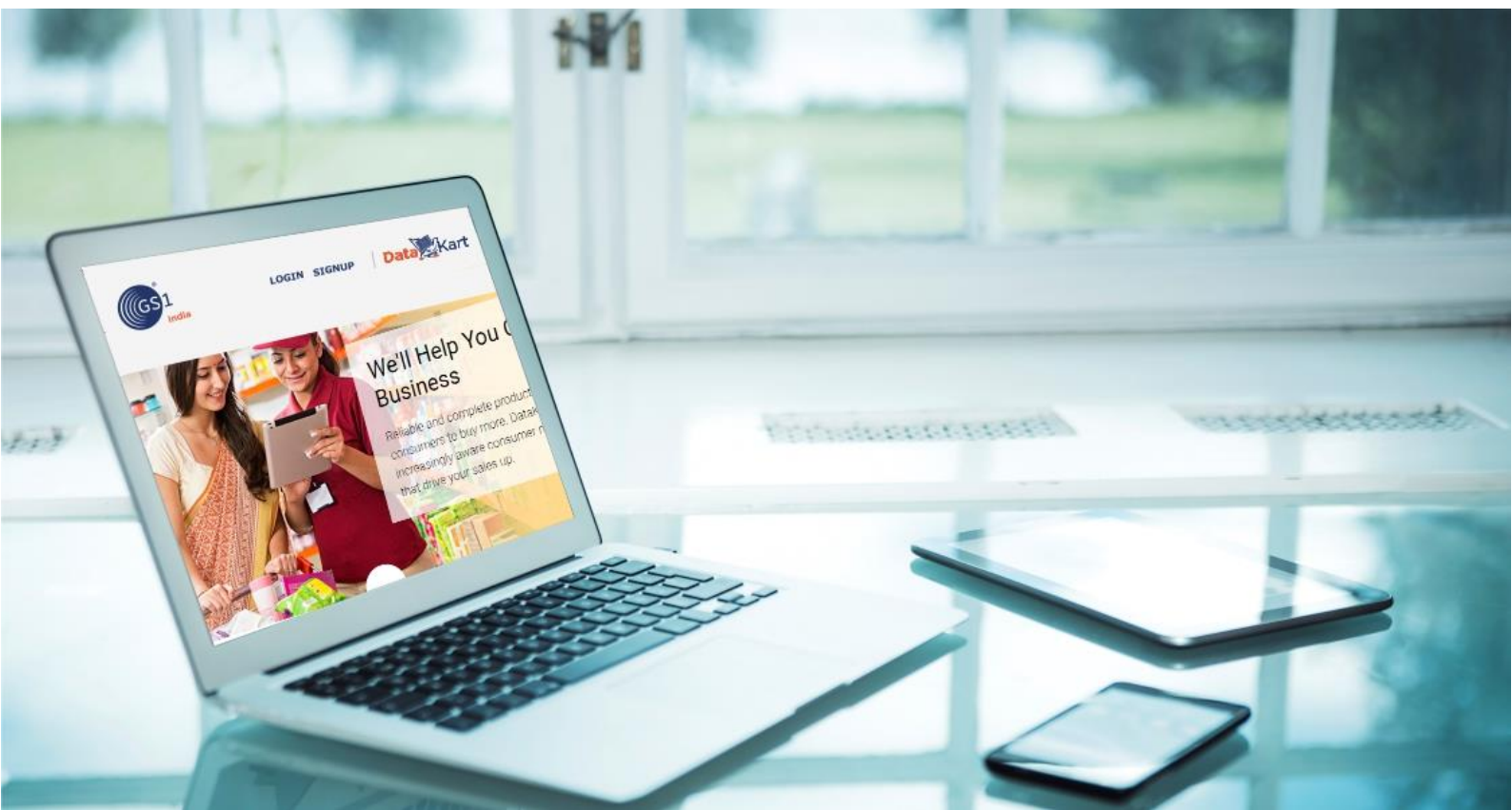The Global Language of Business

Annual Report 2016-17

Revolutionising Product Data Management in Retail

GS1 believes in the power of standards to transform the way we work and live

We create a common foundation for business by uniquely identifying, accurately capturing and automatically sharing vital information about products, locations and assets.

We enable visibility through the exchange of authentic product data.

We empower business to grow and to improve efficiency, safety, security and sustainability.

We are:
- Neutral and not-for-profit
- Global and local
- User-driven and governed
- Inclusive and collaborative

Contents…

MESSAGE FROM THE PRESIDENT

I am pleased to present GS1 India's 19th Annual Report with highlights of its achievements and activities through the year 2016-17.

This year, GS1 India launched its DataKart service, which is expected to bring a step change in GS1 India's offerings, far beyond the assignment of GTINs (EAN/UPC codes). DataKart would also feed product data on retailed items to the 'Smart Consumer' mobile app of the Department of Consumer Affairs, Government of India. This is a major step towards empowering consumers through access to digital information, furthering the 'Digital India' vision. Efforts are underway at enhancing the apps' utility by inclusion of information on license numbers/certifications from Regulatory bodies like FSSAI, AGMARK, etc.

Several projects were initiated to expand the use of GS1 standards in critical applications on Track & Trace, and inventory management. One such project 'eSpice Bazaar portal' under Spices Board became operational to track produce from over 52,000 farms.

Another major project requires the use of these standards in RFID tagging of wagons & coaches in tracking their real-time movement for the Indian Railways.

Breakthrough was achieved in inventory management of ammunition through the use of GS1 standards in barcoding/RFID for the Central Ammunition Depot of the Indian Army.

At the international level, GS1 India continued to provide significant inputs in the development of GS1 Global's strategic plans through its active participation in the GS1 Global Management Board and GS1 Global Advisory Council.

CEO, GS1 India, was re-elected for an additional two-year term on the Board of Directors of GLEIF (Global Legal Entity Identifier Foundation), Switzerland, which would help in further promoting the use of LEIs (Legal Entity Identifiers) to the financial sector.

I would like to thank the Board of Management for its continued pro-active support in furthering the objectives of GS1 India and complement the GS1 India team, led by the CEO, for its performance during the year.

Bhupinder S. Bhalla

MESSAGE FROM THE CEO

2016-17 has been another year of consistent growth in new subscriber registrations, besides addition of new revenue streams from DataKart and Consulting services.

Over the past two years, we engaged intensively with the Indian Retail sector to understand their challenges/pain areas in collating and sharing information on retailed products. There was an urgent need felt for a single, trusted web-based data repository into which manufacturers could seamlessly upload their SKU data on new products, changes, promotions and inactive variants, and share it with multiple retailers in real time.

GS1 India developed 'DataKart' to fulfil the above needs and officially launched the service in November 2016. It received enthusiastic support from the Retail Industry and already stores information on over 1.5 million SKUs. DataKart got the attention of the Ministry of Consumer Affairs, Food and Public Distribution for which GS1 India developed the 'Smart Consumer' mobile app to enable consumers access product data digitally.

This year, GS1 barcodes got implemented for inventory management projects in the Army Hospital R&R and NDMC hospitals.

GS1 India undertook a detailed study on inventory management at the Central Ammunition Depot of the Indian Army and submitted its recommendations, which were accepted by Ordnance Factories Board (OFB) and CICP.

At Nestle India, GS1 barcodes were used in upstream traceability and inventory management of packaging materials. Similar projects with other FMCG companies are contemplated.

Many other important developments and activities were undertaken this year, details of which are highlighted in this Annual Report.

I take this opportunity to thank GS1 India employees in helping us achieve our goals. Our special thanks to the Members of Board for their continued support and to Shri B. S. Bhalla for his excellent guidance and leadership.

Ravi Mathur

Performance Highlights

During 2016-17, GS1 India registered steady growth in new registrations across product categories, enabling it exceed its targets.

GS1 India subscribers

2012-13	2013-14	2014-15	2015-16	2016-17
1,932	2,208	2,428	2,818	3,096
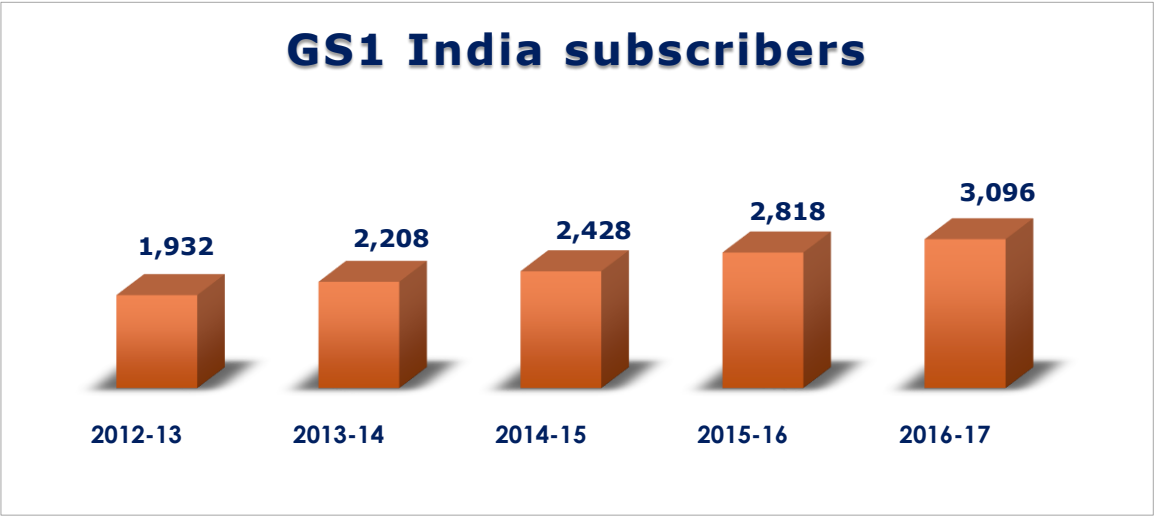
The distribution of this year's new registrations is illustrated below:

- Misc. 297
- Pharma exports 136
- Non-pharma exports 386
- E-commerce 225
- Retail 2,052
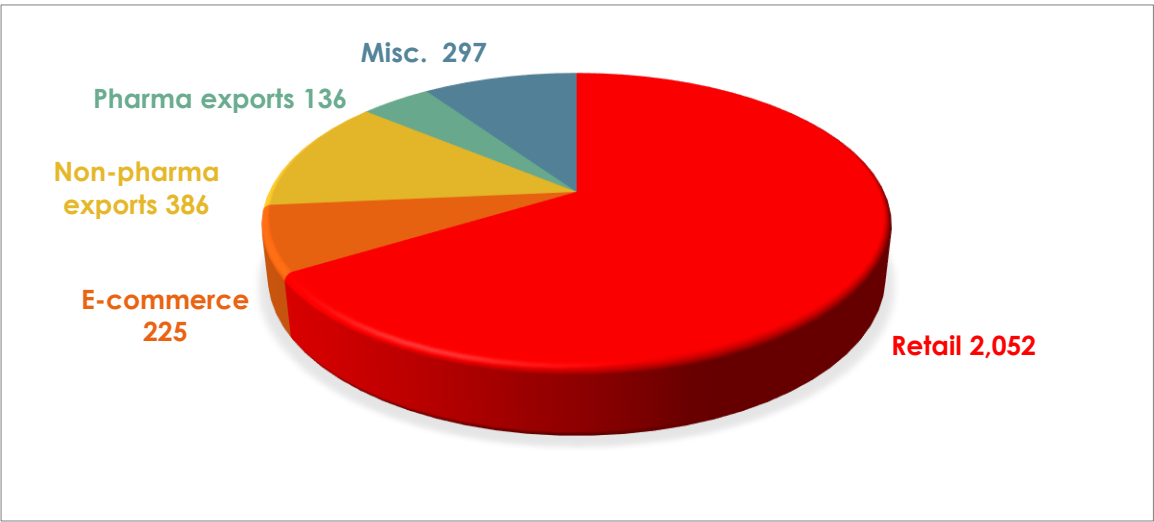
Organisational Overview

GS1 India is a Standards body set up in 1996 by the Ministry of Commerce & Industry, Government of India, along with Apex trade bodies and institutions. It allocates and administers the use of GS1 standards, and provides guidance & implementation support to Indian Industry in adoption of GS1 global standards to enhance their supply chain efficiency while empowering consumers to make more informed choices.

GS1 India is an affiliate of GS1 Global, headquartered at Brussels, which oversees a network of GS1 organisations in 112 countries.

Our Board Members

Over 2 million companies across 25 industry sectors use GS1 standards worldwide

GS1 Standards

GS1 standards facilitate unique and universal identification, capture, and share of information on products and services, from point-of-origin to point-of-sale or dispensing. Most commonly, our standards are used in barcoding of consumer items that enable important applications, such as product authentication, track & trace, product recall, real-time monitoring of stocks, faster checkouts at PoS, online selling, and more.
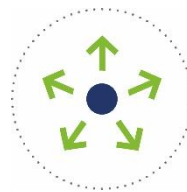
Identify

- Company & Location (GLN)
- Product (GTIN, SGTIN)
- Logistic unit & Shipment (SSCC, GSIN, GINC)
- Asset (GIAI, GRAI)
- Coupon (GCN)
- Document (GDTI)
- Service (GSRN)

Capture

Barcodes & RFID

Share

Master Data
- GDSN
- GS1 Smart Search

Transactional data
- XML
- EANCOM

Event data
- EPCIS

Use

Enable:
- Track & Trace
- Authentication & Counterfeit Detection
- Product Recall
- Inventory Management

GS1 standards are referenced in ISO standards on:

- *Automatic identification*
- *Data capture*
- *Food safety*
- *Product recall*
- *Data standardisation*
- *Traceability*
- *Barcodes*
- *RFID*

GS1 India Services

Launched in November 2016, GS1 India's DataKart is a cloud-based service that functions as a central repository of data on retailed products with all their attributes. Populated directly by manufacturers/brand owners, it functions as a single, updated source of trusted product data in real time, which enables seamless data exchange with multiple retailers/online shopping portals, and others, in one go.

Through DataKart, brand owners can assign unique product codes - GTINs (EAN/UPC), to their products, ensuring no duplicate or wrong code assignment. It also generates and prints barcode images for each product (SKU). Brand owners can share their complete product information with retailers and online shopping portals in their respective native formats.

In just 4 months, over 5,000 GS1 India subscribers have assigned over 1.5 million GS1 product codes to their SKUs, across various product categories, through DataKart.


e-Cataloguing & Imaging
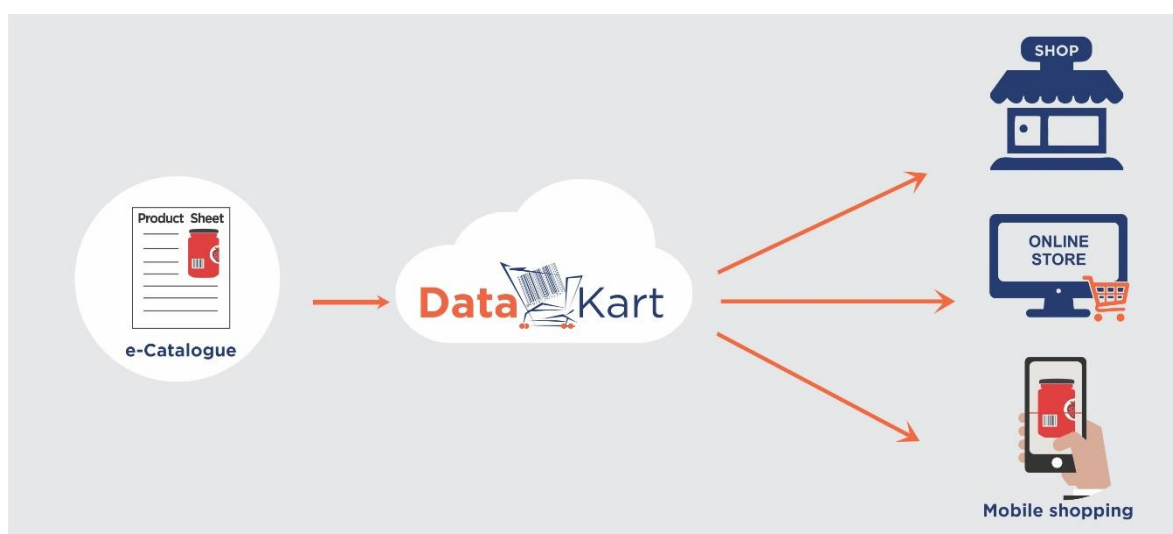
GS1 India's e-Cataloguing & Imaging service offers a convenient 'one-stop solution' for brand owners/manufacturers to meet their product cataloguing and imaging needs for selling products online, in stores, or both.

Digital images and product attribute information, captured through this service conform to GS1 Product Image Specification Standard & GS1 Package Measurement Rules, which are used by leading retailers and online shopping portals worldwide. Through DataKart, these can be exchanged with retailers, online shopping sites, and consumers.

GLN Registry
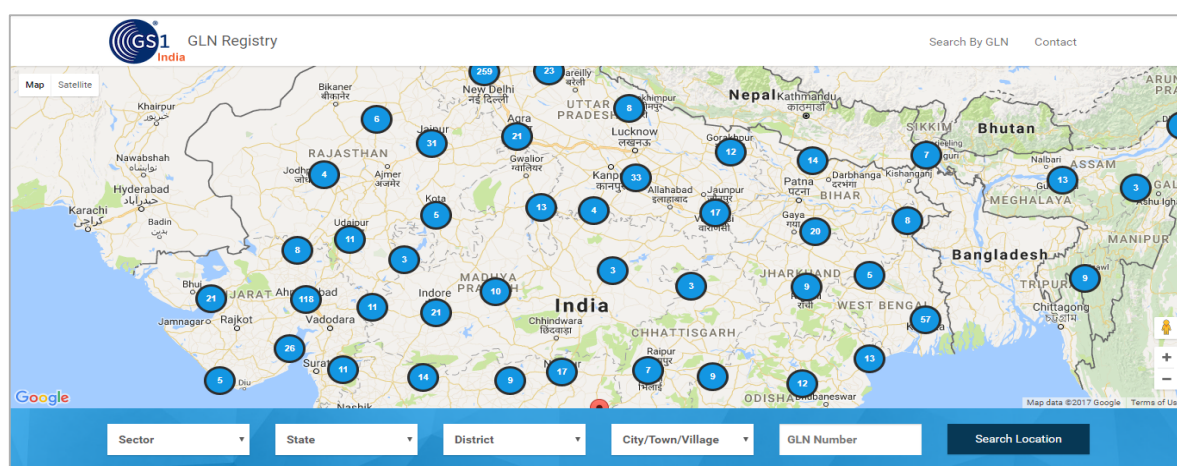
Launched in July 2016, this is GS1 India's cloud-based repository of unique location numbers. It enables companies to uniquely identify legal entities (parties) and locations (addresses) by assigning Global Location Numbers (GLNs) using their GS1 India subscription. The Registry automatically geo-tags location co-ordinates and locates them on the map.

The GLN Registry is of particular importance to pharma exporters, who are required by buyers/Regulations to uniquely identify their entities using GS1 standards (GLNs). Also, companies that exchange information through EDI messaging use GLNs to uniquely identify sender and recipient of these messages.

Consumers can verify and authenticate GLNs with details of the entity/ location and its geo coordinates through this Registry.

Going forward, the Registry will be integrated with the GS1 Global GLN Registry to enable consumers to verify GLNs issued by any GS1 organisation across the globe.

For more information, look up at http://gln.gs1india.org.in

GEPIR

GEPIR (Global Electronic Party Information Registry) is an Internet-based GS1 service that gives access to basic contact information on companies that are members of GS1 organisations worldwide. It contains information on over 2 million companies worldwide that use GS1 standards. All GS1 India subscribers get automatically listed in this Registry when they subscribe to GS1 standards. Their subscription can be validated by international buyers using GEPIR. For more information, visit: http://gepir.gs1.org/

GTIN Validation

GS1 India offers a GTIN Validation service for retailers and online shopping portals to help them identify incorrect and duplicate GTINs (product codes). This service enables them to improve the quality and overall accuracy of their Item Masters/Product Catalogues.

Barcode Verification

GS1 India offers barcode verification services for both 1-D and 2-D GS1 barcodes. Barcodes submitted by companies are verified to ensure conformance to GS1 standards and scanning efficiency with different Point-of-Sale scanners.

Barcodes are rigorously tested on several criteria, such as size, colour, print quality, quiet zone, check digit, and barcode placement. Subscribers receive a detailed barcode verification report along with recommendations for modification, if any.

During 2016-17, over 6,000 barcodes were verified & scanning reports were generated.

Education & Training

GS1 India offers training programs to help subscribers implement GS1 standards within their organisations. Through such training programs, subscribers learn about GS1 standards and their use in supply chain processes connected with automatic identification and data capture. Trainings organised by GS1 India are tailored to user requirements and are delivered through workshops, webinars (live online training), recorded online sessions (e-learning), and self-help videos.

Consulting & Advisory

GS1 India provides Consulting & Advisory services to help organisations optimise their supply chain performance. This includes improving efficiency, productivity, inventory management, safety and security of Supply & Demand Chains across Industry sectors, and facilitating their integration/compliance with varied buyer and Regulatory requirements. Such requirements include product visibility, its Track & Trace and efficient recall (when required) across multiple trading partners, product authentication, and electronic data exchange/data synchronisation.

GS1 India projects

Smart Consumer app

On the occasion of the National Consumer Day on 24 December 2016, Ministry of Consumer Affairs, Food and Public Distribution launched 'Smart Consumer' mobile app to provide access to key product label information digitally to consumers.

Besides making this information easier to read, this mobile app enables consumers to access product information required under the Legal Metrology (Packaged Commodities) Rules 2011 when they scan GS1 product barcodes.

Smart Consumer app draws product information from GS1 India's DataKart. GS1 India subscribers, who upload their product information into DataKart, can connect directly with consumers.

GS1 India is in discussions with several other Regulatory bodies, such as FSSAI, BIS, and AGMARK, to enable them leverage the Smart Consumer app for providing ready access on Compliance-related information to consumers on retailed products through a single data source.

Scan the product barcode & get:

- Product name
- Manufacturer details
- Month & year of manufacture
- MRP
- Net content
- Consumer care details to submit compliant

Railways to use GS1 EPC standards to track wagons, coaches

Indian Railways have roughly 2.5 lakh wagons, 60,000 coaches and 9,000 locomotives in its possession. The challenge that comes with such a big inventory is in its management and knowing what is located where. Also it is important to accurately capture data while in transit and use this for more efficient utilisation of its rolling stock. Indian Railways approached GS1 India for use of GS1 standards for AIDC purposes. An agreement was signed on the use of GS1 EPC standards, encoded in radio frequency tags, to uniquely identify each and every rolling stock (wagon, coaches and locomotives) in the Railways.

These radio frequency tags are designed by Centre for Railway Information Systems (CRIS), in association with GS1 India. A unique feature about these tags is that they are as per GS1 GIAI-202 standard and have a user memory area. This allows the information in them to be read and used without any backend network connectivity. The Indian Railways has already tested their design at speeds of more than 180 kmph. These tags are also being integrated with trackside equipment for runtime detection of maintenance parameters.

RFID tags are in the process of being affixed to all the rolling stock to ensure

their visibility. Trackside readers, which will be installed in between stations and other key points, would read these RFID tags from a distance of one-and-a-half metre and transmit the vehicle identity over a network to a central computer.

This solution will provide visibility to each vehicle, i.e., wagon/coach/ locomotive that runs over the Indian Railways in near real time. With the usage of RFID tags, Railways plans to improve the quality of information available for predicting maintenance work content, while also improving the overall quality of data capture in a more transparent and expeditious manner. RFID tags will be of significant importance in areas, such as freight, traction and coach maintenance as well as operations, in a foreseeable future.

NDMC hospitals and dispensaries implement GS1 barcode system

Based on GS1 India's recommendation, NDMC (New Delhi Municipal Council) implemented an automated data capture system for receipt of medical supplies at its Central Medical Store and onwards despatch to their hospitals and dispensaries.

Extensive training and implementation support was provided by GS1 India to NDMC's medicine suppliers, comprising of pharma companies and distributors. On successful implementation, NDMC is also looking at extending the use of GS1 standards to cover other supplies, including Ayurveda products, Surgical and Laboratory items.

Army Hospital Research & Referral automates stock receiving

The Army Hospital Research and Referral (R&R), Delhi, implemented GS1 standards to automate receiving of medicine supplies in their Central Stores and updating its inventory in real time.

This system helps the hospital in moving away from time-consuming manual processes, data quality issues, losses on account of poor expiry management, and mismatch between physical supplies and system inventory.

GS1 India worked closely with Army Hospital R&R and their 90 suppliers to help them transition from manual to automated despatch of medical supplies. Through GS1 India's DataKart, suppliers could print logistic labels using GS1 Serial Shipment Container Codes (SSCCs), which were affixed on each carton. Since these labels were generated through DataKart, suppliers did not require any knowledge of barcode designing, label printers, etc., which greatly facilitated faster implementation at their end. At the supplies receiving point in the hospital, GS1 barcoded labels on each carton were scanned to automate the receiving process. This streamlined the receiving process, reducing the time taken by 70-80

per cent while eliminating manual data entry errors.

With the success of this implementation, the hospital now plans to use GS1 barcode labels on secondary packaging to monitor stocks' movement from its Central Stores to stores attached to each Speciality/Department. In addition, GS1 India is also deploying a bill tracking system for the hospital.

Once registered with GS1 India, medicine suppliers would be able to effect supplies to other Army hospitals across the country as well, whenever required.

Nestle India extends the use of GS1 standards to its upstream suppliers

Nestle India procures packaging materials in bulk, which are stored at each factory. This requires a large storage area, besides FIFO management.

To automate receiving and dispatch of its packaging materials and trace the supplies, Nestlé India partnered with GS1 India and conducted a pilot at one of its factories.

Packaging material suppliers were asked to affix GS1 logistic labels on their pallets, capturing the batch number, manufacturing date, quantity per pallet, and number of pallets, before despatch to Nestle India. When the shipment arrives at the Nestle India's factory, all the information is

automatically captured and updated into Nestlé India's ERP system instantly on scanning barcodes on these logistic labels.

This process has reduced the time taken to unload a truck from 3 hours to 90 minutes, in addition to enabling traceability of each

pallet and reducing the effort required in handling multiple documents while receiving supplies.

With the successful completion of this pilot, Nestlé India intends extending this process to all its factories in the country.

NABL uses GS1 standards for certificate identification and authentication
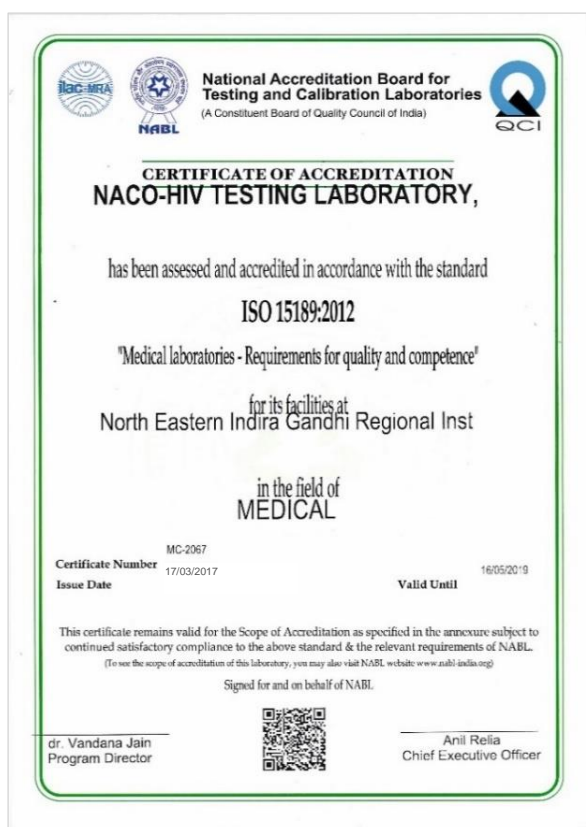
The National Accreditation Board for Testing and Calibration Laboratories (NABL) provides accreditation to laboratories towards testing and calibration in all major fields of Science & Engineering, including medical testing. It issues approximately 6,000 accreditation certificates each year.

In a major breakthrough, NABL (under the Quality Council of India), began using GS1 Global Document Type Identifiers (GDTIs) encoded in QR codes on all accreditation certificates issued by them.

The decision to adopt GS1 standards was taken to uniquely identify and authenticate accreditation certificates using the data capture capability and security provided by GS1 standards. By using GDTIs encoded in QR codes, citizens and businesses can easily verify the authenticity of any certificate using barcode reader apps on their smartphones. This enables access to information on validity period of the accreditation, date of issue of certificate,

> " *NABL's decision to begin using GS1 Global Document Type Identifiers (GDTI) on our Accreditation Certificates was based on many factors like convenience, unique identification, and in particular, on the excellent data capture capability and security that GS1 standards offer.* "
>
> **- Anil Relia, Chief Executive Officer, NABL**

ISO/IEC standard used for accreditation, etc. This also helped NABL to save recurring costs involved in purchase of hologram stickers every year.

GS1 India has been successful with similar

implementations in the past, whereby Skill Development Certificates issued by the National Skill Development Council and teachers training certificates issued by the CBSE have been identified using GS1 standards.

Indian Army to use GS1 standards to track ammunition supplies

The Indian Army maintains its ammunition inventory through Master Keys, which hold lakhs of items of different lots. These lots are stored in ammunition stacks in hundreds of store houses of explosives. Currently, it is difficult to identify and locate ammunition at the Central Ammunition Depot (CAD) and reconcile physical stocks with the system inventory.

Real-time location visibility to this ammunition inventory is critical for effectively monitoring stock availability and ammunition movements in times of peace and war. CAD, Pulgaon, approached GS1 India for its advice and guidance on how

their inventories could be managed effectively and efficiently in real time using global standards.

GS1 India undertook a comprehensive study of CAD's current logistics and warehouse management processes and systems, and brought out its recommendations on use of automated data capture technologies like RFID with GS1 global standards for facilitating real-time asset tracking and stock management. The same were accepted by them, with Ordnance Factories being directed to affix EPC/RFID tags on all ammunition, prior to their despatch to CAD.

Odisha State Health Department adopts barcodes

To achieve real-time visibility of drug inventory across State warehouses, Odisha State Medical Corporation (under Odisha State Health Department) mandated the use of GS1 barcoding on drugs procured by them. Suppliers were asked to affix GS1 logistic labels on medical supplies, capturing the batch number, expiry date, quantity, etc., before despatching medical supplies. When the shipment arrives at the warehouse, all the information is automatically captured and instantly updated into the ERP system on scanning barcodes on these labels. This helps in saving time and enhancing accuracy, besides efficient inventory management.

West Bengal State Excise Department

With the formation of West Bengal Beverages Corporation Limited (WBBCL) in early 2017 to monitor distribution and sale of liquor in West Bengal, the State Excise Department approached GS1 India for its advice on how to effectively manage the liquor supply chain in the State. The objective included automatic inventory updation, stock inwards, despatches, FIFO (First In First Out), and LIFO (Last In First Out). On GS1 India recommendations, it was decided that all

the liquor supplies would affix barcoded labels using GS1 standards, on cartons, which would enable Track & Trace in transit and storage across the supply chain.

Events

DataKart Launch

On 17 November 2016, GS1 India officially launched its DataKart service in Mumbai. The event saw strong participation from 55 key retailers, e-tailers, brand owners, and SME suppliers.

Industry leaders drawn from the organised Retail sector, including Future Retail, Reliance Retail, Hypercity, Walmart, Big Basket, Grocermax, and brands (Kraft Heinz, Nestle, HUL, Pro nature Organic Foods) lauded GS1 India's efforts at developing the service and shared their experiences and expectations.

To show their commitment to this initiative, participants signed a joint statement at the event.

Retailers articulated how DataKart would greatly benefit them through better fill rates, on-shelf product availability, lesser mismatches between purchase orders and supplies receipts, faster product listings including for faster new product introductions, better visual merchandising on retail shelves, and consequent higher sales.

Brand owners spoke about how DataKart would potentially increase their market reach by making them visible to several online shopping portals and retail chains across the country and by directly connecting them with consumers.
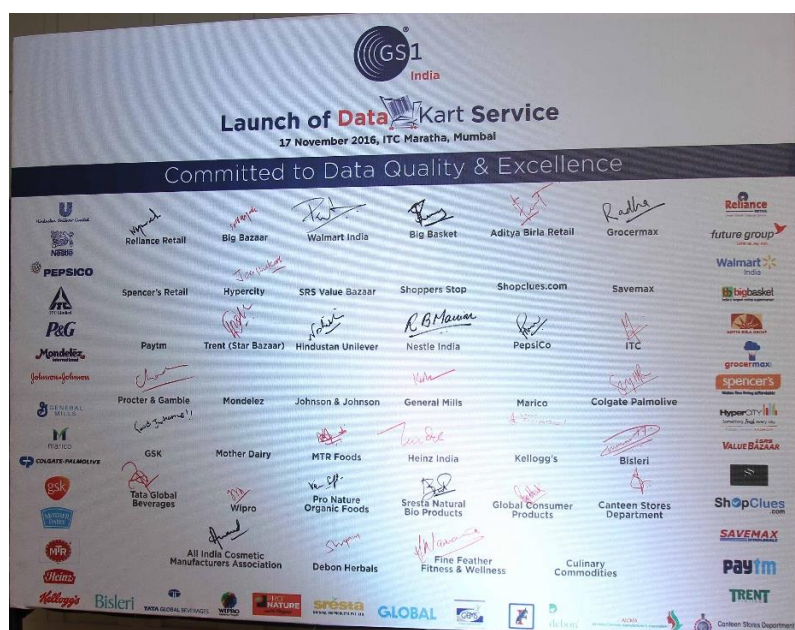
Our presence @ events

GS1 India participated in several events to build awareness on GS1 standards and its many applications/benefits. Some of the key events were:

- WCO Regional Workshop for the Asia Pacific Region on Combating Counterfeiting and Piracy
- CII National Food Safety Summit 2016
- India Retail Forum 2016
- Authentication Forum 2017
- AIDC Summit 2016
- National Conference on Packaging of Pharmaceuticals and Its Safety Aspects 2016
- India Food Forum 2017
- GS1 India RFID workshop for Apparel industry
- Seminar on National Consultation on Legal Metrology

Global events

GS1 India participated in GS1 Global events to exchange ideas and share experiences with other GS1 organisations across 112 countries.

- GS1 General Assembly 2016, Mexico
- GS1 AP Forum 2016, Bangkok
- GS1 Global Forum 2017, Brussels

Global recognition

GS1 India was one of the recipients of the prestigious 'Everyone Makes a Difference Award 2017' instituted this year to recognise exemplary contribution by GS1 staff worldwide in promotion and adoption of GS1 standards.

Bijoy Peter from GS1 India received this award from Tim Smucker, Chairman Emeritus, and Miguel Lopera, President & CEO, GS1.

Marketing Communications

To align with GS1 Global branding guidelines and to provide rich user experience, GS1 India's website www.gs1india.org underwent a complete revamp.

New sections were added in the website to highlight GS1 India projects under Retail, Healthcare, Food and Agriculture sectors and to showcase wide ranging applications of GS1 standards. GS1 India blog section was created in the new website to help users track updates across projects undertaken by GS1 India, and DataKart in particular.

A new portal was also created for GS1 India's DataKart service www.gs1datakart.org, which enables upload of information on retailed products and its sharing with data users, comprising retailers, online shopping portals, and consumers in a seamless manner.

To raise awareness on DataKart within the supplier and retailer community, several marketing collaterals, like brochures, flyers, testimonials, etc., were created, including on the Smart Consumer mobile app developed for the Department of Consumer Affairs, Government of India.

Also, several self-help videos were developed on DataKart portal to provide guidance and implementation support to subscribers.
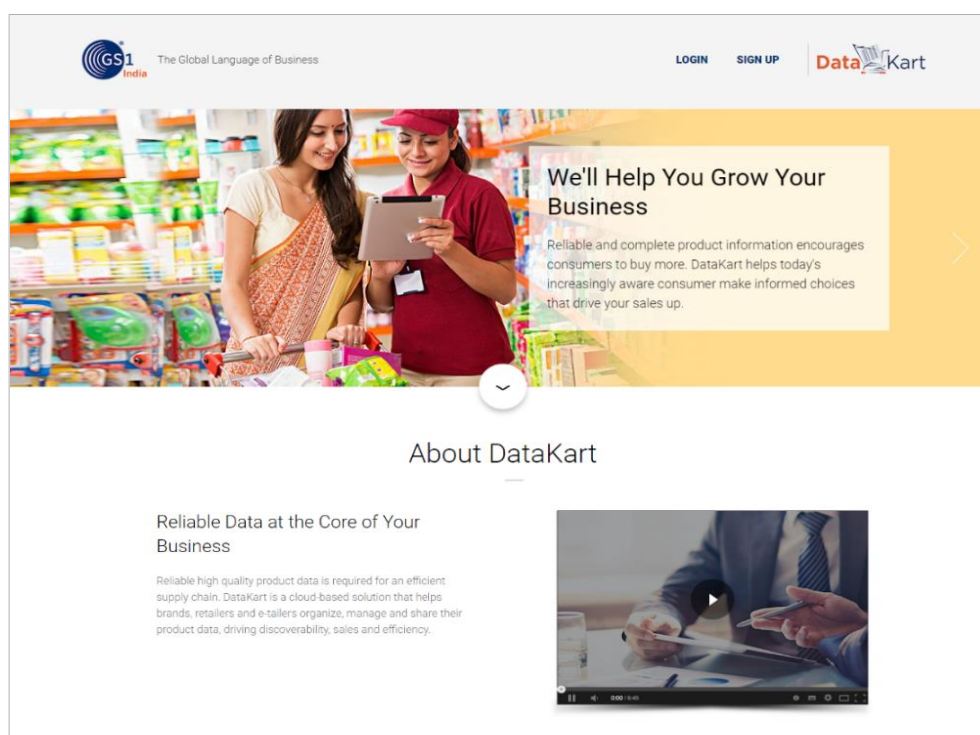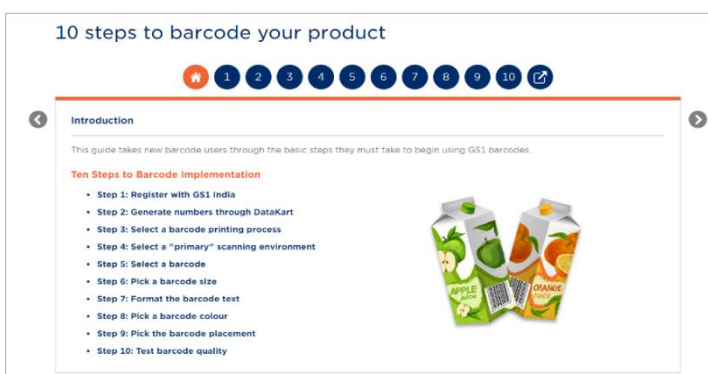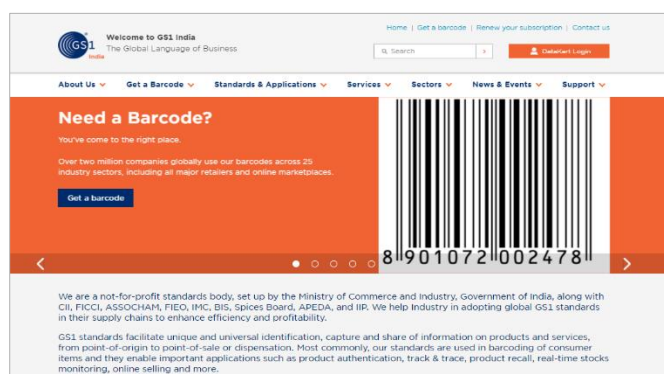
Revolutionizing the way we exchange product data

Dear Supplier,

Our organisations currently struggle with collecting reliable, up-to-date information on thousands of consumer products we sell. Accurate product information is essential for business processes related to merchandise ordering, supplies receipts, planograming, FIFO management, stock monitoring, new product introductions, promotions, etc.

Omni-channel retailing and online shopping is the norm today. Regulatory compliance requirements and consumer expectations around product information on health & wellness, quality & reliability etc. are also increasing. These growing information demands make the need for detailed product attribute information along with product images vital to maintain an accurate product item master and to run successful retail operations.

Unfortunately, the data sharing process between us is manual and error prone. Significant time and effort is spent in filling and sharing different product data sheets with each retailer. Despite which, important updates on MRP, product status, EAN/UPC changes etc. are not communicated or recorded by retailers on time. This leads to wrong despatches, poor fill rates, increased stock inward time, and wasted time on reconciliations.

To address these issues, we intend to use GS1 India's DataKart service. GS1 India is a Standards organization, set up by the Ministry of Commerce & Industry, Government of India, along with CII, FICCI, ASSOCHAM, FIEO, IMC, BIS, Spices Board, APEDA, IIP.

DataKart functions as a single platform connecting all suppliers and retailers/e-tailers to exchange and access up-to-date, complete and accurate product data.

Benefits for suppliers in using DataKart include:
➤ Automated generation of EAN/UPC codes
➤ Product information gets uploaded once and shared with multiple retailers/e-tailers in one go
➤ Reduced go-to-market time for new product launches
➤ Effective product promotions through retailers/e-tailers
➤ Single reliable repository of product information on compliance labelling, product marketing, logistics and more
➤ Confirmation that retailers/e-tailers have noted and acted upon new product introductions, promotions, deactivations, MRP & product changes
➤ Promotion of products directly to consumers through mobile app

Given these benefits we can all achieve with DataKart, we request all our suppliers to upload and share product attribute information and product images for all new product introductions and product changes through DataKart starting 1 July 2017.

To get started, contact us or GS1 India at datakart@gs1india.org or +91 (11) 42890833.

Sincerely,

|				
Sadashiv Nayak	Neville Noronha	Suraj Prakash	Mohit Kampani	Satya K Srivastava
future group	D Mart	Canteen Stores Department	ADITYA BIRLA RETAIL	spencer's
Ashwani Kumar Sharma	Saurabh Mehrotra	Seshu Kumar	Rajeev Krishnan	Ramesh Menon
Walmart India	METRO	Big Basket.com	SPAR	HyperCITY
Jamshed Daboo	Dharmender Matai	Rahul Das	Aman Mittal	K Radhakrishnan
star	Heritage	VALUE BAZAAR	SAVEMAX WHOLESALE	grocermax

Global Developments

GS1 Cloud

GS1 Global is developing a Cloud service that would host information on retailed products worldwide from companies that use GS1 standards. It is designed to be the world's single largest trusted source of product data to meet varying needs of consumers and operate as the 'Google Map' of products.

Expected to be operational by early 2018, it would also help retailers and online shopping portals authenticate the authorised owners/sellers of products carrying GS1 barcode numbers.
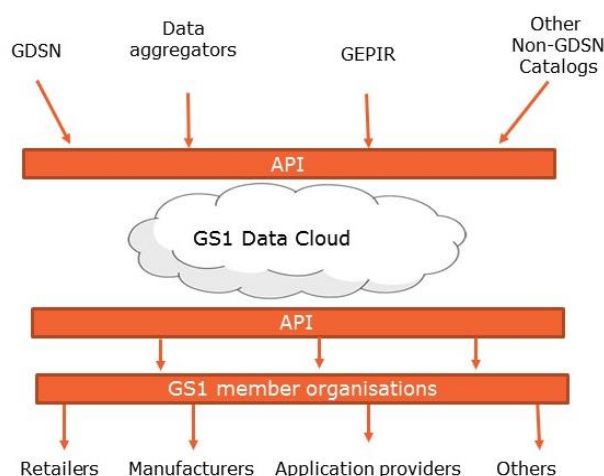
GLEIF

GLEIF manages a network of partners, the LEI (Legal Entity Identifier) issuing organisations, to provide trusted services and open, reliable data for unique legal entity identification worldwide. GLEIF services ensure the operational integrity of the Global LEI System.

The LEI data is made available free of charge to any interested party on the GLEIF website. It is the only online source providing open, standardised, and high quality legal entity reference data with the potential to capture any entity engaging in financial transactions globally.

GS1 India's CEO Ravi Mathur was re-elected for an additional two-year term

on the Board of Directors of GLEIF (Global Legal Entity Identifier Foundation), Switzerland, which would help in further promoting the use of LEIs (Legal Entity Identifiers) to the financial sector.

GS1 Global is looking at being accredited by GLEIF as a Global Legal Operating Unit (LOU) to enable GS1 organisations offer LEI registration services across jurisdictions worldwide.

Internet of Things

The Internet of Things (IoT) would enable data sharing between millions of devices and objects, embedded with electronics, software, sensors, tags, actuators. It allows objects to be sensed or controlled remotely across existing network infrastructure, creating opportunities for direct integration of physical world into computer-based systems, resulting in improved efficiency, accuracy and economic benefit, in addition to reduced human intervention.

GS1's 'Global Language of Business' connects the physical and digital worlds, laying the foundation for IoT. Unique identification and automatic data capture, powered by GS1 barcodes and EPC/RFID, enable interoperability, which is a key requirement for IoT deployment.

EU chooses SSCC to enable smooth cross-border parcel deliveries

Members of the European Committee for Standardisation (CEN) published the Technical Specification (TS 17073) for Postal Services – Interfaces for cross-border parcels. As per these technical specifications, CEN has designated the GS1 Serial Shipping Container Code (SSCC) to uniquely identify parcels and enable interoperability between all parties in the parcel delivery network.

The GS1 SSCC is a natural choice since many companies already use it and other GS1 standards in their businesses. The ultimate goal is to transform cross-border parcel delivery services through the use of a single, common parcel label that includes a parcel identification code.

Alibaba signs MoU with GS1 Australia

In January 2017, Alibaba Group (Australia and New Zealand) signed a Memorandum of Understanding (MoU) with GS1 Australia to formalise, promote, and strengthen online trade between China and Australia.

The MoU was signed by Maggie Zhou, Managing Director, Alibaba Group (Australia and New Zealand) and Russell Stucki, Chairman of GS1 Australia at an event in Melbourne.

The signing of the MoU follows the October 2016 announcement from Alibaba Group, GS1 Global Office, and GS1 China to standardise product information for the benefit of all supply chain stakeholders, especially consumers. Alibaba invited brand owners to adopt GS1 standards for product information management and the use of the barcode, or Global Trade Item Number (GTIN), for uniquely identifying their products within the Alibaba e-commerce network.

Medical devices under NHS get barcodes

GS1 barcodes are being stamped on medication, surgical tools, and replacement hips in NHS hospitals in the UK to help keep track of patients and improve safety.

The technology has been introduced in a £12 million drive to avoid errors. Using the codes, medical staff are able to track patients from the moment they are admitted until the end of their hospital care in a scheme expected to save the NHS hundreds of millions of pounds.

The Department of Health (DoH) said that the policy would allow anything, from a screw used in a knee operation to a breast implant, to be traced many years after treatment.

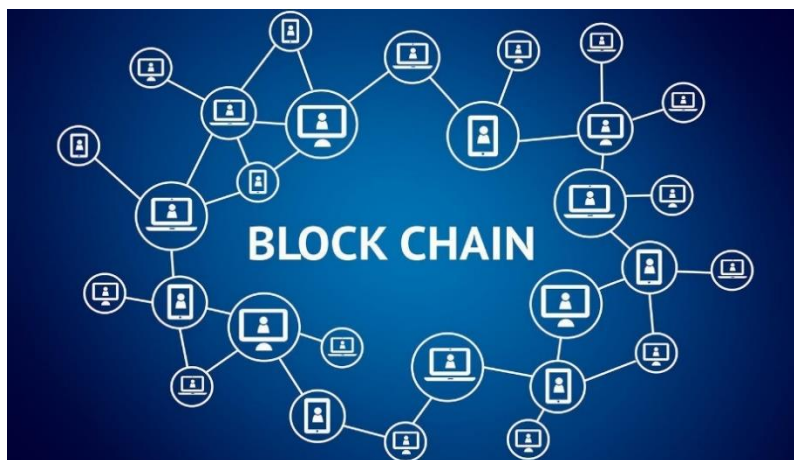# GS1 application standard to improve safety and efficiency in rail industry

A new GS1 standard, **Identification of Components and Parts in the Rail Industry – Application Standard**, is made available for use by all companies involved in manufacturing and maintenance, repair and overhaul (MRO) processes in the rail industry that aim to improve their performance, efficiency and the safe transport of passengers and cargo.

According to Swiss Federal Railways (SBB), Switzerland's largest railway system, the worldwide rail industry is facing major challenges to improve the quality of its manufacturing and MRO processes for both rolling stock and infrastructure. Critical to these processes is the ability to track relevant assets and components and ensure interoperability between key players and systems.

GS1 recommends use of its data standards in enterprise blockchain

GS1 Point-Of-View (POV) paper on the topic of GS1's relevance in enterprise blockchain implementations was released during the GS1 Connect Conference in the US.

Blockchains are shared databases (or indexes) of information about transactions and events. Storing traceability or event data about your supply chain or about your products, assets, services or "things" in a shared database is not a new concept. In fact, entire industries have been sharing such data with each other for years. Blockchain's promise is to do this more efficiently with the network enabling cross-party trust relationships in new ways. Some even call it the Trust Protocol. GS1's portfolio includes a set of foundational standards that can be used to structure data that is to be stored in (or referenced by) blockchains.

Open standards for ASEAN e-Commerce trade facilitation

The Association of Southeast Asian Nations (ASEAN) is in the midst of developing an "ASEAN Agreement on e-Commerce". As a fast growing and economically dynamic area, ASEAN is seen as a key growth market for e-Commerce. This is due to the high level of reliability of the countries in it, a growing middle class, and a relatively low level of e-Commerce penetration so far (compared to China).

Patrik Jonasson, from GS1 Global Office, participated in an event focusing on the future of trade facilitation in ASEAN for e-Commerce. In the discussion, he highlighted how the use of open standards and harmonised small parcel labelling could play a role in the development of an e-Commerce framework for the region. The highlighted benefits included interoperability between shippers, improved visibility, and easier sharing of data. For Government, benefits would include improved risk management and duty collection at the border, while the end consumer would experience easier returns and a more competitive market with lower prices.

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