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## Barcode Registration to GDSN Synchronization

### USAID GLOBAL HEALTH SUPPLY CHAIN PROGRAM

Procurement and Supply Management





The following training is based on materials developed by 1WorldSync and GS1 and are used with their permission.

1WorldSync is a GS1 Global Data Synchronization Network™ data pool provider.

For more information, please visit [www.1worldsync.com](http://www.1worldsync.com)

# Today's Presenters



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# Today's Attendees

- Manufacturers
- Suppliers
- Wholesalers
- GHSC-PSM
- USAID
- 1WorldSync

# Meeting Objectives

- Build awareness of the upcoming GHSC-PSM GS1 deadline
- Provide education on:
  - GHSC-PSM's initiative
  - GS1 standards
  - Master data & the GDSN
- Review timelines and required actions to get compliant
- Provide information about supporting resources

# Introduction

# What is GHSC trying to achieve?

## **Vision**

To enable identification of every item procured at every point in the supply chain, through administration to the patient

## **Goal**

To enable a secure and efficient supply chain from source through to service delivery

## **Objectives**

- To enable end-to-end data visibility
- To identify and implement supply chain efficiencies
- To ensure supply chain security
- To increase patient safety

# The GS1 system of standards

## Identify: GS1 Standards for Identification

GLN Global Location Number   GTIN Global Trade Item Number   SSCC Serial Shipping Container Code   GRAI Global Returnable Asset Identifier   GIAI Global Individual Asset Identifier   GSRN Global Service Relation Number



## Capture: GS1 Standards for Barcodes & EPC/RFID

GS1 Barcodes

GS1 EPC/RFID

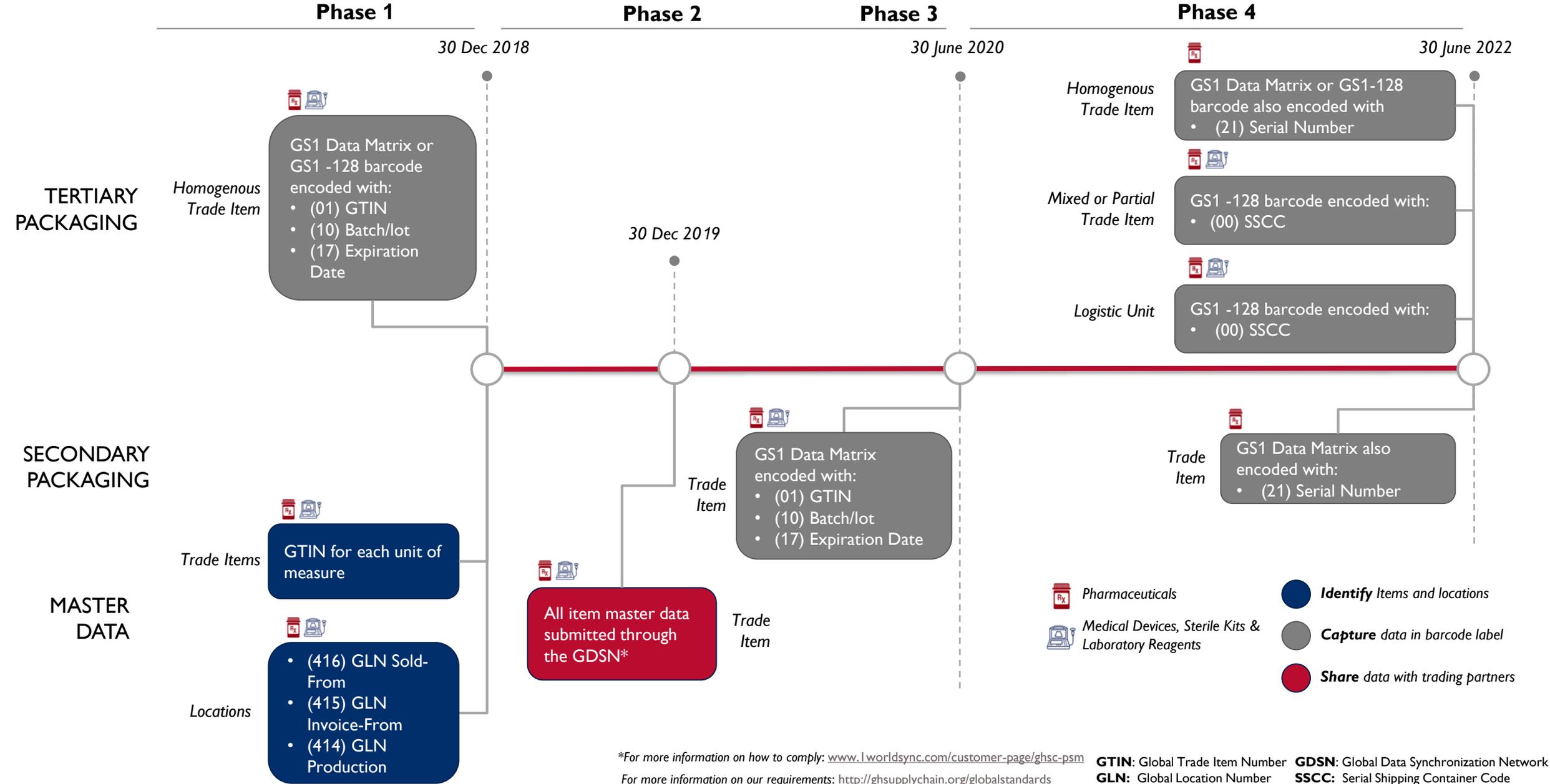


## Share: GS1 Standards for Data Exchange

Master Data Global Data Synchronisation Network (GDSN)   Transactional Data eCom (EDI)   Event Data EPC Information Services (EPCIS)



# Summary of GHSC-PSM GS1 Global Standards Requirement



\*For more information on how to comply: [www.lworldsync.com/customer-page/ghsc-psm](http://www.lworldsync.com/customer-page/ghsc-psm)  
 For more information on our requirements: <http://ghsupplychain.org/globalstandards>

**GTIN:** Global Trade Item Number    **GDSN:** Global Data Synchronization Network  
**GLN:** Global Location Number    **SSCC:** Serial Shipping Container Code

# Our Phase I requirement deadline passed on 30Dec18

What should have been completed to be compliant?

- ✓ Submitted GLNs for all in-scope legal entities and locations
- ✓ Submitted GTINs for all in-scope trade item hierarchies
- ✓ Submitted a sample of your compliant tertiary pack barcode

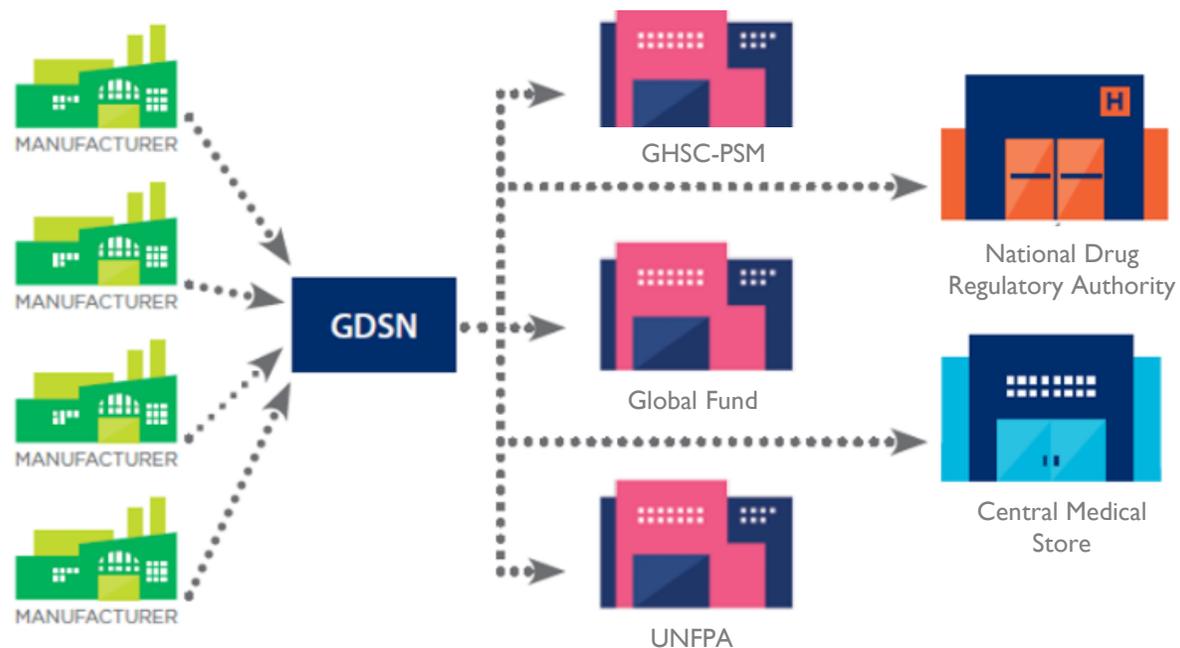
GHSC-PSM is monitoring compliance against all in-scope trade items under contract and is reporting feedback through supplier scorecards.

For questions related to your organizations' compliance against stated requirements, please email [datasync@ghsc-psm.org](mailto:datasync@ghsc-psm.org).

EXAMPLE ONLY

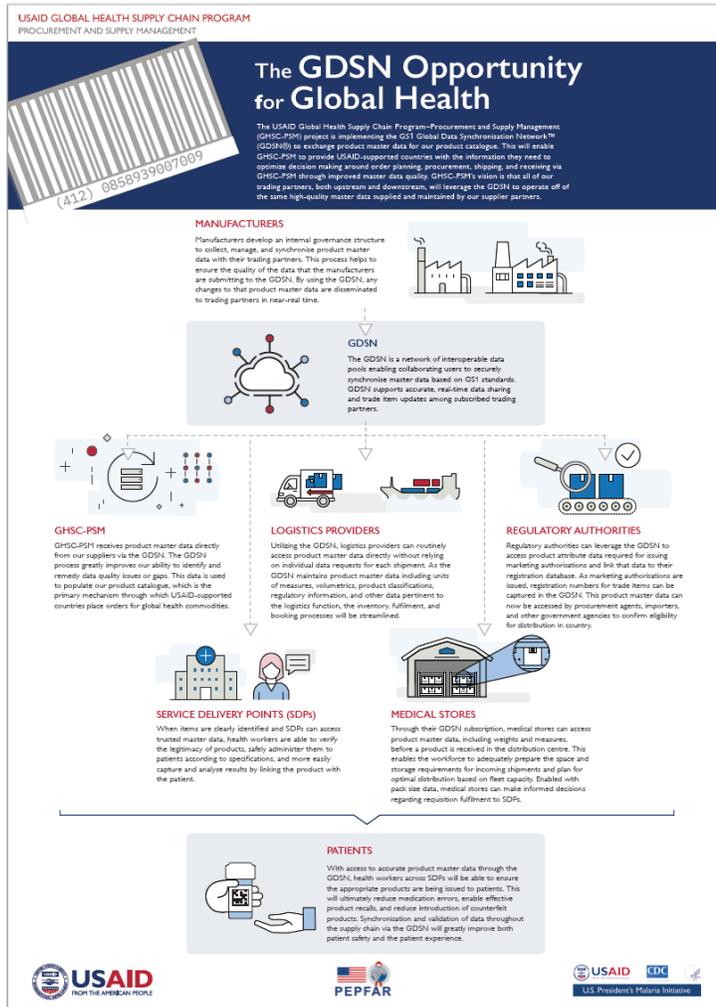
# The GDSN opportunity for global health

## GSI Global Data Synchronisation Network™ (GDSN®)



Manufacturers are able to provide data to all kind of databases and all kinds of customers (hospitals, distributors, wholesalers, GPOs) simultaneously, with a single connection.

# Opportunities for GHSC-PSM with GDSN



- Information asymmetry is rampant in our supply chains. GDSN provides a single source of truth on Master Data – the supplier!
- Get a consistent set of attribute data from all trading partners
- Near real-time updates if product data changes
- Opportunity to receive registration (marketing authorization) information in a standard and consistent manner
- GHSC-PSM will have the same identifying data as UNFPA, Global Fund, and others
- Countries want to use GDSN data as the basis for a National Product Registry

## In Phase 2, product master data must be synchronized via GDSN by 30Dec19



Compliance will be tracked and reported as a key performance metric in supplier scorecards. Failure to comply will negatively impact a supplier's scorecard starting on 31Dec19.



Proof of compliance will be requested in sourcing events. Failure to comply will be considered in future awards and order allocation decisions.

- **Existing suppliers:** If an existing supplier responds to a RFX event after 30Dec19 and is not in compliance with the GDSN requirement for existing contracts that the supplier holds with GHSC-PSM, a new supply contract may not be awarded.
- **New suppliers:** A supply contract may not be awarded by GHSC-PSM until such time that a supplier demonstrates that it has established a contract with a GDSN Certified Data Pool.

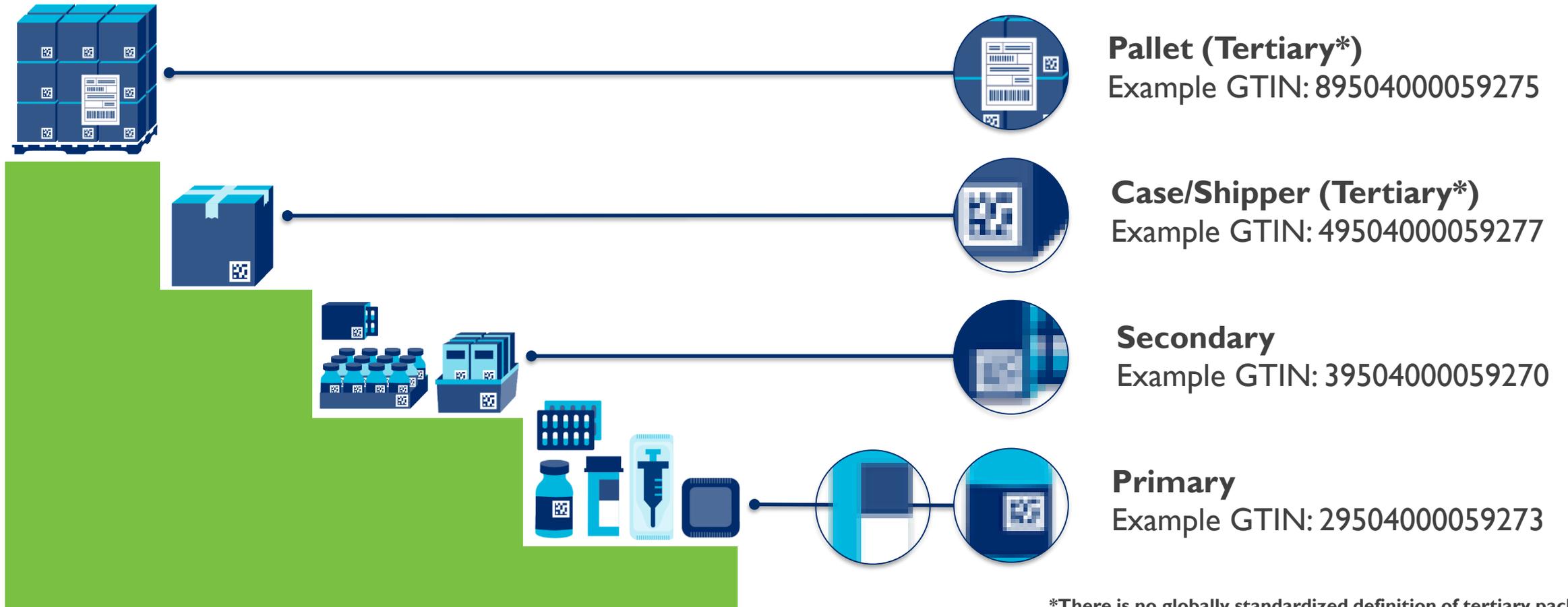
Thank you to our early adopters who have synchronized GDSN data!



# GS1 in the Healthcare Industry

# Packaging Level Hierarchies

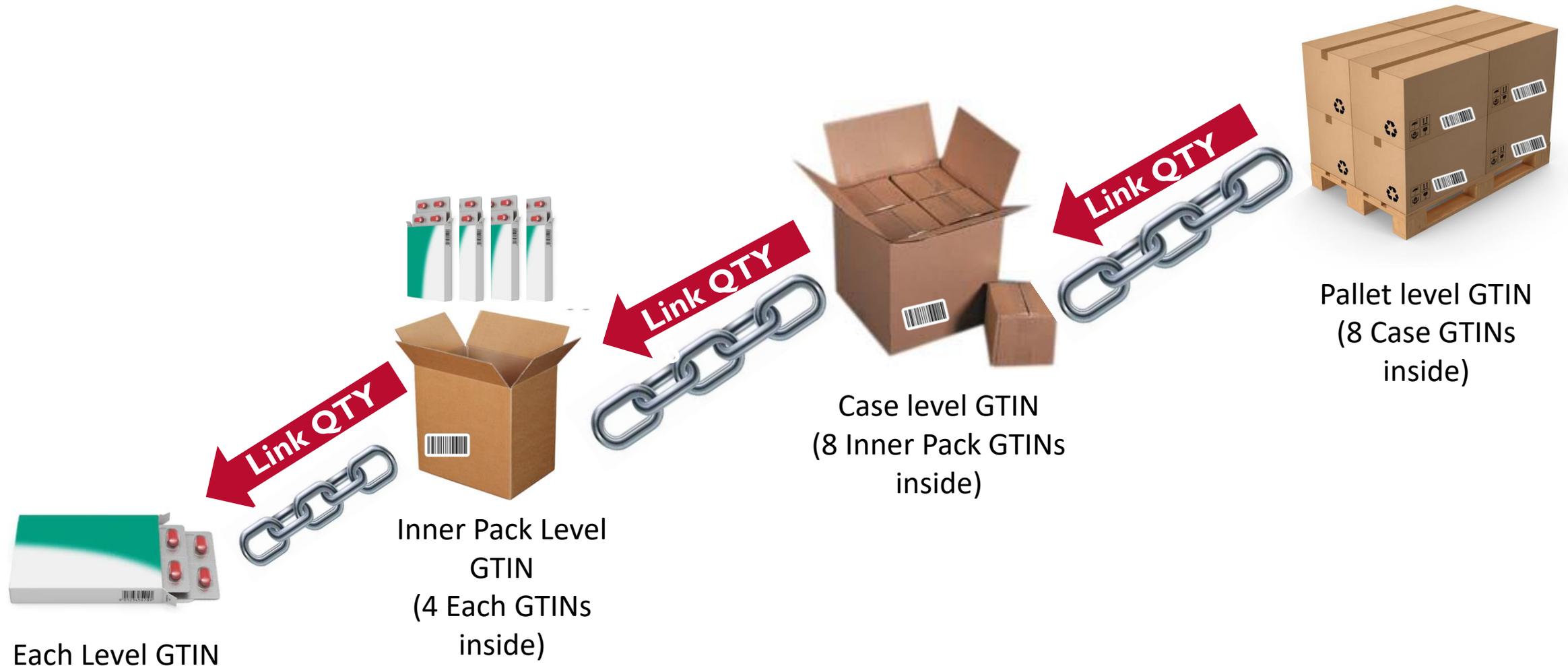
Identification at all levels



\*There is no globally standardized definition of tertiary package

# Linking Hierarchies Together

- Each GTIN within a hierarchy will be linked based upon the quantities of lower level trade items that go into the parent item as shown below



## Related GS1 Resources

- Healthcare GTIN Allocation Rules

[https://www.gs1.org/docs/gsmf/healthcare/GSI\\_Healthcare\\_GTIN\\_Allocation\\_Rules.pdf](https://www.gs1.org/docs/gsmf/healthcare/GSI_Healthcare_GTIN_Allocation_Rules.pdf)

- Healthcare GLN Guideline

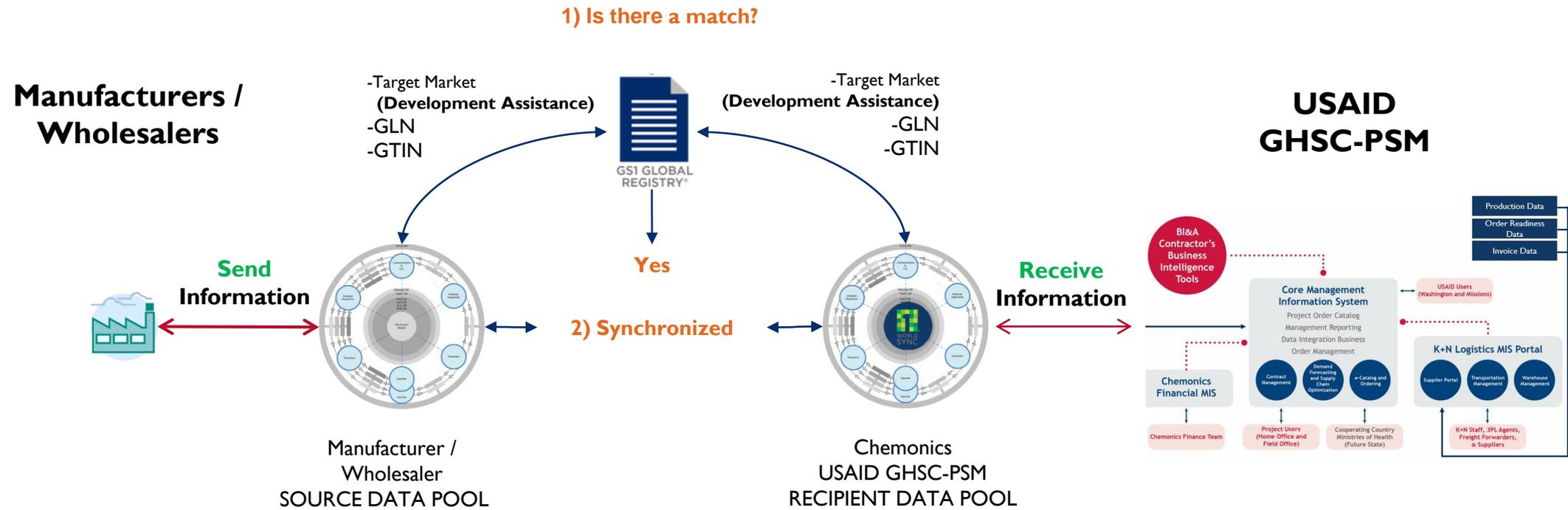
[https://www.gs1.org/docs/healthcare/GLN\\_Healthcare\\_Imp\\_Guide.pdf](https://www.gs1.org/docs/healthcare/GLN_Healthcare_Imp_Guide.pdf)

- GS1 General Specifications

<https://www.gs1.org/standards/barcodes-epcrfid-id-keys/gs1-general-specifications>

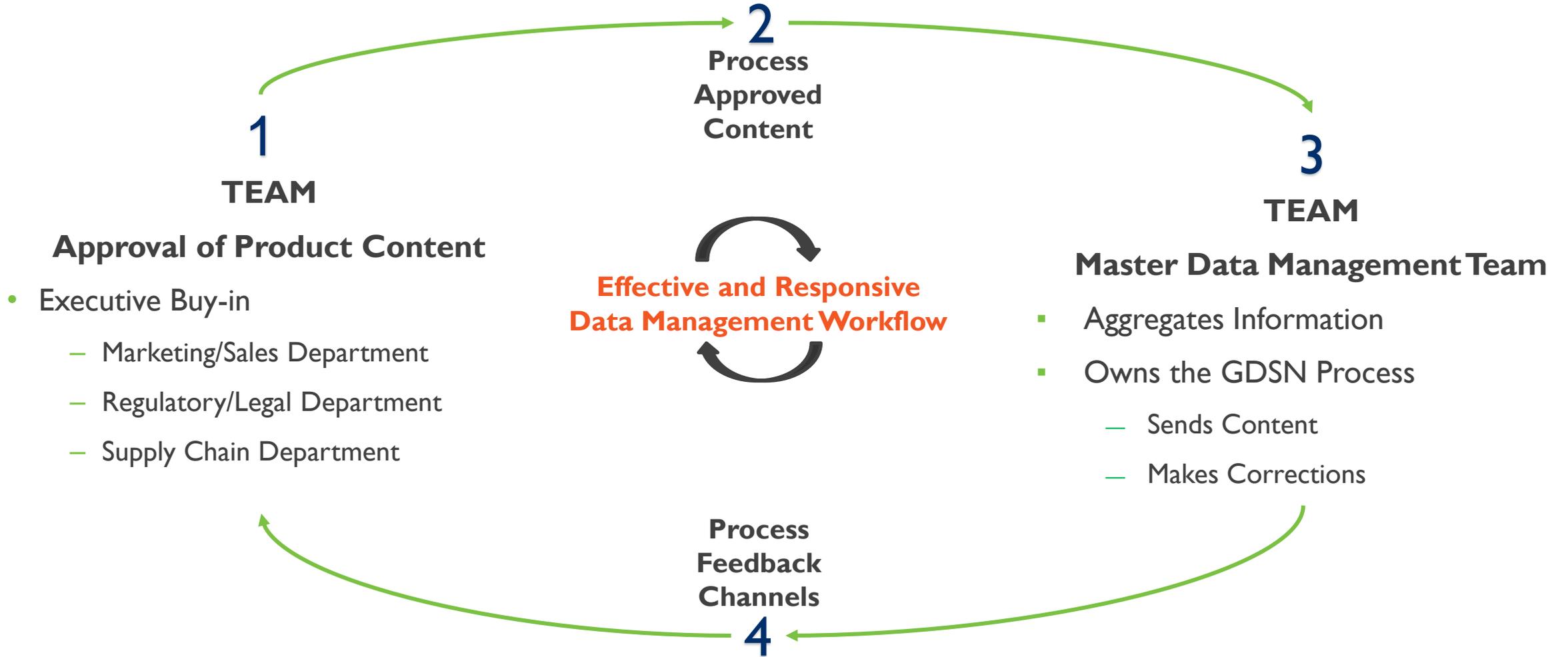
# GDSN: How it works

# Synchronizing Your Product Information



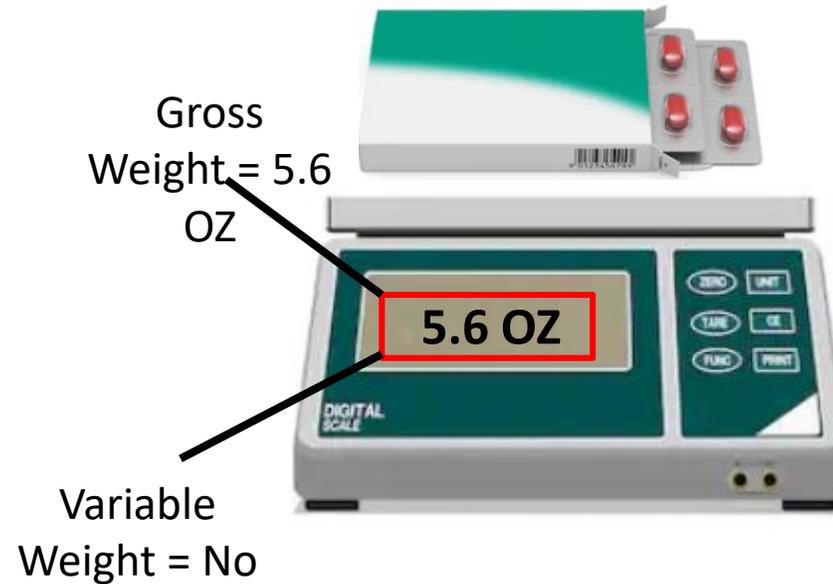
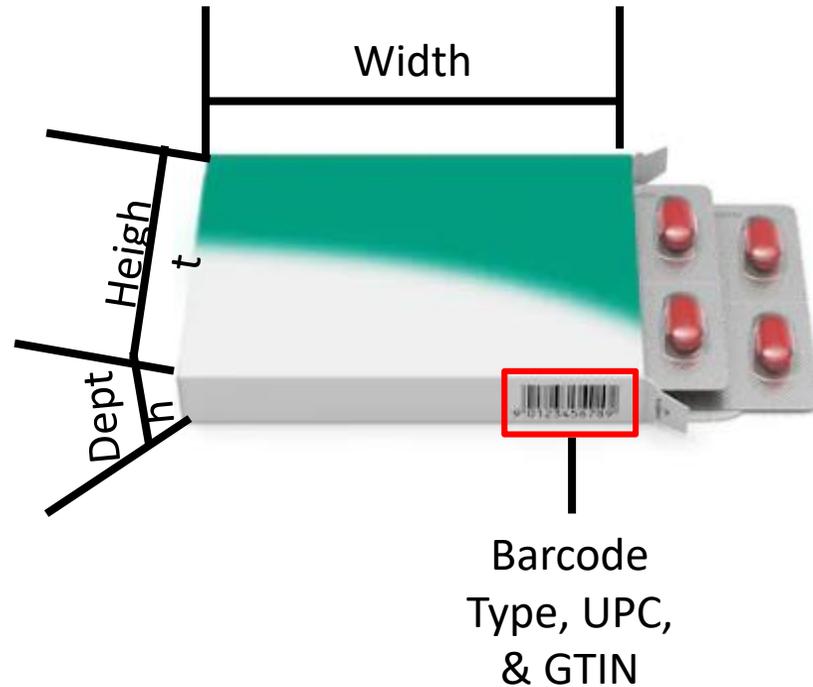
- 1) Secure connection established between supplier and recipient
- 2) Product content is shared (synchronized) and updated in real time

# Preparing for GDSN: Internal Structure



# GHSC-PSM Attributes

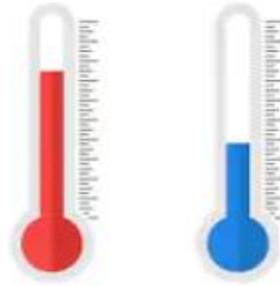
- GHSC-PSM does have specific attribute requirements but here are some **examples** of the content you will want to ensure you have captured and prepared for entry into GDSN



# GHSC-PSM Attributes



Manufacturer Name, Address, & GLN



Max and Min storage temperature



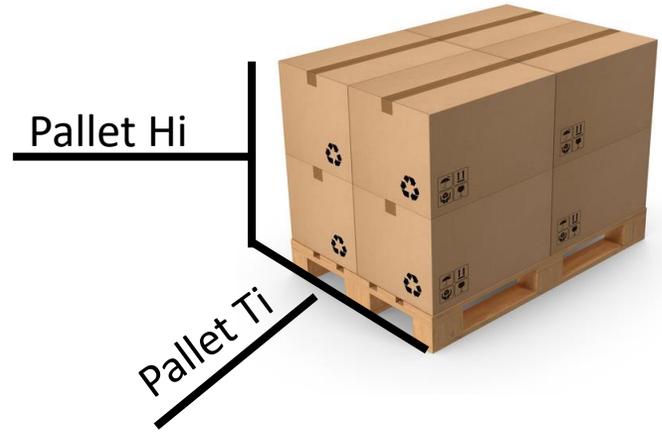
Consumer Usage Instructions

# GHSC-PSM Attributes



30 tablets

Net Content



Pallet Hi

Pallet Ti



## Route of Administration

[f Share](#)
[t Tweet](#)
[in LinkedIn](#)
[✉ Email](#)
[🖨 Print](#)

NCI Thesaurus OID: 2.16.840.1.113883.3.26.1.1

NCI concept code for route of administration: C38114

SPL Acceptable Term	Code
AURICULAR (OTIC)	C38192
BUCCAL	C38193
CONJUNCTIVAL	C38194
CUTANEOUS	C38675
DENTAL	C38197
ELECTRO-OSMOSIS	C38633
ENDOCERVICAL	C38205
ENDOSINUSIAL	C38206
ENDOTRACHEAL	C38208
ENTERAL	C38209
EPIDURAL	C38210

|  
 FDA Route of  
 Administration  
 Code

# Product Information: Entering Information

## 1. The Attribute Guide

The attribute guide serves as a dictionary/reference to attributes that USAID GHSC-PSM needs to receive.

[Attribute Guide Link](#)

## 2. Product Content Entry and Publication

Once you register with a data-pool service provider, you will have access to a platform where you can enter the specific GHSC-PSM attributes as data entry fields.

This information is securely stored on the data-pool and the information provider chooses who to send (publish) the entered information to.

USAID GLOBAL HEALTH SUPPLY CHAIN PROGRAM  
PROCUREMENT AND SUPPLY MANAGEMENT  
DATA SYNCHRONIZATION ATTRIBUTE GUIDE, Version 1.3

Common Name	GDSN Tag	Pharma	Others	IWorldSync Tag	Data Type	Definition / Guidance
GENERAL ITEM INFORMATION						
Item Id	gtn (for a GS1 standard item)	M	M	gtn (if the item is a GS1 Standard item) -or-	GTIN -or-	The Global Trade Item Number is the standard 14-digit number used to identify all trade items in GDSN. For a more detailed definition, refer to the introductory section of this document. If the identifier is not a GS1 Standards GTIN, then this identifier should also be populated in the following attributes:
Product Type						
Target Market						
Brand Name						
Functional Name						
Country Of Origin						
Start Availability Date						
Effective Date						
Barcode Type						
PRODUCT DESCRIPTION INFORMATION						

**ITEM MANAGEMENT**  
Enhanced Classic

Item ID\* 00063344457671 Item Name\* Carol 8 OZ CLASSIC RANCH English + Target Market\* UNITED STATES

Playlists Basic GDSN Item Chemionics- Pharmaceuticals

**HealthCare**

**Dosage**

**Dosage Form Type Code Reference**

Dosage Form Type Code Reference Code

Code Description

Dosage Recommendation  Select

Dosage Restriction Limits  Select

**Route Of Administration**

External Agency Name

External Code List Name

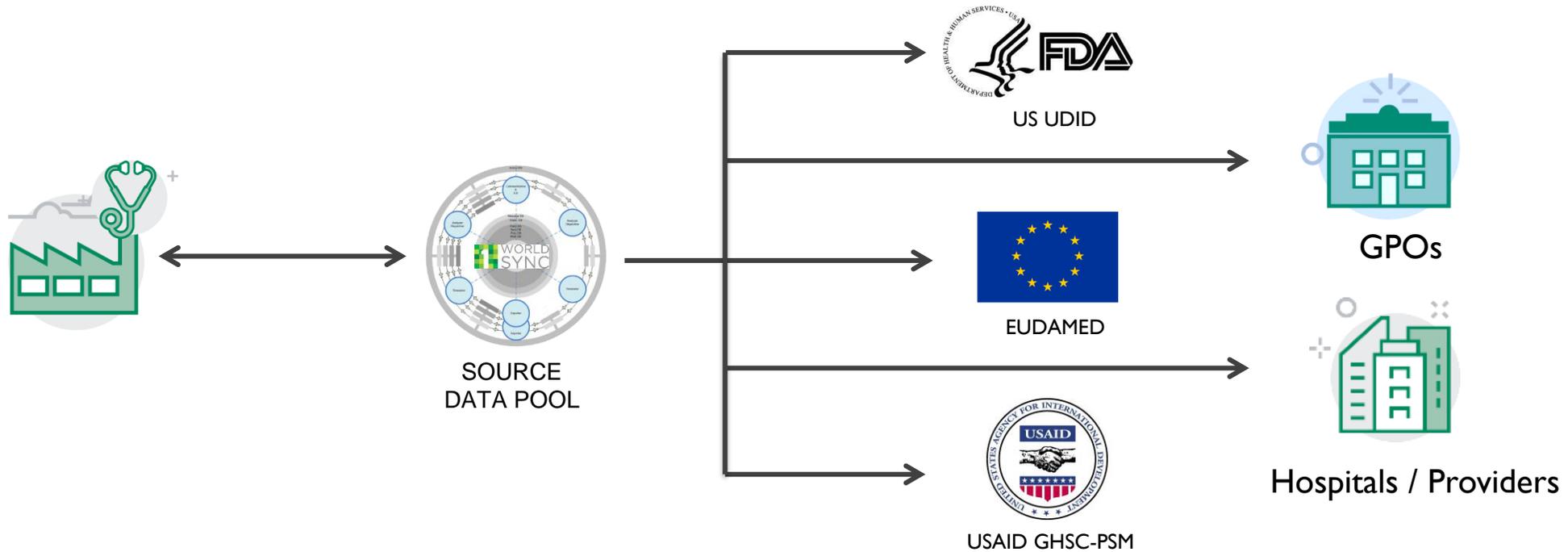
**Enumeration Value Information**

Enumeration Value

Enumeration Value Description  Select

**Item Registration Status**

Once you are in, you can reach out to the broader industry



# GDSN Misconceptions

# Misconception 1: *GTINs and GLNs can only be assigned to one Target Market*

- GTINs and GLNs can be assigned to multiple target markets!
- This GDSN model works off a basic principle:
  - The entire set of data attributes are assigned to a GTIN
  - Those attributes may vary depending on who provides the information (GLN)
  - Those attributes may vary by which target market (TM) the data is designed for
- The following attributes that **should not** change across GTIN, GLN, Target Market
  - ✓ GTIN
  - ✓ GPC Category Code
  - ✓ Brand Owner (GLN)
  - ✓ Brand
  - ✓ Sub Brand
  - ✓ Functional name
  - ✓ Variant
  - ✓ Trade item unit descriptor
  - ✓ Country of origin
  - ✓ Quantity of next lower level trade item
  - ✓ Net content
  - ✓ Net content UOM
  - ✓ Is trade item a base unit
  - ✓ Is trade item a consumer unit
  - ✓ Is trade item a variable unit
  - ✓ Cancelled date

# Misconception 2: *The GDSN exchanges transactional information*

## GS1 GDSN

The Global Data Synchronization Network



**What item is this?**

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### Master Data

- General Item Information / Classification
- Product Description Information / Images
- Unit Indicators/ Hierarchy

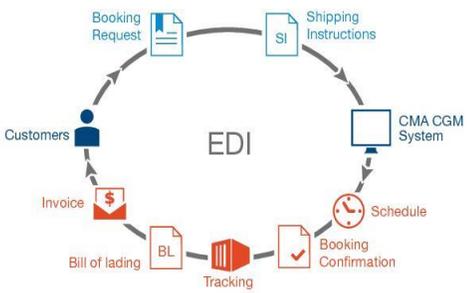
- Dimensions/ Packaging Information
- Contact Information/ Additional Trade Items

- Storage, Handling, Shelf Life
- Warranty Information

- Ingredient Information / Pharmaceutical
- URL Links to Additional Information
- Market Authorization / Hazardous Information

## GS1 EDI

Electronic Data Interchange



**What did this cost?**

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### Transactional Data

- Add Items GTIN & Quantities
- Change Orders (Price, Items & Dates)

- Product Activity Exchanged

- Shipment tracking numbers
- Order Level PO information

- Discounts
- Payment Terms
- Invoice Details

## EPCIS / CBV

Electronic Product Code Information Services



**Who touched this along the way?**

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### Event Data

<b>What</b>	<ul style="list-style-type: none"> <li>• EPC Number leverages GTIN</li> <li>• Manufacturing Data (lot, batch, expiration date)</li> <li>• Transactional (PO, Shipment, Invoice)</li> </ul>
<b>Where</b>	<ul style="list-style-type: none"> <li>• Location (Leverage GLN)</li> </ul>
<b>When</b>	<ul style="list-style-type: none"> <li>• Event Time</li> <li>• Record Time</li> </ul>
<b>Why</b>	<ul style="list-style-type: none"> <li>• Business Process (Receiving, Shipping)</li> <li>• Product State (Active, In-Transit)</li> <li>• Current Condition (Temperature Being Stored)</li> </ul>



# Timelines & Actions

# 2018-2019 Timeline for Compliance

1

## Now! Identification & Labeling

- Assign GTINs & GLNs
- COMPLETE GTIN & GLN Submission Form [HERE](#)
- Label your tertiary pack trade items

**DEADLINE**  
30<sup>th</sup> December 2018

2

## Register for Data-pool

Data-pools are the mechanism for sending GTIN master data to GHSC-PSM

Find List of Data Pools [HERE](#)

**RECOMMENDED**  
March-June 2019

3

## Publish Content to GHSC-PSM

- Alert GHSC-PSM that you are ready to synchronize data
- Attribute Requirements
- GDSN Process and Communication

**DEADLINE**  
30<sup>th</sup> December 2019

# I. Identification & Labeling

1. Register with a GS1 Member Organization (MO) to obtain a GS1 Company Prefix
2. Assign a Global Trade Item Number (GTIN) to all items
3. Assign a Global Location Number (GLN) for relevant legal entities and locations
4. Fill out the GHSC-PSM GTIN and GLN Submission Form
  - <https://www.ghsupplychain.org/index.php/global-standards/gtinglnsubmissionform>
5. Follow the GS1 barcode implementation guidance to print barcode labels on your tertiary pack trade items, and provide samples to GHSC-PSM

**DEADLINE**  
**30<sup>th</sup> December 2018**

## 2. Register for Data Pool

### 1. Subscribe to a GDSN-certified data pool provider of your choice

- A list of all GDSN-certified data pool providers can be found at <https://www.gs1.org/services/gdsn/certified-data-pools>
- IWorldSync has a special offer for GHSC-PSM suppliers to join the GDSN. For more information, contact +1-866-280-4013 or [businessdevelopment@1worldsync.com](mailto:businessdevelopment@1worldsync.com)

### 2. Internal Preparation

- Work with existing or establish an internal master data management process
- Get executive buy-in and create internal initiatives to allow you to invest time and resources in GDSN

**RECOMMENDED COMPLETION**

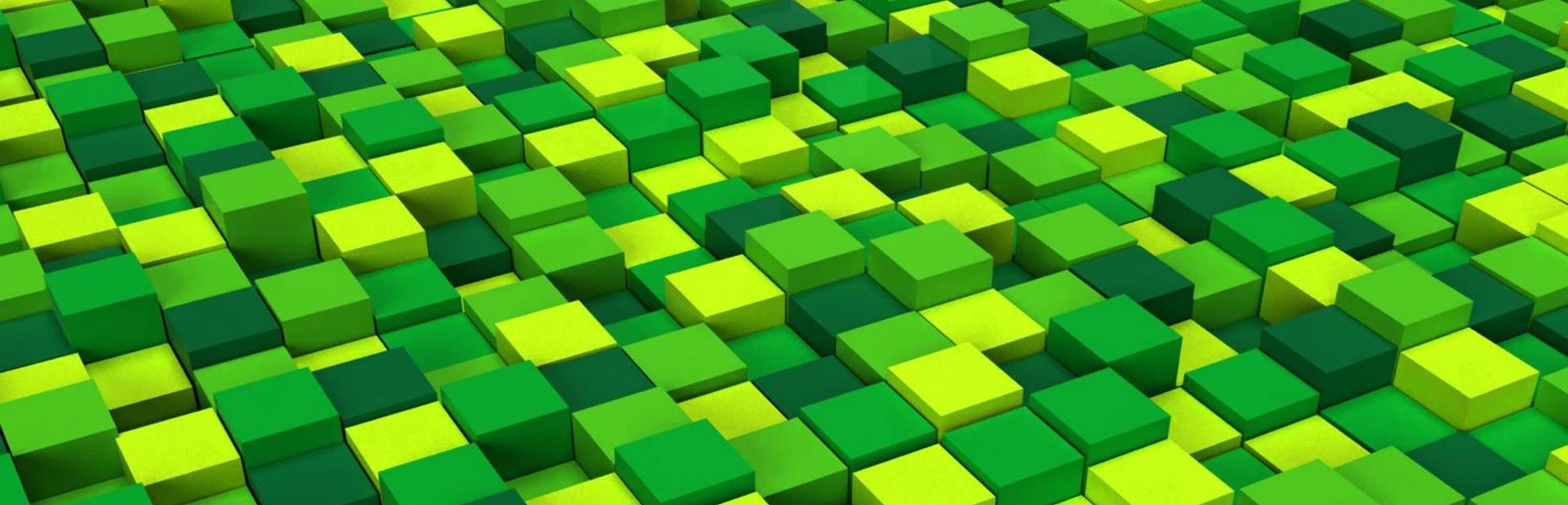
**March - June 2019**

## 3. Publish Content to GHSC-PSM

1. Load the GTIN, GLN, and associated item data into your GDSN data pool solution
  - Reference the GHSC-PSM Data Synchronization Attribute Guide for a complete list of attribute requirements: <https://www.ghsupplychain.org/index.php/psmdatasyncattributeguide>
2. Publish items to GHSC-PSM production GLN 0858939007009
  - Reference the GHSC-PSM Data Synchronization Implementation Guide for more detailed specifications related to publication: <https://www.ghsupplychain.org/index.php/global-standards-technical-implementation-guideline-global-health-commodities-v21>
3. Continue to maintain items through the data synchronization process

**DEADLINE**

**30<sup>th</sup> December 2019**

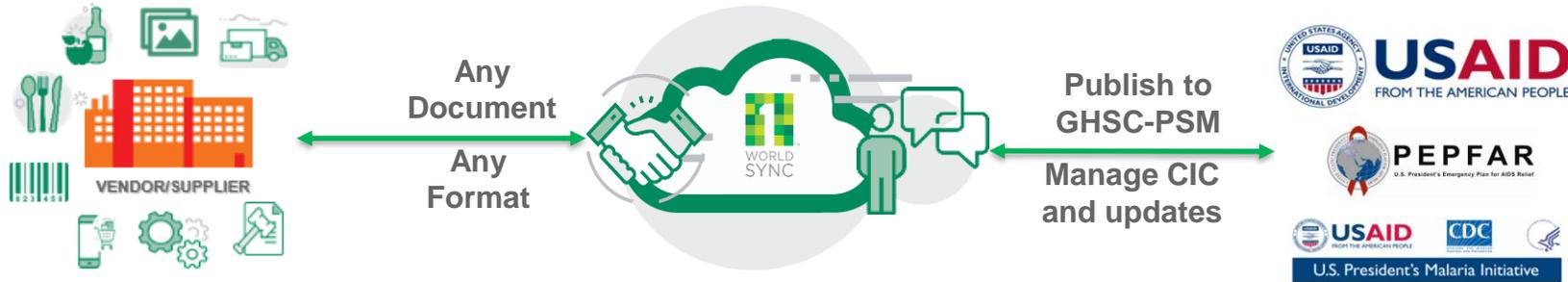


# 1WorldSync Solution

Data Load and Maintenance (DLM) offering for GHSC-PSM suppliers

# Don't have time or resources for GDSN now?

- Let us be your GDSN Team! Data Load and Maintenance
- We Load Content to GS1 and GHSC-PSM Specifications



**Speed:** Reduces time of content to market



**Savings:** No need for training or hiring of new staff



**Assurance:** GS1 and Recipient based content compliance



**Simplicity:** Attach it to your reduced 1WorldSync GDSN offering

**Easy to Add:** Include this on your reduced GHSC-PSM subscription rate

For more information email: [businessdevelopment@1worldsync.com](mailto:businessdevelopment@1worldsync.com)

# Get Started Now!

- Collect all your product content: Attribute Guide
- Register with a data-pool!
  - **1WorldSync** has GHSC-PSM special offer for data pool access, which can be combined with Data Load and Maintenance (DLM) service

**DEADLINE**

**30<sup>th</sup> December 2019**

# Resources

# GS1 Resources

- For a list of all GDSN-certified data pool providers:
  - <https://www.gs1.org/services/gdsn/certified-data-pools>
- For a list of all GS1 Member Organizations:
  - <https://www.gs1.org/contact/overview>
- To learn more about GS1, including implementation of the GDSN, register to attend the upcoming GS1 Healthcare Conference:
  - November 5 – 7, 2019 in New Delhi, India
  - <https://www.gs1.org/healthcare/events>

# GHSC-PSM Resources

- For more details on GHSC-PSM's requirement:
  - <http://ghsupplychain.org/globalstandards>
- GHSC-PSM's GDSN Landing Page:
  - <http://www.lworldsync.com/customer-page/ghsc-psm/>
- Key contacts:
  - GHSC-PSM Global Standards Team: [globalstandards@ghsc-psm.org](mailto:globalstandards@ghsc-psm.org)
  - GHSC-PSM Data Sync Team: [datasync@ghsc-psm.org](mailto:datasync@ghsc-psm.org)

# 1WorldSync Resources

- Website:
  - <http://www.1worldsync.com/>
- Key contacts:
  - [businessdevelopment@1worldsync.com](mailto:businessdevelopment@1worldsync.com)
  - +1-866-280-4013
- For upcoming events and training opportunities you can visit:
  - <https://www.1worldsync.com/services/education-training/>

# Q&A



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A group of four young children are smiling and looking towards the camera. They are positioned in front of a teal wall decorated with white paint splatters. A large, semi-transparent green circle is centered over the image, containing the text 'THANK YOU' in white, bold, sans-serif capital letters. The children are dressed in casual clothing, including a striped shirt and a white shirt with a blue collar.

THANK  
YOU