



GS1 Healthcare Primer Bar Codes

Orlando, 6 June 2007

John Roberts

The global language of business

www.gs1.org



GS1 *FUN*damentals

The global language of business

www.gs1.org

What I will to cover today



- 1) GS1 Identification Keys
 - GTIN & Attribute Data
- 2) GS1 Bar Codes
 - EAN/UPC, GS1-128, RSS & Composite, Data Matrix, ...
- 3) GS1 eCom
- 4) *Where to get more info*



DON'T ASK
SHAME ON YOU

ASK THE QUESTION.
Now or later.



About John Roberts

35 years global healthcare Logistics

26 years, Department of Defense

DLA Medical Materiel

- Inventory manager
- Program manager major assemblies
- Systems Analyst
 - EDI, R&A, DLMSS

09 years GS1 US (Uniform Code Council)

- Established 1973



Environment



Different

Similar



Right Patient

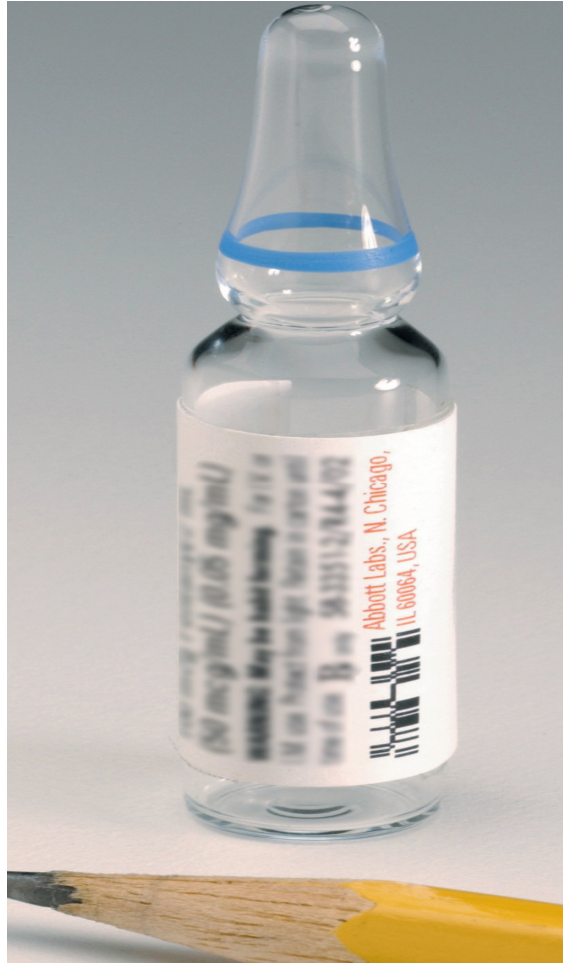
Right Drug

Right Dosage

Right Time

Right Route

Abbott: RSS Stacked



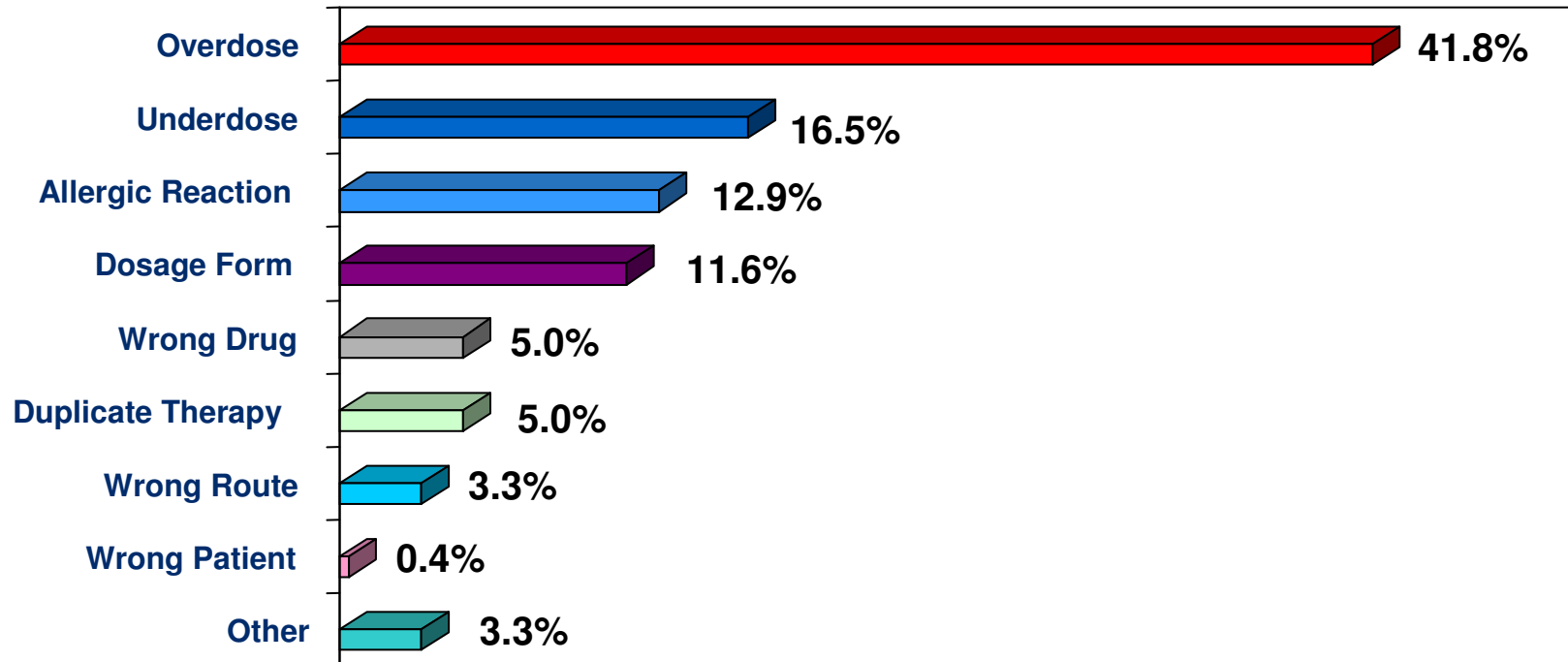


First Lot Released December 2002



Drug-Related Errors*

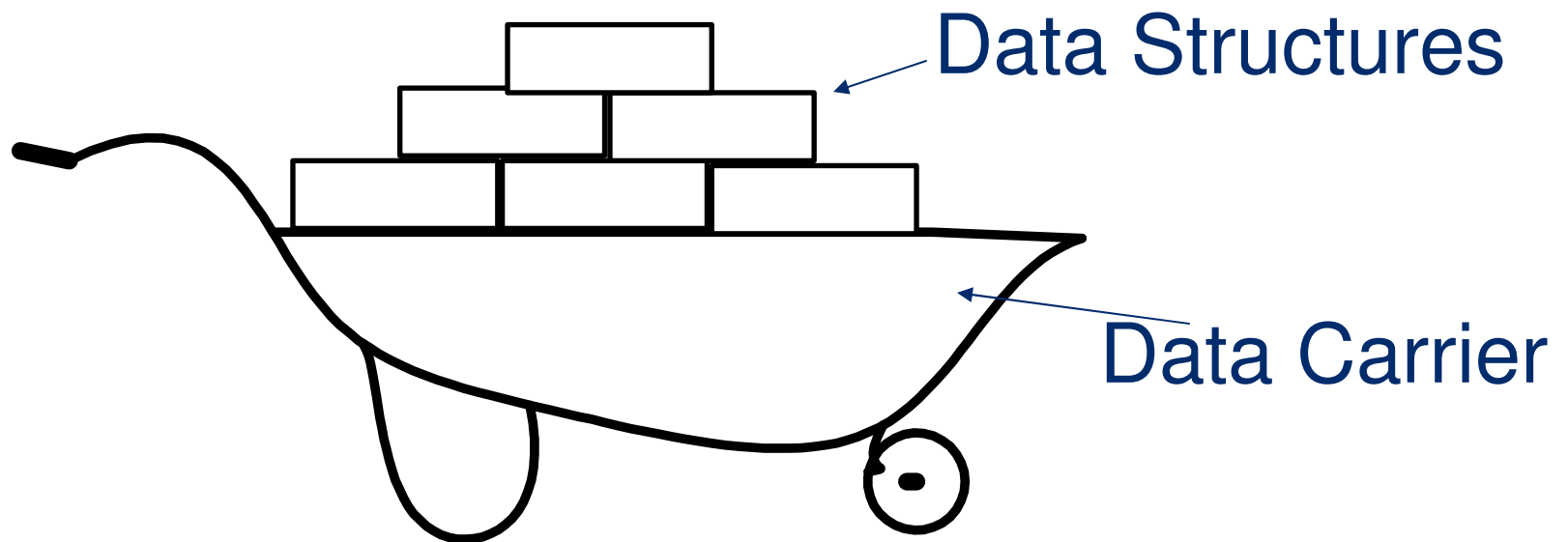
Error Type



*The Philadelphia Inquirer, 9/13/99, 1997 Journal of the American Medical Association

Data is divided into:

1. Data Structures
2. Data Carriers

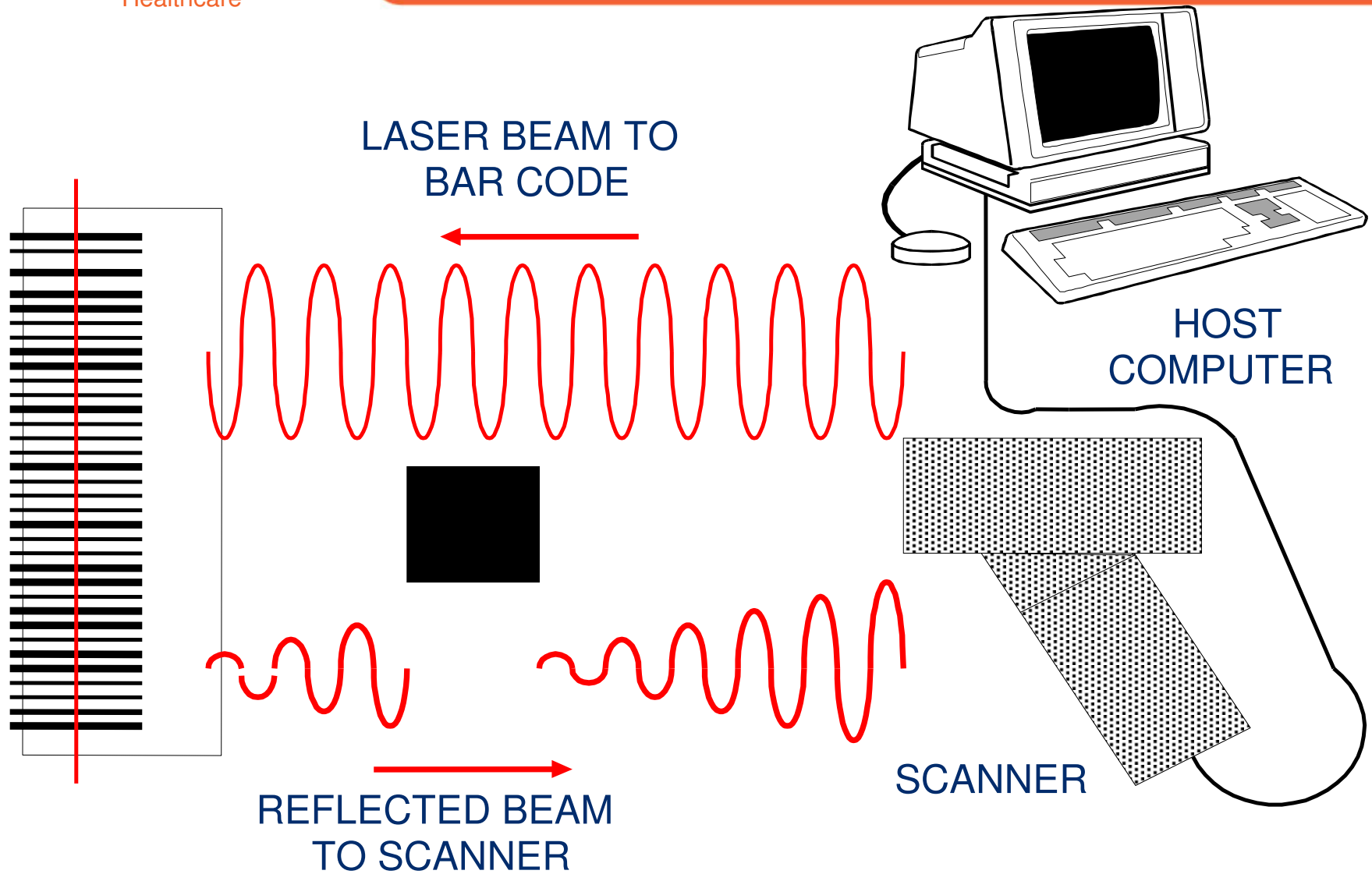


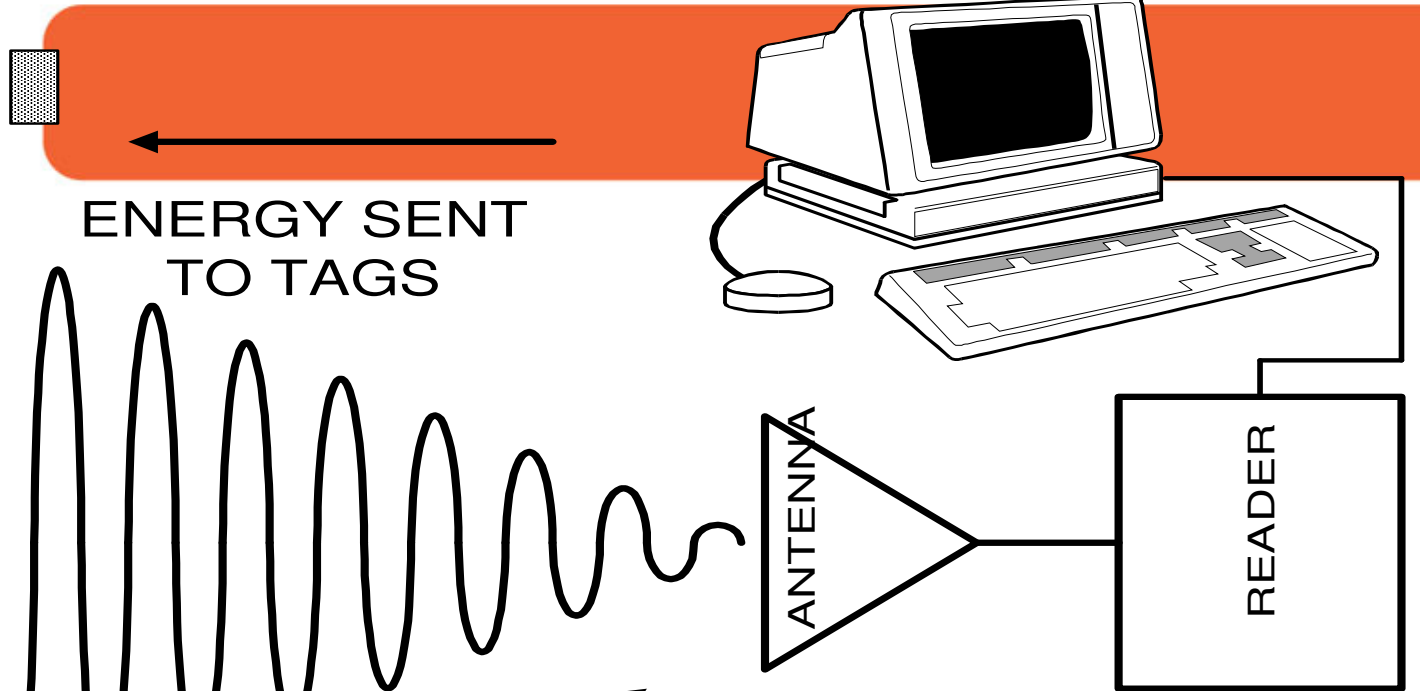
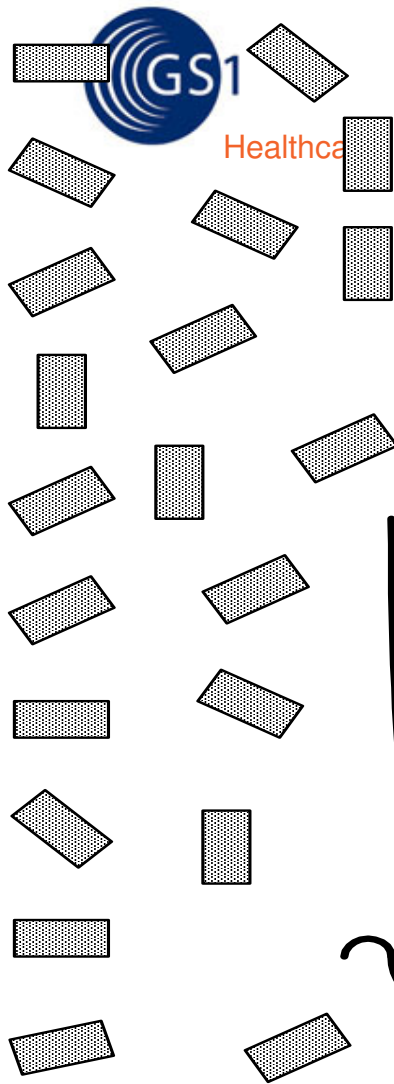
Symbology ↓



Data Structure (GTIN as GTIN-12)

Bar Code System Diagram





RFID SYSTEM DIAGRAM

TAGS

Air Interface

READER

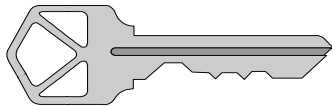
Host Interface

HOST

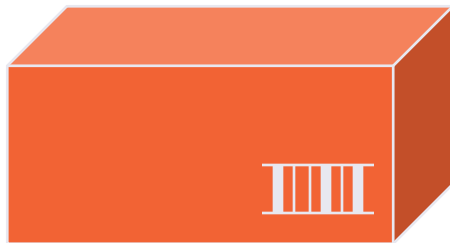




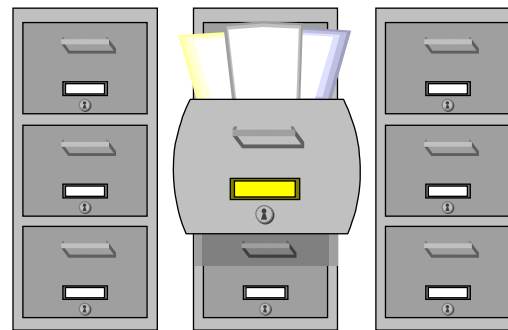
Identification Numbers are keys to information



Linking Product, Attributes, and Messages



**EPC or
Bar Code**



**Data Base
Files**



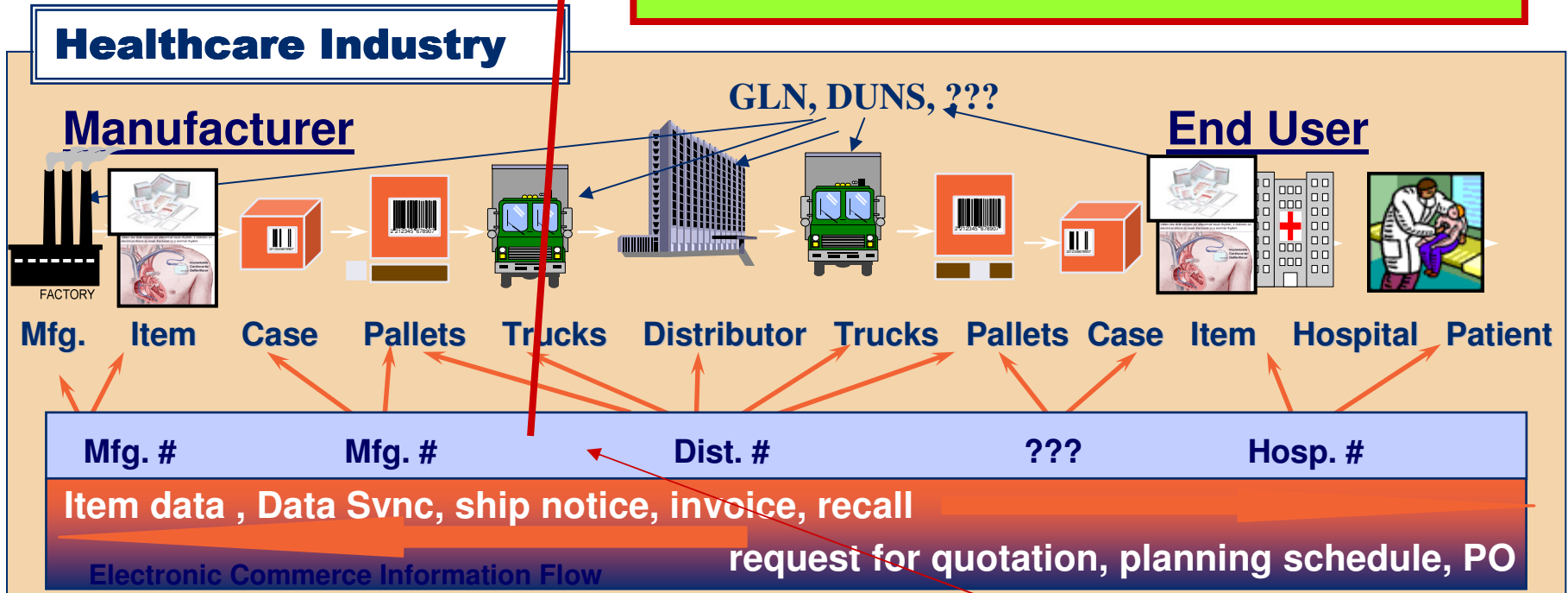
EBusiness



The Problem:

Different Product IDs throughout the Supply Chain

Each participant in the Healthcare Supply Chain has a different product number for the same product. Makes ordering, recalls, and proper identification to the patient difficult.



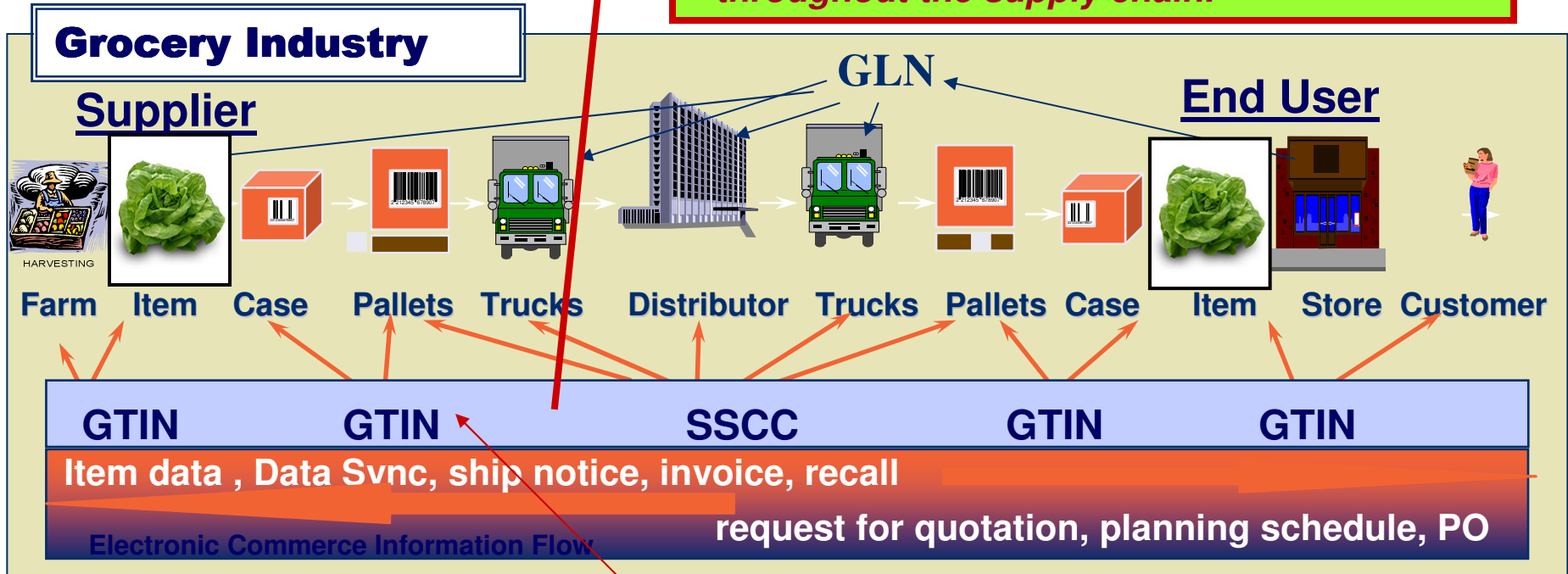
Product ID – Every participant in the supply chain may use a different product ID and there is no standard for unit of measure. **{No common Identifier for products}**



The Solution:

Same Product ID's - Other Industries

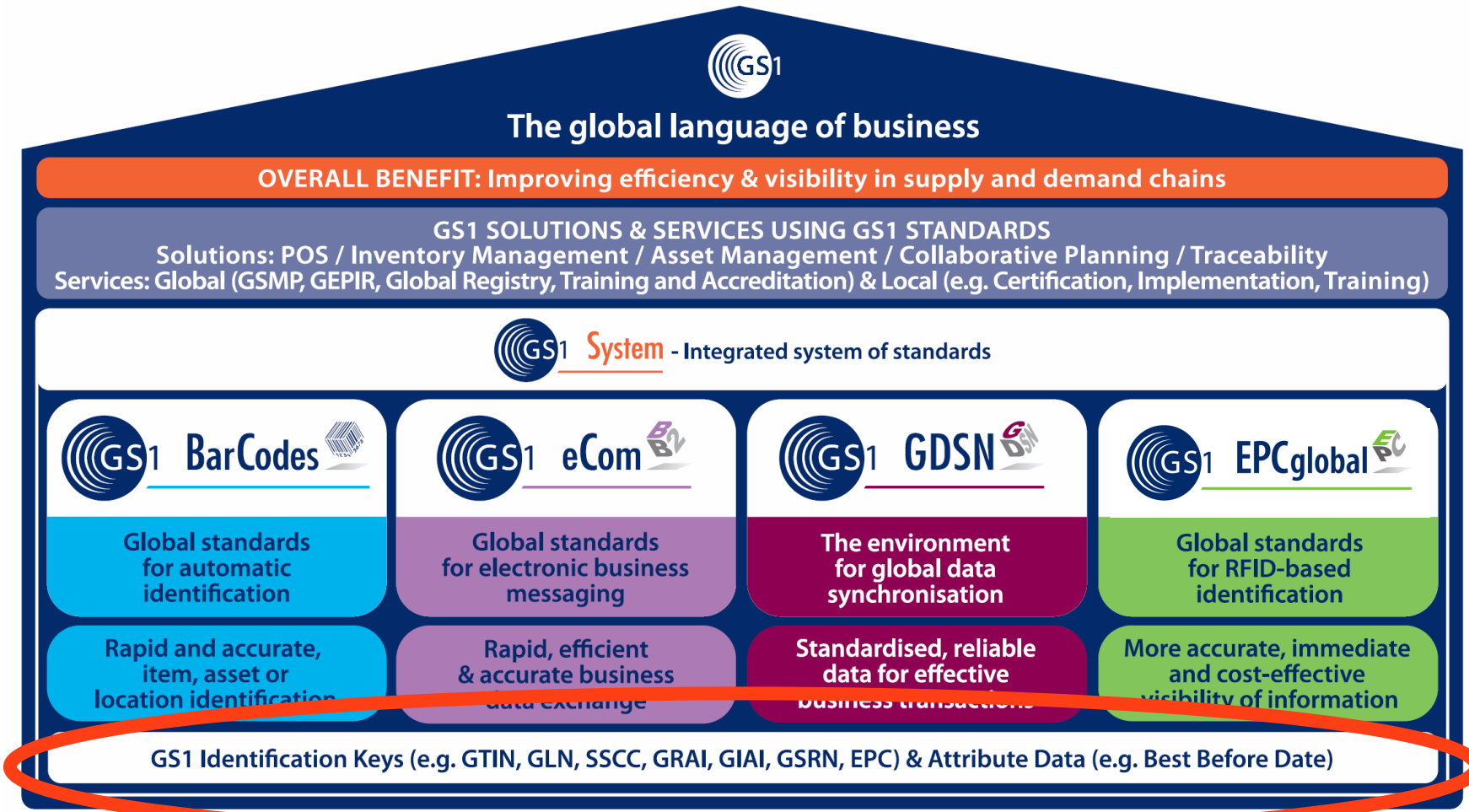
In most other industries such as the Grocery industry there is a consistent Product ID throughout the supply chain.



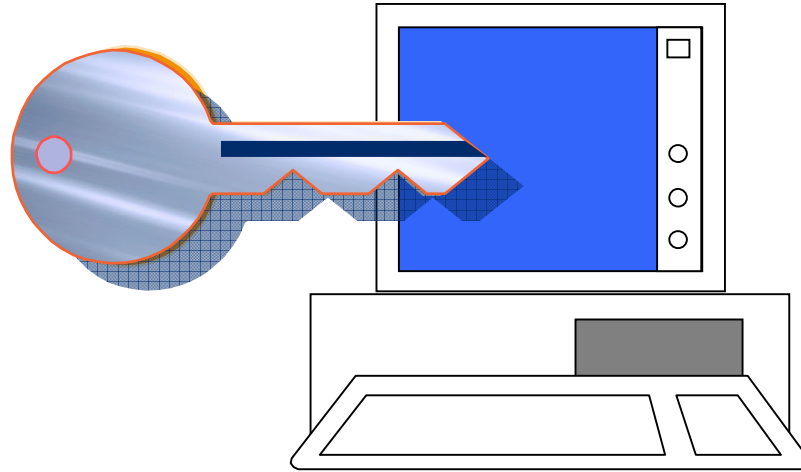
GTIN - Global Trade Item Number - Identifies trade items (products and services) sold, delivered, warehoused, and billed throughout the supply chain. **{One Identifier for products}**

SSCC – Serial Shipping Container Code - System identification for logistic units. Contains the GTIN identification

1) GS1's Brand Architecture

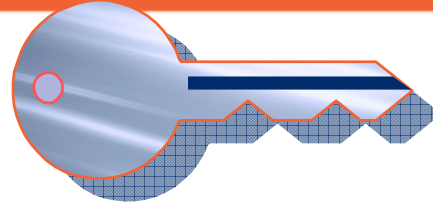


GS1 Identification Keys



GS1 Identification Keys provide access computer files

GS1 Identification Keys are:



- **Unique:** every variant of an item is allocated a separate unique number
- **Non-significant:** they identify an item but contain no information about it
- **International:** GS1 identification keys are unique across all countries and all sectors
- **Secure:** GS1 identification keys are fixed length, numeric and include a standard check digit

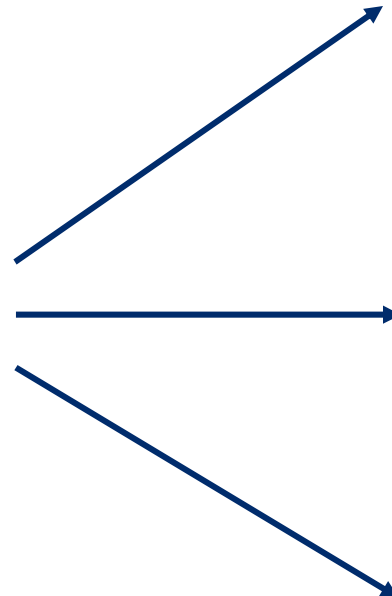
Global Trade Item Number

Any item (product or service) upon which there is a need to retrieve pre-defined information and that may be priced, or ordered, or invoiced at any point in any supply chain.

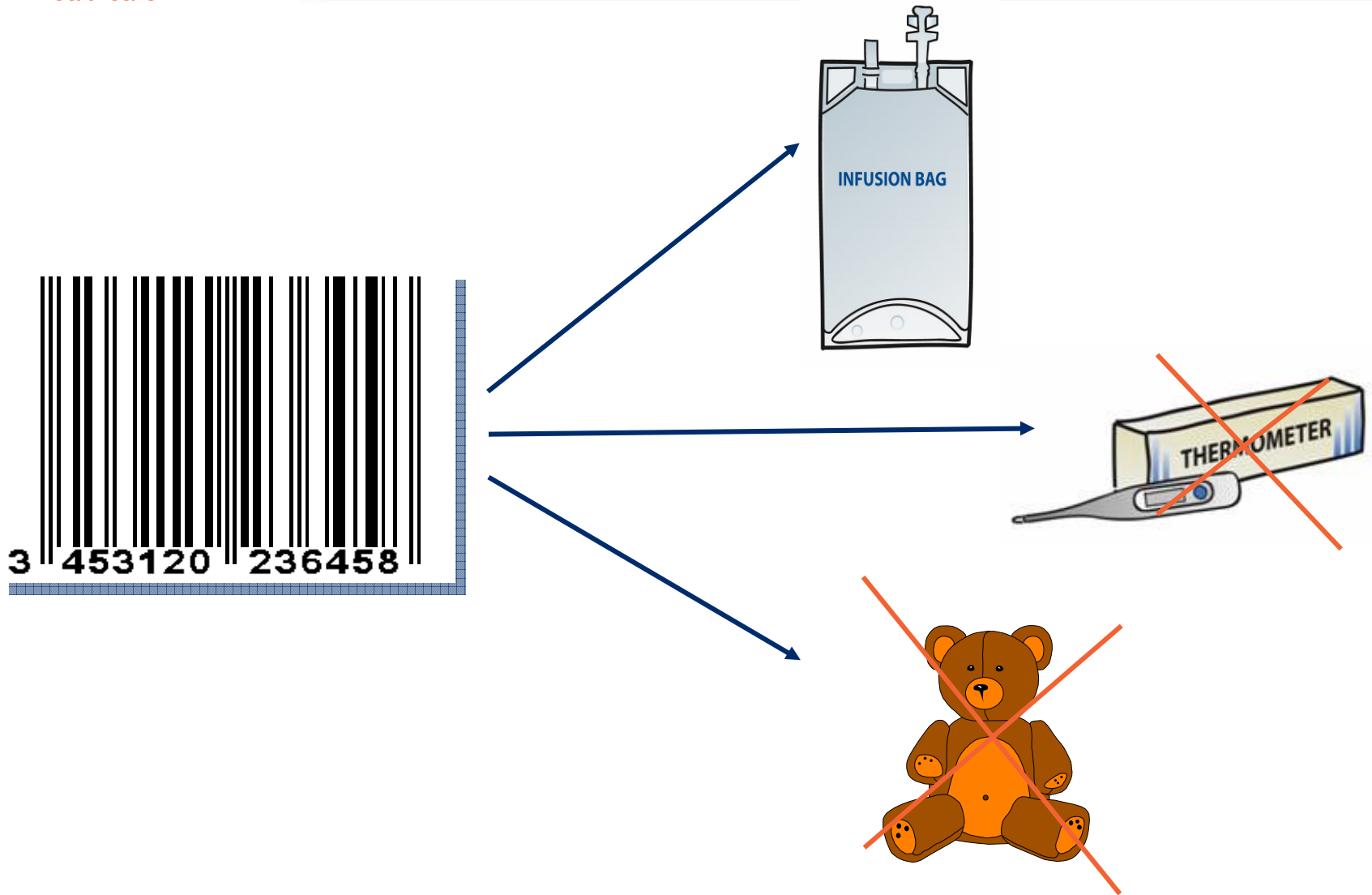
GTIN is umbrella term for all GS1 trade item identification numbers A Global Trade Item Number™ may use the GTIN-8, GTIN-12, GTIN-13, or GTIN-14 numbering structure.

Data Structures	GTIN													
	T ₁	T ₂	T ₃	T ₄	T ₅	T ₆	T ₇	T ₈	T ₉	T ₁₀	T ₁₁	T ₁₂	T ₁₃	T ₁₄
GTIN-14	N ₁	N ₂	N ₃	N ₄	N ₅	N ₆	N ₇	N ₈	N ₉	N ₁₀	N ₁₁	N ₁₂	N ₁₃	N ₁₄
GTIN-13	0	N ₁	N ₂	N ₃	N ₄	N ₅	N ₆	N ₇	N ₈	N ₉	N ₁₀	N ₁₁	N ₁₂	N ₁₃
GTIN-12	0	0	N ₁	N ₂	N ₃	N ₄	N ₅	N ₆	N ₇	N ₈	N ₉	N ₁₀	N ₁₁	N ₁₂
GTIN-8	0	0	0	0	0	0	N ₁	N ₂	N ₃	N ₄	N ₅	N ₆	N ₇	N ₈

GTIN FUNDamental: 1 product = 1 GTIN



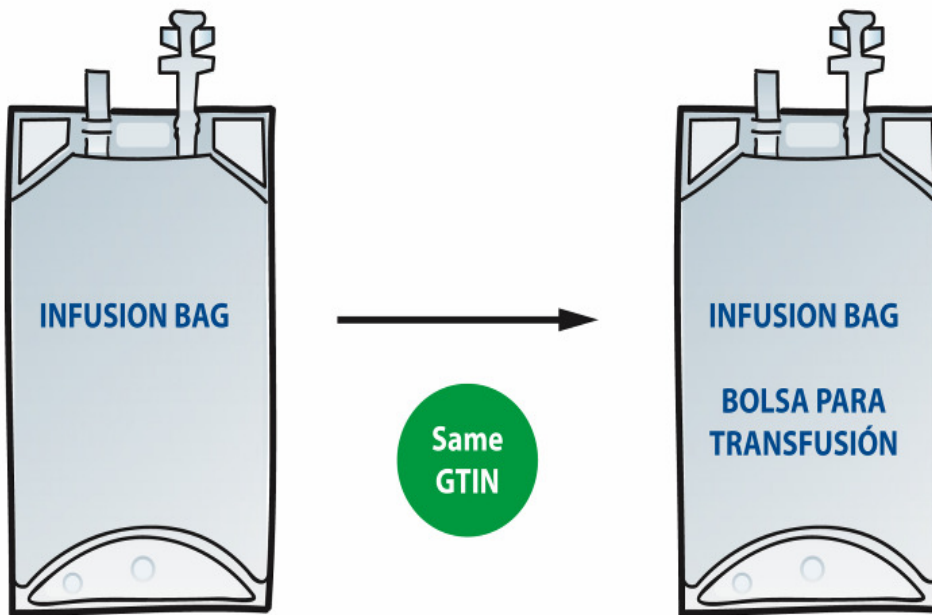
GTIN FUNDamental 1 GTIN = 1 product



GTIN Allocation Rules for Healthcare (*Draft* submitted to GSMP by HUG leadership team)

Type of Change to Trade Item

Add an additional language on the packaging



From this ...
... to this

Thanks to:





GTIN Allocation Rules for Healthcare

- Provides
 - A Simple and easy to use worldwide guideline
- GTIN also enables the addition of Attribute Data like:
 - Batch Number
 - Expiration Date
 - Serial Number

How ?

Using GS1 Application Identifiers



What is a GS1 Application Identifier (AI)?

- **AIs** are prefixes defining data field(s) that follow and indicate their format
- Example: **AI (21)** means "**serial number**" with a alphanumeric format, variable length up to twenty characters *an..20*





Other GS1 Identification Keys



Serial Shipping Container Codes (SSCC)
Individual Logistics Units



**Global Location Numbers (GLNs) for
Legal or Physical Locations**



Global Returnable Asset Identifier (GRAI)
Returnable Assets



Global Individual Asset Identifier (GIAI)
Returnable Assets



Global Service Relation Number (GSRN)
Recipient of services





More information on GTIN?

www.gs1.org
~ for your local MO ~

GTIN分配规则主页 >

GTIN分配规则主页

- GTIN分配原则概览
- 最佳应用
- 搜索GTIN 规则
- 免责声明
- 相关链接

中文

Change language

GTIN 分配规则

全球贸易项目代码，GTIN (Global Trade Item Number) 为任一交易产品（如在产品定价、订购、开发票等业务过程中）提供全球供应链标识代码解决方案。

GTIN 是许多公司关键性业务（如POS扫描系统以及GDSN）的基础。采用相同的分配规则，会降低整个供应链成本。

本站点列出了涉及GTIN代码变化的常见的产品变更。

如需更多信息，请与 中国物品编码中心 (GS1 China) 联系。

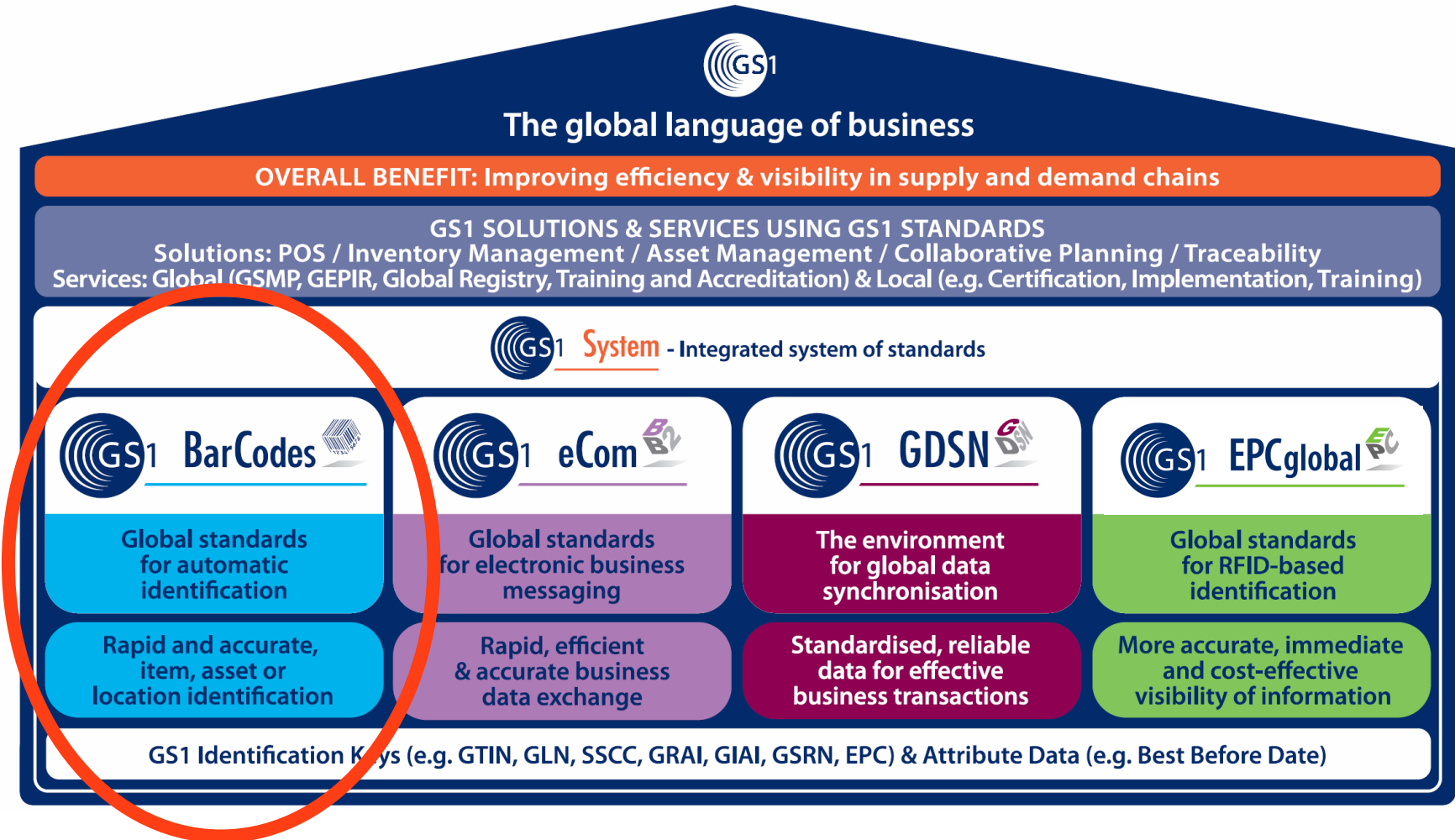
View the GTIN Allocation Rules Overview



注：所述目的是为了全球通用。仅当地方法律法规有其他强制要求时例外。

下载 GTIN 简易手册

2) GS1's Brand Architecture



The only GS1 Bar Code your boss needs to know



- GS1 Bar Codes change lives for the better
 - Contribute to improved Patient Safety
 - Help Deliver Logistics Efficiency
 - Enable Traceability & Authentication systems



GS1 Bar Codes

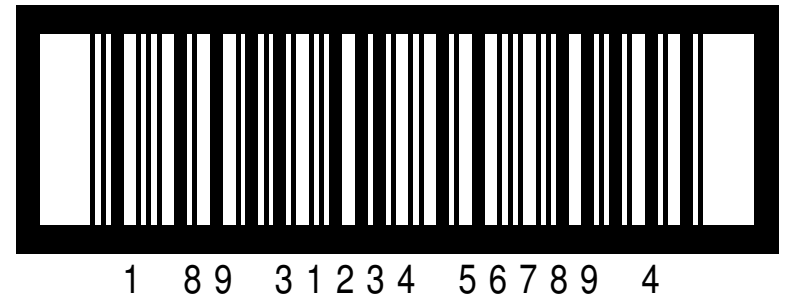


Global standards for automatic identification
Rapid and accurate item, asset or location identification



EAN/UPC – GTIN only (*main usage Retail Items*)

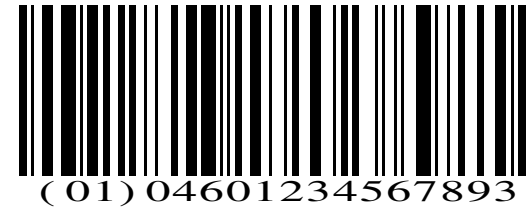
ITF-14 – GTIN only (*main usage Outer Cases*)





GS1 Bar Codes *cont.*

GS1-128 – GTIN and all GS1
Application Identifiers



RSS & Composite – GTIN and all
GS1 Application Identifiers

Data Matrix – GTIN and all GS1
Application Identifiers



*In Healthcare which Bar Code Symbol,
with what data, where and why?*





More information on GS1 Bar Codes?

www.gs1.org

~ for your local MO ~



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Home > Products & Solutions> GS1 BarCodes & ID Keys

GS1 BarCodes

- Overview
- Technical
- Implementation
- Support
- Training



GS1 BarCodes and ID Keys

The BarCodes and GS1 Identification System have provided benefits to consumers around the world for over thirty years.

This area of our Web site explores how they have changed our world for the better, and how the application of GS1 BarCode

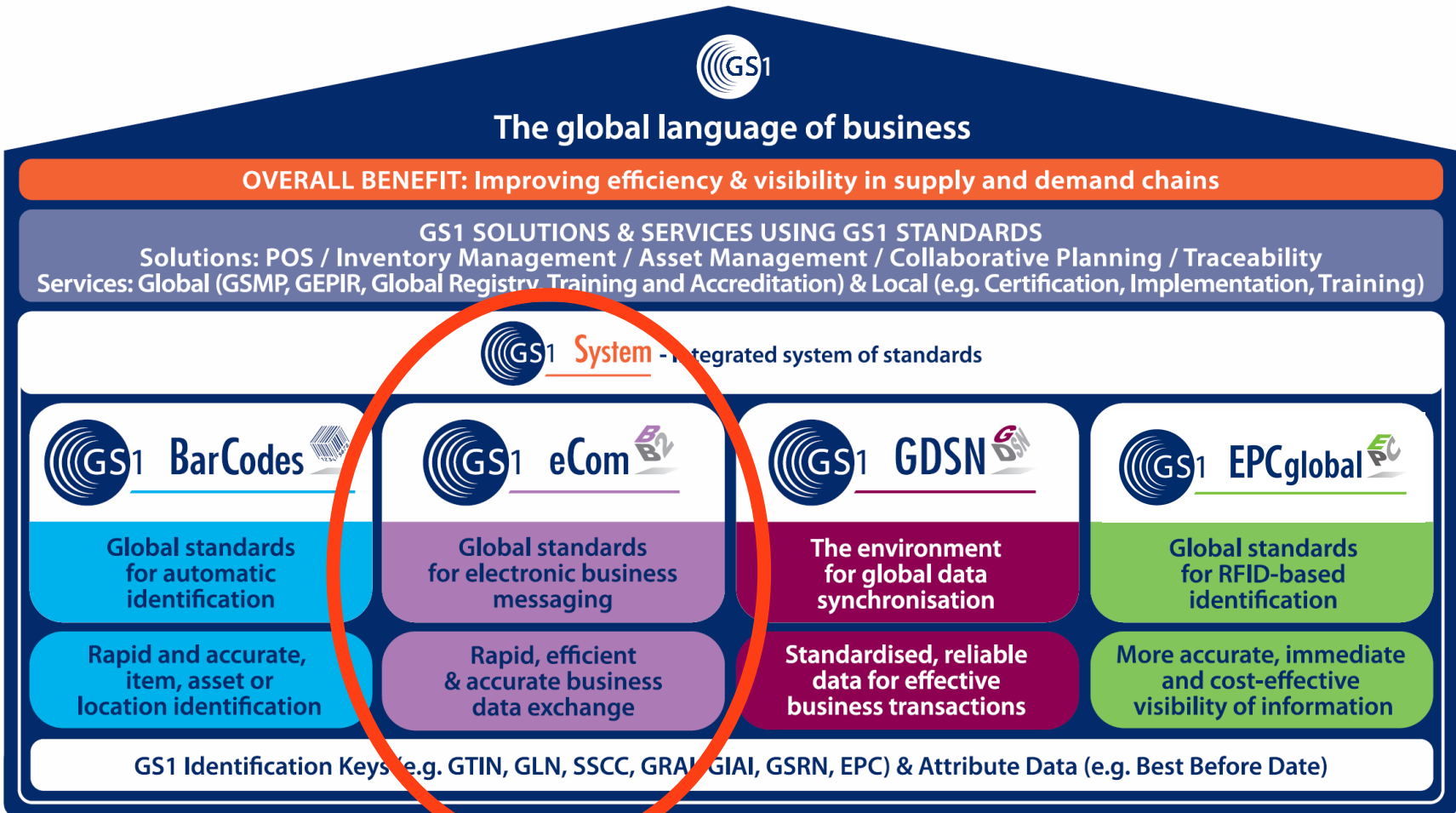


QUICK LINKS

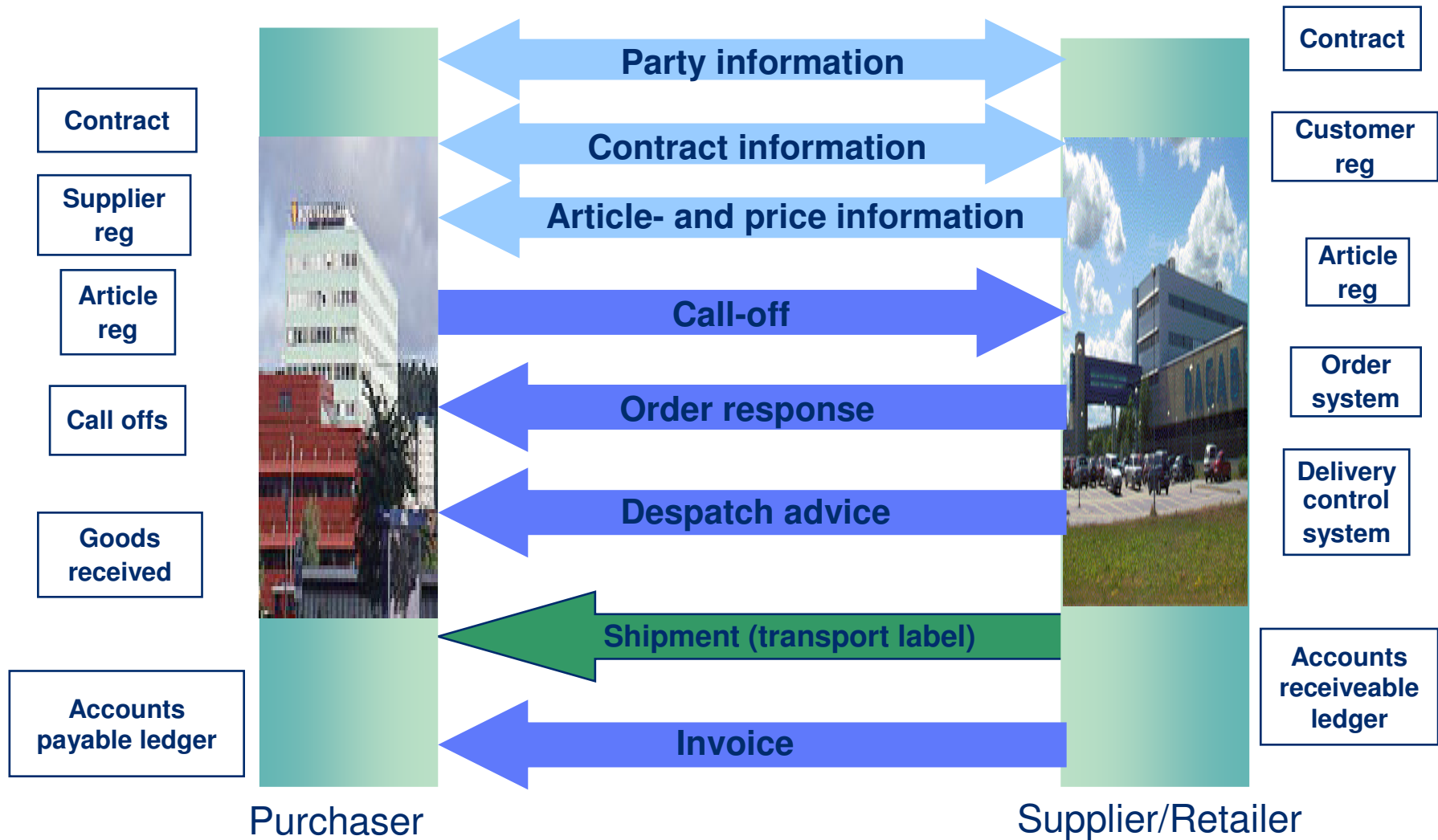
- Reduced Space Symbology (RSS)
- Make this your home page
- 10 Steps to Barcode Implementation
- BarCodes "Beep" Presentation
- GTIN Allocation Rules



3) GS1's Brand Architecture



eCom – Automating the Information Flow





1 GTIN – 2 Roles

PHYSICAL

Encoded in bar codes – unique identity

↓
Scanned at point-of-care/ use/ sale, warehouses, etc. accurate data capture
↓
GTIN drives applications

ELECTRONIC COMMERCE

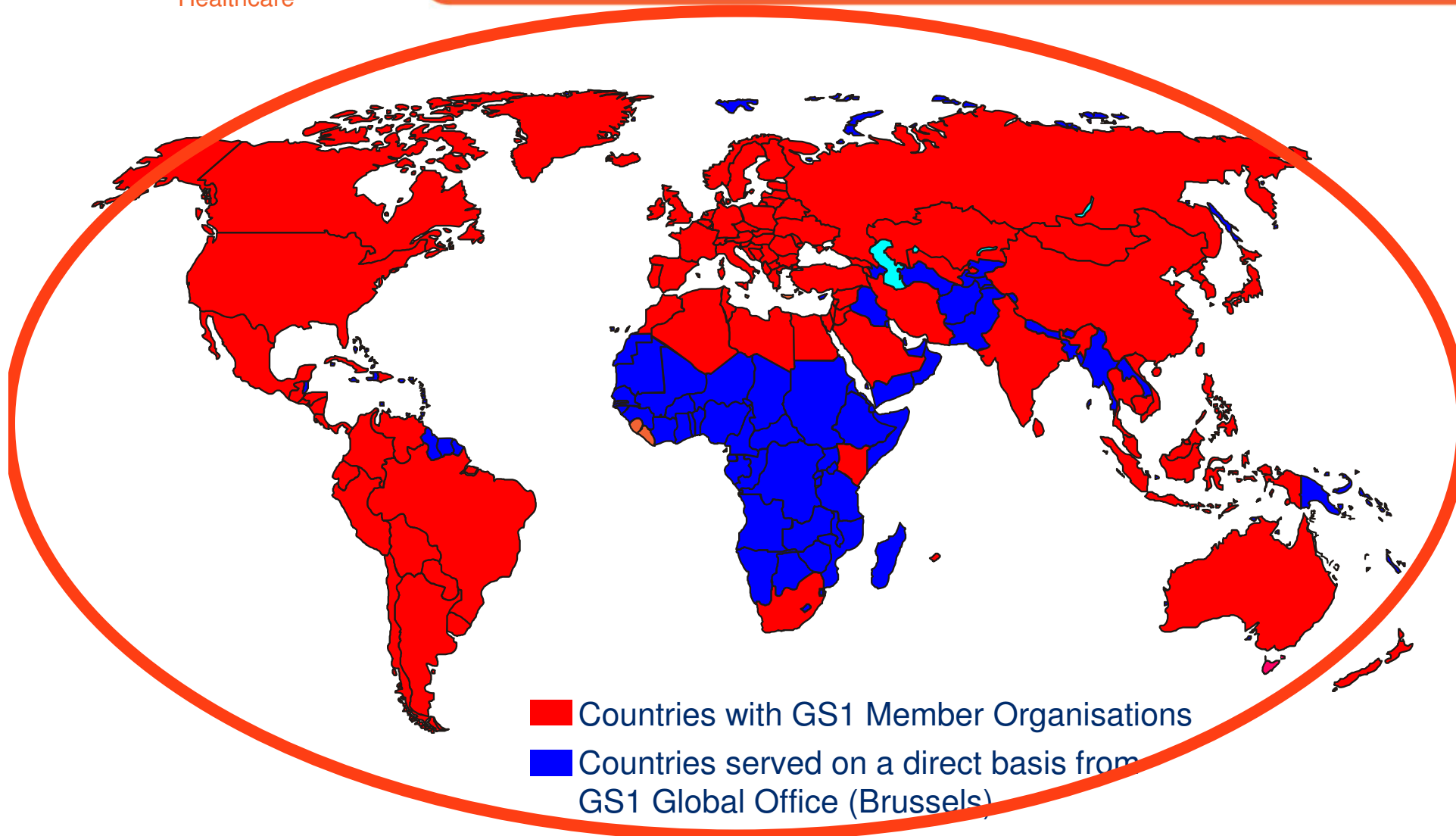
Intra-company: Stored in product masters to uniquely identify items

↓
Registered in 1 Sync and synchronized between trading partners

↓
Used in ongoing electronic transactions between trading partners, e.g., purchase orders, invoices, advanced ship notices, etc.



4) Where to get more information



GS1 Values & Vision



Together we:

- See one vision
- Speak with one voice
- Act as one organisation



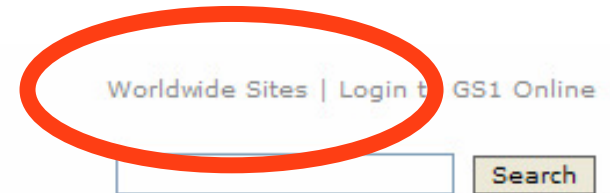
Healthcare

If you only remember one thing from today?

www.gs1.org



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GS1 is a leading global organisation dedicated to the design and implementation of global standards and solutions to improve efficiency and visibility in supply and demand chains globally and across sectors.

GTIN & GLN Allocation Rules in French and Italian

7 September 2006: Created in response to user demand, these new language versions of the GTIN and GLN Allocation Rules make the GS1 standards directly accessible to a wider audience. The web platform ensures consistency in global support and now includes links to the recently updated [Global Electronic Party Information Registry \(GEPiR\)](#) service.

- [View the GTIN Allocation Rules website in French](#)
- [View the GTIN Allocation Rules website in Italian](#)

QUICK LINKS

Use the following links to find out more about GS1's products and services:

- [GS1 BarCodes](#)
- [Check Digit Calculator](#)
- [GTIN Rules](#)
- [GLN Rules](#)
- [Support](#)
- [Training & Education](#)



Healthcare

GS1 Member Organisation are there for you



Société Tunisienne de Codification
الشركة التونسية للتقييم

GS1.ORG | Sites Membres de GS1 | Login to Tunicode online

 SEARCH

ACCUEIL GS1 TUNISIA STANDARDS DE CODIFICATION SERVICES EN LIGNE CONTACT



koordinace
poradenství
metodika
pro systém GS1

english version

Extranet GEPIR EAN katalog Kdy změnit GTIN



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Willkommen bei GS1 Austria

GS1 Standards bei Obst und Gemüse



GS1 Japan

EPCglobal Japan

EPCglobal
Powered by GS



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