GS1®

The Global Language of Business

Annual Report 2018-2019

Product ID

GTIN: **9504002100016**

Brand name

Product description

Product image URL

Global product category

Net content & unit of measure

Country of sale

Table of contents

The Global Language of Business

114 local Member Organisations
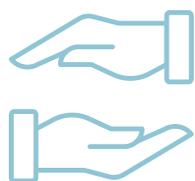
Neutral & not-for-profit	User-driven & governed
Global & local	Inclusive & collaborative

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

Key industries served

- Healthcare
- Marketplaces
- Retail
- Apparel
- General Merchandise
- CPG
- Fresh Foods
- Transport & Logistics
- Technical Industries
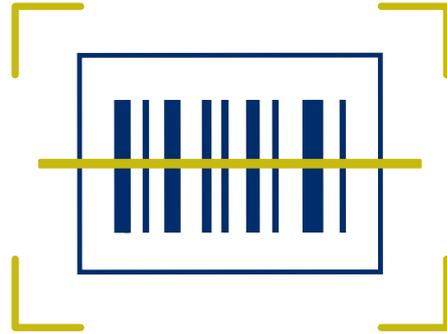
6 billion
GS1 barcodes scanned daily

100 million
products carry GS1 barcodes

More than 2 million
companies use GS1 standards

A letter from our leaders

A topic that has been front and centre for several years is digitalisation and its impact on individuals and on businesses. Digital technologies are penetrating every aspect of life and work, in all geographies and sectors, at start-ups and multinationals, in B2B, B2C and healthcare. Simply stated: everything is going digital.

This digital transformation is also changing the centres of power. In the past, the retailer or wholesaler was in control. Today, the consumer has complete autonomy over what products they choose, how they make their choices, where they buy and how they will be delivered. These same consumers also demand transparency: they want to know what is in their food or their products, where the raw materials were sourced and how far things travelled to get to them.

Healthcare is no different: data-driven practices in hospitals and pharmacies provide the ability to create a highly efficient and much safer healthcare environment. Stakeholders, providers, national regulatory bodies and, most importantly, patients are increasingly demanding action.

The paradigm shift is major—and irreversible.

Resolved to provide globally verifiable identity

As a neutral, not-for-profit, user-driven global standards body, we enable collaboration across industry and help create a set of common tools and rules that benefit everyone. To some, standards may seem static and boring. But at GS1, we know that standards are dynamic—and foundational to creating a better world. Indeed, The Engineering Standards Committee—one of the world's very first formalised standards organisations, created in 1918—had for many years as its motto: "Standardisation is dynamic, not static; it means not to stand still, but to move forward together." At GS1, we are devoted to helping industry move forward together, which we do by continuing to nurture relationships, build bridges of understanding and lead in education.

Unique identification of products, places, shipments and things has been the cornerstone of what we do at GS1 for forty-five years. But in light of the digital revolution, in a world where accurate data is essential for just about every activity across the supply chain and where online commerce is global, industry can no longer accept any discrepancies in product identification across countries.

That is why, at the urging of our community of users, we are establishing a system of core services that will go beyond simple identification and enable the undisputed verification of the source of information associated with items or places. This, in turn, will make possible advanced services such as product traceability, dynamic fulfilment, pedigree, content management, content quality, authentication—and more.

An initial step toward this goal is "Verified by GS1," a global solution that enables retailers and marketplaces to verify the unique identity of a product by querying the GS1 Registry Platform.

In the healthcare sector, we are pursuing our efforts to promote the benefits of identification via a five-year strategy designed to drive deeper standards implementation, further increase the focus on healthcare providers and patients, and engage with emerging technology developments.

To ensure global access to these services and solutions, we are working with our GS1 Member Organisations in emerging economies to help accelerate the digital journey of their users.

So, whether it's a shipping palette, a t-shirt, a manufacturing plant, a banana or a bottle of medicine: our ability to provide globally verifiable identity to everything will soon be the core of our GS1 offer. With this new GS1 Data Services strategy, we are building tomorrow, today.

Survive and thrive

To succeed in this new world—and to help our millions of users thrive as well—we have been actively developing new ways of working together. We know that our users expect more complete and more complex work from us, so we are building capabilities, breaking down silos and changing our organisational culture to be able to launch globally-managed, locally-deployed services.

We already have the GS1 Global Standards Management Process, or GSMP—a structured, collaborative approach to the development of standards that is best in class. Now, we are creating a similar approach when it comes to

our services and solutions. We will implement and embrace portfolio, program and project management best practices at the Global Office and in our interactions with our Member Organisations. We are also learning to work with increasingly diverse stakeholders and customers coming from more industries and new business sectors.

Solutions for today—and into the future

The only thing certain is that things will continue to change. That's why GS1 must also stay agile in our ways of thinking and working.

We know, for example, that in the not-too-distant future, things will "talk" to each other and interoperability will become critical. Everything that can be connected will be connected. We are certain that the GS1 system will play a highly instrumental role as the bridge between these verifiably-identified things and innovative services based on artificial intelligence, blockchain, sensors, biometrics, voice recognition, robotics—and more.

A very productive year

It was all about collaboration for GS1 in the past year: all of our success stories are rooted in efforts to achieve excellence on global initiatives that meet the business needs of industry, data pools and our GS1 Member Organisations. You'll read here in this document all about how GS1 is creating trust and efficiencies for brands, manufacturers, retailers and marketplaces in all sectors and enabling safer, more efficient healthcare.

Underneath it all: one highly interdependent GS1

We know that the benefits of an interdependent federation are not always clearly recognised and understood — and in fact are often stereotyped as being unsuited to the fast pace of today's business realities. It is up to all of us to continue to demonstrate that GS1, a federation of 114 Member Organisations, is different. As a user-driven organisation working with a sense of urgency, the strength of GS1 will continue to be its global reach, combined with its local presence. Our Member Organisations have the understanding, the insight, the contacts, the influence and the commitment to collaboration needed to succeed. Their local expertise allows us to accelerate implementations based on deep knowledge of local markets. The spirit of the members of local Boards and all the highly qualified teams in each of these countries are how we will face and meet our challenges.

We are still well served by our promise to **See One Vision, Speak with One Voice and Act as One Organisation.**

Everything is possible for GS1 when we work together! Thank you for sharing our passion.

Kathryn E. Wengel

Executive Vice President & Chief Global Supply Chain Officer and Executive Committee Member, Johnson & Johnson

Chair, GS1 Management Board

Timothy P. Smucker

Chairman Emeritus, The J.M. Smucker Company

Chair Emeritus, GS1 Management Board

Miguel A. Lopera

President & Chief Executive Officer, GS1

Our year in review
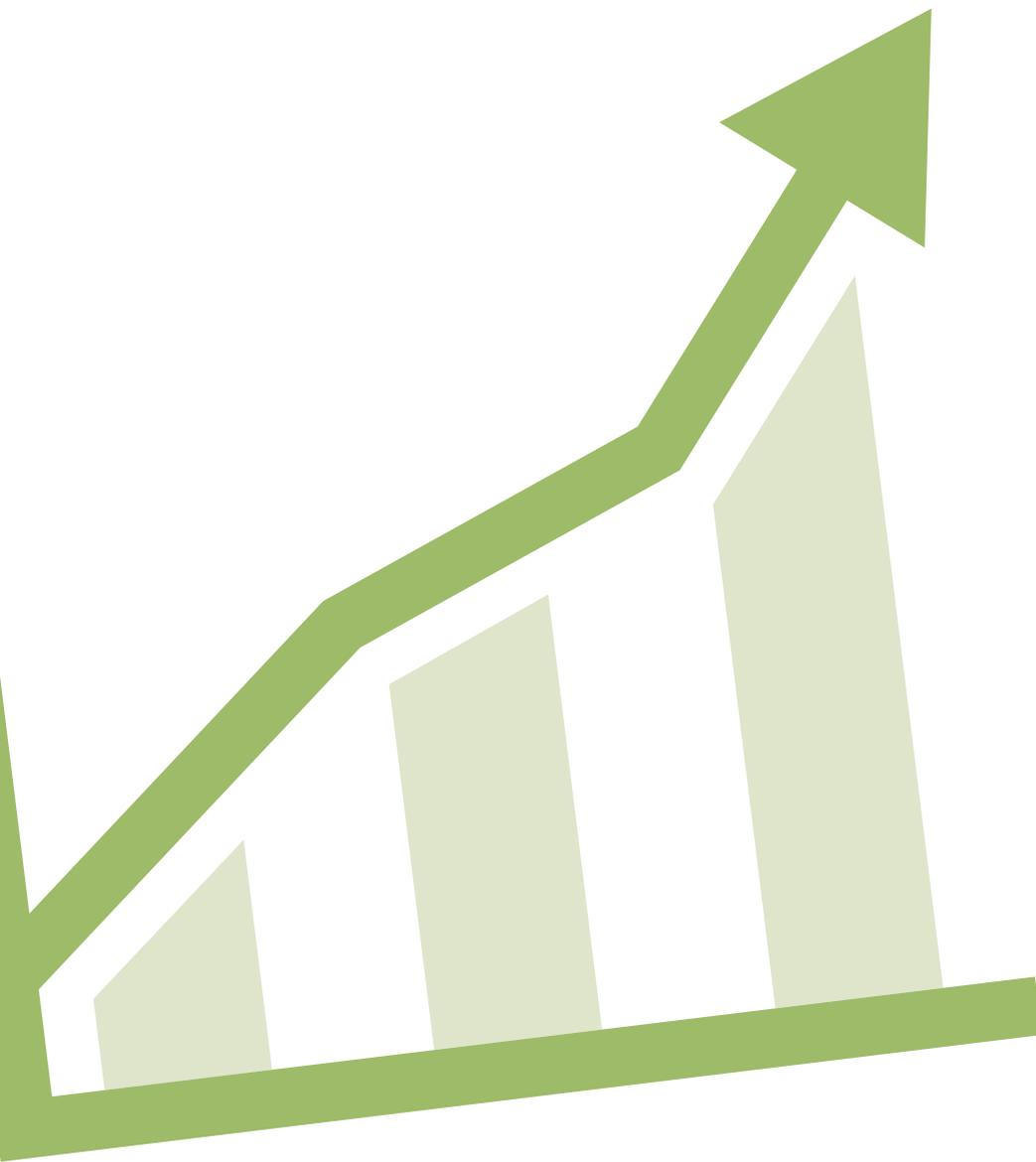
Growing business and transforming lives

" "I really believe in more collaboration, more alignment and more flexibility to build the future together. Collaborating with GS1 is a great opportunity for this, for different organisations to come together and talk to each other, and to align on specific topics that really have an impact on business."

Suzanne Beaud
E-Retail Business Development Manager
Moët Hennessy – LVMH

Retail & marketplaces

The world of retail is transforming, and at GS1, we're transforming along with it. The rise of digital marketplaces has been a catalyst, helping to ensure that GS1 remains as relevant in the digital world as we are in the physical world.

The retail sector today is undergoing major changes. Although traditional bricks-and-mortar stores still account for 85% of sales, marketplaces—specialised websites connecting sellers with consumers by creating an ecosystem that facilitates transactions—are growing fast. Marketplace platforms, integrators and sellers are critical new stakeholders for GS1. Experts predict online sales of USD$6 trillion (€5.4 trillion) in 2022, the majority through marketplaces; and because many marketplaces require products to have a GS1 Global Trade Item Number (GTIN) in order to be listed, they are also driving significant membership growth at our GS1 Member Organisations (MOs).

This past year, in addition to helping traditional retailers use our standards and solutions to engage with customers in more ways and fulfill their purchase demands with less friction, we have also devoted time to supporting the marketplace channel. The needs of marketplace actors are significantly different than those of their offline counterparts. For example, the number and variety of products are substantially higher for marketplaces than for bricks-and-mortar stores; and because shoppers cannot

look at or touch an item they are considering, the product information associated with anything for sale on a marketplace is incredibly important.

As a result, marketplaces are built on trust: trust in the seller, trust in the financial transaction and trust in the product description. GS1 has been working to help ensure that every product listed has trusted, accurate and globally-unique identification, so that marketplaces can give connected consumers the confidence they need to buy.

Furthermore, marketplaces are technology companies, offering products that they themselves will never see, acquired from companies and sellers they will never meet, to consumers making purchases on their smartphones. GS1 can play an important role in helping marketplaces achieve the consistency and efficiency that consumers demand.

We know we need to work differently to meet the needs of these new users of our standards, services and solutions. Following up on the results of a 2017-2018 GS1 in Europe marketplaces work group, a "tiger team" of representatives from the GS1 Global Office and GS1 MOs in Brazil, China, France, Germany,

In addition to working with traditional retailers, we are also supporting the growing marketplace channel.

India, Netherlands, UAE, UK and US set out this year to develop a multi-year strategic plan—engaging stakeholders in the marketplace ecosystem. Together, we have been working to educate and support the GS1 MOs who are just beginning to see the impact of marketplaces in their countries; to improve the on-boarding of sellers who come to us to obtain a valid GTIN; and to provide these new GS1 member companies with a range of business solutions—such as Verified by GS1 (see pages 18-19)—that can help them work better, smarter and more efficiently.

In short: we're focused on global, unique, persistent product identification so that the in-store retailers and online marketplaces can all provide their consumers with the right products—or the right product data—at the right time.
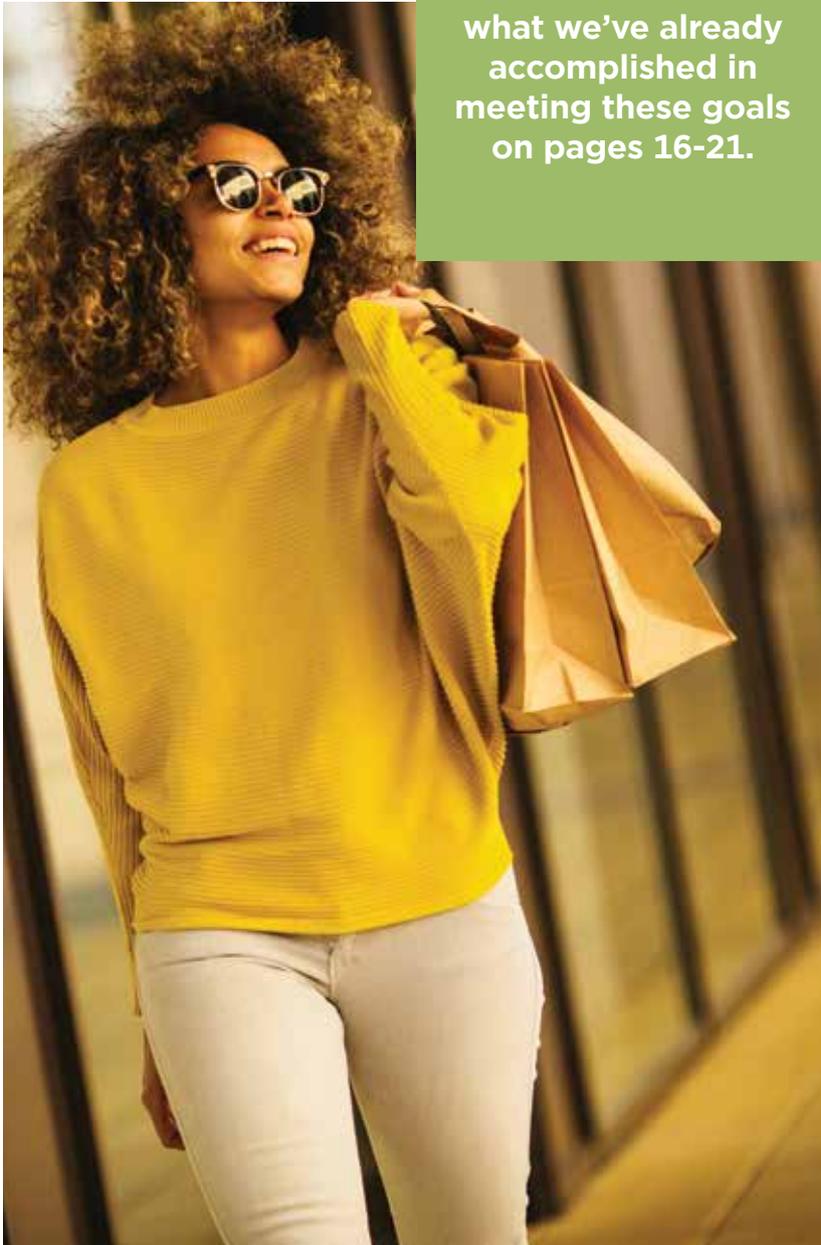
Read more about what we've already accomplished in meeting these goals on pages 16-21.

Over the past year, GS1 has worked with the Consumer Goods Forum and with our user companies around the world on several strategic goals.

Firstly, we want all products everywhere, whether they are on shelves or online, to be uniquely identified by a Global Trade Identification Number (GTIN). We've undertaken a number of actions to increase awareness of the value of identification and to further streamline getting a GTIN.

Secondly, we want all of those GTINs to be verifiable in real time by any trading partner.

And finally, we want all retailers and marketplaces in all countries to follow the same data model.

To stay up to date on our latest actions and accomplishments, visit www.gs1.org/retail

GS1 Healthcare: Safer, more efficient care starts with a simple scan

We are working to harness the power of open, global standards in business and clinical processes enabling interoperability, optimal quality and efficiency of healthcare delivery to benefit patients.

The global healthcare sector has a particularly large and diverse set of stakeholders. Clinicians, nurses, pharmacists, suppliers, supply chain professionals, wholesalers / distributors, logistic providers, IT solution providers, humanitarian organisations, government—and of course, patients and their loved ones—all benefit from a safer and more efficient healthcare environment.

Much of our work this past year was devoted to strengthening our links with these key stakeholders. For example, the unique perspective of clinicians and nurses is vital to guide the activities of GS1 Healthcare, so to stay in touch with their requirements we continued to hold regular meetings with our Clinical Advisory Committee. And because we develop standards, but not the technologies that allow our standards to be deployed, we also devoted significant time to connecting and collaborating with the IT solution providers that enable standards implementation, whether they already use GS1 standards or not.

Real-world deployments are the best way to understand what GS1 standards in healthcare can help to achieve. When the International Hospital

Federation—a key industry body—published a special traceability edition of their Journal, hospitals from our community submitted ten articles, all detailing how they are leveraging GS1 standards to enhance patient safety and efficiency.

GS1 Healthcare has worked for many years to provide standards relating to identification, barcoding and data sharing for commercial finished products. At the request of industry through projects in the US and in France, we worked through the GS1 Global Standards Management Process to develop an application standard for identification and barcoding of investigational products used in clinical trials.

Throughout 2019, we continued to drive the global harmonisation of other regulatory-related global initiatives, including Unique Device Identification (UDI) beyond the European Union and drug traceability in many countries in the world. To respond to the growing number of requests from regulators, we prepared a regulatory roadmap for traceability of pharmaceutical products which provides a plan to support regulators before, during and after the drafting of policies.

> **On 7 June 2019, GS1 was designated as an issuing entity for Unique Device Identification (UDI) by the European Commission. This very important step means medical device manufacturers can use GS1 standards to meet European UDI requirements.**

At the same time, we continued our engagements with inter-governmental organisations such as the Global Fund, StopTB, UNFPA, UNDP and USAID. In 2019, these organisations published a guideline requesting GS1 standards. A member of the global GS1 Healthcare team is now based in Lagos, Nigeria, to support implementation of our standards on the African continent.

One other significant accomplishment of the year: we developed a five-year strategy for GS1 Healthcare to ensure our activities deliver the progress needed to realise our vision. We aim to leverage new technologies where appropriate and beneficial for our objectives and further enhance our focus on patients and healthcare providers such as hospitals and retail pharmacies—all while pursuing our current activities to drive deeper standards implementation. This strategy is not a new direction; it's a continuation of a journey started over 14 years ago at a global level and strongly supported by so many GS1 Member Organisations on a local level.

In partnership with the strategy, we built the GS1 Digital Thread, a simple, powerful, interactive tool that brings GS1 standards to life by showing the interrelationships between healthcare stakeholders and explaining how and where standards can play a role, today and tomorrow.

Interested in learning more?
Examine our five-year strategy, navigate through our Digital Thread, read the Regulatory Roadmap, learn about GS1 standards at work in the real world in the latest edition of the GS1 Healthcare Reference Book, register to attend an upcoming GS1 Healthcare Conference and more—all at www.gs1.org/healthcare

Harnessing the power of open, global standards to benefit patients and address the challenges of healthcare worldwide.

Global LEI services

We are helping our community of users around the world to meet regulatory reporting requirements in the financial sector, thanks to GS1 LEI services.

GS1 is accredited to issue Legal Entity Identifiers (LEIs), the unique, 20-character alphanumeric codes managed by the Global Legal Entity Identifier Foundation (GLEIF), that allow companies to uniquely identify themselves in financial transactions.

The use of LEIs greatly enhances transparency, security and trust for all market participants. In many instances in the financial sector, LEIs are mandatory to meet global regulatory reporting requirements.

With their expertise in data validation and their unrivaled knowledge of local languages, business practices, laws and regulations, our GS1 Member Organisations (MOs) are uniquely qualified to offer complete LEI services to their users.

GS1 is one of GLEIF's top LEI issuers: we are accredited to issue LEIs in 92 jurisdictions across five continents. Our global network is particularly useful for companies or organisations that need LEIs issued in multiple countries. And because GS1 LEI Registration Agents obey the same rules everywhere, legal entities benefit from the same reliable services all over the world.

You've seen it in the media: a few high-visibility scandals have resulted in a global push for greater financial transparency.

LEIs can help address these demands—and using GS1 Identification Keys to support LEIs could also allow stakeholders in the financial services sector to reduce costs, improve communication and boost efficiency.

Companies with a Legal Entity Identifier make smarter, less costly and more reliable business decisions. **Interested?** You can register to get your own LEI in just three easy steps at www.gs1.org/services/lei

Making identification and verification possible

"We need to change as an industry—new opportunities are emerging through accelerating innovation. However, we must get the basics right. Seamless flow of data is essential – and we will only get there if we intensify collaboration. Let us use one data set and make sure that data becomes standardised, accurate and consistent. GS1 is the ideal platform to make that happen."

Olaf Koch
CEO, METRO AG
Co-Chair Emeritus, Consumer Goods Forum

Our new data services strategy and the GS1 Registry Platform

To build the foundation for a wide range of business solutions, we have launched the GS1 Registry Platform, designed to hold GS1 Identification Keys as well as core elements of trusted product information about those Keys.

In today's digital world, it is mandatory for business partners to be able to uniquely identify products and share their core attributes. In recent years, however, industry stakeholders have too often found that they were spending significant time uploading product information into many distinct local and regional services—and then, having to repeatedly verify and manage the quality and completeness of that data.

The result? Fragmented data sources that were not efficient, robust, scalable or extensible. That is no way to run a business. GS1 and the industries we serve saw clearly that something had to be done to reduce this complexity and provide a common, integrated, global vision for more reliable product data and the verification of product identity globally. This was our inspiration to develop a new **data services strategy**, and consequently to build the **GS1 Registry Platform**.

Our data services strategy was informed by a consultation with a large and diverse group of representatives from brand owners, manufacturers, solution providers and our GS1

Member Organisations (MOs). Our goal was to get their feedback on our beta platform, better understand their needs and identify potential solutions.

We used our learnings to define a way to provide user-centric, easily consumable and simple services, built on global standards that are open and simple to integrate into external systems. In May 2019, our Data Services Strategy was validated by the GS1 General Assembly.

The GS1 Registry Platform is an evolution of the GS1 Cloud that better addresses our vision and better supports our new business solutions. It is a web-based repository of GS1 Company Prefixes and Identification Keys (starting with GTIN and GLN), each accompanied by just a few key descriptive attributes, as defined by industry.

The GS1 Registry Platform is the key enabler of a range of new GS1 business solutions, such as Verified by GS1 (see pages 18-19), Fighting Illicit Trade (see page 24) and more in the future. It has been built to be flexible and scalable—and because it is accessible via Application

> **We have established the technology foundation for registering GS1 Identification Keys (like the GTIN) along with some core descriptive attributes for each item. We expect the GS1 Registry Platform to develop into a global ecosystem where companies can link to sources of additional data about things that have a GS1 identity.**

Programming Interfaces (APIs), it will be easy for GS1 Member Organisations to connect to it to offer additional value-added services. As we go forward, we expect it to enable solutions for product traceability, dynamic fulfilment, pedigree, content management, content quality and authentication, and more.

It is also straightforward to use: Via their local GS1 Member Organisation, brand owners and other users upload their GS1 Identification Keys and some core attributes. Although the uploaders are ultimately responsible for the data they provide, a range of structural and completeness checks inside our system ensure that data added is of the highest possible quality.

One of the first live solutions that leverages the GS1 Registry Platform is Verified by GS1. It allows retailers to send a query via their local GS1 Member Organisation to check on basic information about the company that owns a product—or, when available, to get a more comprehensive response including information about a product's core attributes.

The GS1 Registry Platform is the key enabler of a range of new GS1 business solutions.

Interested in learning more?
Contact your local GS1 Member
Organisation: www.gs1.org/contact

First steps with Verified by GS1

One of the first business solutions to be built on the GS1 Registry Platform, Verified by GS1 ensures that industry can confirm the unique identification of any product.

In the last few years, the connected consumer has revolutionised the world of physical and online retail. With the internet only a click away on a smartphone, people want complete and accurate product information instantly so that they can decide what products to buy, tell others what they think of their purchases and determine how and where to get what they need.

These connected consumers—and their large appetites for information—are here to stay. This has created exponential growth in the sheer quantity of product data. But unfortunately, much of the data available out there now is incomplete, out of date or incorrect. Too many consumers are clicking on links that take them to inaccurate information. Every time that happens, consumer trust and loyalty are at risk.

Worse, these product data problems are often very difficult for brands and retailers to fix. Because as unbelievable as it may sound, there was no single way to confidently verify a product's identity that had earned broad, strong industry support ... until Verified by GS1.

We have spent the past year working hand in hand with industry leaders and the Consumer Goods Forum to develop and launch Verified by GS1, a global solution that will enable GS1 member companies to confirm the identity of a product by querying the GS1 Registry Platform (see pages 16-17).

Verified by GS1 helps protect brands and makes it easier for brand owners to get their products listed in stores and online. Real-world retailers and online marketplaces alike can expect to see increased sales and fewer returns, because with the right information, consumers are more likely to buy the right product. They will also save time and resources by having clean product catalogues with correct information and no duplicates. As for consumers: they benefit from a smoother, better shopping experience.

How does it work? Verified by GS1 is just like your passport or your ID card. Think about it: with just a number unique to that document and six other bits of information about you (first name, last name, gender, date of birth, place of birth and photo), authorities at airports can be completely certain that you are you and no one else.

Get product identity right with Verified by GS1

It's the same for Verified by GS1. With just a number unique to that product (the GS1 Global Trade Item Number, or GTIN) and 6 other bits of information (known in our solution as core attributes), users of Verified by GS1 can be completely certain that a given product is that product and no other product.

For example, the 7 core attributes that will be used to identify products in the fast-moving consumer goods sector are:

1. The item's GS1 Global Trade Item Number (GTIN)

2. Its brand name

3. A description of the product

4. A link (URL) to a standardised image of the product

5. Its GS1 Global Product Category (GPC) code

6. Its net content and the associated unit of measure

7. Its country or countries of sale

Verified by GS1 was built by a highly engaged team of representatives from 8 GS1 Member Organisations and our Global Office, whose job functions included data services, data quality, data analytics, industry engagement, marketing, legal, training, customer service and more.

The team developed the solution leveraging project management principles to define business requirements, align actions, plan steps in detail, document agreements, track progress and solve issues.

Beyond building an amazing business solution and launching it on schedule, we're leveraging learnings to build a set of best practices for creating and developing more solutions in the future.

Trust and efficiency start with a valid ID

It's as simple as that: a unique product identifier (GTIN) plus a set of core attributes are enough to enable product identity verification.

Verified by GS1 is being rolled out from July to November 2019 in eight countries (Belgium, Brazil, France, Germany, India, Mexico, the Netherlands and the US) with the support of multinational brand owners and manufacturers including Carrefour, Johnson & Johnson, METRO AG, Nestlé, Procter & Gamble, Walmart and many others.

This initial wave will be the basis for learning and ensuring success as we plan for expansion to more countries, more business sectors and different use cases.

Interested in learning more?
Visit www.gs1.org/verified-by-gs1 or contact your local GS1 Member Organisation: www.gs1.org/contact

The Global Data Model

By identifying the most-needed and most-used product attributes for global commerce and giving each one a modern, business-friendly name and definition, the Global Data Model helps reduce complexity and inconsistency in master product data.

Simple and harmonised, the Global Data Model boosts efficiency, reduces costs and increases quality and completeness, ultimately leading to an improved consumer experience and increased sales.

As we were beginning the work to develop our new data services strategy last year, something quickly became apparent: many of the attributes in the GS1 Global Data Dictionary are very technical, precise and specific, and also frequently linked to a certain country or region.

But trade today is global, and so data must be global, too. If product information is too highly customised, most business partners cannot use it.

That is why, with the encouragement and support of the GS1 Data Excellence Board and Consumer Goods Forum companies, we worked with industry to simplify and harmonise the master data that industry stakeholders exchange. We created a Global Data Model, which identifies the agreed-upon attributes that retailers need from brand owners so they can list, order, move, store and sell products, whether online or in stores; it also gives those attributes business-friendly names and definitions.

Our efforts demanded a mindshift on the part of everyone—industry, GS1, Consumer Goods Forum, data pools—to understand and accept that data today isn't local anymore.

Brand owners can no longer afford to waste time and resources providing different customised and individualised sets of attributes for the same product; retailers cannot accept that the multitude of databases they must consult often have low quality or incomplete data that leads to listing delays.

Our work was extremely collaborative. For months, 60 representatives from industry and people from 35 GS1 Member Organisations held thousands of hours of conference calls, as well as an intensive face-to-face summit.

In June 2019, less than a year after we started, version 1 of the Global Data Model was delivered to a group of pilot testers in the food and near-food sectors.

Interested in learning more?
Visit www.gs1.org/globaldatamodel or contact your local GS1 Member Organisation: www.gs1.org/contact

The GS1 Global Data Synchronisation Network

The GS1 Global Data Synchronisation Network is celebrating 15 years of growth, 30 million GTINs and more than 55,000 subscribers. Each year, more and more trading partners use this stable, robust service to automatically share up-to-date product data.

It's been another successful year of operations for the GS1 Global Data Synchronisation Network (GDSN).

The GDSN allows subscribers to describe their products in great detail, to keep those product attributes up to date with changes as they happen—and most importantly, to share that accurate, brand-authorised data in near real-time with their business partners around the world.

The number of GS1 Global Trade Item Numbers (GTINs) registered in the GDSN has been growing steadily for the past 15 years, and the Network today contains more than 30 million GTINs. The number of companies using GDSN has been consistently on the rise as well: in 2018, we welcomed 5,800 new subscribers, bringing the total number of users of the GDSN to more than 55,000.

Over the past twelve months, we have regularly added features and functionalities to meet the latest demands of these users. For example, the GDSN can now allow subscribed business partners to share whether a certain product is kosher, whether it was sustainably produced and whether it is suitable for consumers with specific dietary restrictions. We also made it possible for subscribers in the food and beverage sector to add recipes and tasting notes to the information shared about their products.

The GS1 Global Data Synchronisation Network is complementary to the GS1 Registry Platform: it houses a much greater range of product attributes in order to help meet specific needs of retailers, hospitals and other users around the world. Brand owners can work with their GDSN-Certified Data Pool to extract core product data from GDSN and load it into the GS1 Registry Platform through their local GS1 Member Organisation.

Learn more about GDSN at www.gs1.org/gdsn and access current, future and legacy GDSN standards at www.gs1.org/access-gdsn-standards

15 years of operations

14 years of double-digit growth

55,000 users

30,000,000 GTINs
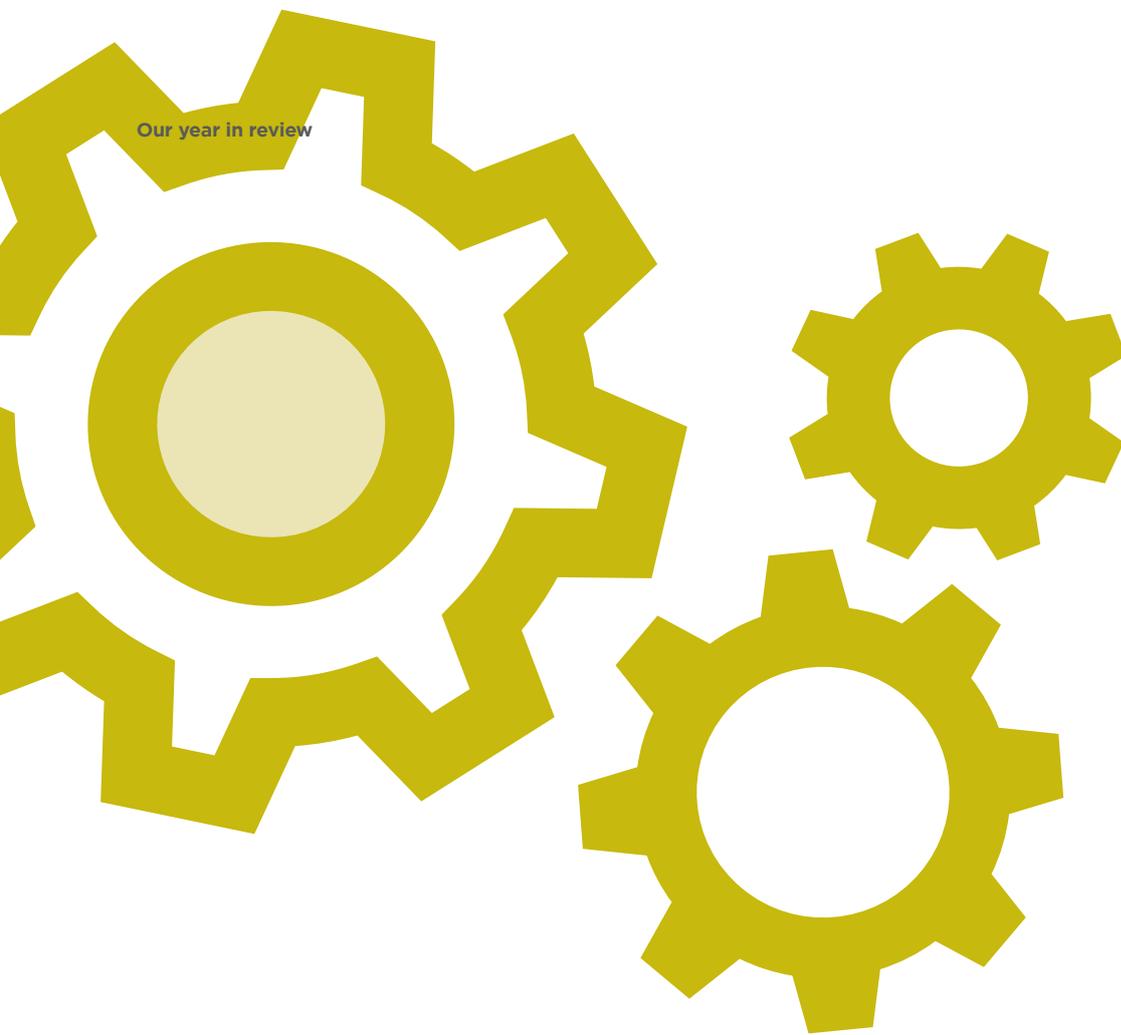
Solving real-world business challenges

"Consumers want transparency and trust. They want to know what is in the products, they want to know where the raw materials are sourced. To build that trust, we need to share data, we need to exchange data and we need to standardise data."

Stéphane Lannuzel
Operations Chief Digital Officer
L'Oreal

Enabling traceability

We are taking actions to ensure that GS1 standards, solutions and services will support traceability by enabling information about a product's identity, its provenance and its movements to be easily shared across any value chain anywhere in the world.
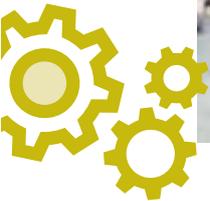
Nowadays, manufacturers, brand owners and retailers find they must answer a wide range of questions from business partners, consumers and patients: Where did this item come from? Was it safely and sustainably produced? How and when was it delivered? Who was involved?

Behind these questions is a need to boost efficiency, meet consumer demands for transparency, support sustainable practices, help fight counterfeiting, protect brand integrity, manage certifications, keep consumers safe and comply with regulatory requirements.

Meeting those challenges requires effective end-to-end traceability—and to do that, the systems of companies all along the supply chain must be able to understand and share information in a clear and automated way.

That's where we come in: GS1 is the common language for traceability solutions and enables an ecosystem of interoperability for the benefit of all.

Over the past year, in response to input from industry and our GS1 Member Organsations around the world, we have developed a strategy to enhance our standards-based traceability portfolio and to ensure that supply chain

partners understand how to do standards-based traceability.

Our strategy has four main parts:

1. Raise awareness of GS1 by telling new stories to new audiences across all sectors using modern awareness campaigns.

2. Develop tools that our network of stakeholders can use to educate themselves and their partners about how to achieve traceability and the importance of standards for interoperability.

3. Enable MOs to engage their solution provider community to achieve broader adoption and increased efficiency from the use of GS1 standards.

4. Create and prioritise new services capabilities as needed to enable stakeholders to share data easily and cost effectively with trading partners, consumers and patients across the value chain.

We are raising awareness, building resources to support implementation, developing best practices for solution provider engagement and growing our services capabilities.

Interested in learning more?
Visit www.gs1.org/traceability

Fighting illicit trade

We have built standards, developed competencies and demonstrated our credibility to regional and national authorities, and GS1 standards for anticounterfeiting will become part of our core traceability portfolio.

Cosmetics. Luxury goods. Cigarettes. Smartphones. Alcohol. Diamonds. Timber.

All of these items and many others are part of the serious and growing phenomenon of illicit trade. It's both an economic concern and a public health issue. When products like these are counterfeited or smuggled across borders, legitimate brands are undermined, governments lose tax revenues and the health and safety of consumers are at increased risk.

Although legal loopholes and inadequate sanctions are part of the problem, the main contributing factors are insufficient checks, traceability and controls across the supply chain. That's where GS1 can help.

In 2018, the European Commission officially established a European Union–wide tracking and tracing system for tobacco products. Our Fighting Illicit Trade (FIT) programme was launched to address these requirements.

We successfully demonstrated the relevance of GS1's open, interoperable standards to government and the retail sector. As a result, we expect GS1 standards will be used to identify items and shipments of tobacco products in all 28 EU countries and will also be used to share event and transactional data.

> **Our Fighting Illicit Trade programme reinforced our commitment to working as a tightly-knit, collaborative global team, accelerated the development of the GS1 Registry Platform and strengthened the GS1 system as a whole.**

Spain and Portugal have already fully implemented GS1 standards at all levels of their work to fight illicit tobacco trade, and other EU Member States are increasingly recognising the important role of GS1 as a neutral partner in providing standards and technological advice.

Our work this past year revealed to us just how essential standards-based identification, serialisation, marking, coding, scanning and data messaging can be in the fight against illicit trade. We now have the public policy, technical, business and strategic expertise needed to build a core anticounterfeit offering into our traceability portfolio, making it available to stakeholders across other sectors affected by the problem, in every region of the world.

Interested in learning more?
Visit www.gs1.org/fit

Still setting the standard

"
"The role that GS1 plays so well is to bring stakeholders together to develop standards that enable interoperability. In healthcare, when implemented, these have a major impact on patient safety and quality of care, as well as improving efficiency. I call on my peers to give their expertise and be part of developing standards and processes that meet industry needs and benefit us all."

Jeff Denton
Senior Director, Global Secure Supply Chain
AmerisourceBergen Corp

Standards are more important than ever

As the world becomes increasingly digital, GS1 standards are as relevant and useful as ever. We are working with brands and retailers to ensure our standards can enable the industries we serve to connect to data-hungry consumers and get them ready for next-generation technologies.

Why? Because there will always be an unequivocal need to identify products and exchange information globally. Retailers, brand owners and online marketplaces must provide product details, place orders and track sales with thousands of business partners. Without global standards, that would be prohibitively expensive—even for consumers. Shoppers themselves expect quick access to warranty details, nutritional information, delivery availability—all of which require global standards.

Our work in just the past year shows the relevance of GS1 standards: We clarified product descriptions for global markets, enhanced patient safety, helped fight illicit trade, fostered innovation by providing a common framework that everyone can build upon in their own unique way—and so much more.

GS1 standards are more important than ever because doing the same thing in different ways is time-consuming and costly for everyone involved.

Driven by needs for increased compatibility and reduced wasted effort, the first industry "work groups" of manufacturers, sellers and buyers were formed in the early 20th century. From these efforts grew a wide range of national and international standards organisations.

One hundred years later, consumers take this sort of work for granted and remain blissfully unaware of the benefits standards bring to their day-to-day lives. And yet, as Andrew Russell and Lee Vinsel noted in The New York Times in February 2019, "Cars run on gas from any gas station, the plugs for electrical devices fit into any socket, and smartphones connect to anything equipped with Bluetooth. All of these conveniences depend on technical standards, the silent and often forgotten foundations of technological societies."

The GS1 barcode just celebrated its 45th anniversary. It's hard to imagine a world without it—because despite near-constant industry disruption from digitalisation, GS1 standards like the barcode are dynamically keeping up and remaining just as important as ever.

Whether on barcodes, in blockchains or in RFID tags: GS1's technology-agnostic standards provide the globally-unique identity and related data needed to reduce inefficiencies, confusion and costs.

Interested in learning more?
Visit www.gs1.org/standards

The GS1 Global Standards Management Process (GSMP)

Thanks to more than 1300 highly engaged participants representing 500 companies and organisations from around the world, the GS1 GSMP is the core engine of creation and publication of globally agreed-upon standards.

GS1 is a global standards body—and as the way through which GS1 standards are proposed, built and ratified, the Global Standards Management Process (GSMP) is the very core of our organisation. There is truly nothing more fundamental to GS1.

To consider the GSMP as just a process is to do a disservice to the amazing group of dedicated people involved—all of whom contribute their time and expertise on top of their regular work responsibilities and tasks. We are always humbled by the engagement and commitment our working group members bring to the table at calls and meetings.

In the past year, we ratified standards that make it easier for industry to collaborate; that make product information accessible, accurate and easy to understand; and that help fight illicit trade or sell healthcare products in compliance with EU regulations. We modernised the definitions of 180 item attributes so they stay relevant for the changing needs of businesses. We also updated dozens of other standards and implementation guidelines. See a full list of our work at www.gs1.org/standards/log

The greatest pride we feel, however, is for our people-centric accomplishments. This year, our overall membership increased by 25%. Attendance at our twice-annual events is also up, with representatives coming from more companies than ever before. In the current global context of tight budgets and travel restrictions, these are noteworthy signs of how vital our work is and how important the topics we discuss are to everyone.

Our data reveals a great example of the efforts our working group participants undertake to transform an idea into a globally agreed-upon standard: even though a simple majority would suffice, 99% of new standards in the past year were ratified by unanimous vote.

If you join us, then you, too, can contribute to building global standards that will enable efficiencies and cost optimisations.

Learn more about GSMP and get involved at www.gs1.org/standards-development

Ralph Troeger (GS1 Germany) and Sylvia Rubio Alegren (ICA Sweden) are our 2018 Ken Traub Award winners. Sylvia is a member of the GS1 Architecture Group. Ralph has been a driving force behind our work in the apparel sector.

Navigating
a changing world

"Technologies and trends like the Internet of Things disrupt the way we do business and deliver consumer and business needs. In this environ-ment, GS1 is well placed to help industry face what is new, embrace change and constantly learn."

Sanjay Sarma
Vice President for Open Learning and Professor of Mechanical Engineering, Massachusetts Institute of Technology
Chair, GS1 Innovation Board

GS1 is anticipating and preparing the future

Emerging technologies continue to accelerate the pace of disruption across the industries we serve. GS1 is navigating this challenging landscape by identifying opportunities to evolve our standards and services so we are all ready for the future.

With industry in the midst of major disruptive transformation, knowing which trends will impact which sectors and business processes—and leveraging the right technologies, standards, systems and services to support them—is very important. It's why we spent meaningful time this past year analysing technology and business trends and identifying opportunities for GS1 to address the challenges these trends might create.

Our research prioritised seven top business trends:

1. **Data security and privacy:** they are more important than ever.

2. **Traceability:** a key enabler for trust and safety in the supply chain.

3. **Sustainability:** a real consumer priority that brands and retailers must embrace.

4. **On-demand logistics & services:** in both B2B and B2C, there are more deliveries, creating challenges and opportunities.

5. **Automation and smart everything:** everything that can be connected will be connected.

6. **Empowered consumers:** the rise of e-commerce and immersive mobile interactions is changing retail.

7. **Mass customisation:** sometimes called "order of one," factories are now frequently shipping single, hyper-customised orders directly to a customer.

Identifying these trends was merely the first step. Even more important is our work to develop a plan to help our users navigate this landscape and allow GS1 to strengthen our global language of business.

As part of that work, our teams are working on the future of data sharing. Today's data sharing ecosystems are complex and costly. Companies expect to be able to store and share data in a variety of ways, but they need a simple, interoperable way to indicate where their data is stored and how it is structured. The GS1 Registry Platform (see pages 16-17) is a key enabler to address this challenge. In the years to come, we'll be working to develop and extend the Registry Platform so that it includes all GS1 identifiers, accommodates all levels of identity granularity, facilitates linking to authoritative sources of data and enables the capability to verify credentials for digital identity.

Our teams are also working on the future of on-pack labelling. Consumers are increasingly confused by the proliferation of barcodes on products. All they want is to be able to easily find relevant information about what they're buying. We are working to ensure that all products and things are sources of data for the companies that manufacture and sell them, by ensuring that GS1 identity is included in all on-pack barcodes and tags.

In short, we are working to ensure that GS1 identity becomes truly ubiquitous, so that it can most effectively support industry's changing business needs. Doing this will require that we establish a single semantic model for data, that we become increasingly agnostic to how data

is exchanged, that we embrace the mapping of other identification systems to GS1 identifiers and that we continue to work with the industries that we serve to build new value on top of their existing investments.

Additionally, our innovation team will continue our ongoing studies into the Internet of Things and blockchain technology. We will also more deeply explore GS1's potential relevance in voice and image recognition technology and services, in particular as they relate to e-commerce. Neutral, global standards in this area could help prevent the creation of siloed ecosystems.

It's impossible to predict the future, of course, but we feel confident in our plan to take what we've always done—provide our users with unique, persistent, globally interoperable identification— and push it to cover the identification of everything. It might sound like a bold statement, but we believe that the identification of everything makes anything possible.

We believe that new technologies can be enablers to help industry adapt to real-world business trends.

ⓘ

Stay up to date on our work:
www.gs1.org

Read our trend report:
www.gs1.org/docs/innovation/GS1-Trend-Research-Paper-070219.pdf

GS1 and the Auto-ID Labs

GS1 supports the Auto-ID Labs, a network of six universities that promote research in open standards for supply chain visibility and support collaborative programmes to apply GS1 standards in new applications through public and private partnerships.

The Massachusetts Institute of Technology (MIT) Auto-ID Lab focuses on low-cost, pervasive sensing for applications in IoT and the use of blockchain technology in digital commerce. The lab also has expertise in smart materials and non-conformal RFID tags.

The Auto-ID Lab at Keio University is actively exploring Automated Identification and Data Capture (AIDC), RFID, wireless communications and the use of internet technology for service discovery.

The Fudan University Auto-ID Lab focuses on IoT circuit and system design and is devoted to promoting GS1 and EPC/RFID standards in China. Special areas of interest include IoT technology for food and drug traceability, healthcare and smart cities.

The Cambridge Auto-ID Lab is based in the Institute for Manufacturing within the Engineering Department of the University of Cambridge. The lab focuses on industrial applications of AIDC, sensing, IoT, data analytics, machine learning and automation.

The Auto-ID Lab at the Korea Advanced Institute of Science and Technology (KAIST) focuses on scalable IoT platforms and applications and has developed an open-source IoT system (OLIOT) that leverages GS1 standards for potential use cases in healthcare, smart agriculture and smart cities.

The Auto-ID Lab in Switzerland is a joint initiative of the Institute of Technology at University of St. Gallen and the Information Management Group at ETH Zürich. Researchers there are exploring the digital transformation of the retail industry, and especially how consumer behaviour can be influenced through access to richer product information.

For more information about the Auto-ID Labs, contact us at **innovation@gs1.org**

> We rely on the Auto-ID Labs: their work helps us stay ready and relevant by acting as a hedge against disruptive change.

Finding new ways of working together

" "Every organisation has a foundational culture, and ours is collaboration."

Miguel A. Lopera
Chairman and Chief Executive Officer
GS1

Finding new ways of working together

Global services, built collaboratively. A commitment to sharing information and learning from each other. Empowered project managers. These are the foundations of our federation's work going forward.

We are a network of 114 Member Organisations and a Global Office, operating in a "glocal" way.

The "digital revolution" and other advances in technology are disrupting business models while at the same time creating exciting opportunities. With the ubiquity of the internet and the rise of online marketplaces, commerce is now global. Our users expect increasingly seamless interactions with service offerings that use GS1 standards. Additionally, they expect us to provide

global services that are built collaboratively and that can be used as part of solutions to industry's prioritised business challenges. To meet these demands, we need new ways of working together that leverage the strength of our federated model.

You have already read in these pages about a number of these globally-developed, locally-deployed services. None of them would have been possible if we hadn't embraced a **project management** framework and methodology for global programmes. Our work on Verified by GS1 and the Global Data Model fully employed this framework. Thanks to increased clarity, transparency and accountability, representatives from our Global Office and our Member Organisations are able to work in tightly-knit, collaborative groups to overcome business, technical, legal and political challenges. The result: Clear plans for engagement and knowledge being shared freely with all involved. We are drawing lessons from these first experiences and creating a set of best practices, in order to make project management foundational across GS1 at the global and local ("glocal") levels.

Underneath it all, our global services and our project management culture are just the latest manifestations of our long-held belief that we must constantly strive to "see one vision, speak with one voice and act as one organisation." This attitude is important because we work in a **federated model**: we are a network of 114 Member Organisations and a Global Office. This enables us to operate in a "glocal" way, sharing a global mission and brand with Member Organisations who engage their communities locally and independently.

GS1: The Global Language of Business

The benefits of our federated model are not always clearly recognised and understood. We're confident that this model enables our GS1 Member Organisations to have an unmatched ability to understand business opportunities and identify new market needs, while communicating in local language and providing local support. It's also an agile structure—a benefit that becomes particularly evident when considering the acute differences in economic, regulatory and global trade developments across various markets in the last decade. Of course, being an interdependent federation comes with the requirement that everyone involved embraces a certain set of common rules and that we constantly strive to present a consistent face to the outside world.

Read more about GS1, our vision, our history, our governance and the projects we have underway at the website of our Global Office www.gs1.org as well as at the website of your local GS1 Member Organisation www.gs1.org/contact

GS1 MOs in action

GS1 Brazil: Supporting end-to-end traceability for patient safety

Pharmaceutical barcodes are scanned from goods receipt to patient administration at São Paolo's Hospital Israelita Albert Einstein. Bedside scanning by staff helps ensure seven of the nine rights: right patient, drug, dose, time, route, form and documentation.

Hospital Israelita Albert Einstein (HIAE) in São Paulo, Brazil has 13,000 employees, including over 1,200 physicians, and offers a full spectrum of healthcare services. Patient safety is the fundamental goal: this is one reason why HIAE wanted to create an intra-hospital traceability system that would enable the visibility of individual units of medicines throughout the hospital's receiving, distribution, dispensing and administration processes.

Initially, that level of traceability was not possible because the pharmaceutical drugs supplied by HIAE's manufacturers did not have the necessary identification. Though some suppliers used barcodes, they typically only identified certain types of drugs and the barcodes were only present on secondary packaging.

To achieve HIAE's goal, it was imperative that items at the single unit level be labelled with a barcode that included full identification of the item. HIAE worked with suppliers to ensure that each and every single unit package level of medicine be assigned a GS1 Global Trade Item Number (GTIN), a batch/lot number and an expiration date, encoded in a GS1 DataMatrix barcode.

With this complete and unique identification in place, the hospital was able to scan the barcodes of medicines as they travel from receiving to patient bedsides and to HIAE's surgical centre, successfully creating an end-to-end traceability system. Information captured with each barcode scan is downloaded into the hospital's inventory management system and its electronic medical record (EMR) system.

In 2018, about 240,000 single unit packages were received each month from suppliers, already identified and labelled. HIAE has saved more than 600 hours—and the associated labour costs—every month since its pharmacy no longer needs to manually re-label medicines. Furthermore, the risk of inaccuracies in the identification process has been minimised. And, of course, this leads to the most important benefit of all: more robust patient safety.

> **The hospital's suppliers are now required to identify products at the single unit package level with a GS1 DataMatrix barcode containing a GS1 GTIN, the batch/lot number and the expiration date.**

Interested in learning more?
GS1 Brazil: www.gs1br.org

GS1 France: Helping create a digital winery for today's digital world

A group of producers, sellers, associations and digital solution providers in the wine and spirits sector in France worked collaboratively on a new service to make sharing product information easier and more reliable.

E-commerce sites today represent more than 10% of all wine and spirits sales in France.

GS1 France has 9,000 wine and spirits professionals among its 42,000 member companies. In wine and spirits, just as in every industry nowadays, access to accurate product information is key. But many business partners in this sector still exchange information on paper, and half of small vineyards never get GS1 Global Trade Item Numbers (GTINs) for their products. And yet, this area is clearly going digital: 25% of consumers consult the internet to get information before they buy wine or spirits, and a third of distributors use the internet to do their sourcing.

It was clear to GS1 France that something had to be done. That is why they helped facilitate a working group of independent wine growers, winemaker cooperatives, traders, digital service companies, restaurant wholesalers, wine merchants, e-retailers, retailers, catering companies and federations.

The fruit of this collaborative initiative: CodeOnline Wine and Spirits, a service which allows users to create digital versions of their products and share them with customers. With just a few clicks, producers can obtain a GS1

GTIN for each product, add a few additional bits of product information, create digital labels and then make all of that data available to an entire ecosystem of GS1 users.

CodeOnline allows sellers to verify and validate a product's GTIN as well as additional product data—which in turn improves their customers' experience and satisfaction. As for producers and brand owners: they can manage product data efficiently and distribute it widely. Perhaps more importantly, brands take ownership of their product information, better ensuring its quality and accuracy.

Lucie Desprez, E-Retail & Category Management Director at Moët-Hennessy Diageo, is certain that CodeOnline is essential: "We all need to sell more products on the web. CodeOnline helps us meet the needs of our e-retail customers. It's a good tool for a family business and it's also good for an international group."

Interested in learning more?
GS1 France: www.gs1.fr

Financial statements

Key financial statistics:
Global Revenues

GS1 Member Organisations (MOs) around the world are funded by their local members through annual membership fees and sales of services. The calendar year 2018 experienced another year of strong growth in MO revenues with an increase of 6.8% (excluding the impact of currency, i.e. at constant exchange rates) versus 7.0% the year before. All regions grew strongly in 2018: North America at 7.4%, Latin America at 10.7%, Asia Pacific at 5.5%, Europe at 5.9% and MEMA at 10.3%. However, the adverse exchange rate fluctuations negatively impacted the revenues, reducing the growth in EURO to 5.0% at €437M, an increase of €20.7M versus 2017.

GS1 Global Office:
Revenue evolution

In 2018-19, GS1 Global Office's revenues amounted to €34.3M, an increase of €1.2M or 3.6% versus the year before. The budget 2019-20 foresees an increase in Global Office revenues of €1.3M reaching €35.6M, due to 5.0% growth in MO revenues in EURO while other Global Office revenues stay flat.

GS1 Global Office:
Income statement and headcount

For 2018-19, GS1 Global Office shows a positive result of €1.4M compared to the 'revised' budgeted loss of €3.3M, a positive variance of €4.6M. At the operating level the result was a negative €2.2M with revenues of €34.3M and operating expenses of €36.5M. This is a positive variance of €0.9M, compared to the operating loss of €3.1M in the 2018-19 revised budget. This is mainly due to higher revenues (€0.5M) and lower expenses from a delay in filling budgeted positions (€0.7M), partly offset by a negative currency impact on expenses (–€0.3M) as the USD strengthened against the Euro. In 2018-19, we have spent €4.4M on the new services projects, mostly on the GS1 Registry Platform (€2.9M), on the Global LOU (€0.5M), and on Fighting Illicit Trade (€0.5M). We also started work on two major projects: Verified by GS1 and Global Data Model (€0.5M). In order to have the necessary cash to fund all these new investments that will also impact 2019/20 and the following years, we have sold our long-term investment portfolio in June 2019 resulting in a non-operating gain of €3.7M.

Including the new services expenses, the operating expenses increased by €2.9M or 8.6% versus 2017-18. This is driven by (1) a €2.7M increase in payroll expenses (+14.0% vs. 2017-18) due to the full-year impact of the 2017-18 recruitments, the new hires of 2018-19 and inflation and (2) a €0.6M increase in fixed expenses mainly due to more IT costs, bad debts provisions and higher rent & charges (due to the move of our US office). These increases are partly offset by a €0.5M decrease in discretionary spending (which includes travel, consulting, marketing and meetings/events), mainly due to decreases in consulting and marketing spend.

Both the base business (managed from the GS1 Central Office) and Data Excellence Inc. delivered a positive result.

The 2019-20 budget includes increased investments in the new services projects. Consequently, the budget 2019-20, as approved by the General Assembly in May 2019, forecasts a negative result of €4.0M to be funded by the reserves.

In terms of expense categories, our main investment remains our people, representing 61% of our operating expenses, with 101 staff members at the end of June 2019. This is lower than the 112 staff members assumed in our 2018-19 revised budget and is due to delays in the recruitment for the open positions. The 2019-20 budget plans for a Global Office headcount of 113 staff members reflecting a catch-up in the recruitment of the 2018-19 budgeted positions, most if not all in the first quarter of the new fiscal year.

GS1 Member Organisation revenue: **Growth by region**

	Growth 2018/2017	
	%	w/o FX*
Middle East/ Mediterranean/Africa	*-0.7%*	*10.3%*
Latin America	*1.6%*	*10.7%*
Asia Pacific	*5.2%*	*5.5%*
North America	*6.5%*	*7.4%*
Europe	*5.2%*	*5.9%*
TOTAL	*5.0%*	*6.8%*

* Foreign exchange impact

GS1 Member Organisation revenue: **Historical perspective**
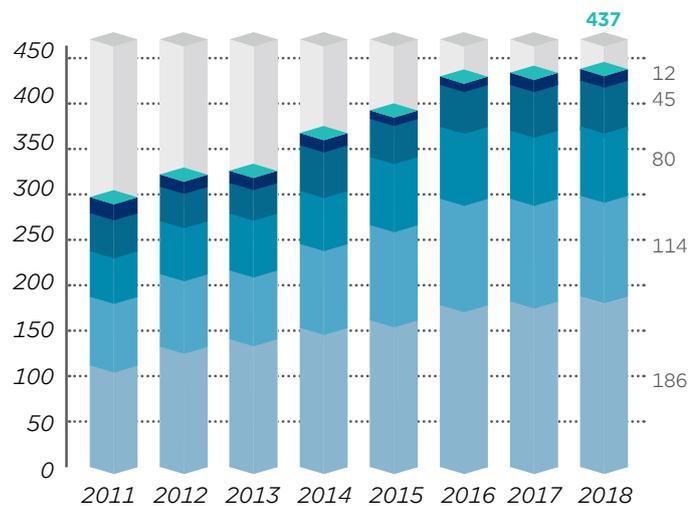
Notes : Figures in millions of euro

GS1 Global Office revenue: **Historical perspective**

Figures in millions of euro	11/12 Actuals	12/13 Actuals	13/14 Actuals	14/15 Actuals	15/16 Actuals	16/17 Actuals	17/18 Actuals	18/19 Actuals	19/20 Budget
GS1 Central Office	23.9	25.0	26.2	26.3	28.4	28.3	30.5	32.0	33.3
EPCglobal Inc.	-	-	-	-	-	-	-	-	-
GS1 Data Excellence Inc.	2.0	2.0	2.0	2.1	2.4	2.5	2.6	2.3	2.3
Total GS1 Global Office	**25.9**	**27.0**	**28.2**	**28.4**	**30.8**	**30.8**	**33.1**	**34.3**	**35.6**
Staff (FTEs)	77	80	80	81	81	82	96	101	113
Accounting Reserves*	**12.2**	**13.8**	**15.5**	**16.0**	**17.1**	**17.1**	**16.3**	**17.7**	**13.8**

*where Reserves are defined as accumulated net results; could be invested in cash, fixed assets or receivables

GS1 consolidated fiscal year 2018/19: **Actuals**

Figures in millions of euro	Consolidated	GS1 Central Office	GS1 Data Excellence Inc.
Revenue	*34.3*	*32.0*	*2.3*
Fixed/Recurring Expenses	*3.0*	*2.5*	*0.5*
Discretionary Expenses	*11.2*	*10.2*	*1.0*
Payroll Expenses	*22.2*	*21.5*	*0.7*
Operating Expenses	*36.5*	*34.3*	*2.2*
Operating Result	*(2.2)*	*(2.3)*	*0.2*
Other Revenue / (Expenses)	*3.6*	*3.5*	*0.1*
Result for the period	*1.4*	*1.2*	*0.2*

Consolidation based on budget rate (1.18 USD/EUR). Fiscal year 2018/19 ended 30 June 2019.

GS1 Management Board

Members of the Management Board of GS1 AISBL*:

Kathryn E. Wengel
Executive Vice President &
Chief Global Supply Chain Officer
Executive Committee Member
Johnson & Johnson
**Chair
GS1 Management Board**

Renaud de Barbuat
Chief Information Officer
Carrefour
**Until 25 August 2019: Vice Chair
GS1 Management Board**

Julio Nemeth
Chief Product Supply Officer
The Procter & Gamble Company
**Vice Chair
GS1 Management Board**

Bruno Aceto
Chief Executive Officer
GS1 Italy

Mark Batenic
Chairman
IGA Inc.

David Calleja Urry
Chief Executive Officer
GS1 Malta

Rubén Calónico
Chief Executive Officer
GS1 Argentina

Bob Carpenter
President & Chief Executive Officer
GS1 US

François Deprey
Chief Executive Officer
GS1 France

Thomas Fell
Chief Executive Officer
GS1 Germany

Béatrice Guillaume-Grabisch
Executive Vice President & Global
Head Human Resources & Business
Services
Nestlé S.A.

Doug Gurr
Vice President UK Country Manager
Amazon UK

José Loaiza Herrera
Vice President of International
Business & Digital Strategy
Grupo Exito

Samir Ishak
Board Advisor
Abudawood

Xiao An Ji
Chairman
Beijing Hualian Group

Stéphane Lannuzel
Operations Chief Digital Officer &
Beauty Tech Project Director
L'Oréal

Anna Lin
Chief Executive Officer
GS1 Hong Kong, China

Miguel A. Lopera
President & Chief Executive Officer
GS1 AISBL

Dr. Meinrad Lugan
Member of the Board of
Management
B. Braun Melsungen AG

Gary Lynch
Chief Executive Officer
GS1 UK

Dr Susan Moffatt-Bruce
Executive Director University
Hospital and Professor of Surgery &
of Biomedical Informatics
The Ohio State University Wexner
Medical Center

Daniel Myers
Executive Vice President,
Global Integrated Supply Chain
Mondelēz International

Bhanu Narasimhan
Director, Product Management
Google Inc.

Hidenori Osano
Vice President & Executive Officer,
Senior Chief Officer of Logistics
Innovation
AEON Co., Ltd

Maria Palazzolo
Executive Director &
Chief Executive Officer
GS1 Australia

Kerry Pauling
Senior Vice President &
Chief Technology Officer
Walmart Stores Inc.

Joseph Phi
President
LF Logistics

Dr. Martin Reintjes
Member of the Executive Board
Dr Oetker GmbH

Chris Resweber
Senior Vice President,
Industry Affairs
The J.M. Smucker Company

Timo Salzsieder
CIO METRO AG &
CEO METRONOM
METRO AG

Steve Schuckenbrock
Chief Executive Officer
CROSSMARK

Joseph Sheridan
President and
Chief Operating Officer
Wakefern Food Corp

N. Arthur Smith
Chief Executive Officer
GS1 Canada

Lin Wan
President
Cainiao (Alibaba Group)

Chenghai Zhang
Chief Executive Officer
GS1 China

* As at 30 June 2019

Data Excellence Inc. Board of Directors

Members of the Board of Directors of GS1 Data Excellence, Inc.:

Jean-Marc Klopfenstein	NBE Master Data **Chair, GS1 Data Excellence Inc. Board of Directors**	Nestlé
Laurent Seroux	Global Master Data Business Process Expert – Global Business Services **Vice-Chair, GS1 Data Excellence Inc. Board of Directors**	Procter & Gamble
Nate Whitten	Director, Product Content **Vice-Chair, GS1 Data Excellence Inc. Board of Directors**	Lowe's Companies, Inc.
Renaud de Barbuat	Chief Operating Officer **President, GS1 Data Excellence, Inc., *as at 26 August 2019***	GS1 AISBL
Marc Blanchet	President	Viagenie
Karin Borchert	Chief Executive Officer	1WorldSync
Vincent De Hertogh	Manager Supply Chain Strategy	Delhaize Group
JP De Villiers	Director of Content Acquisition	Walmart
Thomas Fell	Chief Executive Officer	GS1 Germany
Rafael Flórez	Chief Executive Officer	GS1 Columbia representing LOGYCA
Marina Guegan	IT Master Data Director	Carrefour
Stefan Hesse	Chief Financial Officer & UK Managing Director	Alkemics
Grant Hodgkins	MDR/Eudamed Workstream Lead	Smith & Nephew
Lars Kyed	Chief Executive Officer	GS1 Denmark
Pieter Maarleveld	Chief Executive Officer	GS1 Netherlands
Vivek Nadadur	Senior Director, Supply Chain Visibility	Johnson & Johnson
Mike Nickituk	Global Managing Director	Nielsen Brandbank
Maria Palazzolo	Executive Director & Chief Executive Officer	GS1 Australia
John S. Phillips	Senior Vice President, Customer Supply Chain & Go-To-Market	PepsiCo Global Operations
Dave Ralph	President & Chief Executive Officer	Commport Communications International Inc.
Paul Salay	Chief Executive Officer	Syndigo
N. Arthur Smith	Chief Executive Officer	GS1 Canada
Lori Schrop	Director, Industry Initiatives & Standards	The J.M. Smucker Company
Jan Somers	Chief Executive Officer	GS1 Belgium/Luxembourg
Markus Tkotz	Managing Director	Markant Handels-und Industriewaren-Vermittlungs AG
Anja Wiese	Executive Manager of Global Data Management	Dr. August Oetker Nahrungsmittel KG
Christian Zaeske	Director Master Data Management	METRO AG

GS1 Innovation Board

Members of the Board of Governors of EPCglobal, Inc.:

Sanjay E. Sarma

Vice President for Open Learning, Professor of Mechanical Engineering

Massachusetts Institute of Technology

Chair, GS1 Innovation Board

Eric Ballot

Director of the Management Science Lab and Supply Chain and Logistics Professor

MINES ParisTech - PSL

Robert Beideman

Chief Solutions & Innovation Officer

GS1 Global Office

Head of EPCglobal, Inc.

Myron Burke

Principal, Store Nº8, Senior Director II

Walmart Stores, Inc.

Chris Diorio

Chief Executive Officer, Vice Chairman and Founder

Impinj

Ahmed El Kalla

Chief Executive Officer

GS1 Egypt

Christian Floerkemeier

Chief Technology Officer & Co-Founder

Scandit

Marina Kotsianas

Chief Executive Officer

Artia Strategies (University of Southern California)

Melanie Nuce

Senior Vice President, Corporate Development

GS1 US

Chris Resweber

Senior Vice President, Industry Affairs

The J. M. Smucker Company

Bernhard Schindlholzer

Product Manager

Google

Pallaw Sharma

Vice President, Digital & Analytics

Johnson & Johnson

Milan Turk, Jr.

Managing Director, Global Customer Business Development, Market Strategy & Planning Innovation

The Procter & Gamble Company

GS1 Leadership

The GS1 Global Office Leadership Team is composed of the following people:

Miguel A. Lopera, President and Chief Executive Officer

Renaud de Barbuat, Chief Operating Officer *as at 26 August 2019*

Robert Beideman, Chief Solutions and Innovation Officer

Robyn Burke, Vice President Human Resources

Alain Jonis, Chief Marketing Officer

Marie Pètre, GS1 General Counsel

Marianne Timmons, President, Industry Engagement & Standards Development

---

Philippe Van der Planken, Chief Financial and Administration Officer

Left to right:
Marianne Timmons, Philippe Van der Planken, Miguel A. Lopera, Robert Beideman, Marie Pètre, Alain Jonis, Robyn Burke, Renaud de Barbuat

GS1 Member Organisations

The following information
was correct when we went to press.

For the most up-to-date information,
please visit www.gs1.org/contact.

GS1 Albania
- Tirana
- + 355 4 232073
- www.gs1al.org

GS1 Algeria
- Algiers
- + 213 21 34 10 46
- www.gs1.dz

GS1 Argentina
- Buenos Aires
- + 54 11 4556 4700
- www.gs1.org.ar

GS1 Armenia
- Yerevan
- + 374 10 272 622
- www.gs1am.org

GS1 Australia
- Melbourne
- + 61 3 95589559
- www.gs1au.org

GS1 Austria
- Vienna
- + 43 1 505 86 01
- www.gs1.at

GS1 Azerbaijan
- Baku
- + 994 12 4987405
- www.gs1az.org

GS1 Bahrain
- Manama
- + 973 17 456330
- www.gs1bh.org

GS1 Belarus
- Minsk
- + 375 17 227 09 13
- www.gs1by.by

GS1 Belgium & Luxembourg
- Brussels
- + 32 2 229 18 80
- www.gs1belu.org

GS1 Bolivia
- Santa Cruz de la Sierra
- + 591 3 3383361
- www.gs1.org.bo

GS1 Bosnia & Herzegovina
- Sarajevo
- + 387 33 25 86 45
- www.gs1bih.org

GS1 Brazil
- São Paulo
- + 55 11 3068 6229
- www.gs1br.org

GS1 Brunei Darussalam
- Berahas
- + 673 424 0069
- www.gs1bn.org

GS1 Bulgaria
- Sofia
- + 359 2 8117 567
- www.gs1bg.org

GS1 Cambodia
- Phnom Penh
- + 855 2388 2576
- www.gs1cambodia.org

GS1 Cameroon
- Douala
- +237 685 369 796
- www.gs1.org

GS1 Canada
- Toronto
- + 1 416 510 8039
- www.gs1ca.org

GS1 Member Organisations

GS1 Chile
- Santiago de Chile
- + 56 2 3278 3500
- www.gs1chile.org

GS1 China
- Beijing
- + 86 40 0700 0690
- www.gs1cn.org

GS1 Chinese Taipei
- Taipei
- + 886 2 254 50011
- www.gs1tw.org

GS1 Colombia
- Bogota
- + 57 1 425 4704
- www.gs1co.org

GS1 Côte d'Ivoire
- Abidjan
- + 225 08 48 90 59
- www.gs1ci.org

GS1 Costa Rica
- San José
- + 506 2507 8000
- www.gs1cr.org

GS1 Croatia
- Zagreb
- + 385 1 48 95 000
- www.gs1hr.org

GS1 Cuba
- Havana
- + 537 8353122
- www.gs1cu.org

GS1 Cyprus
- Nicosia
- + 357 22 889860
- www.gs1cy.org

GS1 Czech Republic
- Prague
- + 420 2270 31261
- www.gs1cz.org

GS1 Denmark
- Copenhagen
- + 45 39 27 85 27
- www.gs1.dk

GS1 Dominican Republic
- Santo Domingo
- + 1 809 683 4727
- www.gs1rd.org.do

GS1 Ecuador
- Quito
- + 593 2 2507 580
- www.gs1ec.org

GS1 Egypt
- Cairo
- + 20 220 822 135
- www.gs1eg.org

GS1 El Salvador
- San Salvador
- + 503 2205 1000
- www.gs1sv.org

GS1 Estonia
- Tallinn
- + 37 2 660 5535
- www.gs1.ee

GS1 Finland
- Helsinki
- + 358 7 5756 3500
- www.gs1.fi

GS1 France
- Paris
- + 33 1 40 22 17 00
- www.gs1.fr

GS1 Georgia
- Tbilisi
- + 995 32 2 96 10 19
- www.gs1ge.org

GS1 Germany
- Cologne
- + 49 221 947 14 - 0
- www.gs1-germany.de

GS1 Ghana
- Tema
- + 233 302 816 260
- www.gs1gh.org

GS1 Association Greece
- Argiroupoli
- + 30 210 9904260
- www.gs1greece.org

GS1 Guatemala
- Guatemala City
- + 502 2245 9595
- www.gs1gt.org

GS1 Honduras
- Tegucigalpa
- + 504 2270 7247
- www.gs1hn.org

GS1 Member Organisations

GS1 Hong Kong, China
- Hong Kong
- + 852 2861 2819
- www.gs1hk.org

GS1 Hungary
- Budapest
- + 36 1 2377240
- www.gs1hu.org

GS1 Iceland
- Reykjavik
- + 354 511 3011
- www.gs1.is

GS1 India
- New Delhi
- + 91 11 42890890
- www.gs1india.org

GS1 Indonesia
- South Jakarta
- + 62 21 319 25 8001
- www.gs1id.org

GS1 Iran
- Tehran
- + 98 21 88935095
- www.gs1ir.net

GS1 Ireland
- Dublin
- + 353 1 208 0660
- www.gs1ie.org

GS1 Israel
- Tel Aviv
- + 972 3 519 87 14
- www.gs1il.org

GS1 Italy
- Milan
- + 39 02 777 2121
- www.gs1it.org

GS1 Japan
- Tokyo
- + 81 3 5414 8520
- www.gs1jp.org

GS1 Jordan
- Amman
- + 962 6 56 200 38
- www.gs1jo.org.jo

GS1 Kazakhstan
- Almaty
- + 7 727 394 88 53
- www.gs1.kz

GS1 Kenya
- Nairobi
- + 254 20 238 5270
- www.gs1kenya.org

GS1 Korea
- Seoul
- + 82 2 6050 1400
- www.gs1kr.org

GS1 Korea (DPR)
- Pyongyang
- + 850 2 18111 (ext.3818989)
- www.gs1.org

GS1 Kuwait
- Safat
- + 965 24841778
- www.gs1kw.org

GS1 Kyrgyzstan
- Bishkek
- + 996 312 900 521
- www.gs1kg.org

GS1 Latvia
- Riga
- + 371 67830 822
- www.gs1lv.org

GS1 Lebanon
- Beirut
- + 961 1 744 161
- www.gs1lb.org

GS1 Libya
- Tripoli
- + 218 21 444 4545
- www.gs1ly.org

GS1 Lithuania
- Vilnius
- + 370 5 2614532
- www.gs1lt.org

GS1 Macau, China
- Andar
- + 853 2878 2385
- www.gs1mo.org

GS1 Macedonia
- Skopje
- + 389 2 32 54 250
- www.gs1mk.org

GS1 Malaysia
- Kuala Lumpur
- + 603 6286 7200
- www.gs1my.org

GS1 Member Organisations

GS1 Malta
- Santa Venera
- + 356 21 337 228
- www.gs1mt.org

GS1 Mauritius
- Port Louis
- + 230 203 4830
- www.gs1mu.org

GS1 Mexico
- Mexico City
- + 52 55 5249 5249
- www.gs1mexico.org

GS1 Moldova
- Chisinau
- + 373 22 21 16 69
- www.gs1md.org

GS1 Mongolia
- Ulaanbaatar
- + 976 77000865
- www.gs1mn.org

GS1 Montenegro
- Podgorica
- + 382 20 658 692
- www.gs1.me

GS1 Morocco
- Casablanca
- + 212 522 39 19 13
- www.gs1ma.org

GS1 Myanmar
- Yangon
- +959 5191282
- www.gs1.org

GS1 Netherlands
- Amstelveen
- + 31 20 511 3888
- www.gs1.nl

GS1 New Zealand
- Wellington
- + 64 4 494 1050
- www.gs1nz.org

GS1 Nicaragua
- Managua
- + 505 2266 9810
- www.gs1ni.org

GS1 Nigeria
- Lagos
- + 234 80 99 999 333
- www.gs1ng.org

GS1 Norway
- Oslo
- + 47 22 97 13 20
- www.gs1.no

GS1 Pakistan
- Karachi
- + 92 21 32215844
- www.gs1pk.org

GS1 Panama
- Panama City
- + 507 236 7907
- www.gs1pa.org

GS1 Paraguay
- Asunción
- + 595 21 202 518
- www.gs1py.org

GS1 Peru
- Lima
- + 51 1 203 6100
- www.gs1pe.org

GS1 Philippines
- Pasig City
- + 63 2 6370897
- www.gs1ph.org

GS1 Poland
- Poznań
- + 48 61 85 1 7754
- www.gs1pl.org

GS1 Portugal
- Lisbon
- + 35 1 21 752 07 40
- www.gs1pt.org

GS1 Romania
- Bucharest
- + 40 21 3178031
- www.gs1.ro

GS1 Russia
- Moscow
- + 7 495 989 26 88
- www.gs1ru.org

GS1 Saudi Arabia
- Riyadh
- + 966 11 218 24 20
- www.gs1.org.sa

GS1 Senegal
- Dakar
- + 221 33 820 99 82
- www.gs1senegal.org

GS1 Member Organisations

GS1 Serbia
New Belgrade
+ 381 11 3132 312
www.gs1yu.org

GS1 Singapore
Singapore
+ 65 6826 3077
www.gs1.org.sg

GS1 Slovakia
Zilina
+ 421 41 565 11 85
www.gs1sk.org

GS1 Slovenia
Ljubljana
+ 386 1 5898320
www.gs1si.org

GS1 South Africa
Randburg
+ 27 11 777 3300
www.gs1za.org

GS1 Spain
Barcelona
+ 34 93 252 39 00
www.gs1es.org

GS1 Sri Lanka
Colombo
+ 94 11 5588808
www.gs1lanka.org

GS1 Sweden
Stockholm
+ 46 8 50 10 10 00
www.gs1.se

GS1 Switzerland
Bern
+ 41 58 800 70 00
www.gs1.ch

GS1 Syria
Damascus
+ 963 11 54 27 909
www.gs1sy.org

GS1 Tajikistan
Dushanbe
+ 992 37 227 1168
www.gs1tj.org

GS1 Tanzania
Dar es Salaam
+ 255 22 2664310
www.gs1tz.org

GS1 Thailand
Bangkok
+ 66 2 345 1200
www.gs1th.org

GS1 Tunisia
Tunis
+ 216 71 948 660
www.gs1tn.org

GS1 Turkey
Ankara
+ 90 8503031471
www.gs1tr.org

GS1 Turkmenistan
Ashgabat
+993 12 46 80 25
www.gs1tm.org

GS1 Ukraine
Kiev
+ 380 44 2021155
www.gs1ua.org

GS1 United Arab Emirates
Dubai
+ 971 4 557 0988
www.gs1ae.org

GS1 UK
London
+ 44 20 7092 3500
www.gs1uk.org

GS1 Uruguay
Montevideo
+ 598 2 606 2134
www.gs1uy.org

GS1 US
New Jersey
+ 1 9374353870
www.gs1us.org

GS1 Uzbekistan
Tashkent
+ 99871 2526604
www.gs1uz.org

GS1 Venezuela
Caracas
+ 58 212 237 87 77
www.gs1ve.org

GS1 Vietnam
Hanoi
+ 84 1 900 636 218
http://gs1.org.vn

Sources of facts and figures cited in this document

Page 7, page 22
Russell, Andrew and Vinsel, Lee. "The Joy of Standards."
The New York Times. 16 February 2019.

Page 10
"Global Unified Commerce Forecast." 451 Research. September 2018.
"Global Online Marketplaces Tracker." Forrester Analytics. July 2018.

Page 21
GS1 Global Data Synchronisation Network data, 2018-2019.

Page 27
GS1 Global Standards Management Process data, 2018-2019.

Page 36
Gonçalves Malta, Nilson. "Hospital Israelita Albert Einstein continues its
journey to full traceability of pharmaceuticals."
GS1 Healthcare Reference Book 2018-2019.

Page 37
GS1 France data, 2018-2019.
"L'offre vin et spiritueux se digitalise-t-elle?
[Is the wine and spirits sector going digital?]"
OpinionWay. July 2018.

GS1 Global Office

Blue Tower, Avenue
Louise 326, bte 10,
Brussels B-1050, Belgium
T +32 2 788 78 00
F +32 2 788 78 99
E contactus@gs1.org

www.gs1.org