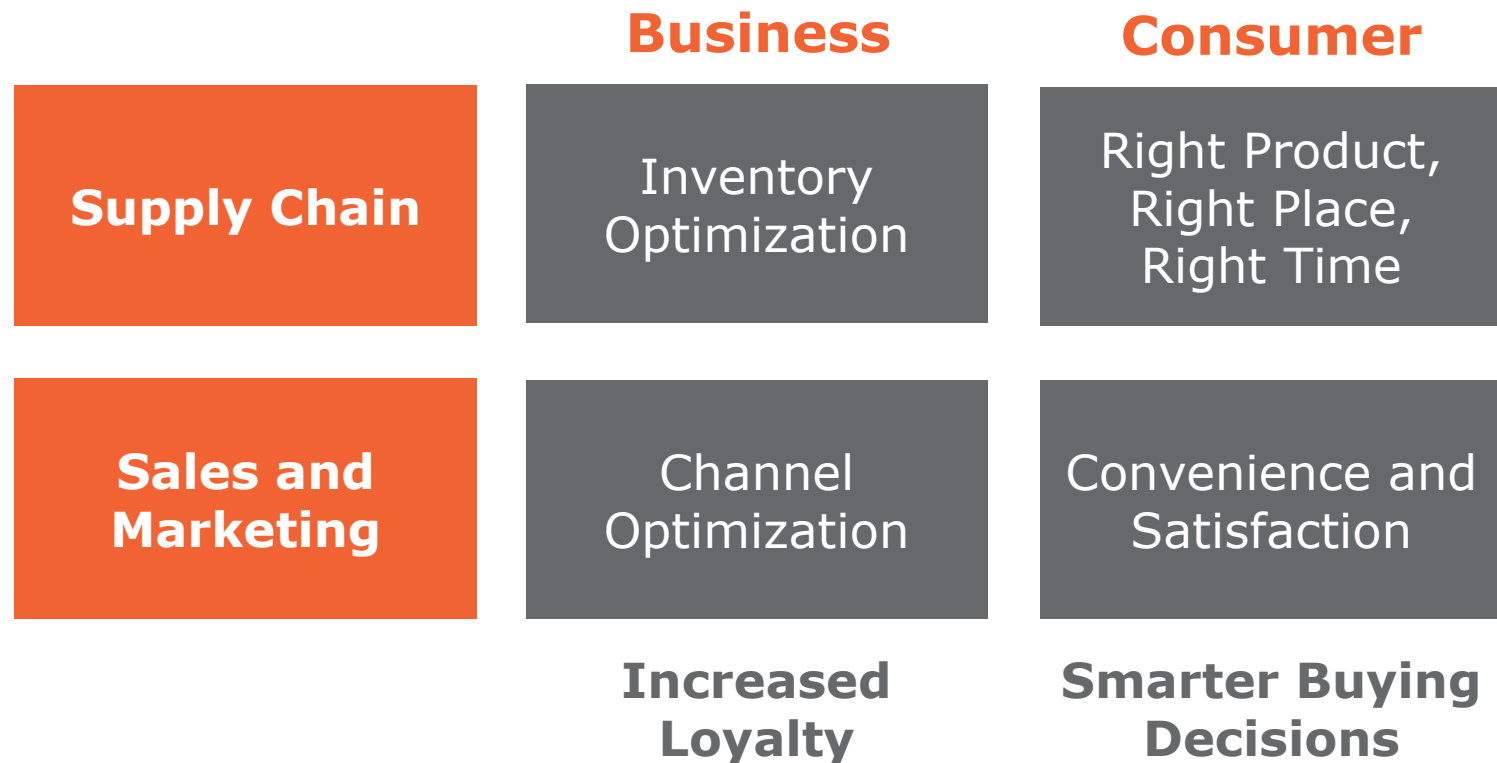
Without Standards
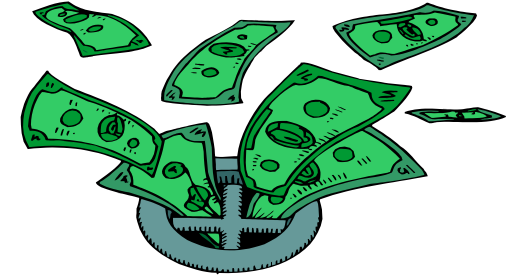
When there are no Standards…

- **Companies must**
  - Mark the same products differently for different customers
  - Utilize proprietary numbering systems for items and locations
  - Create and maintain multiple cross-reference tables
  - Manage order and invoice discrepancies due to item and location number inconsistencies
  - Pay extra attention to customer-by-customer specificities

- **Resulting in** extra costs throughout the supply chain

Success and Benefits of Standards

	Business	**Consumer**
Supply Chain	Inventory Optimization	Right Product, Right Place, Right Time
Sales and Marketing	Channel Optimization	Convenience and Satisfaction
	Increased Loyalty	**Smarter Buying Decisions**

GS1 Standards in Foodservice and Retail Grocery

Together, we're making it possible to share accurate product information everyone can rely on, improving efficiency and food safety.

Key benefits

- Improve food safety and traceability
- Address local and federal food safety regulations
- Enabling visibility up and down the supply chain
- Improving accuracy of product data for trading partners and consumers
- Reducing waste and inefficiencies
- Improving inventory accuracy and on-shelf availability
- Enabling precise product tracing and recall readiness

What GS1 Standards Can Do

GS1 Standards:
Identify, Capture, and Share

Identify: GS1 Identification Numbers

GLN Global Location Number   **GTIN**® Global Trade Item Number®   **SSCC** Serial Shipping Container Code   **EPC**®/**SGTIN** Serialized Global Trade Item Number

GLN — Manufacturer · Item · Case · Pallet · Transport · GLN — Distributor · Transport · Pallet · GLN — Distribution Center · Transport · Case · Item · GLN — Store · Consumer

GTIN · SSCC · GTIN
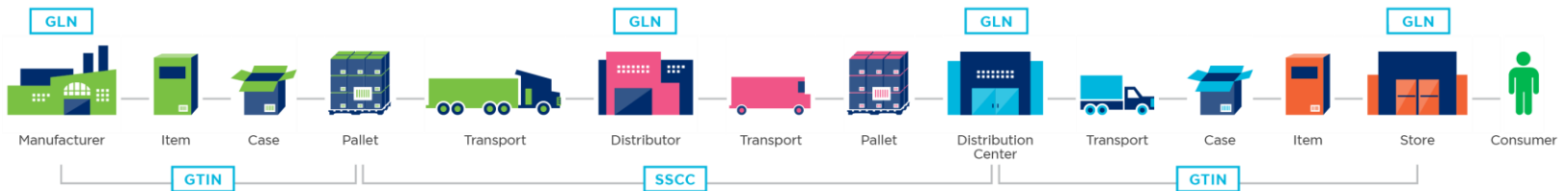
Capture: GS1 Data Carriers

Barcodes   **EPC-enabled RFID**

EAN®/UPC	GS1 DataBar®	GS1 DataMatrix	ITF-14	GS1-128	HF RFID	UHF RFID
6 14141 98765 8	(01) 0 0614141 987658	(01) 00614141987658 (17) 120831 (10) A1B2C3D4E5 (21) 00098522	2 06 14141 98765 2	(01) 2 0614141 98765 2 (10) A1B2C3002		
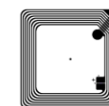
Share: GS1 Data Exchange

Product Master Data Global Data Synchronization Network™ (GDSN®)   **Transactional Data** Electronic Data Interchange (EDI)   **Physical Event Data** EPC Information Services (EPCIS)

← Interoperability →

| Product Data | Price and Promotion Data | Purchase Order | Planning Schedule | Advance Ship Notice | Invoice | Product Visibility |

The 3 G's –GTIN, GLN and GDSN

1. **GTIN (Global Trade Item Number)** – GS1 Standardized Product Identification ensures unique identification of foodservice products.

2. **GLN (Global Location Number)** – GS1 Standardized Location Identification for manufacturer, distributor, and operator facilities, departments, docks, etc.

3. **GDSN (Global Data Synchronization Network)** - GS1 Standardized Product Definition connects trading partners to the GS1 Global Registry® via a network of interoperable GDSN-certified data pools. Data Synchronization is the electronic transfer of standardized product information between trading partners and the continuous synchronization of that data over time.

1 GTIN = 1 Product

8 62283 00001 2
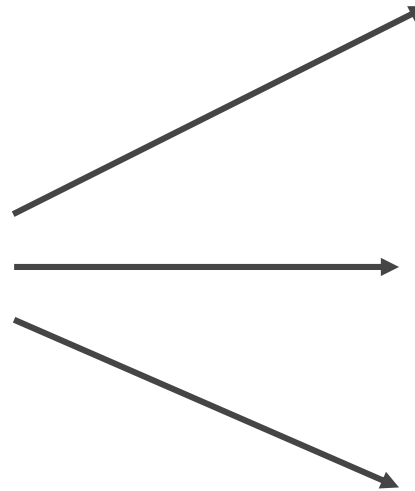
GLNs Enable Whole Chain Traceability

Grower/Supplier

Where did the product come from?

Processor/Manufacturer
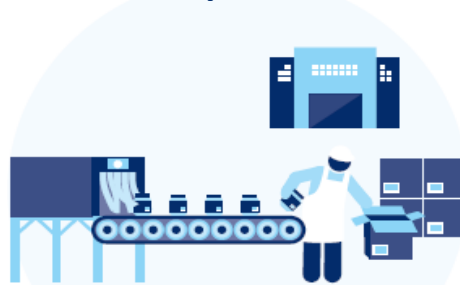
Where did the product get packaged/processed?

Distributor

Where did the product get distributed?

Retailer/Grocery Store

Which stores have the product?

OR

Operator/Restaurant

Which restaurants have the product?

Today's approach

Tomorrow's opportunity

- We have a common language—**one source of truth**—to share and understand information about products and locations
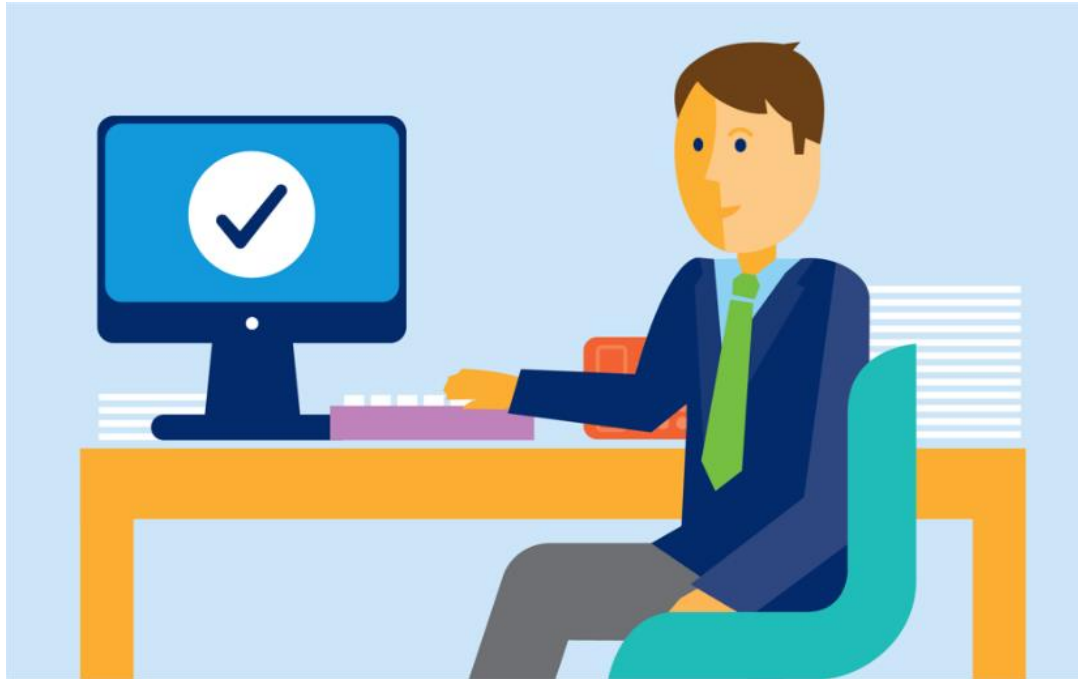
- We know where the product came from – where it went – and where it is now

- We know what the product is, including nutritionals, allergens, etc.

Data Flow Via GDSN

The **GS1 Global Registry**® is a single repository where basic data is registered. The GS1 Global Registry identifies the data pool location of source data.

Data Pools provide data that is standards conformant, and interoperable in the GDSN®.
The data pool performs the transactions of sending and receiving validated product information between partners inside or outside the data pool.

Select one data pool as a SINGLE point of entry to the GDSN

Step **1** : Load Data

Step **2** : Register Data

Step **3** : Subscription Request

Step **4** : Publish Data

Step **5** : Recipient Confirmation
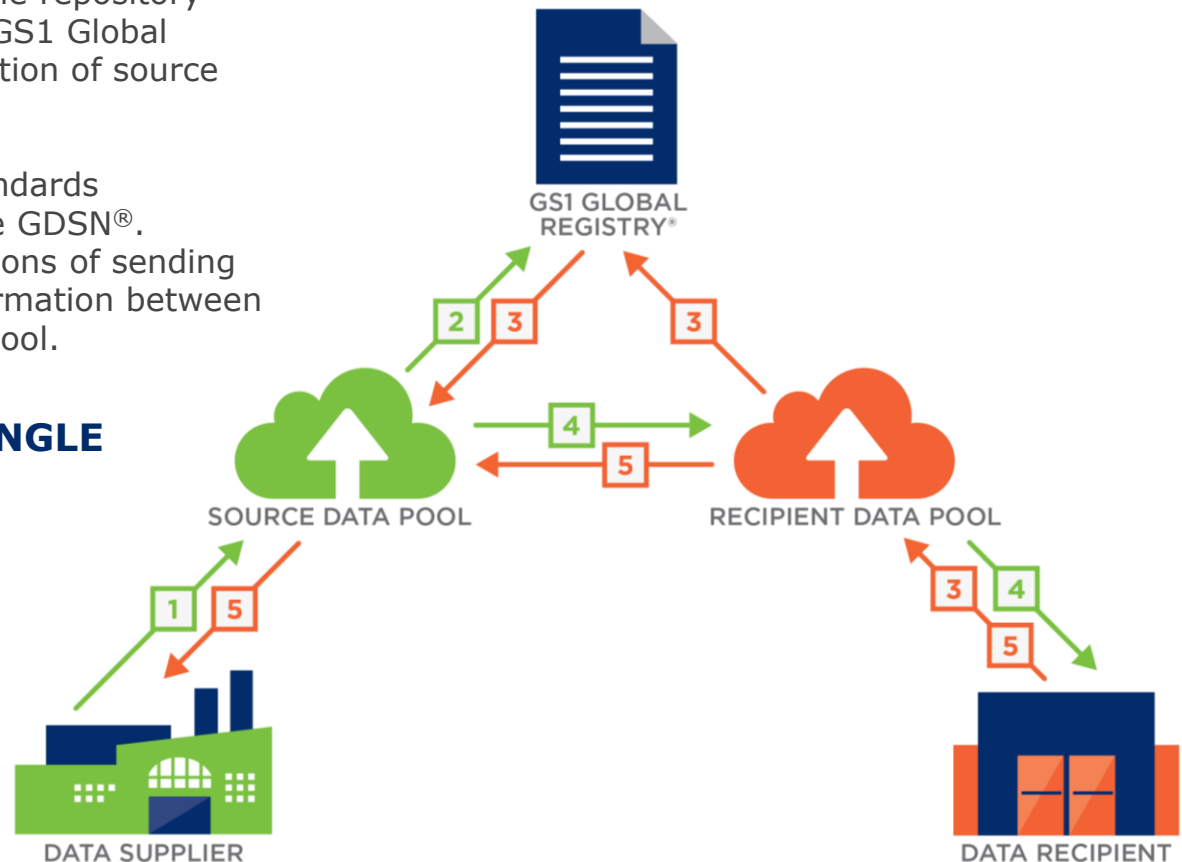
GS1 Standards Enable a Better Consumer Experience

Demand Information

- Complete information on the operator/retailer & their menu or product offerings

Buying Behavior

- Deliver what they want
- Know how it's prepared
- Available when they want it

Value

- Feel good menu or product offerings
- Equates quality and cost

Experience

- In control of dining experience before arriving or ordering

Consumer

Mobile Search

Seamless flow of product data enables efficiencies and supply chain visibility between trading partners

Operators/Retailers rely on critical product information to provide transparency & food safety at the consumer level

Operators

Wholesalers

Growers

Retailers

Distributors

Wholesalers

Manufacturers

GS1 US
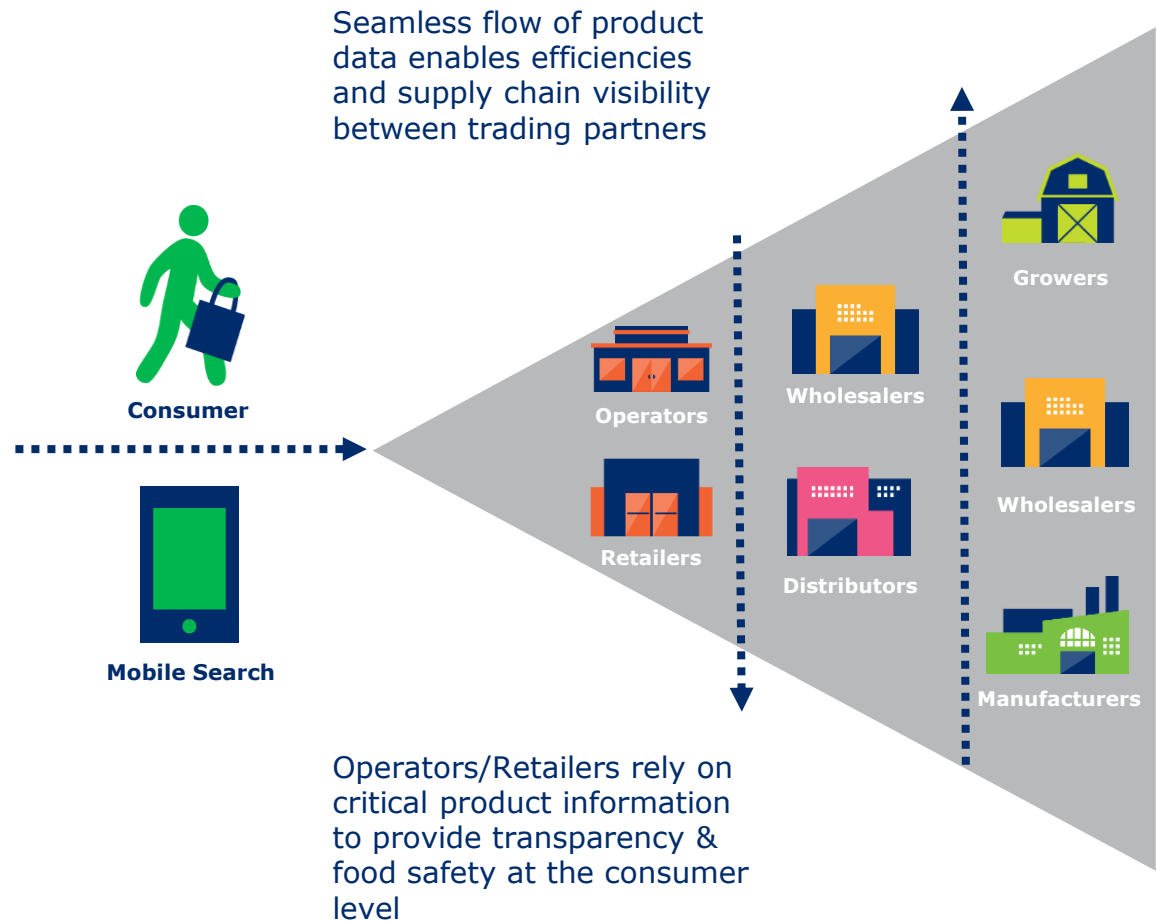
Educational Opportunities

Getting Started

U.P.C. barcodes and GTINs make it easier to sell your products in stores and on the web

www.gs1us.org/get-started

Get Started Guide

Create Barcodes and U.P.C.s with the GS1 US Get Started Guide

Looking to sell a product in stores or online? Start here

1. Get a GS1 US-Issued Company Prefix

Your company ID for building barcodes, U.P.C.s, GTINs, and other product identifiers.

View Step 1

4. Place Barcodes on Products

Tips for creating and placing barcodes on your products.

View Step 4

2. Choose Product (GTIN) or Location (GLN) Identification

Identifying a product? Location? Learn how.

View Step 2

5. Test/Verify Printed Barcodes

Make sure they work the first time, every time.

View Step 5

3. Determine Barcode Type

Find barcode options based on your needs.

View Step 3

6. Share Information Electronically

Learn how to share your information with your trading partners.

View Step 6

www.gs1us.org/getstartedguide

Visit The Resource Library

www.gs1us.org/resource-library

GS1 US Education & Training

GS1 US University offers diverse education and training opportunities to help individuals and companies understand how to use GS1 Standards to improve their business processes.

GS1 US® certificate courses and workshops are in-depth, interactive classroom events.

Live educational webinars feature the opportunity to ask questions directly to the expert presenting the topic.

Online training courses provide on-demand access to a library of educational videos and recorded webinars.

www.gs1us.org/education

Visit The Industry Pages

www.gs1us.org/industries/retail-grocery

www.gs1us.org/industries/foodservice

GS1 US Advisory Services

Customized Education and Implementation Support

GS1 US Advisory Services deliver a consultative approach that offers a combination of technical and business expertise to address the specific challenges your organization may face in implementing GS1 Standards.

Moving Forward Together With Industry Initiatives

Members within the GS1 US Retail Grocery Initiative and the Foodservice GS1 US Standards Initiatives are working together to drive the adoption and use of GS1 Standards.

By bringing together industry leaders, the initiatives are designed to identify the specific challenges and potential solutions that will lead to continued progress toward more efficiencies, enhanced risk management, and business growth.

Key Focus Areas	
Grocery	**Foodservice**
Product Information and Images	GDSN® Implementation
Supply Chain Visibility	Traceability
Operational Efficiencies	
Data Quality	

Tools

GS1 US Data Hub®

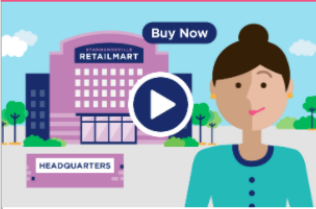**A suite of tools for driving reliable data to grow your business**

- GS1 US Data Hub combines three powerful online tools to easily identify, create, manage, use, and verify data through one convenient, data-sharable platform.

GS1 US Data Hub | Product - Create/Manage

The tool that takes the guesswork out of creating and managing barcodes and sharing product information. Learn more

See how it made it easy for Jane to create barcodes and grow her business.

GS1 US Data Hub | Product - View/Use

The tool for accessing validated product data for better business processes.

Visit GS1 US Data Hub | Product - View/Use page

GS1 US Data Hub | Location

The tool for driving reliable location identification and information to improve business efficiencies. Learn more >

See how it helped Nancy and her supplier get the right product to the right place.

GS1 US Data Hub | Company

The tool for accessing validated U.P.C. and company information for better business processes. Learn more >

See how it helped Chris' mobile app provide valid data and better user experience.

www.gs1us.org/tools/gs1-us-data-hub

GS1 US Attribute Explorer

A centralized, web-based repository that houses thousands of attributes, and is designed to:

- Search and discover the attributes found in both the GS1 Global Data Dictionary (GDD) and GS1 US® industry guidelines

- Familiarize users with the attributes found in the global GS1 System of Standards and within GS1 US Retail Grocery, Foodservice, Healthcare, and Apparel/General Merchandise industry guidelines

- Search by attribute data type, name, and values—search results returns basic definitions as well as the link to the attribute's official documentation

- Provide industry filters to fine tune search results

- Use fuzzy string searching to locate similar attribute results

www.gs1us.org/tools/gs1-us-attribute-explorer

Check Digit Calculator

The last digit of a barcode number is a calculated check digit. The check digit is calculated from all the other numbers in the barcode and helps to confirm the integrity of your barcode number.

Simply enter the ID Number below and the Check Digit Calculator will calculate the last digit for you.

www.gs1us.org/tools/check-digit-calculator

Questions

Contact Information

Kevin Otto

Sr. Director Foodservice Industry Engagement, GS1 US

T +1 609.620.4604

E kotto@gs1us.org

Jeff Cowan

Director Retail Grocery & Data Quality Industry Engagement, GS1 US

T +1 609.620.8043

E jcowan@gs1us.org

www.gs1us.org

Legal Disclosure

GS1 US, Inc. is providing this presentation, as is, as a service to interested parties. GS1 US MAKES NO REPRESENTATIONS IN THIS REGARD AND DISCLAIMS ALL WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY WARRANTY OF ACCURACY OR RELIABILITY OF ANY CONTENT, NONINFRINGEMENT, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE.

GS1 US shall not be liable for any consequential, special, indirect, incidental, liquidated, exemplary, or punitive damages of any kind or nature whatsoever, or any lost income or profits, under any theory of liability, arising out of the use of this presentation or any content herein, even if advised of the possibility of such loss or damage or if such loss or damage could have been reasonably foreseen.

*GS1 US employees are not representatives or agents of the FDA, and the content of this presentation has not been reviewed, approved, or authorized by the FDA.

*If applicable

Trademark Notices

DataBar®, EAN®, EPC®, EPCglobal®, GDSN®, GS1 Global Registry®, GTIN®, and Global Trade Item Number® are registered trademarks of GS1 AISBL.

GS1 US® and design is a registered trademark of GS1 US, Inc. Trademarks appearing in this presentation are owned by GS1 US, Inc. unless otherwise noted, and may not be used without the permission of GS1 US, Inc.

The letters "U.P.C." are used solely as an abbreviation for the "Universal Product Code" which is a product identification system. They do not refer to the UPC, which is a federally registered certification mark of the International Association of Plumbing and Mechanical Officials (IAPMO) to certify compliance with a Uniform Plumbing Code as authorized by IAPMO.