



The Global Language of Business

GS1 Based Standards and Data Ecosystems

Session I: Traceability systems and commodity chain information

International Conference on "Global commodity chains from a risk assessment perspective"

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Tim Bartram, Senior Manager Research & Consulting, GS1 Germany GmbH



H@ppy to hear from YOU

Tim Bartram

Senior Manager Research & Consulting

GS1 Germany GmbH

50825 Köln

Maarweg 133

GERMANY

+49 163 6878 459

tim.bartram@gs1.de

www.gs1.de



GS1 Germany

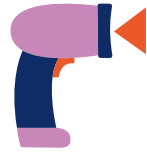


First Scan in a Supermarket:
1974, Ohio, USA

116 Member Organisations

2 Over **Million** Companies use GS1 Standards.

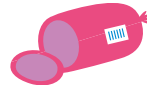
7 More than **Billion Barcodes** daily scanned worldwide.



Over **110** Million



Products are marked with barcodes worldwide.



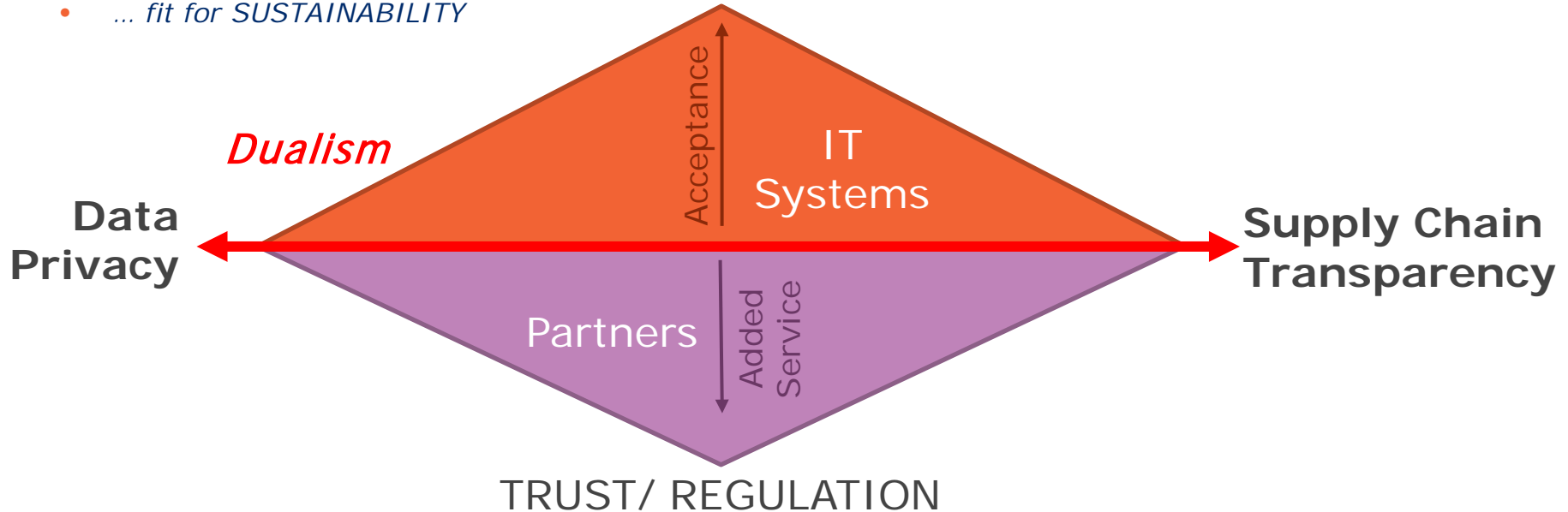
The Identification of Everything Makes Anything Possible



Traceability and Commodity Chain Information

- ... fit for RISK ASSESSMENT
- ... fit for REGULATION
- ... fit for SUSTAINABILITY

COMPLEXITY/
EASY-to-USE



GS1 Standards – Three Pillars



Uniquely **Identify** products, assets, locations ...



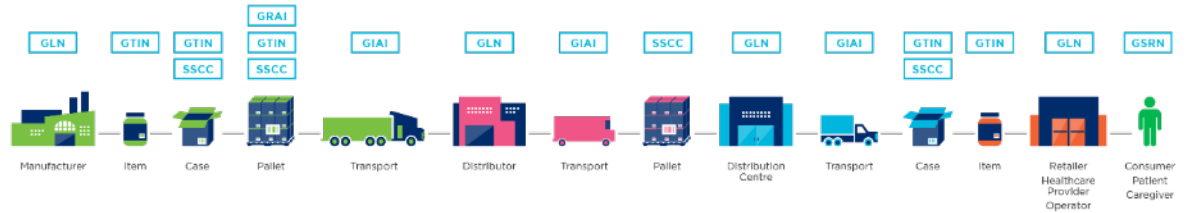
Automatically **Capture** real-time data



Efficiently **Share** information

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

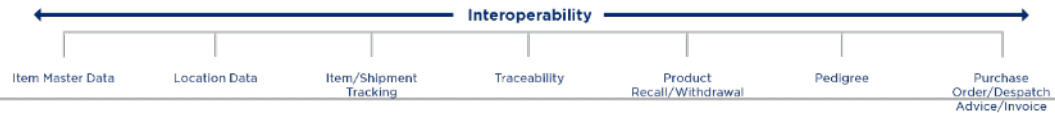
GS1 Barcodes



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)





GS1 standards enabling traceability in the food supply chain

Information Flow

Foundational: Collection of master data such as product information and location identification of trading partners in the supply chain

Other transactional and events-based traceability data

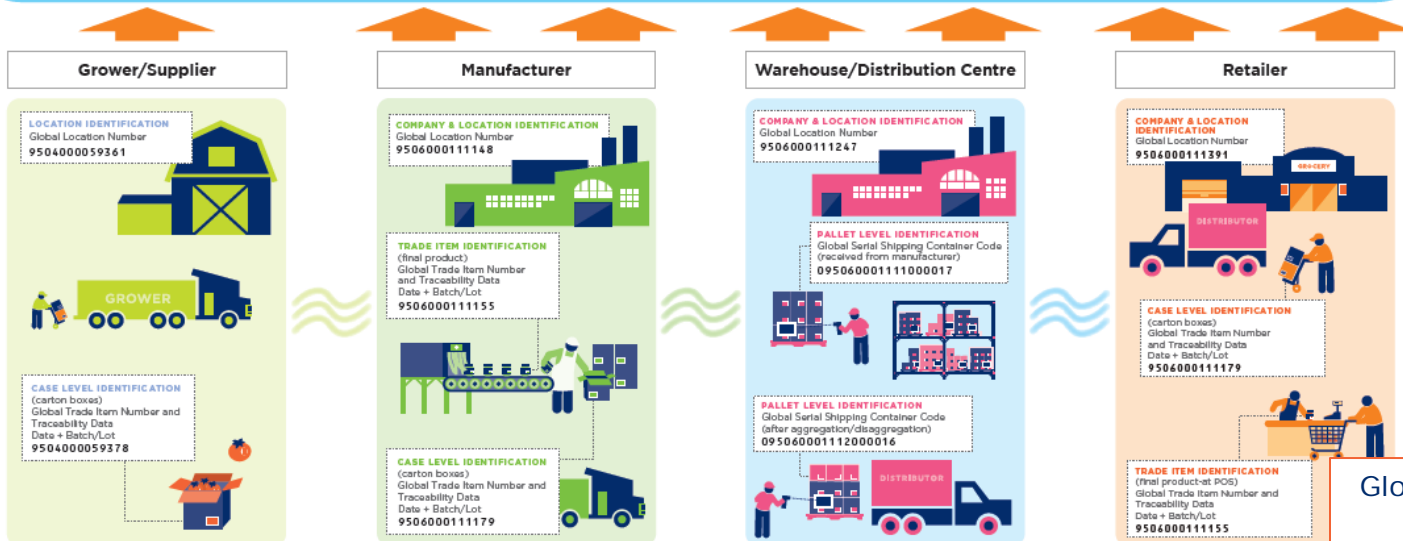
GTIN + Lot (raw materials)
Date + time
GLN of farm
Produced (biz step)

GTIN + Lot (final product)	SSCC
Date + time	Date + time
GLN of plant	GLN of shipping area
Produced	Packed

SSCC	SSCC
Date + time	Date + time
GLN of warehouse/DC	GLN of warehouse/DC
Delivered	Shipped

GTIN + Lot	GTIN + Lot
Date + time	Date + time
GLN of retail store	GLN of retail store
Received and stored	Sold to customer

Physical Flow



- GTINs + batch/lot are used to identify produce in cases/bulk.
- SSCCs are used for products distributed from the farms with batch/lot information.
- Each physical location is identified with a GLN.

- Internal traceability is maintained in the key processes: receiving, transformation of raw materials to semi-finished or finished goods, storage and distribution.
- GTINs and production data (batch/lot & expiry date) are printed on products to be despatched.
- Links between goods received and despatch of final product are always maintained

- Internal traceability is maintained in the key processes: receiving, cross-docking, storage and distribution.
- GTINs + batch/lot or expiry date is used to assure accuracy of picked products when aggregated and disaggregated. These cases are linked and tracked with pallet using the SSCC.
- Despatch Advice containing GTINs, SSCC

- Retailers provide product information to customers at POS.
- Master data and event data (for traceability purposes) can be provided to consumers on product labels or through scanning of barcodes.

Global Traceability Standard + Industry Guidelines



Fulfill consumers' demands.

Reduce costs.

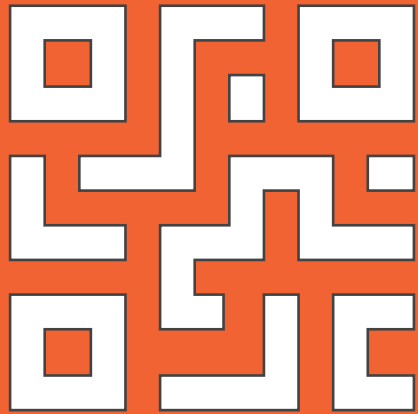
Create experiences.



Transparency.
Speed.

Trust.

2D Barcodes



&

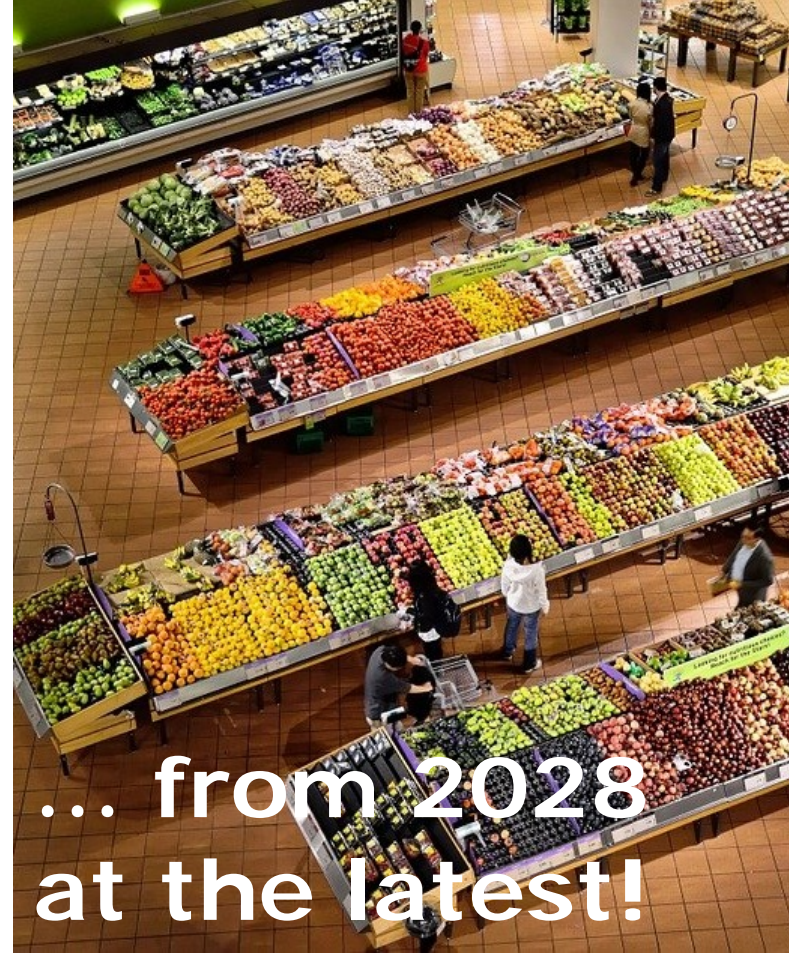


Verified by GS1

Progress ahead ...



<https://id.gs1.de/01/04012345999938>



... from 2028
at the latest!

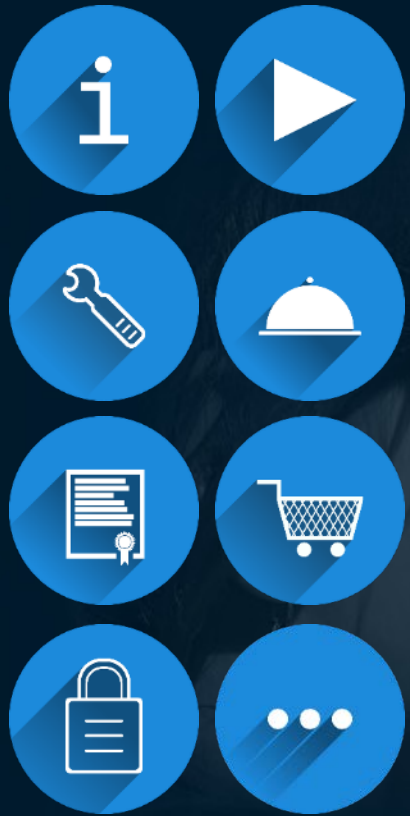
2D Barcodes powered by GS1









<https://id.gs1.org/01/09506000149301/10/AB-27?17=271231>

GS1 Digital Link

Enabler for Endless Opportunities

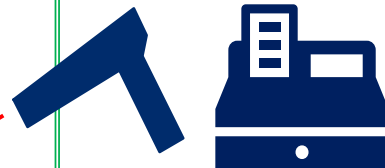


Greater Capacity + Smaller Code

<h2>Inventory Management</h2>  <ul style="list-style-type: none">• Maintain FIFO• Inventory Accuracy• Availability and Location Insight• Avoid Waste, Ensure Freshness	<h2>Traceability</h2>  <ul style="list-style-type: none">• Product Authentication• Ingredient Sourcing info• Supply Chain Visibility• Consumer Trust	<h2>Safety</h2>  <ul style="list-style-type: none">• Brand Integrity• Prevent sale of expired or recalled product• Fight Counterfeiting
<h2>Sustainability</h2>  <ul style="list-style-type: none">• Recycling info• Enables Circular Economy• Waste Prevention• Farm to Fork	<h2>Consumer Engagement</h2>  <ul style="list-style-type: none">• Access to Brand authorised info• Promotions• Recipes• Opportunities to engage with the brand	<h2>Improved Packaging</h2>  <ul style="list-style-type: none">• Marketing goals on-pack• Regulatory compliance• Enhanced Consumer Experience

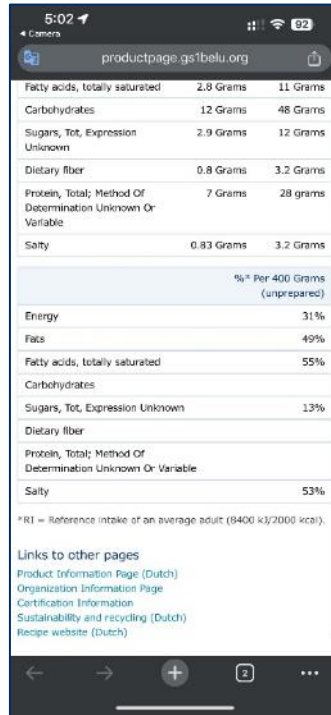
How the GS1 Digital Link works

<https://id.gs1.de/01/04000001666669/10/080487?15=230620>



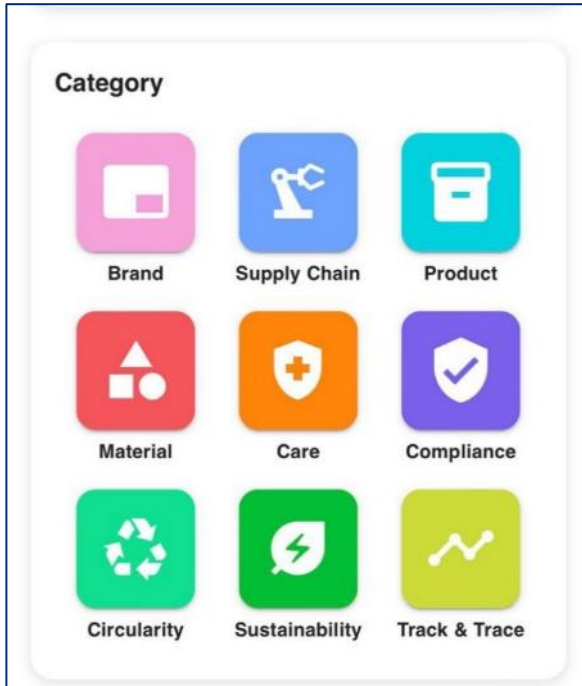
GTIN	04000001666669
Batch	080487
BBD	20.06.2023

Sharing Data




(01) 05413848131907

Claims and ESG Reporting



(01) 04891668001173

Certifications and Traceability



Crew neck white t-shirt

The white t-shirt is made of soft and lightweight cotton jersey, ensuring comfort, whilst a refined mélange texture adds sporty appeal.

i Made from 100% cotton

GTIN: 9506000164908

- Product
- Certificates
- Sustainability
- Track & Trace
- Recycling

HOME PAGE



bluesign

CERTIFICATE

Awarded to bluesign SYSTEM PARTNER
Ocean Lanka (pvt) Ltd.
BEFZ Block B, Waligama, Matwara, 11072 Biyagama, Sri Lanka

This certificate attests that the article range

Knits
(only valid in connection with an entry in the Bluesign® GORE for exact article identification)

manufactured in
Ocean Lanka (pvt) Ltd.
BEFZ Block B, Waligama, Matwara, 11072 Biyagama, Sri Lanka
meets the relevant bluesign® CRITERIA.

Furthermore, above company is granted authorization to use the trademark.

bluesign® APPROVED
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Daniel Rutenacht
CEO
bluesign technologies ag

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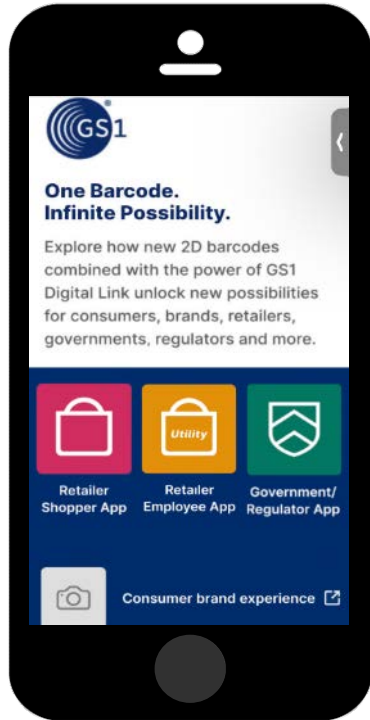
bluesign technologies ag | Maxmühlstrasse 10 | 9015 St. Gallen | Switzerland
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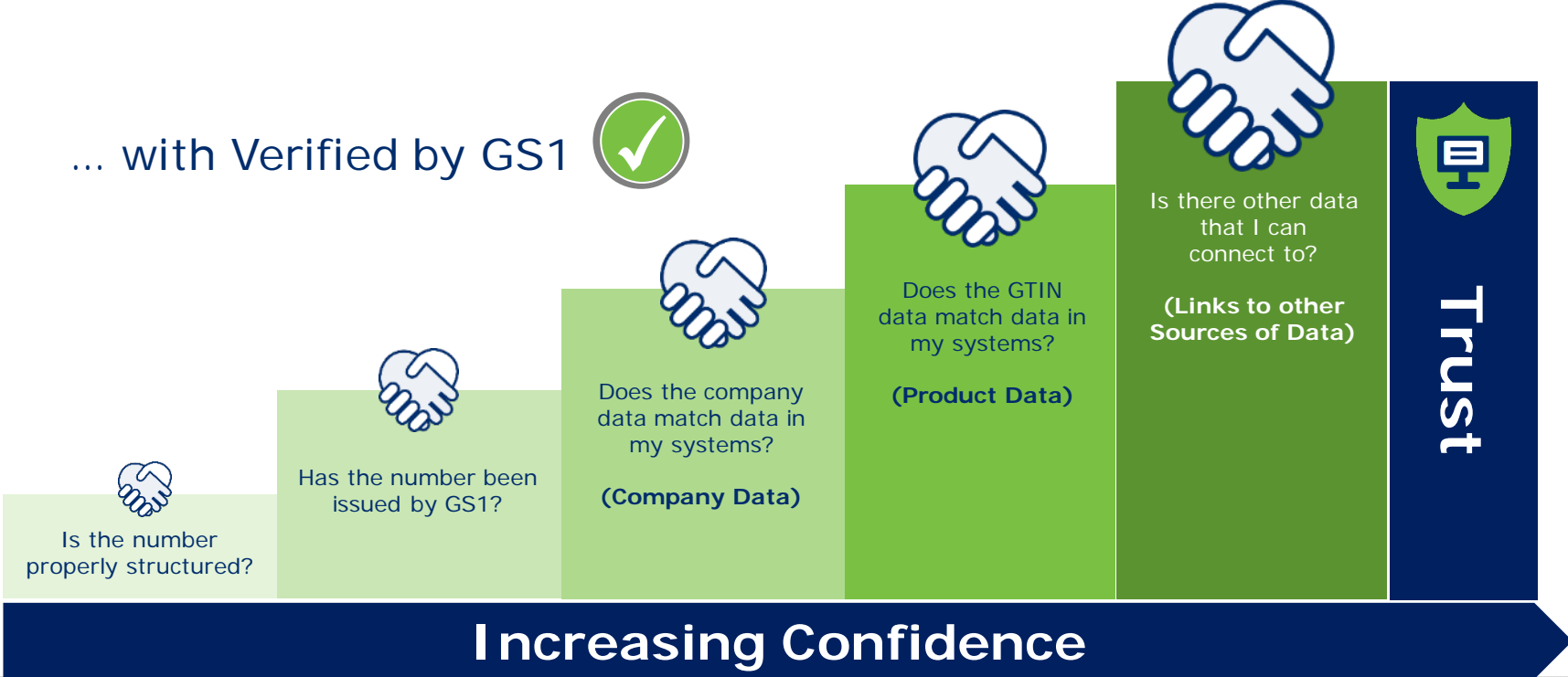
(01) 09506000164908

And it works with your App...



Verified by GS1

Climb the Ladder of Trust and Product Quality



Who's using Verified by GS1?



Retail, Fresh foods, Marketplaces

The benefits of trusted product information for bigbasket and other Indian retailers and m...

Retailers and marketplaces in India are finding a range of important ways to use the product data av...



Public sector

Making China's customs clearance processes more efficient and more accurate with Verified ...

The GS1 GTIN and Verified by GS1 have become valued tools for China Customs, bringing benefits to al...



Retail, Consumer packaged goods (CPG)

The data quality journey of chocolate and candy giant Mars Wrigley

Thanks to a range of data quality initiatives, product data accuracy is now close to 100%



Retail, Consumer packaged goods (CPG)

METRO and P&G gain insightful business benefits from Verified by GS1

METRO and P&G recently undertook a collaborative evaluation of Verified by GS1.

GS1 helps to

- Give things their unique identity.
- Connect that identity to trusted data.
- Use that trusted data to power business.
- Connect that trusted data to the world.

Future Trade Digitalization and the GS1 System

- Simplification of Trade Documents and their Key Data Elements
- Models for Data Sharing and Security
- Developing Digital Trust at Scale
- The Role of Globally Interoperable Standards

Take-Aways – GS1 Standards for Data Ecosystems

- Structure → Syntax/ Semantics
- Flexibility → Stakeholder/ Language
- Definition → Categories/ Properties
- Complexity → SME/ Global Players
- Pragmatism → Once filled-in/ multiple use
- Traceability → Regulation/ Sustainability
- Granularity → Accuracy/ Class, Batch, Item
- Authenticity → Verified ID
- History → 50 years ... and ongoing
- Future Scanning → Single/ 2D Code (by 2028 latest)



