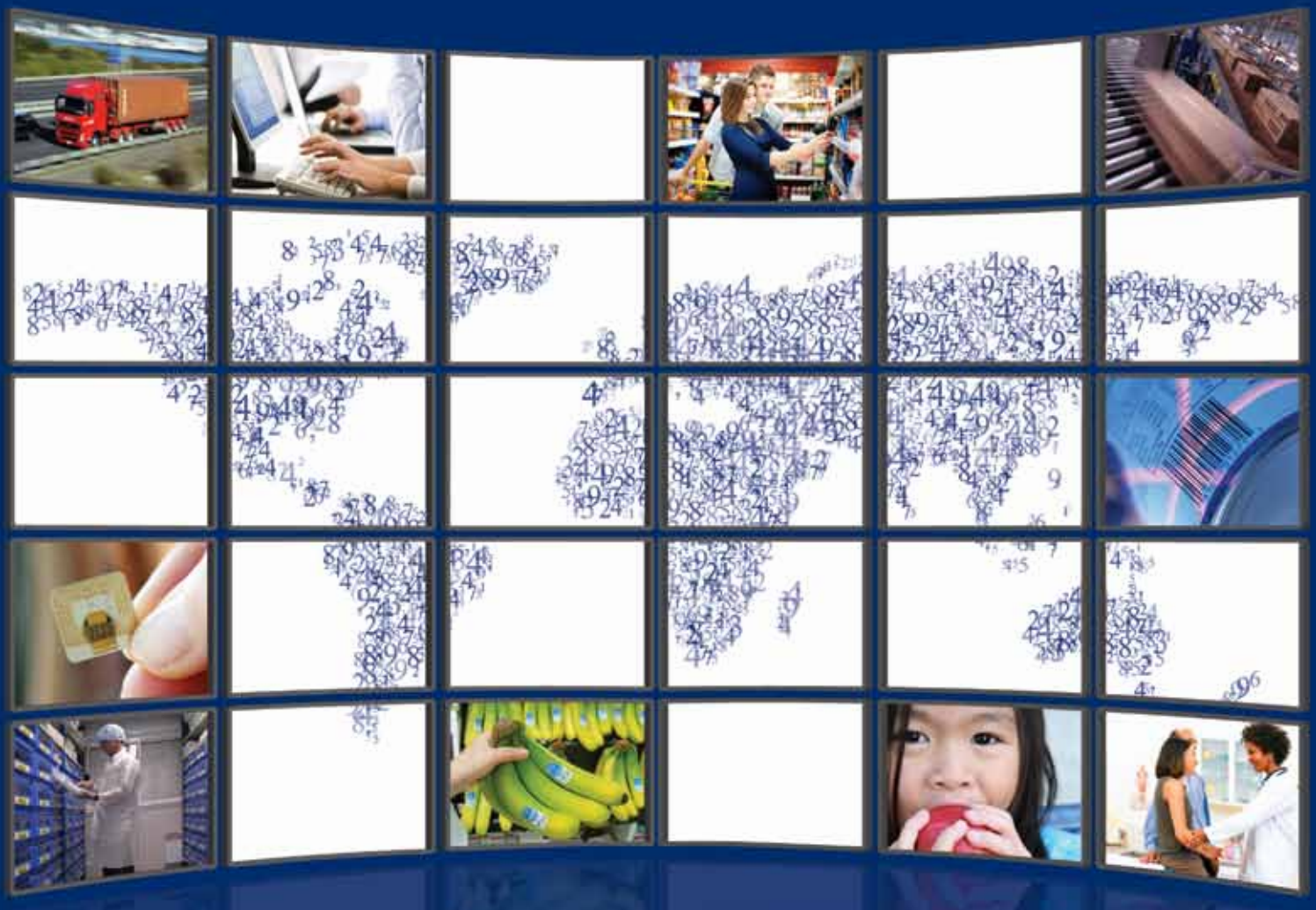
Annual Report 2011-2012



The global language of business

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Letter from the Chairman

José Lopez
Executive Vice President, Operations & GLOBE,
Nestlé and Chairman, GS1

A new reality is becoming the basis for an uncertain and volatile business environment. New paradigms in global supply and demand chains are shaking up established business models and are forcing us all to rethink existing marketing approaches.

Key trends in the years ahead

Researchers and analysts at McKinsey & Company recently published a study presenting their view of three major trends of the decade to come.

They predict that the centre of gravity of consumer markets will shift inexorably toward the developing world in general, and Asia in particular.

They suspect that the increase in rates of internet penetration around the world will result in a "digital consumer" whose habits will overturn traditional business models. These new consumers will challenge both consumer packaged goods companies and retailers to understand them better and to exploit technology to connect with them more often.

And finally, McKinsey & Company feel that the emergence of fewer, bigger suppliers, combined with shortages in certain natural resources, will create instability and volatility in raw material availability and cost.

An inevitable impact on supply chains

Dedicated as we are to the design and implementation of global standards and solutions to improve the efficiency and visibility of supply and demand chains, it is obviously very important for GS1 to understand how these forces will shape the future of our users and specifically how they will impact the supply chain.

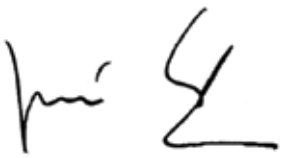
In that regard, we concur with the six main points of impact identified by the Consumer Goods Forum's report "2020 Future Value Chain." This study concludes that:

- The impact of consumer technology adoption will influence their buying behaviour.
- The increase in consumer service demands will define new service models, offered via the internet.
- The rising importance of health and well-being will have significant ramifications.
- The growing concern about sustainability will lead consumers to look for governments and companies to play a major role in combating climate change.
- An increase in regulatory pressure is expected, particularly in areas like the environment, sustainability and food safety.
- The rapid adoption of supply chain technology capabilities will enable more a synchronised value chain with greater visibility and traceability.

GS1's role in this new landscape

In a market facing such fundamental changes, GS1 has a major role to play. More than 30 years ago, visionary leaders saw the huge potential of collaboration in the area of standards for the entire supply chain. As a result, the visibility made possible by robust, user-generated scalable standards is allowing companies in multiple sectors and industries to save billions each year. That is why the GS1 System of Standards is the most widely used supply chain standards system in the world today.

Our plan is to continue to increase the value of our System of Standards so that our users are ready to meet the challenges of the next decade. It is an honour to chair an organisation whose daily focus has such enormous potential impact. I look forward to being part of the effort.



Letter from the Vice-Chairman and Chairman Emeritus

Tim Smucker
Chairman of the Board, The J.M. Smucker Company
and Vice-Chairman & Chairman Emeritus, GS1

There are few if any organisations that are as diverse as GS1. We have found success in embracing our diversity, challenging ourselves to understand one another and then seeking common ground. Our neutral, not-for-profit organisation facilitates collaboration amongst trading partners, organisations and technology providers in order to solve business challenges. By leveraging standards, users of the GS1 System can ensure visibility along their entire value chain.

A fully integrated global organisation

GS1 has 111 Member Organisations serving approximately two million companies from all points in the supply chain and doing business across 150 countries. Our work meets the needs of multiple sectors and industries ranging from Fast Moving Consumer Goods (FMCG) to healthcare, transport, defence, aerospace, financial services and more. GS1 promotes and facilitates an inclusive forum that leverages synergies and enables efficiencies within and across industry sectors.

Our vision, our mission

At GS1, our vision is a world where things and related information move efficiently and securely for the benefit of businesses and improvement of people's lives, everyday, everywhere. Our mission is to be the neutral leader enabling communities to develop and implement global standards providing the tools, trust and confidence needed to achieve our vision.

Our purpose is reflected in our vision and mission. And we demonstrate our purpose by:

- Helping business work more efficiently.
- Providing better visibility throughout the supply chain.
- Improving patient safety and care.
- Ensuring food safety.
- And so much more.

We do this together! Even with all of the amazing technological advances to keep us connected, we are still driven by people and relationships. Working together we achieve our purpose and every person makes a difference.

Our core competencies

The fundamental competencies that set us apart and enable us to uniquely serve our constituents include:

- ***Global Standards Development:*** Effectively manage the global, user-driven development and implementation process to deliver high-quality, easy-to-implement standards to industry and solution providers.
- ***Identification:*** Provide a system of unambiguous numbers to identify goods, services, assets and locations in support of automated and secure supply chain processes.
- ***Global Reach:*** Maintain and develop a global network of national affiliates that deliver high-quality, standards-oriented services to their members.
- ***Cross-Cultural Communication:*** Develop and maintain a broad range of communication capabilities that enable effective two-way communications between GS1, its affiliates, its membership and the wider community.

Every day around the world, GS1 teams **see one vision, speak with one voice and act as one organisation.** This dedication and passion fuels our future successes and momentum, and the best is yet to come!

Letter from the President and Chief Executive Officer

Miguel A. Lopera
President & Chief Executive Officer, GS1

Across the past twelve months, thousands of GS1 collaborators around the world have been driving momentum together as we work to solve business issues with global standards.

Key achievements last year

This year, our teams worked harder than ever before to drive adoption of GS1 Standards and support users and GS1 Member Organisations (MOs) in deploying solutions and services built upon them.

Great progress was made on several strategic breakthrough projects. Our work to become the B2C sector's "Trusted Source of Data" was launched successfully. Our Data Quality activities are being reinforced to cover the full B2B2C information supply chain. The crucial role GS1 Standards have in providing supply chain visibility and enabling innovation is highlighted in a new white paper.

We have continued to develop global standards and services and to create targeted solutions that match the needs of industry sectors.

In retail and consumer goods, new product recall standards improve safety and new fresh food guidelines reduce spoilage. Our Order to Cash solution is rolling out in many countries, as are GS1 EPC/RFID solutions in apparel for increased inventory accuracy and efficiency. The new QR bar code standard and digital coupon standard support our initiatives in B2C. Over 10 million trade items are now registered in the GS1 Global Data Synchronisation Network and we are getting ready for the next major release that will allow for a more flexible system, meeting more industry needs.

In healthcare, we now have 30 local Healthcare User Groups, and we published standards enabling the unique identification of both patients and caregivers. In transport and logistics, we have engaged important work to support the activities of Logistics Service Providers.

The GS1 Global Standards Management Process had a pivotal year under the themes of harmonisation, simplification and integration.

From a public policy perspective, GS1 is active on many local, national and international committees and work groups, and, amongst other achievements, has raised the profile of GS1 in the global financial regulatory community.

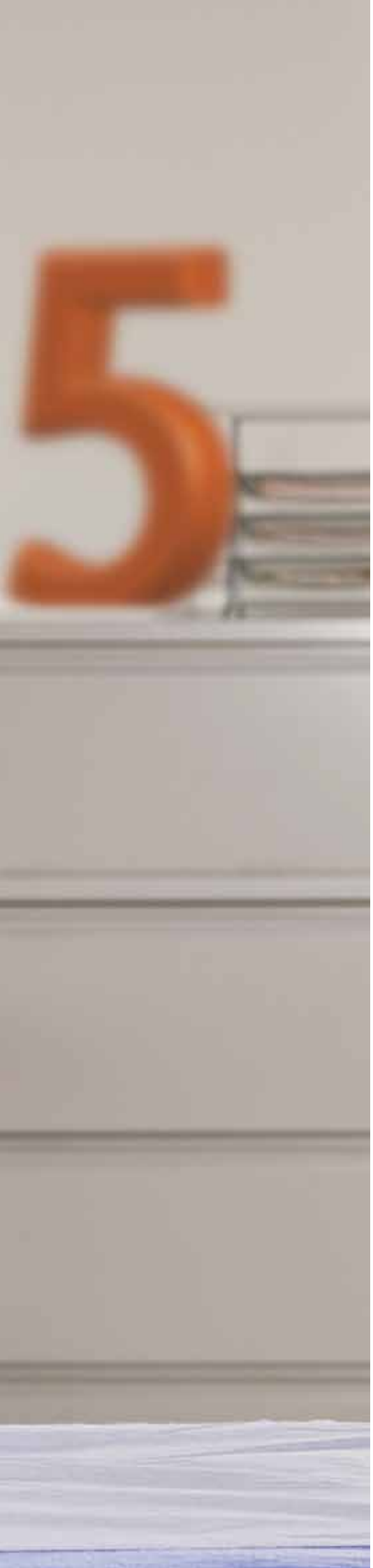
Our global solution providers programme is stronger than ever, connecting users to more than one thousand companies who provide products and solutions which are built upon GS1 Standards.

Key priorities for next year

As we head toward the middle of this decade, we will continue strengthening our core activities by providing excellent service to highly strategic industry sectors. We will become a key player in the connected internet world thanks to our B2C activities, our end-to-end data quality initiatives and the way our standards enable visibility over processes and movements. We will engage with new industry sectors. We will pursue our efforts to step-change the GS1 brand awareness. All of this can only be feasible if we continue strengthening our interdependency to see one vision, speak with one voice and act as one organisation.

Thanks to all

My appreciation and gratitude go out to the extended GS1 community – our users, all the teams at GS1 Member Organisations and everyone at the GS1 Global Office. Your passion and commitment allow us to continue to develop a world-class, interdependent organisation devoted to enabling more efficient, safer and sustainable value chains. I am proud to work with you.



Sectors

GS1 enables collaboration between representatives from a range of different industry sectors to develop standards that make global supply chains more efficient, more sustainable and safer. Our focused engagement with business communities is vital to ensure that our standards and solutions are a response to concrete needs.

Paul Voordeckers
President, GS1 Industry Engagement and EPCglobal, Inc.

Retail & Consumer Goods

A year of rewarding collaboration, innovation and deployment

Since the first bar code was scanned in 1974, GS1 has been contributing to the efficiency of the retail and consumer goods supply chain. This sector remains our core business, and today more than 98% of items in major western retail stores have a GS1 Global Trade Item Number (GTIN).

Research undertaken by the Consumer Goods Forum revealed that manufacturers and retailers want a more sustainable business and a more optimised supply chain, they want to engage with their technology-enabled consumers, and they want to serve the health and well-being of their consumers. GS1 helps companies meet those goals by providing end-to-end visibility over the supply chain.

The past year was notably rich in successful collaborations in this area. We pursued our work with the Consumer Goods Forum to support brand owners, manufacturers and producers with digital product information, sustainability services and traceability programmes.

We signed a Memorandum of Understanding with the Near Field Communication (NFC) Forum to explore ways to better serve the needs of mobile commerce. GS1 experts engaged with the European Commission, UNECE, OECD, ASEAN, APEC and other authorities on consumer safety projects involving traceability and recall.

The past year has also seen many real-world success stories. Our "order to cash" solution for a paperless supply chain is allowing business partners around the world to deliver goods and make payments more quickly and more collaboratively. Our standards and solutions for fresh food are boosting efficiency at the point of sale and reducing food waste. The sharply growing adoption of EPC/RFID for item-level inventory management in apparel and general merchandise is testimony to its many business benefits.

Continuing to actively support this industry is one of our key priorities, to better enable efficient, safe and sustainable retail supply chains.

Measurable benefits from GS1 Standards

The "Global Scorecard" is the annual survey on the impact of implementing GS1 Standards, run by the Consumer Goods Forum and IBM in close collaboration with GS1. The 2011 edition gathered data from 8,790 companies located in 62 different countries.

The analysis clearly revealed positive relationships between the adoption of GS1 Standards and business results. For example, manufacturers using GS1 Standards see an average of **3.5%** higher invoice accuracy.

Warehouses see **21%** shorter lead times. Distribution centres had **42%** lower distribution costs. Retailers benefited from **35%** less retail distribution centre inventory cover and **32%** fewer out-of-stocks.

Download the executive summary of the 2011 Global Scorecard at **www.gs1.org/gs2011**

More about our work with the retail sector at **www.gs1.org/retail**

Key initiatives of 2011-2012

- Launched GS1/Consumer Goods Forum Business Information Needs Group for B2C
- Signed Memorandum of Understanding with NFC Forum
- On-going collaboration with the Consumer Goods Forum on the Global Packaging Project
- Formed Fresh Foods Industry Group and published Fresh Foods Standards and Guidelines
- Asked by European Commission Directorate General for Health & Consumers to facilitate an Expert Group targeting improvements in product traceability and recall

Healthcare

Safer patients, safer supply chains with GS1 Standards

With more than 30 local GS1 Healthcare User Groups now active, GS1 Healthcare has taken a significant step forward in its mission to improve patient safety globally. In the past year, we have successfully continued our efforts to implement global supply chain standards that improve the safety and well-being of patients, bring down healthcare costs and ensure regulatory compliance.

Counterfeit pharmaceuticals are one of the major public safety issues against which healthcare stakeholders are taking action. GS1 continues to play a role in this area by enabling traceability. Our work on globally unique product identifiers supports safer supply chains across borders.

Deploying GS1 Standards also ensures better overall data integrity. Positive results have been seen in a range of implementations benefitting patients, healthcare providers and companies. For example, the use of GS1 DataMatrix, a two-dimensional bar code, has helped safeguard drug traceability and patient safety in hospitals (see case study page 48).

We also launched work on the optimisation of procurement and logistics. GS1 Identification Standards can be deployed at every step of the supply chain from the manufacturing plant to the patient. GS1 Standards for Electronic Data Interchange (EDI) can enable the "perfect order," fully automating electronic order processing from order to delivery to payment without human intervention. The GS1 Global Data Synchronisation Network is already a part of efficiency-boosting efforts, and the high-quality data it contains can also be used to feed Unique Device Identification (UDI) databases across the world.

As evidenced by the increasing participation in our semi-annual GS1 Healthcare conferences, the interest in using GS1 Standards across the healthcare supply chain is on the rise. Over 300 people from 33 countries were present at our most recent event in Sydney in March 2012.

Safer and more efficient healthcare supply chains

A US medical device manufacturer and healthcare provider using GS1 Standards to identify more than 500 products has seen a **30%** reduction in outstanding days payable, a **73%** reduction in purchase order errors, and **significantly fewer** out-of-stocks.

Dutch hospitals have proven that using GS1 Standards can lead to a **20%** reduction in inventory, an **80%** decline in obsolete stocks and increased patient safety.

The CEO of UK National Health Services called upon all Trusts to implement GS1 Standards to drive improvements in procurement and ensure patients get the **highest quality care**.

Leeds Teaching Hospitals (UK) have realised **substantial savings** in order and inventory management thanks to GS1-powered eProcurement.

Details on the examples presented here as well as many others are in the latest **GS1 Healthcare Reference Book**. Download it and learn more about our initiatives and accomplishments at **www.gs1.org/healthcare**

Key initiatives of 2011-2012

- Ensured that GS1 Standards enable Unique Device Identification (UDI)
- Defined a shared vision on product identification with the European Federation of Pharmaceutical Industries & Associations (EFPIA)
- Published a position paper on GS1 DataMatrix bar codes
- GS1 nominated to the European Union eHealth Stakeholder Group
- Obtained endorsement of GS1 Standards by regulatory authorities in Argentina, New Zealand and the United Kingdom
- Developed a shortlist of traceability models with support of global community

Transport, Logistics & Customs

Enabling real gains in efficiency, interoperability and service

For much of the past three decades, GS1 was primarily focused on consumer goods retailers and manufacturers. However, in the last several years, our work with other industry sectors and their supply chains has accelerated. Transport and logistics is an excellent example of GS1's new efforts to develop sector-specific standards and services.

Increasing shipping volumes and growing societal demands for security and sustainability have created challenges for freight transport and logistics firms. Similarly, supply chains are becoming more global, making them more complicated to manage efficiently and cost-effectively. And once language barriers, traceability regulations, border safety concerns, and the ongoing struggle against illegal imports and counterfeiting are considered, it quickly becomes clear how important it is to have a common language that everyone can use.

GS1 has had an important year of significant achievements in this sector. Our work has helped suppliers, retailers, logistic service providers and freight transporters ensure real-time visibility, interoperability and cost reductions. The result is an optimised management of vehicles, containers, warehouses and procedures. GS1 Standards also help reduce CO2 emissions by combatting "empty kilometres" (see case study page 51).

Customs organisations are also working to ensure supply chain efficiency and security, even though they remain primarily focused on the collection of taxes and duties. Many GS1 Member Organisations are helping their country's customs and border protection agencies achieve these new goals.

In the year ahead, we will work to support wider implementation. Today's supply chains can comprise as many as ten different actors between the seller and the buyer. In such a world, it is obviously important to standardise the end-to-end flow of information accompanying this flow of goods.

Measurable improvements in efficiency and visibility

Since deploying GS1 Standards, a major northern European freight operator has seen its work **cut in half** compared to manual booking. The firm now has **much better control** over how long processes will take.

According to the 2010 Consumer Goods Forum Global Scorecard, companies with a 75% or greater implementation rate of GS1 Serial Shipping Container Codes (SSCC) had **50% fewer days of raw material inventory cover** than companies with less than 75% of their logistics units identified by a GS1 SSCC.

A study from the U.S. International Trade Data System Product Information Committee revealed that the need to inspect consumer packaged products at the border could be **reduced by 80%** in the first year by using GS1 Standards such as the GS1 Global Trade Item Number (GTIN).

See information, case studies, videos and more at **www.gs1.org/transportlogistics**

Key initiatives of 2011-2012

- Witnessed increased adoption of GS1 Identification Keys (GLN, SSCC…) and Standards (XML, EPCIS) in transport and logistic activities worldwide
- Developed and ratified new version of GS1 eCom XML standards to optimise transport management
- Increased awareness of GS1 Standards and their value in the T&L sector and in particular with Logistics Service Providers (LSP)
- Formed GS1 Member Organisations interest group to explore global activities, exchange information, and support and develop shareable tools to engage stakeholders locally

New Industry Sectors

Extending the benefits of the GS1 System to a different set of users

A key GS1 priority is to develop global standards and services to address the needs of new business sectors. GS1's engagement in a number of new industries over the past twelve months has been notable.

Significant progress has been made to define a role for GS1 Standards within the financial services industry. In anticipation of the G20 Leaders' Summit held in Mexico in June 2012, the Financial Stability Board (FSB) issued a report outlining the most effective path towards establishing global identification standards. The G20 reviewed and endorsed the FSB's report, which called for a federated implementation, an approach that GS1 has strongly championed. We have created a team to determine how we can best respond if the FSB asks GS1 to fulfil one or more roles in the proposed end solution. The team is looking at organisational, governance and technology issues, and determining how to best leverage our globally federated organisation, our individual country-by-country Member Organisations, and the vast experience we have garnered from engaging with other industry sectors.

We have also made progress in responding to several major automotive manufacturers' desire to use GS1 Standards to uniquely identify components and parts used to build or assemble cars and trucks. A dedicated working group proposed a comprehensive set of business requirements, which was approved. The solution under development is expected to include a new standard identifier for components and parts, as well as a standard way to represent the identifier in bar code and EPC/RFID formats. While the initial demand came from the automotive sector, the solution is designed to suit any sector employing similar business processes. Indeed, many industries need to identify items by the components or parts assembler or by the original equipment manufacturer.

Exploring the needs of various new sectors

GS1 is in a phase of **active discovery** with several other new industry sectors.

The **food services sector**, for example, is currently seeking value that GS1 Standards can provide, such as improved efficiency, reduced waste, better information for consumers and "farm-to-fork" traceability. A small team of GS1 Member Organisations is working to better understand these business drivers.

Additionally, we are looking at the online **"e-tailers"** whose trading models are different from traditional retailers. One question we are asking ourselves: what changes to the GS1 System would be required to suit an industry where there are often third-party sellers of goods? This presents fundamental questions about unique product identification.

Stay up to date by subscribing to GS1 Digest
www.gs1.org/digest

Solutions

GS1 solutions offer a convenient package of standards, guidelines and services to assist with the implementation of global GS1 Standards and to achieve particular business goals. Our solutions address specific business needs or processes, reducing costs and complexities through the effective deployment of our standards.

Malcolm Bowden
President, GS1 Global Solutions

Business-to-Consumer (B2C)

Making accurate product information available to digital consumers

The "moment of truth" when a consumer makes a purchase decision is increasingly happening online: internet sites and smartphone applications are becoming more and more influential to the overall shopping experience. While most of the channels run by manufacturers and retailers contain accurate data, many consumers get their information from digital sources that are not controlled by brand owners.

To help protect brands and enable shoppers to make informed decisions, GS1 is working to become the trusted source of data. GS1 Standards can ensure the communication of accurate, authentic product data provided by brand owners to retailers and application providers via internet and mobile devices used by consumers.

The past year was pivotal for our B2C activities. GS1 led 30 brand owners and five mobile application providers in a successful test of the system. The pilot clearly demonstrated that an interoperable global platform built on GS1 Standards can enable brands to share consumer-facing product information with multiple application providers. Local aggregation services are already deploying, and we expect to launch global services in 2013 so that brands can publish information in one place and have it accessible by apps around the world.

Because of growing demands from consumers to receive and redeem coupons electronically, we also developed a new GS1 Standard for digital coupons. This will allow businesses to manage coupons more quickly and securely. GS1's objective is to bring benefits to all value chain parties, including the consumer.

In the year to come, GS1 and relevant stakeholders will focus on the deployment of the global B2C trusted source of data framework and continue to ensure that all B2C symbologies – whether bar codes or radio frequency identification (RFID) tags – link consumers to this revolutionary system.

Taking a digital path to purchasing is the new norm

A 2011 Nielsen study determined that **36%** of the world's population already owns a smartphone.

Forrester estimated that **50%** of all retail sales are web-influenced.

IBM stated that **80%** of consumers use social networks to research new products.

47% of adult internet users in the USA redeemed an online coupon or code in 2011, according to eMarketer.

And yet despite all this, a 2012 survey from Clavis revealed that **64%** of consumer product webpages had one or more problems with information completeness, presentation or accuracy. Similarly, Capgemini reported that only **29%** of retailers and only **40%** of consumer product companies help customers find the exact products to fit their needs by offering specific search attributes (such as "non-lactose" or "organic").

More about our activities in this area at **www.gs1.org/b2c**

Key initiatives of 2011-2012

- Completed successful "Trusted Source of Data" (TSD) pilot
- Started work on standards development for global TSD framework
- Launched GS1/Consumer Goods Forum Business Information Needs Group (BING) to define future B2C requirements and data quality matters
- Approved GS1 Global Coupon Number (GCN) for digital coupons and GS1 QR code standard
- Worked to enable compliance with new EU requirements concerning information that must be provided for food sold online
- Signed Memorandum of Understanding with NFC Forum

Product & Consumer Safety

Traceability, product recall and anti-counterfeiting with GS1 Standards

Producers and manufacturers want to ensure the safety of consumers who eat their food or use their products. Beyond ethical and legal concerns, there are significant business issues as well. A crisis can have a major impact on a brand, a company, even an entire sector. For example, it took over a month to identify the source of the seeds responsible for the 2011 E. coli outbreak in Europe that sickened over 4,000 people and killed 50. During this time, incorrectly targeted Spanish cucumber farmers lost an estimated €200 million every week, and several million kilos of produce were destroyed.

Many countries have deployed new regulations for food, consumer goods and other products in order to increase consumer confidence by reinforcing product traceability and consumer safety.

Companies today want to meet these multiple regulations, but the rules typically only define what needs to be done. The GS1 Traceability Solution describes how to do it.

The GS1 Traceability Solution is built upon GS1 Standards, the GS1 Global Traceability Assessment, sector-specific guidelines and the wide expertise of our teams around the world. A new standard, GS1 Product Recall, will reduce risks by making it easier to recall unsafe products from shelves and from across the supply chain.

We are also studying how GS1 Standards can help combat counterfeiting in food, consumer goods, pharmaceuticals, medical devices, electronics and more, so that consumers are safe and brands are protected.

GS1 has become a recognised and trusted source of expertise in the areas of food security and product safety. We were engaged by the European Commission Directorate General for Health & Consumers to facilitate an Expert Group targeting improvements in product traceability and recall. The UNECE, OECD, ASEAN and APEC have also solicited GS1's input on projects in these areas.

Standards for traceability & recall can boost safety and confidence

AMR Research found that at best only **43%** of affected food products are ever located in a recall.

A 2011 Aberdeen report noted that the **best-in-class** food companies have traceability processes based on the use of industry standards and tools like those offered by GS1.

With a GS1-powered traceability system, Peruvian firm Vartini Packing reduced the time needed to respond to traceability requests **from several hours to several minutes** and saw a **20%** increase in sales thanks to increased customer confidence.

To help **rebuild consumer trust** after an incident with milk products in 2008, GS1 China has been working with the Chinese government to strengthen food safety and traceability. **Two national standards** based on the GS1 Global Traceability Standard have been completed.

More about our work in this area at **www.gs1.org/traceability**

Key initiatives of 2011-2012

- Ratified new Global Product Recall Standard, an XML business messaging standard enabling effective recall notification, along with the GS1 Product Recall in the Multiple Recall Jurisdictions Implementation Guideline
- GS1 Global Traceability Programme expanded with 176 individuals from 51 countries trained this year, 26 of whom became GS1 accredited traceability auditors
- Facilitated the European Commission Directorate-General Health & Consumer Expert Group on Product Traceability; two discussion papers published, one on Voluntary Product Traceability Schemes and another on Pushchair Traceability
- GS1 Standards recommended by the Global Food Safety Initiative from the Consumer Goods Forum, Efficient Consumer Response (ECR), Global G.A.P - a non-governmental organisation that sets voluntary standards for the certification of agricultural products, and the European Crop Protection Association

Sustainability

Increasing transparency to enable a more sustainable supply chain

From small local businesses to multinational corporations, companies across the globe are making the use of sustainable business practices a priority. Local and international regulations make some actions mandatory. Consumers and shareholders increasingly expect and indeed demand socially responsible behaviour. Many business leaders feel a real concern for preserving the future of the planet, its resources and its energy reserves.

GS1 Standards inherently contribute to a more sustainable supply chain by automating processes and fighting inefficiencies. As just one example among many, by reducing and even eliminating the need to print administrative forms such as despatch advices or invoices, GS1 eCom business messages save money and also trees, as they reduce the need for paper.

But today's consumers want more, and are holding companies fully accountable for sustainability. This requires a transparent supply chain with significantly increased collaboration between trading partners. Common metrics and standards have a vital role to play here.

Key industry players have worked with the Consumer Goods Forum to develop the Global Protocol on Packaging Sustainability (GPPS), a globally agreed-upon set of metrics that includes over 30 environmental, economic and social performance indicators for packaging and sustainability. GS1 is collaborating with the Consumer Goods Forum to support this vital project. We will develop the standards used to share information on the sustainability of product packaging.

Trading partners will then be able to leverage the GS1 Global Data Synchronisation Network (GDSN) to automate the exchange of this data in a cost-efficient and trusted manner: GPPS metrics will be part of the product information available about a trade item via the GS1 Global Data Synchronisation Network (GDSN) in 2013. A Mission-Specific Working Group within the GS1 Global Standards Management Process (GSMP) is being set up to develop the necessary standards.

Working together to smoothly share relevant information

GS1 Germany's Advisory Board on Sustainability is composed of representatives from **25** different retailers, manufacturers, research institutes, logistics firms and other organisations.

The members are working to find a **common language** that will enable them to manage sustainability issues more efficiently along the supply chain. To do so, they adapt global strategies to the specific needs of the German market.

One main goal is **better transparency** about the sustainability performance of products. This will improve collaboration and enable better buying decisions thanks to concrete, relevant and factual information.

This work is in line with a 2010 German survey which revealed that **56%** of company leaders expect sustainability criteria to become part of the contractual commitments between suppliers and customers within 5 years.

More about our work in this area at **www.gs1.org/sustainability**

Key initiatives of 2011-2012

- Pursued active collaboration with the Consumer Goods Forum Global Packaging Project to synchronise sustainability information in the GS1 Global Data Synchronisation Network (GDSN)
- Began work on a Business Requirements Analysis Document (BRAD) to support the automated exchange of the Global Protocol for Packaging Sustainability (GPPS) metrics
- Supported sustainability activities at GS1 Member Organisations, including GS1 Canada, GS1 France and GS1 Germany among others

Fresh Food

Working toward a smarter, fresher and safer supply chain

The fresh food sections of today's supermarkets are filled with a variety of fruits, vegetables, meat, poultry, dairy products, cheese and more. To face the unique challenges that these sorts of products present to both producers and retailers, the fresh food industry has moved from management and sales systems built on phone calls and pencilled notes to ones built on standards and technology.

Today, the sector is undertaking the next level of this transformation with new standards and solutions that can enable the automatic markdown of food that will soon expire, prevent the sale of recalled products and provide swifter, more efficient replenishment of popular items.

In "The Challenge of Food Waste", a recent report sponsored by IBM and written by Planet Retail, it was noted that food shrinkage and waste can cost retailers up to 4% of their overall revenue. The report identified GS1 DataBar as an excellent way to reduce food waste and assist in automatic replenishment. IBM, in fact, have built GS1 Application Identifiers into their latest point of sale management software release.

Instead of trying to manage fresh food using only generic information, GS1 Fresh Foods Standards and GS1 DataBar bar codes allow retailers and producers to deal with expiration dates, lot numbers, batch numbers and prices that are based on the item's weight. The supply chain is more efficient, less food spoils while sitting on the shelf and consumers are safer.

With a full set of application standards and allocation rules now available, GS1 has been focused this year on supporting implementation efforts. We have created a Fresh Foods Industry Group as part of the GS1 Industry Engagement activity so that we can continue to capture our users' business needs and processes. We also plan to build Implementation Guides to help concretely support deployment.

Bringing measurable benefits to the fresh food department

A recent study shows that **50-60%** of all supermarket sales are perishables, and **5-7%** are lost due to shrinkage and waste, costing retailers up to **4%** of their overall revenue.

A major supermarket chain in Korea has deployed GS1 DataBar on perishable food items that are sold based on their weight or on the number of items purchased. LOTTE Mart point of sales equipment automatically reads and captures this information, allowing LOTTE to have **more accurate forecasting** and **improved inventory management.**

The leading retailer in Poland can now manage the expiration date of short shelf life products in an automated way, thanks to GS1 DataBar. The Biedronka chain is seeing **better real-time inventory control** and **reduced product wastage.**

More about our activities in this area at
www.gs1.org/databar/

Key initiatives of 2011-2012

- Supported launch of pilots and deployments around the world
- Achieved wide recognition of the ability of our standards to reduce waste and prevent revenue loss
- Increased adoption of GS1 DataBar in the fresh food sector, driven by success stories from retailers globally
- Formed Fresh Foods Industry Group

Order to Cash

Less paper, more time and money with GS1 Standards

Ordering, delivering and paying are the three most basic steps of the supply chain in trading of goods. This fundamental chain of events, repeated hundreds of thousands of times every day at businesses around the world, is known as "order to cash".

For years, the order to cash process was accompanied by a significant paper trail of order forms, despatch advice notices and invoices produced manually and sent by post or by fax. Nowadays, with the wide penetration of broadband internet, order to cash can be entirely paperless. Indeed, by replacing paper-based processes with GS1 Standards, companies across the supply chain see increased accuracy, reduced costs, better security and overall improved visibility and efficiency.

GS1's solution for order to cash is a set of global standards and guidelines that provide value for all parties in a business relationship by enabling paperless information exchange.

The past year has seen this solution roll out in countries across the world. There are a number of real-world success stories describing how the use of GS1 eCom business messages allow business partners to deliver goods and make payments more quickly and more collaboratively. Because it can be linked to information already encoded in GS1 BarCodes, companies using GS1 eCom don't have to break the data chain.

GS1 is uniquely placed to partner with millions of companies worldwide as they implement their paperless supply chain. With our suite of eCom standards now fully up-to-date (see pages 40-41 for more), our priority is currently on deployment. We have been working hand in hand with GS1 Member Organisations around the world to identify the mandatory steps to enable trading partners to go paperless, and the potential roadblocks that might slow down their efforts. Our goal is to bring the many business benefits of electronic messaging for the order to cash process to more and more companies.

Deploying paperless order to cash brings measurable results

Since deploying eCom-powered invoicing, Swedish grocery chain Konsom Nord realised savings of up to **85%** of their previous total administrative costs and expected to recoup their investment in one calendar year.

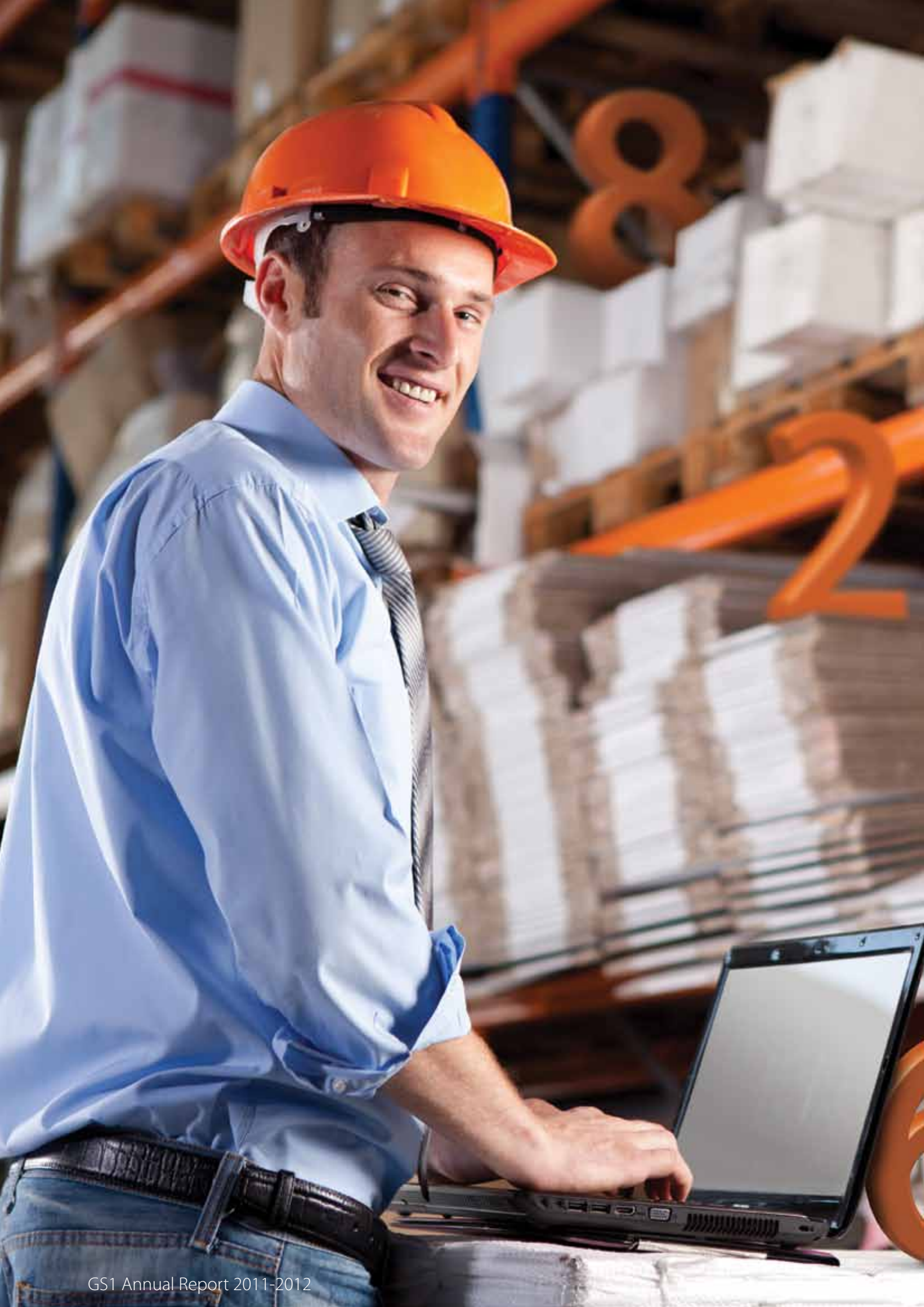
Liverpool, Mexico's leading department store, is reaping major benefits from using GS1 order to cash, including a **3%** decrease in the number of invoices queried, freeing staff from checking invoice discrepancies so they could spend their time on more value-added activities.

Nishitetsu food supermarkets in Japan deployed GS1 order to cash and saw results immediately. From dealing with **390,000** slips of paper per month, the company was already down to only **140,000** just six months after implementing the solution.

More about our activities in this area at
www.gs1.org/ecom

Key initiatives of 2011-2012

- Launched Order to Cash rollout programme in six countries
- Developed partnerships with several retailers at a local level
- Deployed a complete training programme to support rollout



Standards & Services

GS1 Standards & Services provide the interoperability required by trading partners to enable visibility in key business processes all along the supply chain. Our unique collaborative forum, the GS1 Global Standards Management Process, is what makes it possible to create standards that meet the needs of today's complex, multi-tiered supply chains. GS1 Services employ those standards, and provide a global foundation for local service offerings.

Sally Herbert
President, GS1 Standards & System Development and GS1 GDSN, Inc.

Visibility

Identify, capture and share: foundational concepts of the GS1 System

It is harder than ever before to know where products are as they make their way from one end of today's increasingly global and complex supply chains to the other. The ensuing inefficiencies and related costs have led 78% of Chief Supply Chain Officers recently surveyed by Aberdeen to identify improving extended supply chain visibility as a top priority.

Visibility is the ability to know exactly where things are at any point in time, where they have been before, and why. Visibility is not a business process unto itself. It is a capability that allows a company to have real-time knowledge about the flow of products and transactions in its supply chain, and then act upon that information to make decisions that drive business value.
However, there can be no visibility of an item or an asset unless there is a standard way for all stakeholders in the supply chain to identify it, and capture and share information about it. The GS1 System of Standards provides the comprehensive framework that ensures interoperability between these stakeholders.

Traceability, inventory management, shipment tracking – many business processes benefit from the visibility that GS1 Standards provide.

Articulated around these foundational concepts of identify, capture and share, the GS1 System Architecture provides a structured view of how the components of the GS1 System fit together. This year, we published several new technical reference documents about the GS1 System Architecture to help users, solution providers and other external parties understand the GS1 System and guide the development of future standards.

The GS1 System of Standards: a Visibility Framework

IDENTIFY

GS1 Standards for Identification

Company	Product (Trade Item)	Logistics & Shipping	Location	Asset	Services & More
• Global Location Number (GLN)	• Global Trade Item Number (GTIN) • Serialised Global Trade Item Number (SGTIN)	• Serial Shipping Container Code (SSCC) • Global Shipment Identification Number (GSIN) • Global Identification Number for Consignment (GINC)	• Global Location Number (GLN)	• Global Individual Asset Identifier (GIAI) • Global Returnable Asset Identifier (GRAI)	• Global Service Relation Number (GSRN) • Global Document Type Identifier (GDTI) • Global Coupon Number (GCN)

CAPTURE

GS1 Standards for Bar Codes and RFID

GS1 Bar Codes | EPC/RFID

EAN/UPC | ITF-14 | GS1 DataBar | GS1 DataMatrix | GS1 QR Code | GS1 Composite Barcode | EPC HF Passive | EPC UHF Passive

SHARE

GS1 Standards for Data Exchange

Master Data	Transactional Data	Event Data
• Global Data Synchronisation Network (GDSN)	• eCom (EDI) : EANCOM, GS1 XML Business Message	• EPC Information Services (EPCIS)

The GS1 Supply Chain Visibility Framework provides a standards-based approach to identifying, capturing and sharing information throughout the supply chain.

The GS1 Architecture Principles are the foundational concepts of the GS1 System of Standards that supports this framework.

Key initiatives of 2011-2012

- Updated "GS1 Architecture Principles," a document that sets out the architectural principles that underpin the GS1 System and enable us to offer a world-class system of standards to users from multiple industry sectors
- Published "GS1 System Architecture", a simple to read and comprehensive document for users, solution providers and other parties who want to better understand the GS1 System
- Published "GS1 Supply Chain Visibility Framework" white paper

Read the GS1 Supply Chain Visibility Framework White Paper
www.gs1.org/docs/GS1_SupplyChainVisibility_WhitePaper.pdf

Learn more about the GS1 Architecture Group, its role and publications - **www.gs1.org/gsmp/process/arch_group**

GS1 Identification Keys & Attributes

A common language to communicate information between companies

The GS1 System is a framework for visibility, providing organisations with information about any item's movement and enabling them to make more informed business decisions. At its core are GS1 Identification (ID) Keys. These globally accepted identifiers provide a common language to communicate information.

One of the most well-known GS1 ID Keys is the Global Trade Item Number, or GTIN, which is used across the retail supply chain to uniquely identify products and services. A whole range of other GS1 ID Keys also exist, allowing companies to uniquely identify logistics units, locations (such as specific manufacturing sites or warehouses), individual assets (such as computer equipment), returnable assets (such as cage trolleys), documents (such as exams or insurance policies), services (such as a loyalty card) and more. Serialised versions of some of these GS1 ID Keys exist as well, enabling unique identification at the item level.

GS1 ID Keys can be completed with Automatic Identification and Data Capture (AIDC) Attributes or Application Identifiers, in order to provide more data, such as batch numbers, weights or expiration dates. GS1 ID Keys can be encoded in bar codes, EPC/RFID tags or electronic business messages, and are essential to synchronising product data between trading partners.

The swiftly changing landscape of the modern supply chain is driving a need for new identifiers, and GS1 is responding to those demands. Our efforts this past year provided business benefits for the fresh foods sector, the electricity supply market, the finance industry and more. For example, we released the GS1 Global Coupon Number (GCN) and enhanced the definition of the Global Service Relation Number (GSRN) to identify the Service Provider and the Service Recipient, a change that enables the healthcare sector to capture a more precise segmentation of a patient's treatment.

Clear business benefits across multiple sectors

Australia's National Product Catalogue (NPC), a repository for product data about medicines and medical equipment, uses the Global Trade Item Number (GTIN) as the unique primary product identifier for every record. The NPC currently houses **more than 260,000** GTINs.

As Belgian retailer Colruyt started to open shops outside of Belgium, they quickly realized they needed to move from a proprietary identification system to a standardised one.

Moving to GTIN will **simplify their processes** for exporting goods.

The 2011 Consumer Goods Forum Compliance Survey revealed that **78%** of the shipping and receiving locations of retailers and manufacturers have been given a Global Location Number (GLN) to identify them, and **66%** of pallets and units loads are labeled with a Serial Shipping Container Code (SSCC).

For more information about GS1 Identification Key and Attributes, visit **www.gs1.org/id_keys/**

Automatic Identification & Data Capture Test Lab at Ohio University

Key initiatives of 2011-2012

- Released GS1 Global Coupon Number (GCN), a new GS1 ID Key to allow businesses to manage coupons more quickly and securely
- Enhanced the definition of the Global Service Relation Number (GSRN) to identify the Service Provider and the Service Recipient
- Added ability to identify metering points to the Global Service Relationship Number (GSRN), to streamline and secure cooperation between suppliers of electricity and their distributors
- Updated Global Document Type Identifier (GDTI) for financial and virtual documents
- Sponsored 24th annual Automatic Identification & Data Capture Technical Institute at Ohio University, allowing academics and professionals to learn about AIDC technologies and their applications

GS1 BarCodes & GS1 EPC/RFID

Automatically capture data about items in the supply chain

To get the business benefits made possible by GS1 Identification Keys (see pages 34-35), they must be carried by machine-readable technologies for automatic, accurate and efficient retrieval. The GS1 System defines a set of approved bar code symbologies and radio frequency identification (RFID) tags to encode GS1 ID Keys. These bar codes and tags are data carriers, enabling a connection to information.

For more than 30 years, the most famous of these GS1 data carriers, the EAN/UPC bar code, has been making cash registers around the world go "beep" billions of times every day. As the supply chain changes, GS1 changes to meet the needs of supply chain players. New applications and new technologies have given rise to a demand for new data carriers, thus, new GS1-approved bar codes have been created.

For example, the global healthcare community must process greater quantities of data to increase patient safety. Some of these needs are already being met by existing bar codes, such as GS1-128 or GS1 DataBar.

However, for applications where they are not, GS1 Healthcare has adopted the use of GS1 DataMatrix, a 2-dimensional bar code that can put a greater amount of data onto a smaller space, and can be marked directly on items such as small medical and surgical instruments.

In the retail sector, the GS1 QR Code was formally approved for use along with GS1 DataMatrix to give consumers a link to product packaging about product and services via their mobile phones. GS1 DataBar is also becoming the next generation bar code at the point of sale thanks to its growing adoption in fresh foods.

The use of GS1 EPC/RFID is taking off for two key sectors: apparel, where it presents unmatchable benefits for inventory management and electronic article surveillance; and transport, logistics and customs, where it enables real-time visibility of shipments as they cross countries and borders.

Making the connection between information and items

After implementing item-level tagging with GS1 EPC/RFID, a Japanese private-label clothing manufacturer had reduced the time needed to perform a full-store inventory from 8 man-days to **2 man-hours.**

Research by the University of Arkansas found that using item-level EPC/ RFID tagging improved in-store inventory accuracy for retailers **from 65% to 98%** and increased sales **by up to 15 %** in part because the improved inventory accuracy led to improved shelf availability.

To enhance patient safety, enable traceability and reduce costs, the Moinhos de Vento Hospital in Brazil implemented GS1 DataMatrix bar codes on medicines. Return on investment is expected **within 15 months.**

A study undertaken by GS1 France revealed that the use of GS1 BarCodes leads to **11 billion Euros in annual savings** in France.

Learn more about GS1 BarCodes at **www.gs1.org/barcodes** and about GS1 EPC/RFID at **www.gs1.org/epcglobal**

Key initiatives of 2011-2012

- Published GS1 Healthcare Position Paper on GS1 DataMatrix Implementation
- Approved Communicate, Measure & Report (CMR) approach to support adoption goals of GS1 DataBar (Retail Point of Sale) and GS1 DataMatrix (Healthcare)
- Approved 2D GS1 QR bar codes to support B2C Extended Packaging
- Published GS1 Position Paper on Barcodes for Mobile Applications
- Formed a Mission-Specific Working Group (MSWG) to facilitate understanding and interoperability between bar codes and EPC/RFID tags
- Launched EPC/RFID Privacy Impact Assessment (PIA) Tool, enabling companies to perform a comprehensive assessment of privacy risks of any new EPC/RFID implementation and identify privacy controls to be deployed
- Published EPC HF RFID Interface Protocol 2.0.3 and Tag Data Standard (TDS) 1.6 EPC Header for Aerospace & Defence

GS1 Global Data Synchronisation Network

Improved sales, safer patients and increased productivity

Business partners need reliable electronic product and price data to fully leverage the potential of e-supply chain management, comply with regulations, accurately measure performance and provide a trusted source of data for mobile commerce strategies.

The GS1 Global Data Synchronisation Network (GDSN) provides a framework that allows retailers, wholesalers, hospitals and their suppliers to exchange standardised data efficiently, rapidly and automatically. With GDSN, recipients get master data directly from suppliers via a standards-based electronic network that acts as a single point of truth.

The past years have seen the GS1 GDSN extend beyond retail and take hold in healthcare, where deployments have shown that synchronising product master data can improve patient safety, provide productivity gains and serve as the basis for eProcurement in the healthcare supply chain. Impressive case studies of GDSN implementations were prominently featured at the March 2012 GS1 Healthcare Conference.

GS1 teams have pursued efforts to help more business sectors better manage the increasing amount of data they must maintain. At a November 2011 meeting, representatives from 18 of the 30 GDSN-certified Data Pools noted that one of the strategic opportunities for the GDSN was its excellent suitability to vertical market sectors such as food service, healthcare and wine.

We also see the GDSN and its Global Registry being leveraged for programmes beyond its original B2B scope. Data Quality is a key element of GDSN, which also serves as a foundation for our B2C Trusted Source of Data initiatives.

Because data synchronisation enables quicker product introductions, decreased out-of-stocks, more streamlined data management, fewer invoice disputes and more, we know that the GS1 GDSN will become a "must-use" service for successful initiatives in the business-to-business-to-consumer (B2B2C) information supply chain.

Many benefits come from sharing product master data

A 2012 Aberdeen study showed how excellent master data management can save both time and money: knowledge employees at best-in-class companies spend **7 fewer hours every week** searching for information than their peers at companies less advanced in deploying data synchronisation and data quality initiatives.

The complex wine supply chain in France finds tremendous value in having one single, clear and easily accessible repository like the GS1 GDSN. Carrefour synchronised data on **98%** of bottles of wine sold in 2011. Auchan is targeting **100%** data synch for wine before the end of 2012.

The Australia National E-Health Transition Authority (NEHTA) expects their GS1 GDSN-powered National Product Catalogue to save the healthcare sector **AU $200 million** (€154 million) per year.

Stay up to date on the latest about GS1 GDSN at **www.gs1.org/gdsn/news**

Key initiatives of 2011-2012

- Created new Global Product Classification bricks for mushrooms, leaf and stem vegetables, a range of specific cleaning products and more
- GDSN's Global Registry has grown to now hold over 10 million items and 24,000 trading partner locations in 154 countries, a testimony to its widespread adoption and use
- Added major North American retailer Kroger to GS1 GDSN
- Certified 2 new GDSN Data Pools for a total of 30

GS1 eCom for Electronic Data Interchange

Deploying our EDI standards to more companies, new domains

GS1 eCom is our term for Electronic Data Interchange (EDI), the exchange of structured data via standard business messages. GS1 eCom standards allow companies to replace time- and space-consuming paper order forms, invoices, despatch advice notices and more with efficient, accurate and fast electronic messages.

GS1 eCom is not a stand-alone standard. It interacts with other GS1 Standards and identification keys, such as those identifying products (GS1 GTIN), places (GS1 GLN) or logistics units (GS1 SSCC). Thanks to GS1 eCom, retailers, suppliers and wholesalers can work smoothly together, no matter what internal hardware or software they use, no matter where they are, no matter what language their employees speak at the office.

In deployments around the world, GS1 eCom has shown again and again how it can speed up administrative processes, save money, boost customer satisfaction, reduce lead times, minimise inventory and out-of-stocks, and greatly reduce errors.

In the past year, we have seen our GS1 eCom standards really take off in supporting the "order to cash" process (see pages 28-29 for more). GS1 eCom has also had great success in helping banks automate and render more efficient, reliable and transparent the process of ordering and delivering coins and banknotes (see case study page 49).

This year also saw the release of GS1 XML Standards version 3.0, the fruit of our efforts to respond to user feedback and meet new user requirements. This major new release brings a range of additions and improvements including new business message standards for transport and logistics and for product recall. Existing GS1 XML messages have been enhanced to facilitate the use of web EDI, to meet legal requirements on e-Invoicing, to enable their use in healthcare and to provide consumer-related information – all of which open GS1 XML to new sectors and new functions.

Increasing levels of adoption show business benefits

The GS1 Global Office runs an annual survey to assess the state of the worldwide GS1 eCom community. The survey measures implementation of the eCom standards in the **111 countries** where there are GS1 Member Organisations. GS1 eCom is used in **62** of those countries.

In 2011, GS1's EANCOM standard was implemented in **49** countries by more than **100,000** companies. Our XML standards were implemented in **33** countries by more than **22,000** companies.

In the 2011 survey, a trend stands out: the **significant increase** in the use of web-based forms of EDI that are based on GS1 eCom. The forecast for 2012 indicates that this trend will continue.

Information, case studies, survey results and more at **www.gs1.org/ecom**

Key initiatives of 2011-2012

- Published GS1 XML version 3.0
- Became a United Nations-recognised Non-Governmental Organisation (NGO), allowing us to participate directly in UN/CEFACT
- Saw GS1 Identification Keys included in Danish and Mexican national invoicing standards
- Added many elements to our set of eCom implementation tools, including "Ten Steps" starters' guide, new case studies, implementation survey reports and more

In a 2011 Aberdeen study, **78%** of Chief Supply Chain Officers identified improving extended supply chain visibility as a top priority

GS1 EPC Information Services (EPCIS)

Better visibility and intelligence by knowing what, when, where, why

GS1 EPCIS is a standard that enables business partners to share real-time information about physical events in the supply chain. EPCIS data logs four types of information: what the object being documented is, where it is, the date and time when an event occurred, and why the object is moving. EPCIS is data carrier–neutral and can be used with both GS1 BarCodes and GS1 EPC/RFID.

With the data and intelligence provided by GS1 EPCIS, businesses can monitor the location and state of individual items as they pass through the supply chain – thereby increasing safety, security, accuracy, efficiency and traceability. EPCIS data can be shared within a company and also between a company and selected external stakeholders.

The past year was one of real momentum for GS1 EPCIS, with pilots and implementations in animal traceability, healthcare supply chain integrity, cross-border trade and shipment tracking, wine traceability (see case study page 50), and more. These deployments have all shown how GS1 EPCIS provides visibility from one end of the supply chain to the other.

Key initiatives of 2011-2012

- GSMP Work Group launched for EPCIS and Core Business Vocabulary to broaden their scope and applicability for a wider range of sectors
- EPCIS employed as basis for the "information pipeline" underpinning the European Commission's CASSANDRA Project designed to make container security more efficient and effective
- GS1 initiatives with the Asia Pacific Economic Cooperation (APEC) led to the identification of EPCIS as one of the solutions for supply chain visibility in the APEC Ministers of Trade recommendation on Supply Chain Efficiency

More about EPCIS at **www.gs1.org/epcis**

Inaccurate or incomplete data led to poor decision-making and low productivity for **55%** of companies in a 2011 Aberdeen study.

Data Quality for B2B2C

A highly strategic pillar of an efficient and agile supply chain

Companies today widely agree that there is no point in business-to-business (B2B) data synchronisation without data quality. Indeed, improving data quality is a great way to measurably increase efficiencies and reduce costs in an integrated supply chain.

In response to feedback from our global community of users, in the past year, GS1 has worked to extend our focus on data quality beyond B2B to cover business-to-consumer (B2C) interactions as well. In today's "information supply chain," (B2B2C) we know that GS1 user companies need tools that allow them to stay agile and responsive in a rapidly changing business environment.

That is why we are enhancing the GS1 Data Quality Framework to enable it to support e-commerce and mobile applications. We will build upon the excellent B2B foundation of the GS1 Data Quality Framework as we identify and deploy best practices to support multi-sector B2C as well. Our teams have been working hard to understand the needs of our users and what is necessary to extend and develop the Framework to provide our stakeholders the support necessary to succeed.

Key initiatives of 2011-2012

- New direction for Data Quality approved by GS1 Management Board, to expand scope from B2B to B2B2C
- GS1 Member Organisation (MO) Inventory of Data Quality Programmes undertaken and published
- Inventory results reveal that data quality is expected to grow in importance over the next three to five years, and that there is strong MO support for the concepts of the GS1 Data Qualify Framework

Follow the evolutions of the GS1 Data Quality Framework
www.gs1.org/gdsn/dqf

GS1 Global Standards Management Process

Collaboratively building standards that deliver business value

The GS1 Global Standards Management Process (GSMP) is a unique collaborative forum where industry users work together to create a more efficient supply chain. Through the use of a comprehensive set of methods and rules, the global GS1 user community submits their business requirements and then participates in the creation of standards and guidelines to meet these needs.

We have now successfully consolidated our efforts into one single standards development landscape with clearer definitions of the roles and responsibilities of all involved. The new process is a much more industry-driven engagement model that better brings community needs into the standards development process.

We also implemented a series of projects to increase participation, improve efficiencies and bring greater clarity and transparency to the GSMP. For example, a new Work Request system enables GS1 staff to proactively manage challenges and enables everyone involved to monitor milestones.

More than 330 companies have signed the GS1 Intellectual Property (IP) policy, which allows us to deliver royalty-free standards to the GS1 community to the best of our ability. Thanks to the benchmarking we performed of our IP policy against those of other standards organisations, we have identified ways to improve its administration and clarify our communication.

A major accomplishment in our goal to offer complete transparency and visibility was the launch of GSMP InSight, a website where the GS1 global community can view work group progress and status reports at executive, management and project levels. These reports highlight areas where support or assistance is needed and ensure that project targets remain aligned with our broader objectives, goals, strategies, and measures. We are convinced that effective measurement and management of our work is vital to being a best-in-class organisation.

Working to deliver a best-in-class standards development process

Our Autumn GS1 Standards Event in Cologne, Germany in September 2011 brought together **277** individuals from **105** companies and organisations, representing **28** countries. Our Spring Event in Brooklyn, New York in March 2012 brought together **225** individuals from **78** companies and organisations, representing **25** countries.

More than **272** work requests were logged between July 2011 and June 2012. **85%** of the Maintenance Work Requests were closed on time, and **100%** of the Development Work Requests were delivered on time.

Only **2%** of GSMP members responding to our annual satisfaction survey rated the service of the GSMP staff as Unsatisfactory or merely Fairly Satisfactory. This is a sharp improvement over previous years' results in those categories.

View fully transparent reports of our activities at GS1 InSight **www.gs1.org/gsmp/insight**

Key initiatives of 2011-2012

- Published new version of the GS1 General Specifications with updates that allow GS1 Standards to better support the fresh food sector, B2C extended packaging, the electricity supply market and the finance industry
- Deployed a new Work Request system
- Reviewed and clarified our GS1 IP Policy
- Launched New Attendee Programme for our events, including pre-event education webinar and personal phone calls and e-mails to new members
- The complete list of all deliveries and accomplishments of the GSMP are available in the GSMP InSight reports available at **www.gs1.org/gsmp/insight**

Visits to the GEPIR global website have **doubled** between 2011 and 2012.

GS1 GEPIR

Contact details for companies that use GS1 Standards in a few clicks

Whether you are a consumer looking for the manufacturer of a product you have purchased or a retail chain buyer looking to source new products, GS1 GEPIR, the Global Electronic Party Information Registry, can help. The GS1 GEPIR network provides basic contact details for over one million companies that use GS1's unique numbering system.

In the past year, activity has been focused on improving and enhancing the quality of the GEPIR network, including efforts to ensure that GS1 Member Organisations (MOs) communicate their latest data and ensure their systems are accessible and available to their users.

With this work to improve both the functionality of the network and the quality of the data communicated through it well underway, we are now turning our attention to updating our strategy for GEPIR's continued improvement.

In particular, we are striving to include more participation from GS1 MOs so their representation of their community's needs is part of GEPIR's evolution. The requirements of users around the world must be identified and addressed in order for the value of GEPIR to grow.

Key Initiatives 2011-2012

- Participation of 108 of the 111 GS1 Member Organisations
- Successful implementation of GEPIR version 3.2 for GS1 Global Office GEPIR Hosting Service
- Significant progress on development of GEPIR 4.0
- Initiation of a data quality outreach program to ensure that GS1 Member Organisation s' data is correct and updated in a timely fashion

Watch the GEPIR video:
http://youtu.be/NC3QLKZIAA0
Give GEPIR a try: **gepir.gs1.org**

GS1 Member Organisations **in Action**

The GS1 Global Office oversees the development of the GS1 System, but the real day-to-day action takes place at our 111 Member Organisations around the globe, where more than 2,000 GS1 team members help local users benefit from GS1 Standards. In the next pages, read about just a few of the many projects underway.

A group of hospitals and pharmaceutical suppliers find that GS1 Standards help **prevent errors** and **increase efficiency.**

GS1 Brazil

Patients win when hospitals choose GS1 Standards

Hospitals and healthcare clinics are busy and complex environments. Although all efforts are made to ensure the right drugs are administrated to the right patients at the right time in the right dosage, doctors and nurses are only human, and that means that mistakes are sometimes made. The results can be serious, even fatal.

A group of Brazilian hospitals and their suppliers have adopted GS1 Standards to help prevent medication errors and increase efficiency. Albert Einstein Hospital, Santa Joana Hospital's Pro Matre Maternity ward, Moinhos de Vento Hospital and Oswaldo Cruz Hospital worked in partnership with pharmaceutical companies Baxter, Eurofarma and Isofarma to automate the dispensing and administering of medicine, with the support and counsel of GS1 Brazil.

Read the complete case study:
www.gs1.org/MOIA12
More about GS1 Brazil:
www.gs1br.org

A GS1 DataMatrix bar code, encoded with a GS1 GTIN, was printed by the pharmaceutical companies right on each unit dose of medication, then scanned by the hospitals as medication arrived.

Several times every day, hospital pharmacists receive a computerised list with the medical prescriptions for each patient. The medication is prepared and the GS1 DataMatrix on each unit dose is scanned. After that, the system itself performs a double check to verify that the right medicine was dispensed in the right dose to the right patient. The nurses who administer the medication can be confident that the risks of mistakes have been limited.

Many benefits for both hospital operations and patient safety have been seen, including a decrease in medication errors, the prevention of counterfeiting, measurable cost savings, full transparency, and an overall increase in efficiency. The GS1 Standards powering the system would also enable an accurate and rapid recall, if ever there were the need for one.

Built on GS1 Standards, the CashEDI system has **increased efficiency, transparency** and **reliability** in the German cash value chain.

GS1 Germany

Making cash management more efficient and reliable

In Germany, although credit cards are popular and the use of online and mobile payment systems is growing, the use of cash is still the norm. Until quite recently, the cash cycle in Germany was almost entirely overseen by propriety systems. Most steps required manual input, a costly, inefficiently, opaque and risky way of doing business.

The extent of the problem was revealed when a client of a cash-in-transit company discovered that the firm had been using its money fraudulently. The incident exposed the inadequacy of the system and prompted all parties involved in cash management to completely rethink the way they worked together.

Stakeholders knew they needed to create a modern, integrated, electronic process that was transparent, efficient and reliable – in other words, exactly what the GS1 System of Standards is known to offer. GS1 Germany was selected to design a new cash management system in collaboration with the German Federal Bank.

The team defined new payment processes that deployed GS1 Standards all along the cash cycle, and recommended a system of Cash Electronic Data Interchange, or CashEDI, for all business transactions concerning cash money.

Participants in a cash transfer identify themselves with a reliable and globally unique GS1 GLN. Cash deposits and withdrawals are triggered via electronic business messages, a real time-saver. Containers of cash on their way to or from bank safes are labelled with GS1 BarCodes, enhancing efficiency, boosting transparency and enabling real-time traceability.

The German system is recognised as a frank success. Fifteen European Central Banks have become members of GS1, and Spain, France and Italy are already building their own GS1-powered CashEDI systems.

Read the complete case study:
www.gs1.org/MOIA12
More about GS1 Germany:
www.gs1-germany.de

Italian wine producers **boosted customer service.**

Hong Kong wine importers **ensured better on-shelf availability.**

GS1 Hong Kong and GS1 Italy

EPCIS and GS1 keys bring visibility to wine supply chain

Antinori, Ceretto, Le Macchiole and Ricasoli, four leading Italian wine producers, ship wines directly to retailers and buyers in Hong Kong. All their customers put a high priority on having shipment schedules met and inventories managed efficiently.

GS1 Hong Kong and GS1 Italy saw an opportunity to serve their users on both sides of these business relationships. They launched a cross-border solution to track and trace entire shipments of wine from the moment they left Italian vineyards until they reached wine storage facilities in Hong Kong.

The wine producers used elements from the GS1System of Standards as well as GS1 Italy's EPC Information System (EPCIS) Network and GS1 Hong Kong's ezTRACK™ Network (which are connected via Hong Kong's Discovery Service) to enable this real-time tracking of wine products.

Each wine bottle is affixed with an EPC/RFID tag embedded with a globally unique SGTIN identification number enabling item-level inventory management. Another EPC/RFID tag, this one associated with a GS1 Serial Shipping Container Code (SSCC), is attached to each pallet of wine, allowing trading partners to monitor shipping status.

The data gathered are automatically uploaded to the Italian and Hong Kong networks. Users along the entire supply chain have real-time visibility over shipment status, and can take quick action to resolve any problems that may arise.

Italian wine producers have enhanced their relationships with Hong Kong buyers who can now more proactively manage their inventories and in doing so ensure on-shelf availability. Similarly, because the Italian vineyards can now offer a total guarantee on the timeliness and accuracy of their product shipments, they are also able to gain trust and boost their reputations.

Read the complete case study:
www.gs1.org/MOIA12
More about GS1 Hong Kong:
www.gs1hk.org
More about GS1 Italy:
www.indicod-ecr.it

The pilot study demonstrated that retailers can receive **more frequent deliveries** without increasing transport movements or costs.

GS1 Netherlands

Combining deliveries to better serve the demanding consumer

Today's consumers expect a large choice of products available for them every time they go to the store. Retailers need to meet these expectations, which creates an increasing challenge to avoid empty shelves.

The only real solution is to reorder as soon as stock has been sold. Products flow from manufacturers to retail points of sale, cross-docking at stops along the way without slowing down. Deliveries are more frequent and drop sizes are smaller. It is a challenge to keep trucks fully loaded.

As part of an effort designed to reduce "empty kilometres," Dutch retailers and manufacturers set out to arrange their orders and deliveries so that their logistics services providers could combine goods from different manufacturers into full truckloads.

Dutch retailers C1000 and Sligro and suppliers Mars and H.J. Heinz, and LSP Nabuurs worked on a pilot with the support and counsel of the GS1 Netherlands Supply Chain Steering Group. GS1 Standards were key to the project's success. Combining loads reduced truck movements while speeding up receiving times at warehouses and lowering stock levels.

Several project teams are now working at solutions to improve the process. For example, pilot participants discovered that because drop sizes are reduced, trucks are full of half-full pallets. This created the need for harmonised pallet heights to enable double-stack loading. To achieve this, extra master data and implementation rules are needed to know which pallet can be stacked onto another.

This system results in an extremely lean supply chain with minimised safety stocks. Naturally, that means that any disruption leads to out-of-stocks, so very reliable forecasting and open collaborative exchange of sales and stock information between retailers and manufacturers are mandatory.

Read the complete case study:
www.gs1.org/MOIA12
More about GS1 Netherlands:
www.gs1.nl

By rethinking their structure and business practices, GS1 Portugal has become **more efficient, more effective** and **closer to users**

GS1 Portugal

Clean sweep from housekeeping project benefits users

In 2009, GS1 Portugal began a new management cycle with a leadership team focused on achieving sustainable growth and a greater openness to the market. As part of this transformation, GS1 Portugal launched a modernisation project that was baptised "Housekeeping."

From September 2010 to December 2011, the team set out to meet three goals: organisational redesign, business process reengineering, and the design and deployment of a new system architecture.

The business process reengineering activity identified the optimal value chain of GS1 Portugal and the processes that support it. Efficiency, effectiveness and quality of services were guiding principles. Among other actions, GS1 Portugal set out to centralise all contacts with member companies and reduce the effort required to perform administrative activities.

The organisational redesign project led to the creation of a Customer Support Department with an integrated view of user companies, resulting in significant improvement in the quality of services provided. Additionally, two formerly distinct areas were combined into a single Standards & Innovation Department, and a Marketing Intelligence activity was deployed to enable a more pro-active approach to the market.

Finally, GS1 Portugal implemented Customer Relationship Management (CRM) tools, document management software, a modern intranet, a revamped website and a completely refreshed financial and accounting system.

With these housekeeping tasks now finished, GS1 Portugal has clearly become a more efficient organisation, prepared for the future and benefitting from an enhanced corporate identity. Most importantly, staffers at GS1 Portugal now have the time to devote to what really matters: providing high quality services to their members and the market as a whole.

Read the complete case study:
www.gs1.org/MOIA12
More about GS1 Portugal:
www.gs1pt.org

Names & Numbers

We are pleased to share here the results of our 2011–2012 financial year, information about our governance, and contact details for our GS1 Member Organisations around the world.

Philippe Wéry
Chief Financial and Administration Officer, GS1

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. Consolidated in euros, the total revenues of GS1 MOs in 2011 was 10% higher than the previous year. Excluding the impact of currency rates, the increase is 9.8%, compared to 4.2% the year before. Regions have grown (without foreign exchange impact) very differently from each other: Asia Pacific at 3.3%, North America at 4.2%, Europe at 11.8%, Latin America at 18.3% and MEMA at 45%. There were some strong differences within regions as well, with extremely high growth in Turkey, South Africa, Argentina, Colombia, Germany, Italy, Brazil and France; strong growth in Sweden, Mexico, Australia and Canada; but declines in Taiwan, Netherlands and Japan.

GS1 Global Office – Fee Evolution

In 2011–12, the GS1 Global Office's revenues amounted to €25.9M, an increase of €1.2M or 4.9% versus the year before. Because of the strong growth in global revenues and despite the new GDSN funding model and the declining MO percentage fee, our budget 2012–13 foresees a modest increase in Global Office fees of 3% or €0.8M to reach €26.7M.

With the implementation of an organisational effectiveness project and the new sustainable funding model, we expect fees to remain essentially stable for the next several years.

Income Statement and Headcount

Our revenues increased at €25.9M compared to €24.7M in 2010–11 while our operating expenses increased by 5.8% to €23.7M versus €22.4M the year before. Our consolidated income statement shows a positive result of €2M for the fiscal year ending June 2012. Both our base business (managed from the GS1 Central Office) and GDSN contributed positively to this positive result. We continued to build reserves to cover and/or speed up current and future investments in new technologies and applications, but also to have the necessary financial resources in case of adverse currency fluctuations. In the last nine years, we have built accounting reserves of €12.2M.

On a cash basis, we increased our reserves by €1.7M to reach €9.2M at the end of June 2012.

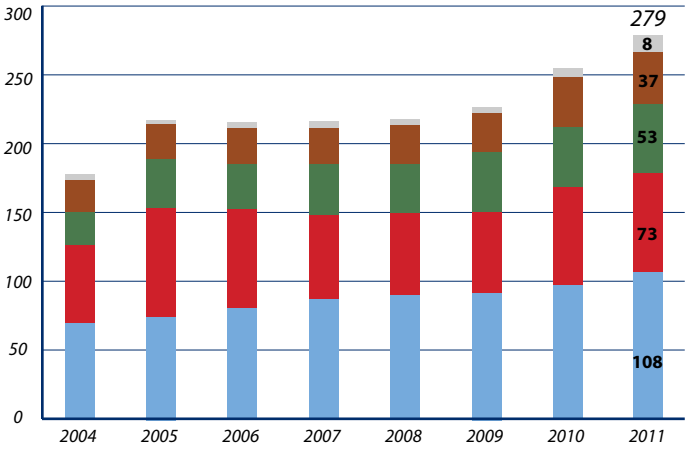
In terms of types of expenses, our main investment remains our people, with 77 staff members at the end of June 2012, an addition of 5 full-time employees compared to last year. Discretionary spending, which includes travel, consulting, marketing and large user meetings/events increased by €0.2M versus the prior year, while our fixed expenses went down by €0.1M.

GS1 Member Organisation Revenue: Growth by Region

	Growth 2011/2010 %	Growth 2011/2010 w/o FX *
Middle East/ Mediterranean/Africa	*30.3%*	*45.0%*
Latin America	*12.3%*	*18,3%*
Asia Pacific	*9.0%*	*3.3%*
North America	*6.6%*	*4.2%*
Europe	*10.7%*	*11.8%*
TOTAL	***10.0%***	***9.8%***

* Foreign Exchange Impact

GS1 Member Organisation Revenue: Historical Perspective



Figures in millions of euros

GS1 Global Office Revenue: Historical Perspective

Figures in millions of euros	04/05 Actuals	05/06 Actuals	06/07 Actuals	07/08 Actuals	08/09 Actuals	09/10 Actuals	10/11 Actuals	11/12 Actuals	12/13 Budget
GS1 Central Office	*11.6*	*13.8*	*16.4*	*16.7*	*16.9*	*22.5*	*22.7*	*23.9*	*24.7*
EPCglobal Inc.	*5.4*	*7.2*	*7.8*	*6.7*	*6.2*	-	-	-	-
GS1 GDSN Inc.	*0.6*	*3.2*	*2.5*	*2.2*	*1.8*	*2.0*	*2.0*	*2.0*	*2.0*
Total GS1 Global Office	***17.6***	***24.2***	***26.6***	***25.6***	***24.9***	***24.5***	***24.7***	***25.9***	***26.7***
Staff (FTEs)	*58*	*76*	*79*	*79*	*82*	*74*	*72*	*77*	*83*
Cumulative Reserves *	***2.0***	***3.2***	***4.6***	***6.3***	***6.9***	***8.1***	***10.2***	***12.2***	***12.3***

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

GS1 Global Office Consolidated Results 2011/12

Figures in millions of euros	Consolidated	GS1 Central Office	GDSN Inc.
Revenue	***25.9***	***23.9***	***2.0***
Fixed/Recurring Expenses	*2.6*	*2.3*	*0.3*
Discretionary Expenses	*7.6*	*6.6*	*1.0*
Payroll Expenses	*13.5*	*13.0*	*0.5*
Operating Expenses	***23.7***	***21.9***	***1.8***
Operating Result	***2.2***	***2.0***	***0.2***
Other Revenue / (Expenses)	*(0.2)*	*(0.2)*	*(0.0)*
Result for the period	***2.0***	***1.8***	***0.2***

Consolidation based on budget rate (1.30 USD/EUR). Fiscal year 2011/12 ended 30/06/12

GS1 Management Board

José Lopez	Executive Vice President, Operations & GLOBE Chairman, GS1	Nestlé
Timothy Smucker	Chairman of the Board Vice-Chairman & Chairman Emeritus, GS1	The J. M. Smucker Company
Zong-nan Wang	Chairman Vice-Chairman, GS1	Bright Food (Group) Company
Atsunobu Agata	Vice President Information Technology, President Integrated Business Services	AEON
Rakesh Biyani	Director & Chief Executive Officer of Retail	Future Group
David Calleja Urry	Chairman & Chief Executive Officer	GS1 Malta
Bob Carpenter	President & Chief Executive Officer	GS1 US
David Ching	Senior Vice President	Safeway Stores
Kevin M. Dougherty	Group Vice President & Chief Supply Chain Officer	The Kroger Company
Michel Eeckhout	Executive Vice President	Delhaize Group
Rollin L. Ford	Executive Vice President & Chief Administration Officer	Wal-Mart Stores
Werner Geissler	Vice-Chairman Global Operations	The Procter & Gamble Company
Pierre Georget	Chief Executive Officer	GS1 France
John Gilbert	Chief Executive Officer Americas	DHL Exel Supply Chain
Carlos Mario Giraldo	President of Retail Business Operations	Almacenes Éxito
Sonny King	Chief Executive Officer	Advantage Sales & Marketing
Philippe Lambotte	Senior Vice President Global Supply Chain Management	Merck Inc.
Miguel A. Lopera	President & Chief Executive Officer	GS1 Global Office
Meinrad Lugan	Member of the Board of Management	B. Braun Melsungen
Silvester Macho	Chief Information Officer	METRO Group
Rodney McMullen	President & Chief Operating Officer	The Kroger Company
Mike McNamara	Operations Development & IT Director	Tesco
Daniel Myers	Executive Vice President Supply Chain	Kraft Foods
Maria Palazzolo	Chief Executive Officer	GS1 Australia
Miguel Ángel Peralta	Chief Executive Officer	GS1 Mexico
Joseph Phi	Global President Logistics	Li & Fung Group
Jörg Pretzel	Chief Executive Officer	GS1 Germany
Dave Rogers	Executive Vice President	Daymon Worldwide
Ajit Shetty	Honorary Chairman	Janssen Pharmaceutica
Pier Luigi Sigismondi	Chief Supply Chain Officer	Unilever
N. Arthur Smith	Chief Executive Officer	GS1 Canada
Joseph Spagnoletti	Senior Vice President & Chief Information Officer	The Campbell Soup Company
Hiromu Ueno	Chief Executive Officer & Senior Executive Director	GS1 Japan

The information on these pages was correct when we went to press.
For the most up-to-date details, please visit **www.gs1.org/governance**

GS1 GDSN Inc. Board of Directors

Milan Turk, Jr.	Managing Director, Global Customer eCollaboration Chairman, GS1 GDSN Inc.	The Procter & Gamble Company
Nihat Arkan	Chief Executive Officer	1WorldSync
José María Bonmatí	Chief Executive Officer	GS1 Spain
Roman Coba	Global Chief Information Officer	McCain Foods
John Collier	Vice President of Architecture & Product Management	Wal-Mart Stores
Ghislain Esquerre	Supply Chain Solutions & Services Centre Director	Carrefour
Rafael Florez	Chief Executive Officer	GS1 Colombia
Sally Herbert	President, Standards & System Development and GS1 GDSN Inc.	GS1 Global Office
Antonius Kromwijk	Assistant Vice President GLOBE Program Office Management	Nestlé
Gary Lynch	Chief Executive Officer	GS1 UK
Kirby McBride	President & Chief Executive Officer	FSE
Maria Palazzolo	Chief Executive Officer	GS1 Australia
John Phillips	Senior Vice President Customer Supply Chain & Logistics	PepsiCo
Pat. Salmonese	Vice President & General Manager, Product Master Data Management Business Unit	GXS
Antonio Salto	Director, IS Integrated Supply Chain, Manufacturing & RDQ	Kraft Foods
Tom Werthwine	Director, Industry Standards	Johnson & Johnson Health Care Systems
Dr. Gerd Wolfram	Managing Director	METRO SYSTEMS

EPCglobal Inc. Board of Governors

Dr. Sanjay E. Sarma	Professor, Mechanical Engineering Chairman, EPCglobal, Inc.	Massachusetts Institute of Technology
Michael P. Rose	Vice President Supply Chain Visibility Vice-Chairman, EPCglobal, Inc.	Johnson & Johnson
Angel Becerra Tresierra	Chief Executive Officer	GS1 Peru
Robert (Bob) Carpenter	President & Chief Executive Officer	GS1 US
Bill Connell	Senior Vice President Transportation, Reverse Logistics, Collaboration	Macy's, Inc.
Meg Greenhouse	Vice President Strategy, Innovation & Communications	Wal-Mart Stores
Valerie Hoge	Vice President, Consumer, Life Sciences & Healthcare	Deutsche Post / DHL
Louis Kratz	Vice President Corporate Logistics & Sustainment	Lockheed Martin Corporation
Antonio Mazzariello	Head MDG & Project Lead CCEx	Novartis Pharma
Frank Peters	Head of Logistics IT - Processes & Systems	Daimler
Paul Peters	Deputy Assistant Secretary of Defense for Supply Chain Integration	Office of the United States Secretary of Defense
Jörg Pretzel	Chief Executive Officer	GS1 Germany
N. Arthur Smith	Chief Executive Officer	GS1 Canada
Milan J. Turk, Jr.	Managing Director, Global Operations	The Procter & Gamble Company
Hiromu Ueno	Chief Executive Officer & Senior Executive Director	GS1 Japan
Christian von Grone	Chief Information Officer	Gerry Weber International
Paul Voordeckers	President GS1 Industry Engagement and EPCglobal, Inc.	GS1 Global Office
Joachim Wilkens	Unit Leader Supply Chain Development	C&A Group
Dr. Gerd Wolfram	Managing Director	METRO SYSTEMS

GS1 Extended Leadership Team, June 2012

GS1 Leadership

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

Miguel A. Lopera, President and CEO

Malcolm Bowden, President, Global Solutions

Sally Herbert, President, Standards & System Development and GS1 GDSN, Inc.

Patrick Vanlombeek, Chief Marketing Officer

Paul Voordeckers, President, Industry Engagement and EPCglobal, Inc.

Philippe Wéry, Chief Financial and Administration Officer

The GS1 Extended Leadership Team is composed of the following people (as shown in the photo above)

Seated, left to right: **Anouk Chavel, Patricia Alhadeff, Kerry Angelo, Valérie Depoortere, Malcolm Bowden, Philippe Wéry**

Standing, left to right: **Miguel A. Lopera, Christine Cecil, Henri Barthel, Anders Grangard, Regenald Kramer, Susie McIntosh-Hinson, John Keogh, Jim Bracken, Monica Walsh, Paul Voordeckers, Scott Gray, Robert Bersani, Enzo Blonk, Ulrike Kreysa, Patrick Vanlombeek, Elizabeth Board, Nicholas Fergusson, Sally Herbert, Andrew Hearn, David Buckley, Peter Alvarez, Massimiliano Minisci, (Diane Taillard - missing from photo)**

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The following information was correct when we went to press.
For the most up-to-date information, please visit **www.gs1.org/contact**

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