



RFID JOURNAL VIRTUALLY LIVE!

SEPTEMBER 30 - OCTOBER 1, 2020

Extending RFID Beyond the Supply Chain

Jonathan Gregory

Director, Community Engagement, GS1 US

Antitrust Caution

GS1 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[®] representative as soon as possible.

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

Please review the complete GS1 antitrust policy at:

www.gs1us.org/gs1-us-antitrust-compliance-policy

*If applicable



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Related Presentations

- **“Proper Tag Data Improves the Bottom Line”**
 - Claude Tetelin: Director AIDC, GS1 Global Office
 - Bertus Pretorius: R&D Manager, LicenSys
- **“Chain Integration Project”**
 - Justin Patton: Director, RFID Lab, Auburn University RFID Lab
 - Jonathan Gregory: Director, Community Engagement, GS1 US



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The Scope of GS1 Standards

- International, not-for-profit, and neutral organisation
 - Developing and maintaining **global standards**
 - Enabling all industry stakeholders to **identify, capture and share** information
 - Focusing on increasing **efficiency, safety**, and **visibility** of supply chains across multiple sectors

2 million

Developing standards for over 2 million companies worldwide

150 countries

25 industries served across 150 countries

6 billion

Barcodes scanned more than 6 billion times per day globally

100 million

100 million products carry GS1 barcodes

115 MOs

115 Member Organisations around the world



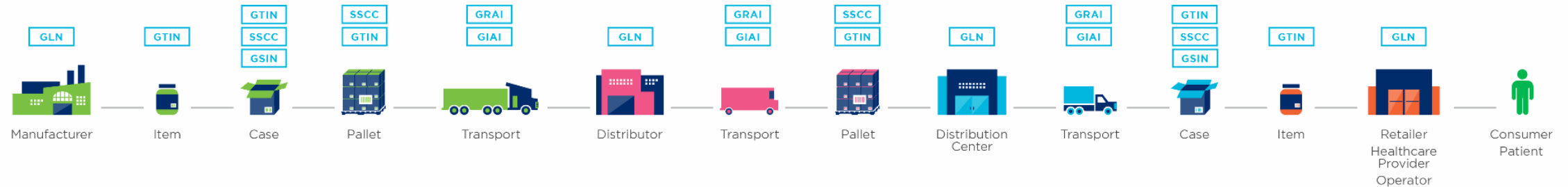
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Identify, Capture, Share

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 **GSIN** Global Shipment Identification Number



Capture: GS1 Data Carriers

Barcodes

EAN*/UPC



GS1 DataBar®



GS1 DataMatrix



ITF-14



GS1-128



EPC-Enabled RFID Tags

HF RFID



UHF RFID



Share: GS1 Data Exchange

Master Data Global Data Synchronization Network™ (GDSN®) and GS1 US Data Hub | Location

Transactional Data Electronic Data Interchange (EDI)

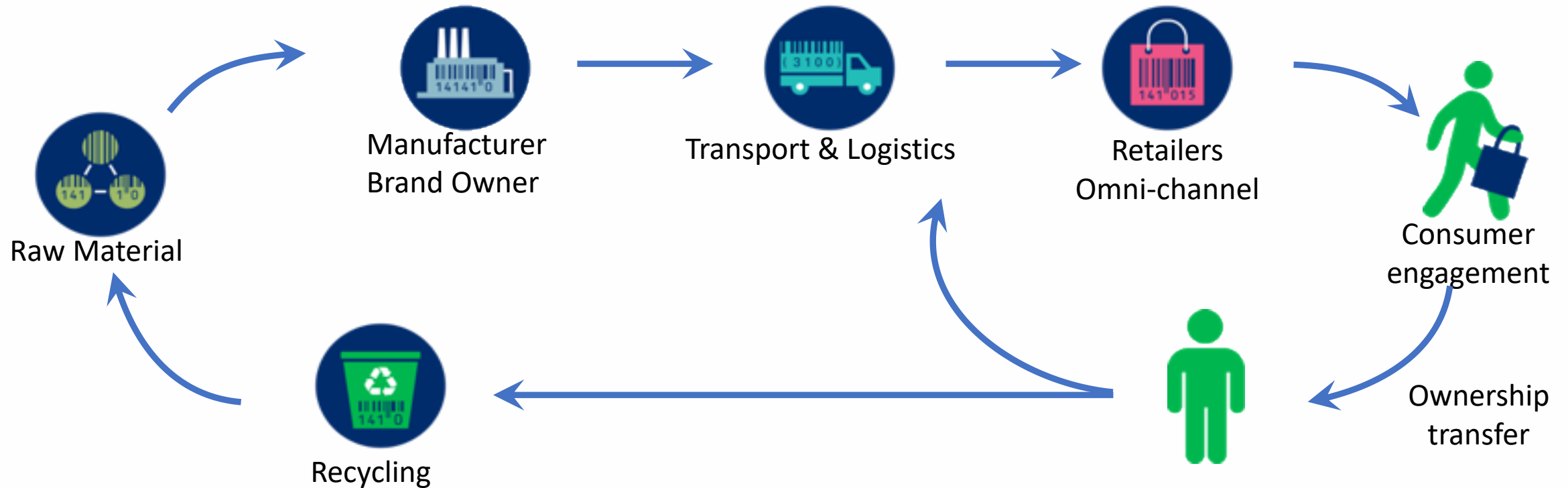
Physical Event Data EPC Information Services (EPCIS)



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Supply Chain Context



European Commission Green Deal

- Recently made part of the pandemic recovery program
- Strategy and Legislative Guidance set
- 1st Regulation expected this December
 - EU data spaces for consumer green choices
- Significant funding made available
- Aim to make Europe climate neutral by 2050
 - https://ec.europa.eu/clima/policies/strategies/2050_en



Raw Material Attributes Guideline

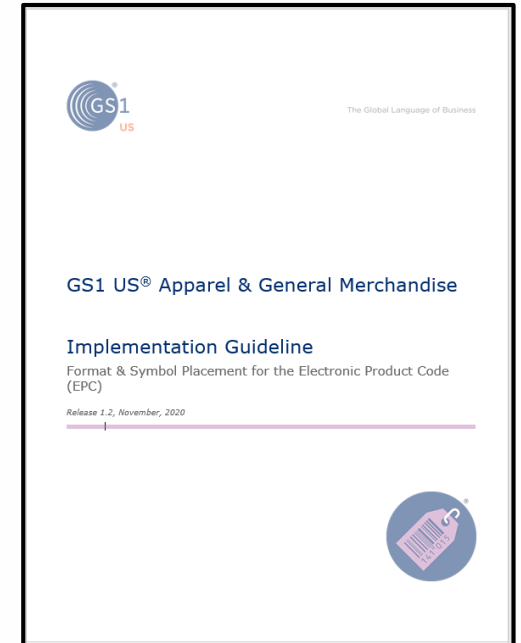
- Provides a standard vocabulary for defining material attributes
- Defines (digitizes) Raw Material identifiers
- PLM Software incorporates into Bill of Material
- RFID Tag definition, includes embedded indicator



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Updated EPC Tag Placement Guideline

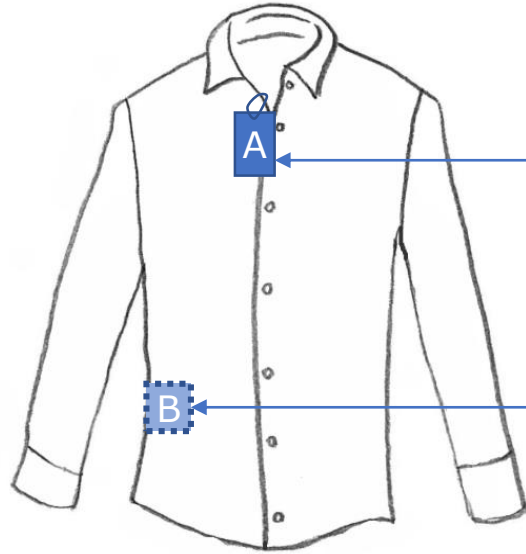
- Due for publication this November
- Updates locations for EPC tag placement
- Addresses embedded tags



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Complementary Optical & Radio-Based Identifiers



Pre-Sale: RFID tag with GS1 Digital Link-enabled QR code.

Post-Sale: Serialized woven label (QR code) or embedded wireless identifier.

GS1 Digital Link Standard

<https://example.com/gtin/614141999996/ser/173205>



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Encoding more than just identity...

- Foodservice interest in encoding Batch/Lot and Date
 - Noted need for edge data for freshness and recall
 - Working to streamline process of decoding this data
- Similar applications in Healthcare
 - Fresenius Kabi announcement
 - Interest in TIPP grade expansion



Interested?

- RFID 101 For Any Business: October 15th, 2020
 - <https://site.gs1us.org/webinar-rfid-101-visibility.html>
- RFID 201 Maximizing Value: November 17th, 2020
 - <https://site.gs1us.org/webinar-rfid-201.html>
- Email JGregory@GS1US.org if interested in
 - RFID discussion group ramping up 2021
 - Batch/Lot and Date encoding
 - Expansion of TIPP grades to include pharma categories
 - EPC Tag Placement Guideline, Raw Material Attributes Guideline, ...



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Thank You!

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