SUPPLIER SUMMIT

USAID Global Health Supply Chain Program Supplier Summit
February 21-23, 2017

SUPPLIER SUMMIT | USAID Global Health Supply Chain Program

YOU SAY DATA, I SAY DATA

STREAMLINED DATA EXCHANGE WITH GHSC-PSM

USAID FROM THE AMERICAN PEOPLE

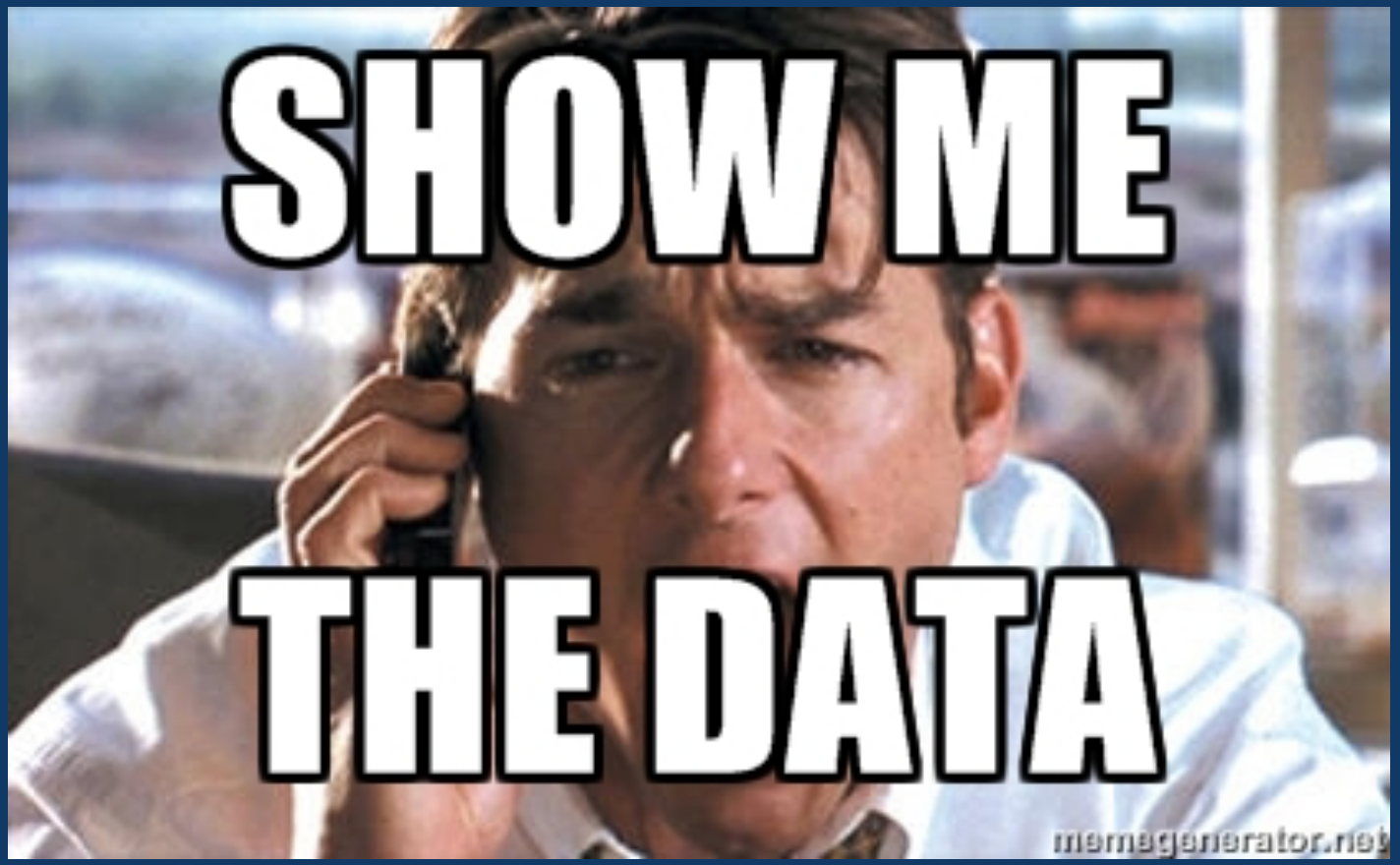
PEPFAR U.S. President's Emergency Plan for AIDS Relief

USAID FROM THE AMERICAN PEOPLE | CDC | U.S. President's Malaria Initiative

AGENDA

- Overview and Data Exchange with ARTMIS
- Master Data vs. Transactional Data
- Master Data/Transactional Data Submission to ARTMIS
- Overview of GS1 and GDSN
- Master Data Submission to GDSN Data Pool

INTRODUCTION AND OVERVIEW



GOALS OF GHSC-PSM AUTOMATION

- Extensively automate supply chain processes
- Electronically integrate with key stakeholder and partner systems
- Improve overall supply chain efficiency
- Reduce errors and re-work
- Reduce data quality issues and eliminate data redundancy
- Communicate more effectively with suppliers and other stakeholders
- Implement GS1 standards
- Ensure supply chain security
- Increase patient safety

…LEADING TO MORE MEDICINE FOR MONEY

OVERVIEW OF ARTMIS

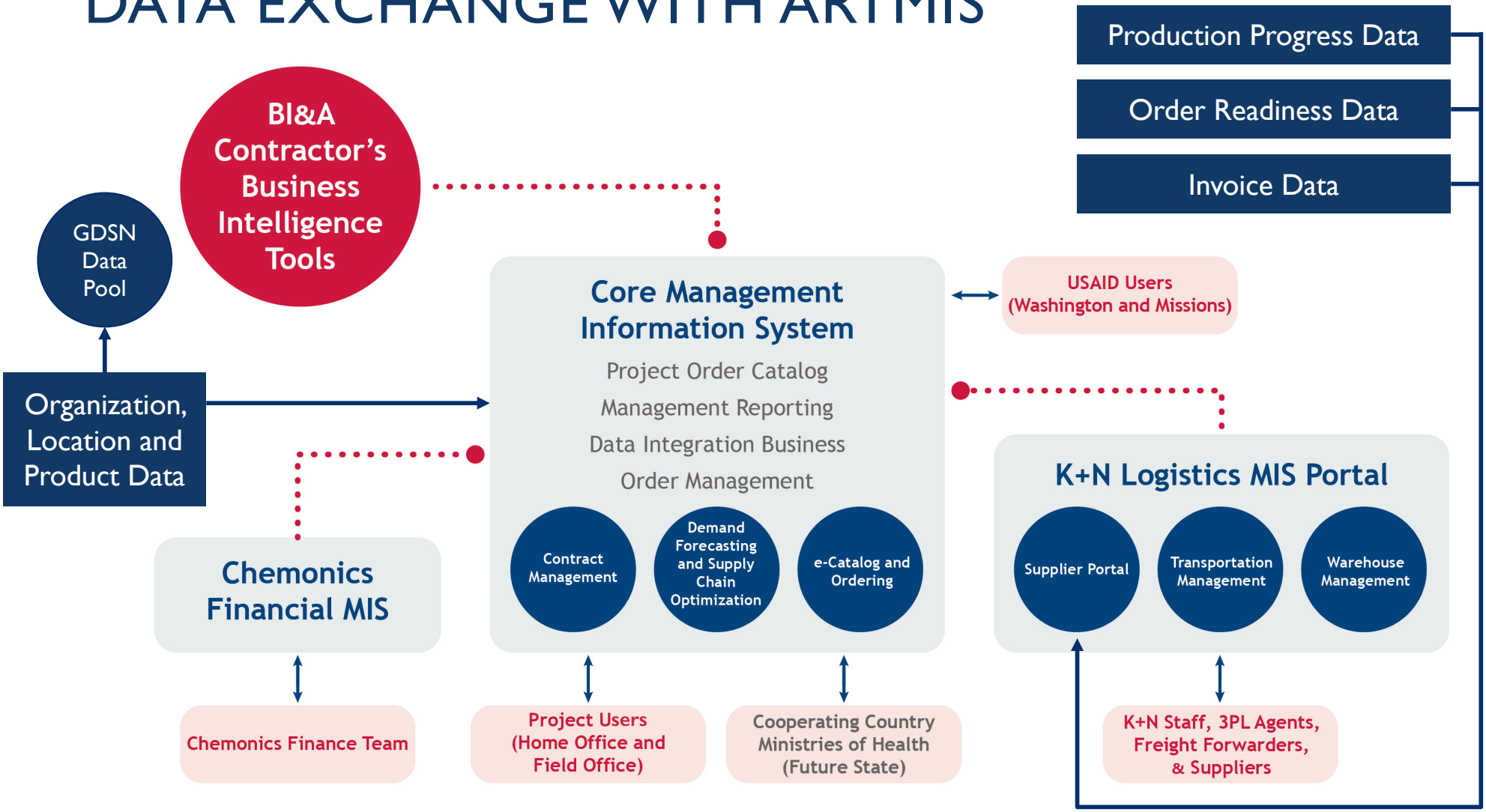
Automated
Requisition
Tracking
Management
Information
System

ARTMIS OVERVIEW

End-to-end data visibility of the health commodities supply chain is an overarching objective of the GHSC-PSM program. To achieve the highest level of data visibility, GHSC-PSM has selected an MIS that automates key steps along the supply chain. ARTMIS integrates three best-in-class solutions:

1. IBM's e-Commerce Suite, ranked No. 1 by Gartner and Forrester Research, is used by some of the world's top supply chain operators, such as Cardinal Health.
2. K+N's Logistics Management Information System (LMIS) is used to manage the largest non-asset-based freight forwarding operation in the world.
3. Chemonics' Financial Management Information System (FMIS) manages hundreds of millions of dollars in turnover annually and ensures adherence to USAID's reporting requirements.

DATA EXCHANGE WITH ARTMIS



MASTER DATA VS. TRANSACTIONAL DATA

KEY DATA SETS

- **Master Data** describes the people, places, and things that are involved in an organization's business.
  - Organizations
  - Locations
  - Product/catalog
- **Transactional Data** describes an internal or external event or transaction that takes place as an organization conducts its business.
  - Sourcing events
  - Production progress
  - QC testing
  - Order readiness
  - Invoice

MASTER DATA - ORGANIZATIONS

Company Name
Company Address
Company Telephone and Website
Manufacturer Information
Organization Name
Contact name
Phone no.
Email
Registered Address (HQ)
Website
Country of registration
Date of registration

Attributes listed below are illustrative only. Product attributes to be submitted at first via ARTMIS and later via GDSN.

MASTER DATA - PRODUCT/CATALOG

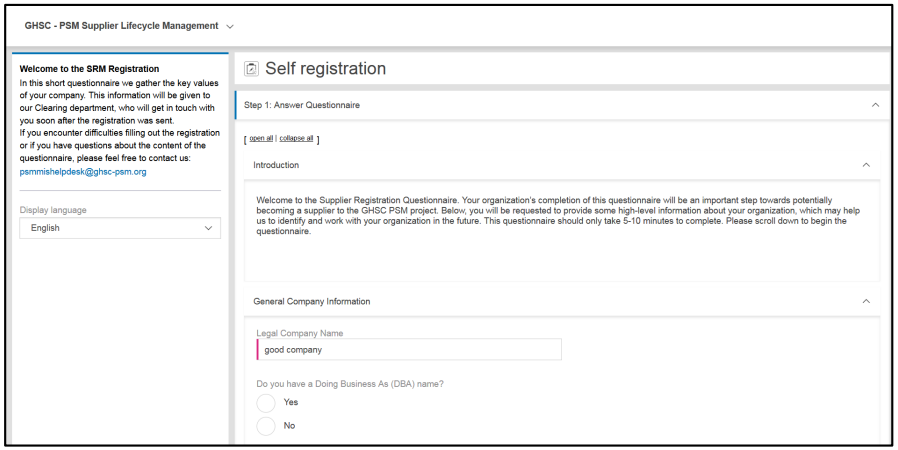
Item Name	**Name of the Manufacturer**	Registration Number
GTIN/Manufacturer ID	**Manufacturing Site Address**	Registration Expiry Date
Lot	**Pick-up Address (if Applicable)**	**Estimated Lead time (no. of weeks)**
Description	**Currency Code**	Lot Size in Number of Units
Desired Quantity	Remarks	Item Type
Unit of Measure	**Price Per Unit**	**Quantity On Stock**
What is your Regulatory Approval Status?	**Shelf Life (in months)**	Maximum Production Capacity Per Month (Number of Units)
Expiry Date of Regulatory Approval	Minimum Quantity	Product Registration Status for the Country
Maximum Desired Quantity	Maximum Quantity	Country
Goods Availability Date	GHSC-PSM Product ID	Action
Category	Unit Form	Manufacturer Item ID

TRANSACTIONAL DATA – SUPPLY CHAIN

- Production Progress
  - Production start date (within 24 hours after production started)
  - Production complete date (within 24 hours after production completed)
  - Batch Number/Quantity/Expiry Date (within 24 hours after production completed)
  - QC testing request date upon readiness of production goods when QC is required (within 24 hours after sending samples)
- Expected Readiness
  - Expected readiness date for confirmation (within 3 days of receiving email notification)
  - Expected readiness date for change (with a reason code of why date is out of tolerance)
- Booking
  - Booking Request/Packing List/Invoice

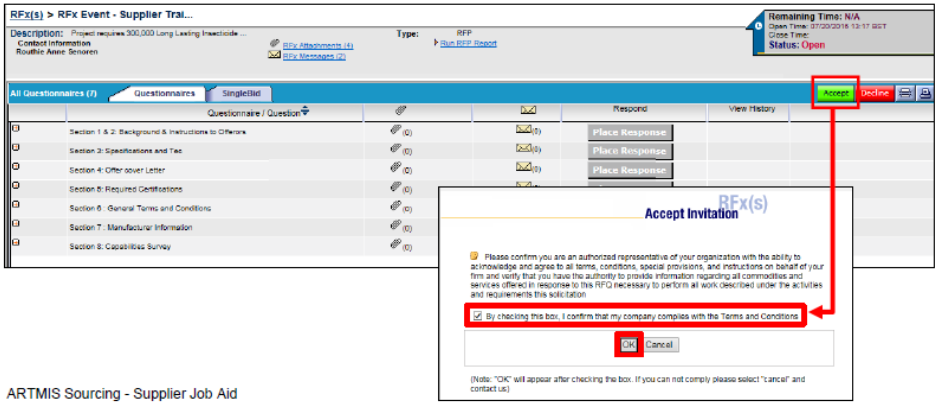
MASTER DATA/TRANSACTIONAL DATA SUBMISSION TO ARTMIS

SUPPLIER REGISTRATION AND SOURCING EVENTS



Supplier Registration in ARTMIS (Emptoris)

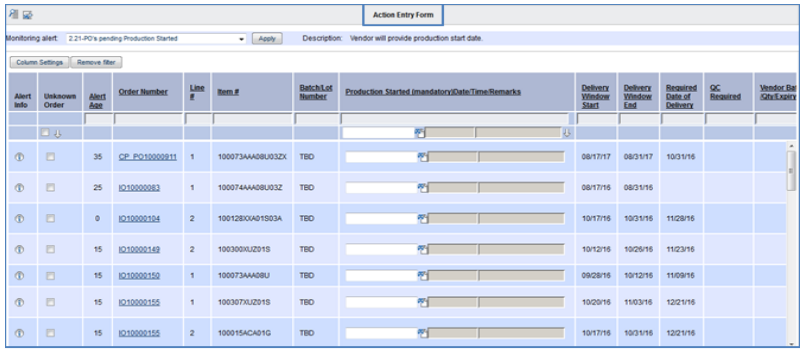
Responding to RFx in ARTMIS (Emptoris)



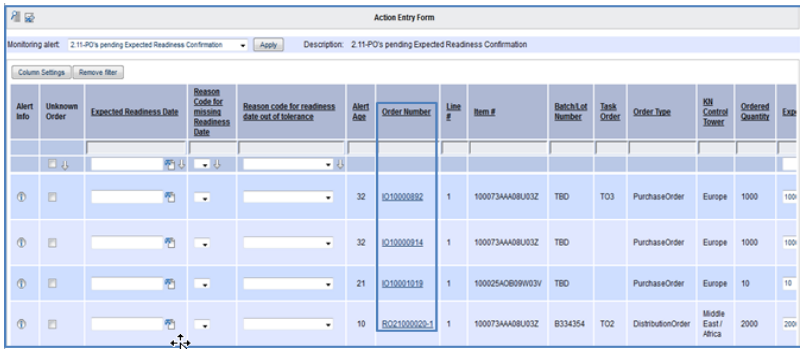
ARTMIS Sourcing - Supplier Job Aid

TRANSACTIONAL DATA SUBMISSION TO ARTMIS

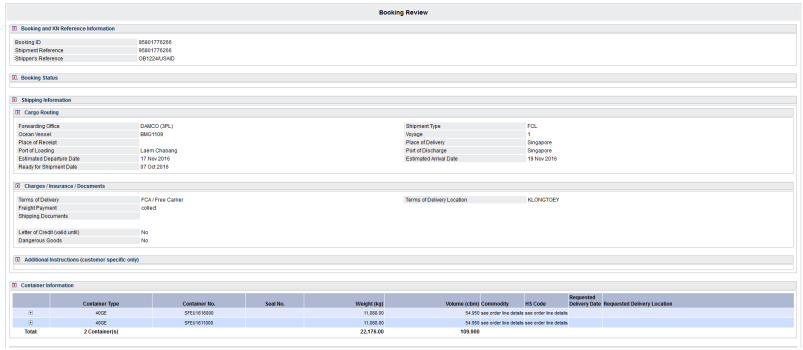
Supplier Portal in K&N LMIS



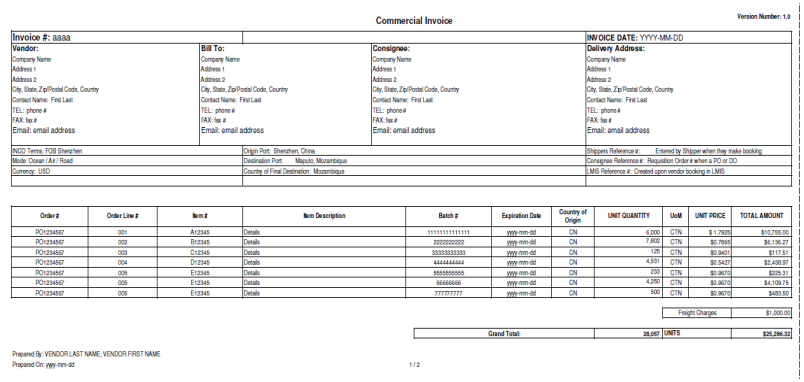
Production Progress



Expected Readiness



Booking Request



Invoice

OVERVIEW OF GS1 AND GDSN

Pete Alvarez
GS1 Global Office
Senior Director, Identification and Data Strategy, Healthcare
+1 609 557 4547
peter.alvarez@gs1.org

THE MASTER DATA PROBLEM

Every company has a database filled with master data about the products they make, sell, or buy.

But when one company changes any bit of information in their database or adds a new item, another database becomes outdated!

© GS1 2015

WHAT HAPPENED TO "MASTER DATA"

- Systems have evolved in "silos" over the last 40 years
- The link between "process" and data was broken (*remains so in many cases*)
- Numerous efforts to "unify" data and process, or views of data – one use at a time
- **So what**? Business success still happened anyway… (*and hospitals operated*)
- Only when costs increase, profits fall, (*or a patient is negatively affected)* does the real impact of bad data become known!

1970s

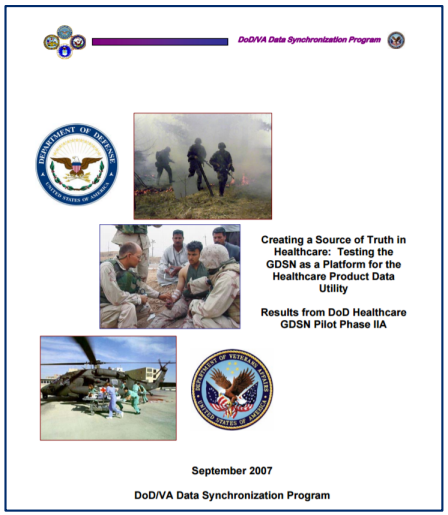
1990s

2000s

Original source: Gartner

© GS1 2015

DATA ERRORS IN HEALTHCARE



DoD Conclusion: GDSN is capable of meeting the data needs of US healthcare

% of Total Data Error	Manu-facturer	Distributor	GPO	Healthcare provider
Missing Middle Levels of Packaging	15-20%	1-4%	20-25%	15-25%
Hard "Packaging Quantity" Errors	1%	1%	2%	2-5%
Unit of Measure Confusion/Misuse	2-6%	1-3%	2-5%	Unknown
Missing Packaging—not Middle Level	3-8%	3-8%	3-7%	5%
Manufacturer Name Problems	NA	2-5%	1-4%	30%
Obsolete Products	1-4%	2-5%	1-8%	5-15%
Missing Product Brand Names	2-5%	5-10%	5-10%	20-25%
Incomplete Item Descriptions	5-15%	3-12%	5-15%	10-20%
Wrong Customer Unit Prices	Unknown	1-2%	NA	1-2%
Customer Paid More Than Lowest Contract Price	NA	Unknown	NA	3-6%

DoD report: https://www.gs1us.org/DesktopModules/Bring2mind/DMX/Download.aspx?command=core_download&entryid=620&language=en-US&PortalId=0&TabId=134

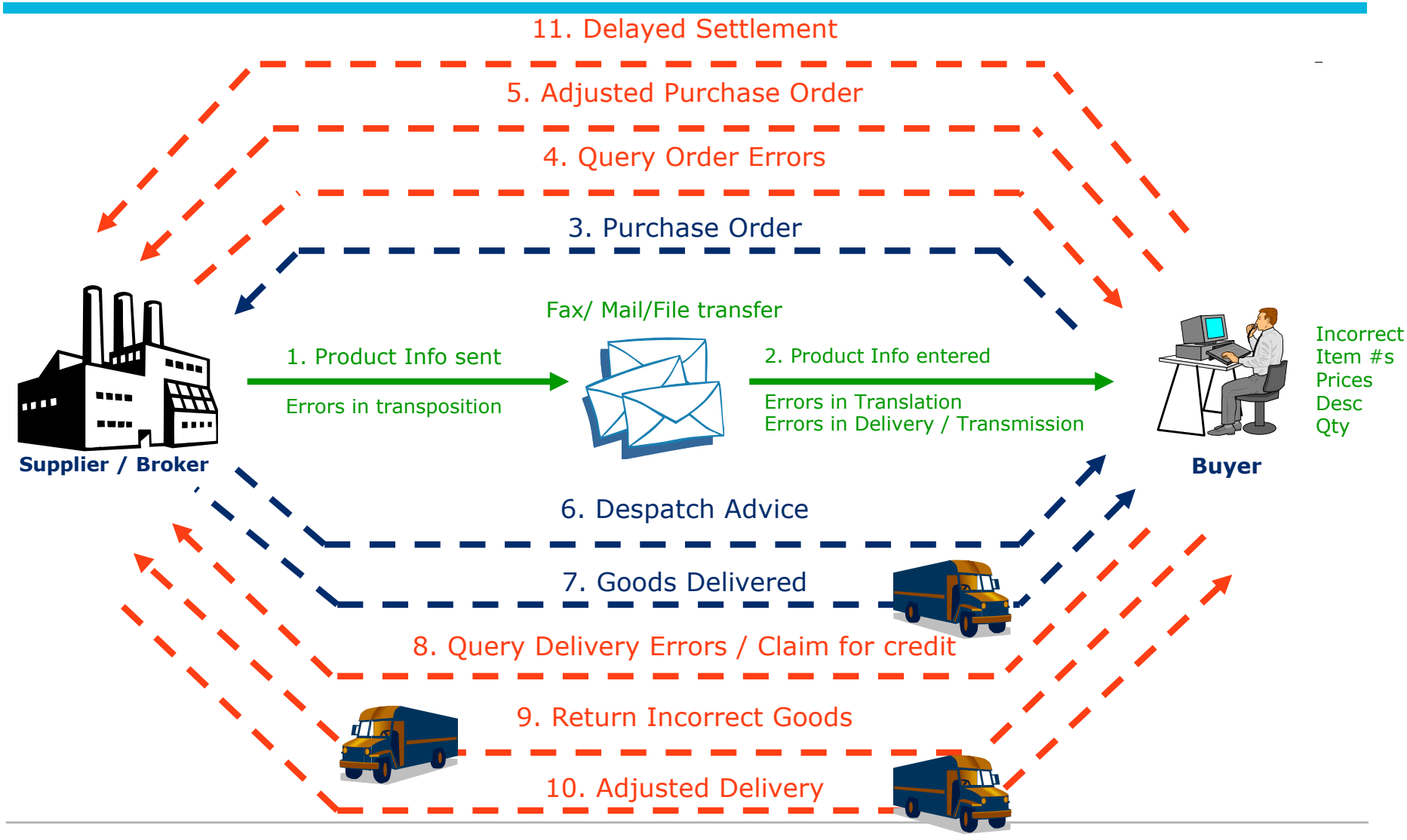
© GS1 2015

THE AUSTRALIAN DATA CRUNCH REPORT PUTS A COST ON THE DATA QUALITY PROBLEM IN HEALTHCARE

Source: https://www.gs1au.org/resources/publications/

© GS1 2015

ORDER-TO-CASH BEFORE DATA SYNCHRONISATION



© GS1 2015

DATA QUALITY STARTS AT THE SOURCE

© GS1 2015

DATA QUALITY STARTS AT THE SOURCE

Data Governance

Roles and Responsibility

Enterprise-wide
Data Management

Data Quality

The quality of the data is a direct reflection on the quality of the product

© GS1 2015

ROLES AND RESPONSIBILITIES

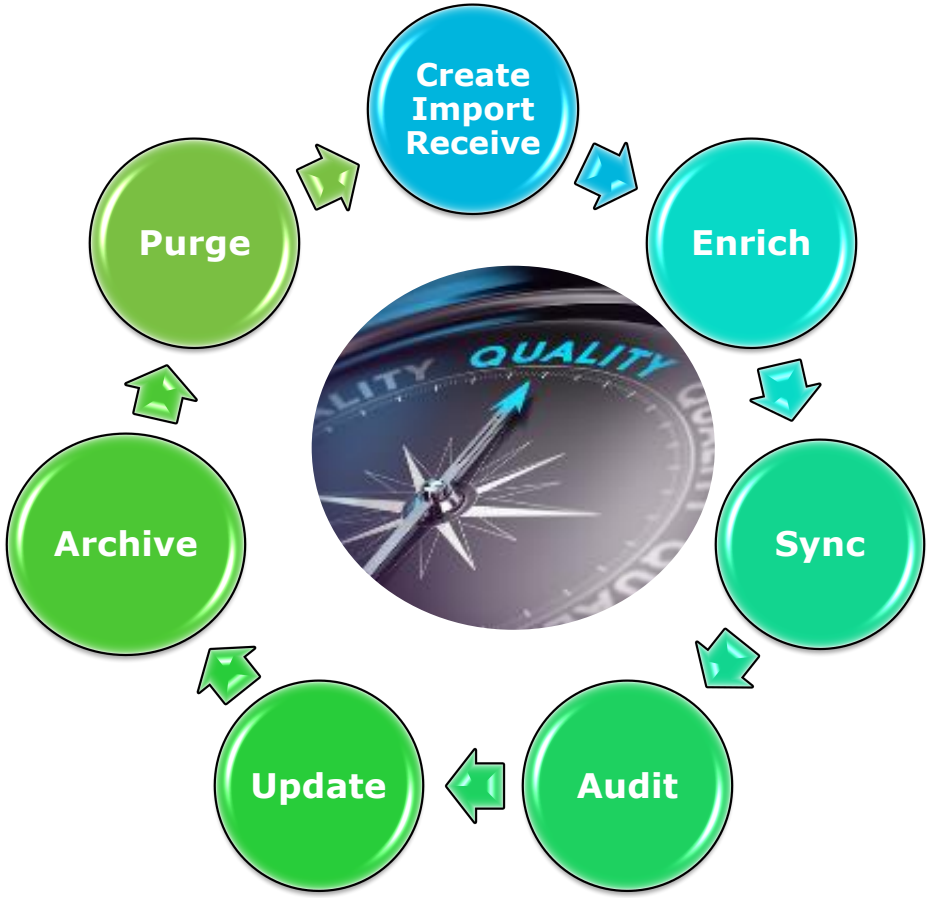
- Enterprise-wide definition of roles and responsibilities of everyone involved in the information flow, internal and external

© GS1 2015

ENTERPRISE-WIDE DATA MANAGEMENT

Key Concepts – Information Lifecycle Processes

1. Create, Import or Receive
   - *Collect, Create, Receive & Capture*
2. Enrich/Validate
   - *Data Quality*
3. Sync/Activate
   - *Push to users*
4. Audit/Evaluate
   - *Routine Monitoring*
5. Update/Maintain
   - *Maintain, Protect & Preserve*
6. Inactivate/Archive
   - *Remove from active use*
7. Purge
   - *Delete from system*



© GS1 2015

WHAT IS THE GDSN AND HOW DOES IT WORK?

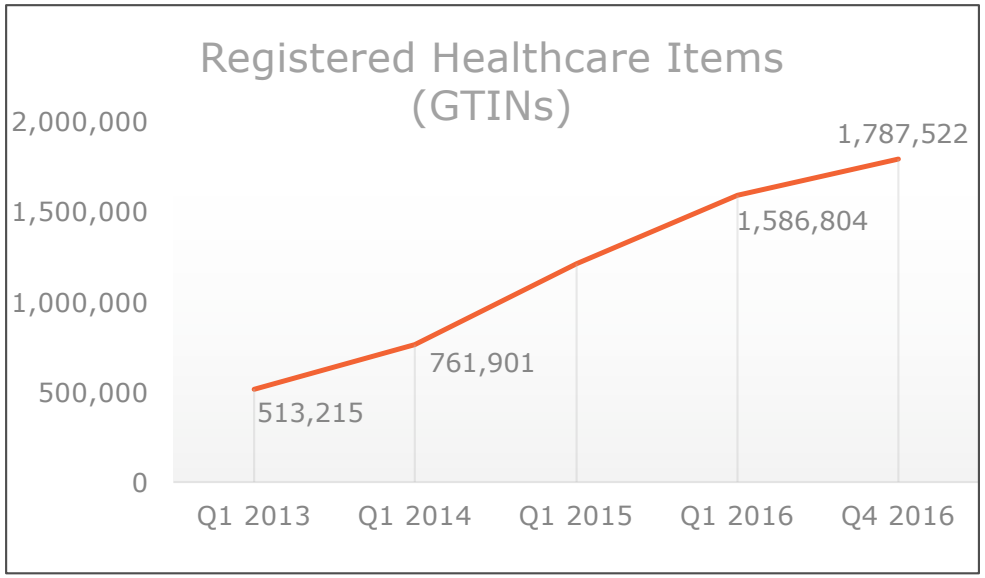
© GS1 2015

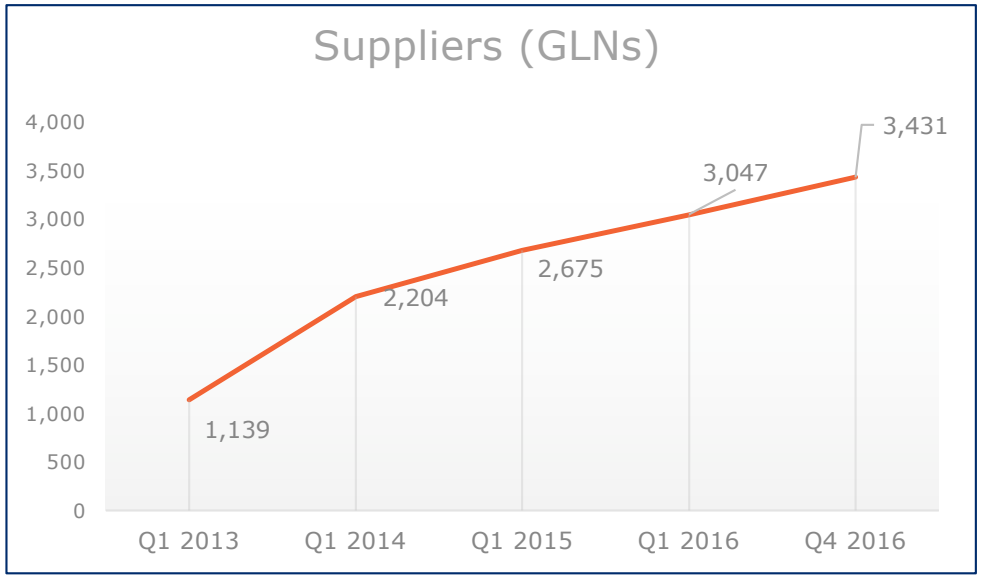
GDSN GROWTH AS OF END OF JULY 2016

Overall GDSN

	Feb 2015	Feb 2016	Feb 2017
GTINs	17,707,316	20,448,154	22,266,243

Healthcare

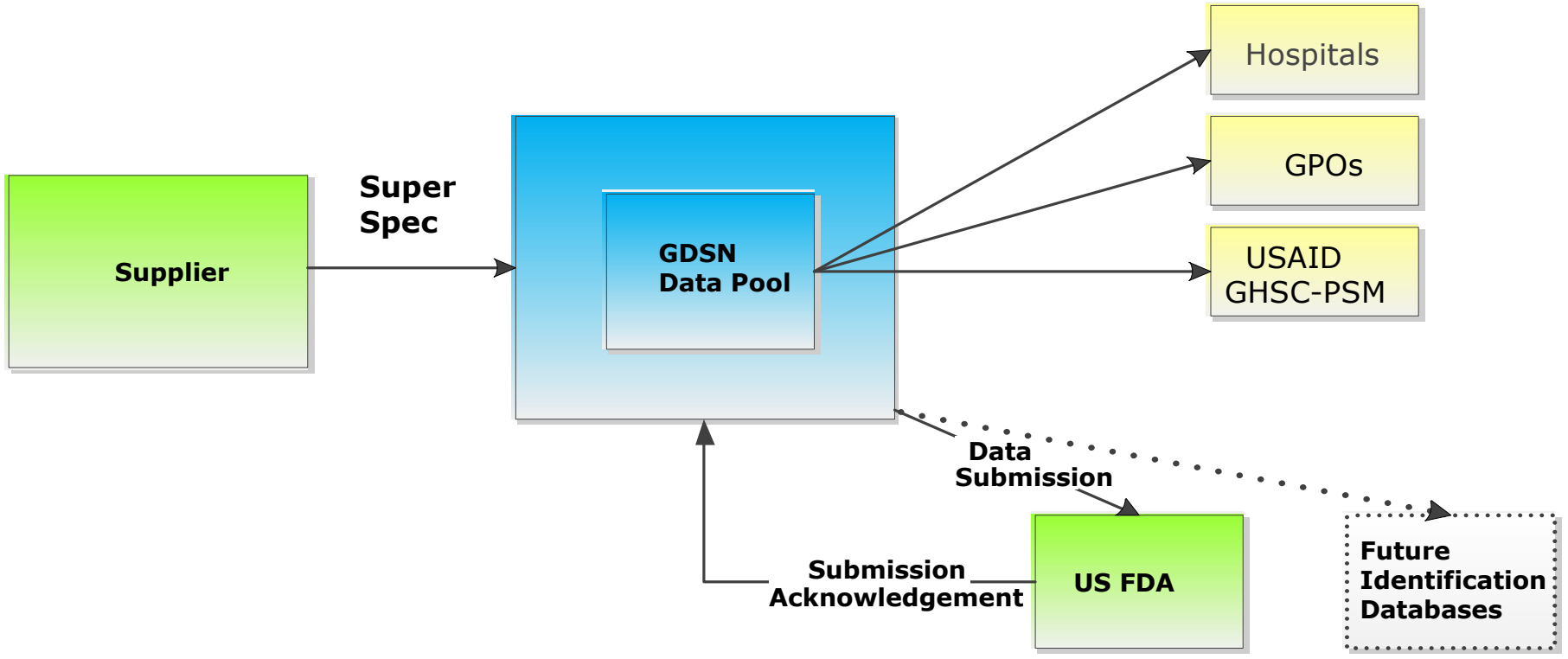




© GS1 2015

MANAGING DATA AT GLOBAL LEVEL

1. Find a **standards based** solution which can scale as more countries release identification regulation
2. Find a technology partner that can connect you globally
3. Define ALL regulatory and commercial attributes (Super Spec)



© GS1 2015

A WORD ABOUT ACRONYMS

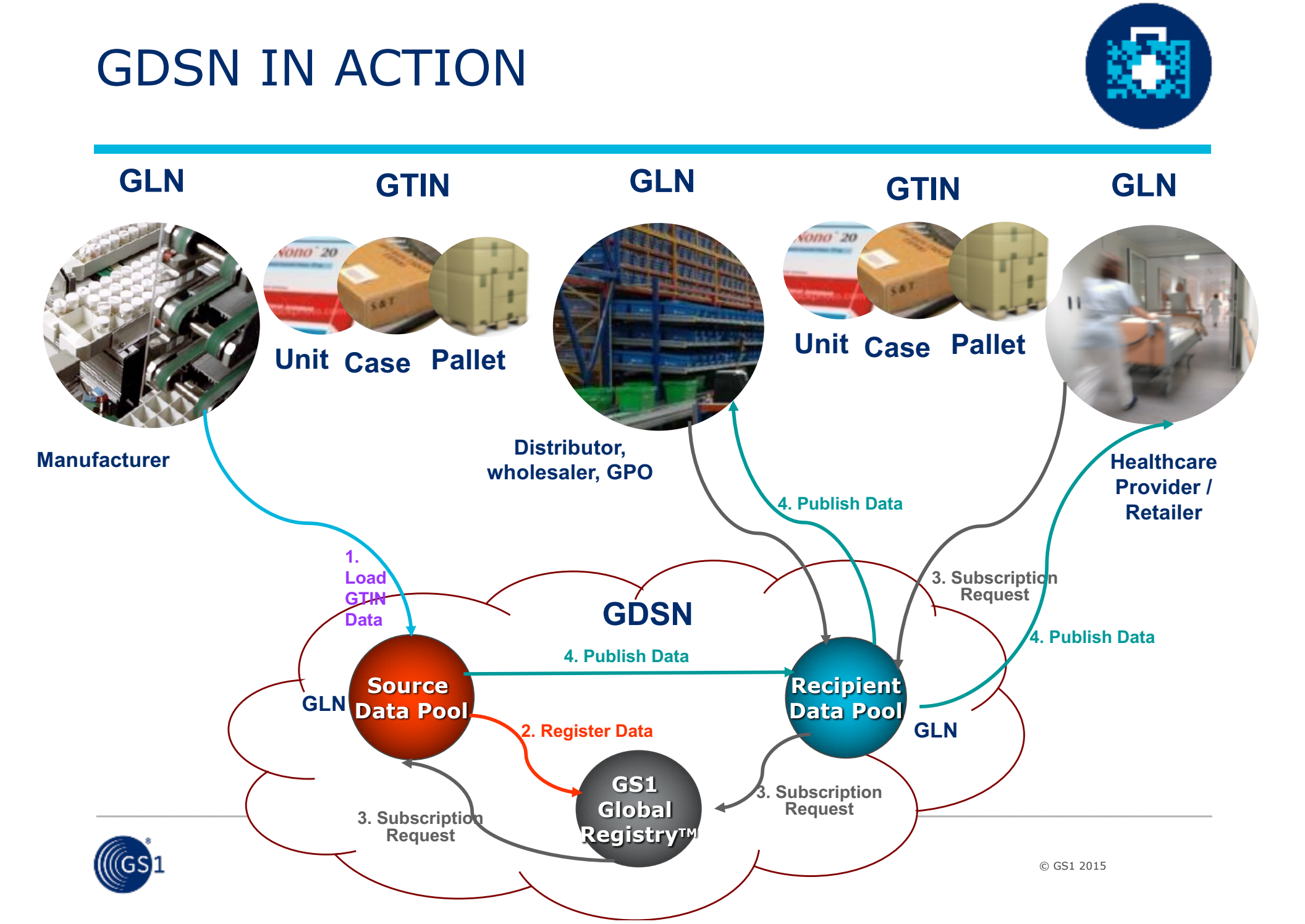
- **GTIN**: Global Trade Item Number
  - Product identification

- **GLN**: Global Location Number
  - Identification of legal entities, physical, functions and digital locations

- **GDSN**: Global Data Synchronisation Network
  - Synchronisation of data between the Source (i.e. manufacturer) and the Recipient (e.g. hospital, retailers, etc.)

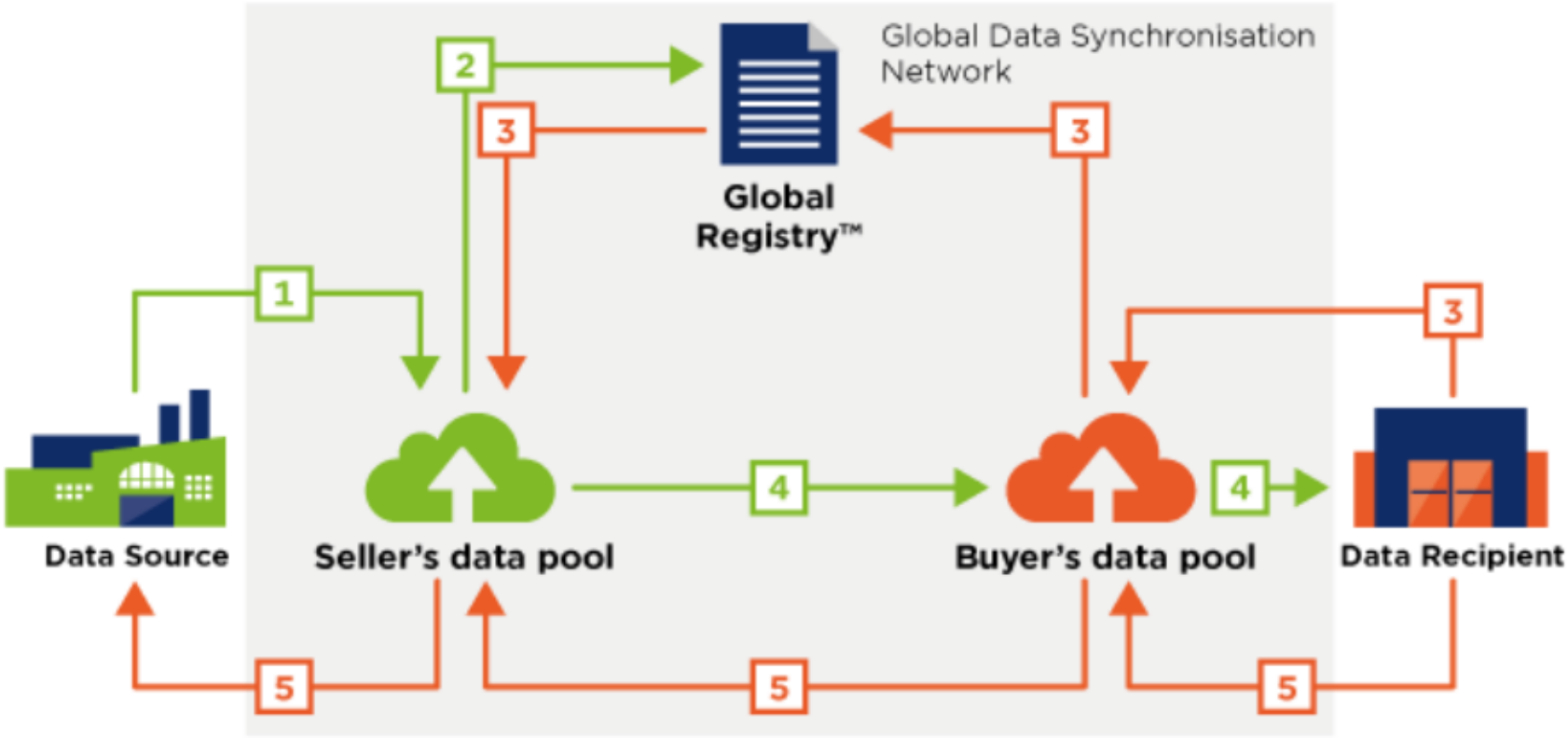
© GS1 2015

GDSN IN ACTION



© GS1 2015

HOW GDSN WORKS



1. Loading of company data
2. Registering of company data
3. Subscription to seller's data pool
4. Publishing of company data
5. Confirmation of receipt of company

© GS1 2015

ORDER-TO-CASH AFTER DATA SYNCHRONISATION

© GS1 2015

FOR MORE INFORMATION

www.gs1.org/gdsn

www.gs1.org/healthcare

© GS1 2015

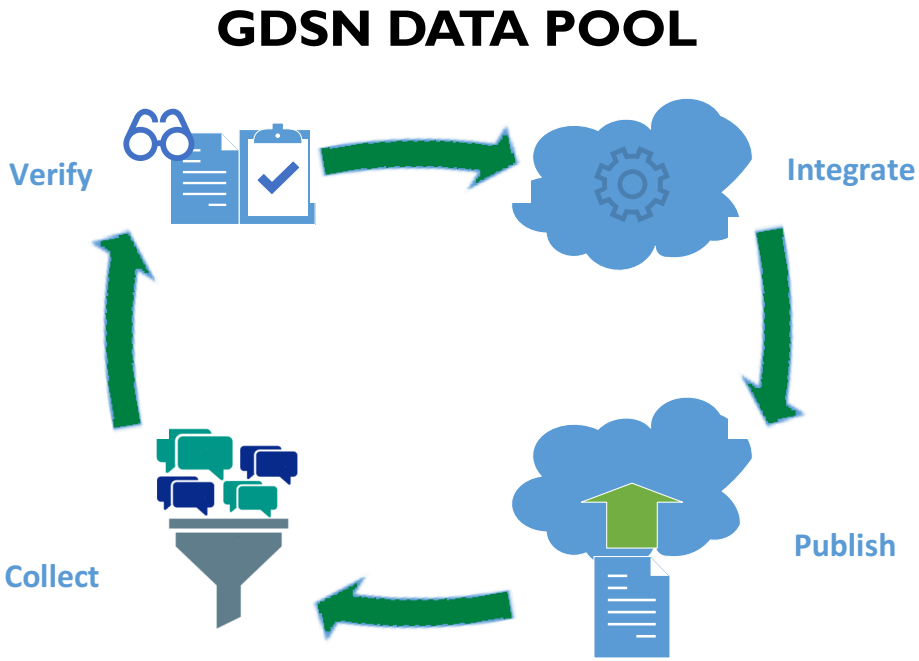
MASTER DATA SUBMISSION TO GDSN DATA POOL

GHSC-PSM'S PLANS FOR GS1 SUPPORT AND GDSN DATA POOL INTEGRATION

- Engaged GS1 consultants to aid in implementation of GS1 standards
- ARTMIS supports tracking of commodities by global trade item numbers for identification and capture, including all corresponding documents
- GS1 attributes are supported in ARTMIS with a subset selected for GHSC-PSM
- GHSC-PSM is procuring a global data synchronization network (GDSN) data pool subscription and planning to integrate with it to automatically feed GS1 attributes into ARTMIS
- ARTMIS supports track and trace capabilities at the batch level and is preparing to support serialization
- A supplier strategy has been developed to encourage suppliers to register trade items with GS1, ensure proper item barcoding and labeling, and share product data via a GDSN data pool

GHSC-PSM EXPECTATIONS OF SUPPLIERS

1) Supplier registers with GS1 and obtains a prefix
2) Supplier assigns GTINs to its products
3) Supplier registers with a GDSN data pool provider
4) Supplier agrees to provide product attributes based on GHSC-PSM's requirements
5) Supplier shares its product attribute data with GHSC-PSM via a GDSN data pool provider
6) GHSC-PSM expects all suppliers to submit their product data to a GDSN data pool within 18 months



SAMPLE LIST OF GDSN DATA POOL PROVIDERS

- 1WorldSync
- Alkemics
- Attribytes
- Brandbank
- Comarch S.A.
- Commport Communications International, Inc.
- Contentis AG
- Edgenet
- EDICOM
- Equadis SA
- Eway FSE Inc
- GHX
- iTradeNetwork, Inc.
- LOGYCA / SERVICIOS Viagenie

QUESTIONS?

Diolch
Kiitos
Sheun
umesc
Kasih
Todah
Mamnoon
Shnorhakalutiun
Hvala
Shokriya
Dziękuję
Shokrun
Spaas
Mul
Ači
Gamsahapnida
Te°ekkür
Dekuju/Dekujeme
Ngiyabonga
Xie
Dank
Takk
Cam
Gra
or
Dhanyavaad
Dakujem
Waad
Kop
Salamat
Merci
al
Grazie
Faleminderit
Dankie
Go
Daw
Dhanyavaadaalu
Dhanyavad
Khopjai
Kruthagnathalu
ThankYou
kun
Arigatou
krap
Or
Dhonnobaad
Tack
Shukriya
ederim
Asante
Gomapsupnida
Grazzi
raibh
Gracias
Nandree
Blagodariya
Fyrir
Terima
Enkosi
Danke
dank
Euxaristo
Kun
Hain
Dhan
daa

John Yates

MIS Director

GHSC-PSM

jyates@ghsc-psm.org