



The Global Language of Business

What happened at the 2019 Industry & Standards Event?

Executive summary of main accomplishments



In Lisbon, Portugal in June 2019, 311 people from 35 countries worked together at the GS1 Industry & Standards Event to *transform business together*.

Thanks to the commitment and energy of everyone present, the week was *incredibly productive and successful*.

Here is a brief summary of some of the key achievements.

MONDAY, 9 SEPTEMBER 2019

GDSN User Group Meeting

During the meeting we reviewed GDSN Governance and the structure of the governing board. We also reviewed the GS1 Global Data Model (GDM) work to date and received an update from the Attribute for Business Definitions (ADB) Mission Specific Work Group (MSWG). GS1 in Europe gave an update on several initiatives that they are working on that may impact GDSN. In depth discussions regarding Global Product Classification (GPC) and its use in GDSN were shared by participants. GS1 France led a discussion on Product Lifecycle Management and Code List improvements suggestions. Several other work requests that needed GDSN User Group input were also discussed. After the GDSN User Group meeting was ended a session to discuss Images was led by the community. All meeting notes and actions will be posted in the GDSN User Group Community Room.

Bim, Bam, Boom: The future of the Construction Industry

A well-attended session in which attendees were first provided with the basics on this major industry: its ecosystem, its main challenges and the large gap that exists between the current level of digitalisation and the future BIM (Building Information Modelling) requirements using the Digital Twin. In a second part, the current global activities were highlighted (including the GS1 Industry User Group activities), while in the last part of the session nine MOs gave the participants a glimpse into their engagement (pilots, projects and implementation) with the Construction industry.

Identification Standards Maintenance Group

The session included educational topics, standards development, and future opportunities. Education topics included related work with ISO new rectangular formats on Data Matrix, how to leverage University of Pittsburgh testing labs, and exciting work to adopt digital link in the transport and logistics Scan 4 Transport. Great progress was made to advance our standard development to the next steps. Following topics were motioned forward for community review. Tag Data Standard 1.13 which enables the identification of Vessel Numbers and incorporate Fighting Illicit Trade feedback. Invalid pair of serial numbers, resolve multiple barcodes, and add ability to scan variable measure trade items in general distribution. The team was encouraged and excited to share future opportunities and issues in their local markets such as co-branding issues in GS1 Italy, and Traceability needs from GS1 Russia.

EDI Semantics Project Team

A core element of the GS1 EDI strategy approved in May 2018 is to adopt a semantic approach for the future development of our GS1 EDI portfolio. A project team was set up for this purpose, it is not yet integrated into GSMP. The team met twice in Lisbon and made good progress. The first public deliverables will be available early 2020.

A Traceability Strategy for Everyone

Working as "One GS1" the most important work we are progressing to ensure GS1 relevance for decades to come. Our MO Champions reviewed the progress on the strategic workstreams, what is available today, what is in the immediate near future and how you can get involved in supporting and contributing to the strategy (even if you're not a GS1 colleague).

Lunch & Learn: AIDC & Digital Link: The art of the possible

In this interactive session, we address real-world challenges that industry is facing. For each challenge shared, we focused on the AIDC impacts and opportunities and how Digital Link can help increase efficiency. We'll look at new data carrier applications that are available for use today, discuss industry's AIDC readiness, and learn about the AIDC and Digital Link work that is flowing into our GS1 standards process. Enjoy a live demonstration of Digital Link's ability to resolve industry challenges from manufacturing to the consumer. In short: discover "What's Possible" for AIDC & Digital Link.

Sensors & GS1 standards

We focused this session to enable a broad conversation about sensors, their applications, and ways that sensor deployment will continue to evolve to solve new business challenges. We started with presentations from 5 industry guests: two solution providers, one retailer, one rail company and an industry leader in food traceability. Each presentation included practical case studies of sensor use in food transportation, food quality measurement, IoT solutions in rail, "smart" sensor and IoT enabled shipping containers, and temperature/RFID sensors in underground cable management. We then had an hour panel discussion with the speakers driven by audience questions that addressed topics such as: use of EPCIS in capturing and using information from sensors, barriers to adoption for new applications, excitement for future "smart" enabled applications, and the continued challenges around enabling business-to-business data interoperability.

Moving beyond the hype: what is GS1 doing about blockchain?

Blockchain technology continues to generate interest among supply chain stakeholders. Companies large and small are making investments to experiment and implement data sharing solutions that leverage distributed ledgers. GS1 is active in a number of areas in order to ensure our users think about data sharing with blockchain technology in an efficient and effective manner and enhance, not risk, interoperability. We reviewed these activities, discussed what users are in search of with blockchain and how GS1 can position itself effectively to help industry continue to move beyond the hype.

New Training and Education Programmes to support GS1 standards implementation

Sharing best practices from 5 GS1 Member Organisations, GS1 Hungary, GS1 China, GS1 Brasil, GS1 Switzerland and GS1 Portugal: New innovative ways to engage our customers with our Training programmes, a view on new area to engage our users, the many Knowledge centre or competence centres that many MOs are hosting. The session was split into two segments, one in the morning at the hotel covering GS1 Training in Action in 5 Countries and the afternoon, Training in the Field at GS1 Portugal outstanding competence centre, seeing the amazing facilities and amazing interactive ways to learn about GS1 Standards.

TUESDAY, 10 SEPTEMBER 2019

Meeting the needs of industry and consumers – GS1 standards for fresh foods

Across the world, consumer demand for fresh food products is increasing at the same time consumers are demanding more transparency and seamless shopping experiences across paths of purchase. To meet these needs, the fresh foods industry recognises the benefits of GS1 standards for complete, accurate data. Better data means better service. This session showcased implementations of GS1 standards for fruit and vegetable, meat and poultry and fish, seafood and aquaculture. Topics included the foundational use of GS1 identification keys – GCP, GLN and GTIN, the use of GS1 DataBar and 2D barcodes, as well as industry insights on traceability drivers and use of EPCIS. Best practices from industry leaders and GS1 Member Organisations highlighted the need for business and technical experts from user companies, industry associations, Solution Providers and GS1 Member Organisations to work together. How do companies begin or advance more quickly to implement? The answer from our presenters was: clearly define the business challenge you are trying to solve and collaborate with all key stakeholders to implement successfully.

OpenPEPPOL workshop

GS1 signed a Memorandum of Understanding with OpenPEPPOL on the 27th of March 2019. Two experts highly engaged in OpenPEPPOL gave well-received presentations on the organisation, the global adoption of the PEPPOL system and the technical architecture of the network. This led to a lively exchange of views on the potential opportunities for the GS1 community of users, solution providers and member organisations.

GS1 meets Fintech: Standards in financial services

Following an update on the Global Forum workshop "LEI – going beyond regulations," the session explored GS1's strategic opportunities in the financial sector, including the use of Fintech. Michal Piechocki, CEO of Business Reporting – Advisory Group took us on a journey of data usage in the financial world and discussed the use of standards at financial institutions and the value they deliver. He illustrated opportunities for GS1 standards in the financial industry and even a specific concept for digital receipts based on GS1 standards such as the Digital Link. Michal further spoke about his work with GLEIF on digital credentials, which could present



an additional service that the GS1 LOU and LEI Registration Agents could offer in addition to the LEI. A recording of this session is available upon request. Please contact Rosalie Clemens, Rosalie.clemens@gs1.org.

Digital Supply Chain (in built environment) workshop

This session was the 4th workshop of the Industry User Group of the same name which was launched in March 2019 and is a joint effort of standards organisation buildingSmart International (bSI), GS1 and some major industry players. In the morning, it included an intensive workgroup brainstorming activity as well as the presentation of a whitepaper (draft version) on linking the dots between the various standards and regulations (bSI, GS1, CEN/ISO and BIM) : the aim is to enable a data driven collaboration across the life cycle of built assets. In the afternoon the session participants got an insight in some exploratory activities around linked data (a.o. Digital Link), pilots involving the revolutionary use of GS1 identifiers, EPC-RFID and sensors in cabling (utilities) as well as an update on a series of current use cases involving all of the above-mentioned standards including product data templates. The use case presentation from one of Scandinavia's major constructing companies showed the major efficiency gains companies can achieve through the use of standardised data. Next (and 5th) workshop is planned for November 25th and will take place in Munich at IBM's Watson IoT Centre.

GDSN Validation Rules sub-team

The ~20 attendees of the GDSN Validation Rules subteam progressed the open GSMP Work Requests and agreed to progress a number of items to Community Review. The three more strategic discussion topics included: A detailed discussion on introducing "warnings" (not just pass/fail validations); Agreement to update the [How to Write GDSN Validation Rules](#); Consensus on piloting a new, more resource efficient, methodology for progressing Validation Rules. The Validation Rules provide a solid foundation for improving Data Quality within GDSN and, potentially, for other GS1 related services more broadly.

EPCIS CBV 2.0 Mission Specific Work Group

This required the full day and half, and we could have used more time to address the multiple work streams. Topic 1: There was a demo to use JSON Schema and Shape Constraint Language (SHACL) to validate EPCIS 2.0 event data. There will be more collaboration by the team to provide input regarding the two new schemas. Topic 2: REST Binding comments were resolved, and additional feedback is needed in identifying event. The plan is to conduct a poll to gain consensus on identifying event. The REST binding document will be updated and shared with the team mid-October. Topic 3: Sensors: There was consensus to add work request to add properties to web vocabulary, data format for value field, and association event. We applied the 1-2-4-All facilitation skills to gain consensus. Further work is needed to determine if sensorReading should be changed to SensorReport, SensorObservation, SensorRecord. We ended the day by identifying pros and cons for linkable URI.

GS1 Services for the Digital World

The GS1 (T&L) strategy emphasizes the need to develop services that will be valuable in a world that is digitalising quickly. This was the third session in a series starting about one year ago taking stock of various initiatives and plans that GS1 MOs have in this area. GS1 Australia presented their "National Locations Registry". This NLR is an integral part of the Australian government's policies for Transport & Logistics in Australia. The NLR is based on the use of GLN to identify locations anywhere in Australia. It started out with registering locations in Healthcare. Currently however the NLR aims to capture a much wider range of locations (specifically also in the area of Transport & Logistics). GS1 in Europe then presented the current state of play for the "Cloud for Locations" project they are running. They identified GLN registries are essentially different from GTIN-based registries. The data in GLN repositories is more "volatile" (changes more often) than in GTIN-registries, the use cases (different ways to get value) for the GLN registries are far more diverse than for GTIN-registries and last but not least, the GLN repositories often serve highly targeted business communities (e.g. specific sector/trade or country/region). The Cloud for Locations projects finishes end of 2019 and should lead to a concrete plan to invest in specific GLN registries targeted at specific User Communities. GS1 France finished with a presentation and demonstration of a solution combining Slot booking, Tracking and a blockchain building block for settlement related to rescheduling agreed Slot Bookings. In T&L lots of time (and money) is wasted by trucks waiting at locations to be loaded/unloaded. This may be addressed by booking slots/appointments in advance. Due to many locations and carriers each using their own slot booking software it is hard to make these bookings. GS1 France has developed a "connection" service such that each party connects to the service platform and the platform makes the connections with the appropriate business partner for the slot booking. GS1 France combines this with a new service for exchanging tracking information the among T&L community so the stakeholders may identify a vehicle is late or early for a scheduled slot. In case there is the potential opportunity to exchange slots, the additional blockchain based solution developed by GS1 France will allow the involved stakeholders

to agree to the slot exchange and automatically accept the financial settlement (related to the exchange transaction) among them. Attendance and participation was good.

WEDNESDAY, 11 SEPTEMBER 2019

Attribute Definitions for Business (ADB) Mission Specific Work Group (MSWG)

The Attribute Definitions for Business – Mission Specific Work Group met to continue the work of developing business-oriented names, definitions, examples and usage statements for product attributes in the Food & Near Food categories as identified by the Global Data Model effort. Members from industry, including manufacturers & retailers, as well as solution providers and member organizations collaborated to simplify the data trading process by assigning business-friendly names & definitions to existing attributes.

In the customer shoes: getting to know GS1 customer services

Customer service organisations are evolving fast by leveraging new technologies and they are transitioning from reactive to proactive. In the session "In the customer's shoes: getting to know the GS1 Customer Services" participants wore the GS1 customer's shoes to discover value and new initiatives of the customer services of GS1 Netherlands, Portugal and Global Office and interact with them, to share challenges and expectations as GS1 customers.

How to start a public policy relationship from 0 – success: The FIT example

This session offered the opportunity to learn and interactively discuss about the lessons learnt from the FIT program from a public policy perspective. Thanks to FIT, EU MOs have had the opportunity to start brand new relationships with their Governments and to position their MOs, in the majority of cases for the first time, as an extremely competent and trustful stakeholder on very complex identification, serialisation and event data issues. GS1 standards were considered as essential by the European Institutions which built a European system fully compliant with the WHO legal framework. The 4 speakers exchanged with the audience about how to build new public policy relationships on authentication issues thanks to concrete examples provided by GS1 Portugal and GS1 Spain whose Governments implemented the whole GS1 solution including GS1 standards for identification, event and transactional data, a upUI algorithm, the serialization generator and the registry frame. As a conclusion, the session provided a vision on the added value standards can offer for the virtuous cause of anti-illicit trade, on the growing importance of serialisation for public policy purposes and on how MOs can simplify Governments efforts to conduct market surveillance and to speed European regulations implementation. For more information please contact Francesca Poggiali Francesca.poggiali@gs1.org

EDI Advisory Team

The EDI Advisory Team is an informal body aimed at aligning projects and developments related to the suite of GS1 EDI standards. The team reviewed the GS1 EDI strategy approved by the GS1 General Assembly in May 2018 and agreed recommended ways forward on various components of the strategy. It also discussed the status of the memorandum of understanding with OpenPEPPOL and the partnerships with ISO TC 154 and UN/CEFACT.

EDI Semantics Project

A core element of the GS1 EDI strategy approved in May 2018 is to adopt a semantic approach for the future development of our GS1 EDI portfolio. A project team was set up for this purpose, it is not yet integrated into GSMP. The team met twice in Lisbon and made good progress. The first public deliverables will be available early 2020.

GS1 in rail: on track

After a summary of the Rail Industry's challenges necessitating an approach of closer collaboration and GS1's journey in/with this rail industry since 2012, the experts from three MOs and Global Office provided the attendees with the current status of implementation of GS1's Identify, Capture, Share and Use in Europe, Australia and India. The experts were very open in answering questions, highlighting the hurdles they had to cross so far and the obstacles still lying ahead in facing resistance from some players within the industry, in engaging with the various levels of suppliers (tier 1, tier 2, tier 3,...) and in capturing the new requirements in terms of standardisation work (mainly updates). The session also focused on a variety of future activities speeding up (cross-border) engagement with the rail industry.

Verified by GS1: progress on our joint journey, industry and GS1

The objective of Verified by GS1 is for brand owners, retailers and marketplaces, solution providers and finally consumers to be able to say "This is indeed the product I think it is". In the same way you need your passport to enter a new country, products will need their ID card with 7 attributes to be able to enter the store. Verified by GS1 will enable verifying the identity of products on the basis of their ID card. Once valid product identity is confirmed, all other processes can effectively take place (exchange of master data, listing process,



assortment/catalogue maintenance, app development, links to further information, ratings and reviews, and many more). The programme was deployed starting end of June 2019 with today 3 GS1 MOs offering the Verified by GS1 Solution (Brasil, India and Germany). By the end of November, GS1 US, GS1 Belgium & Luxembourg, GS1 Mexico, GS1 Netherlands and GS1 France will be connected as well. These initial 8 MOs are working together to develop the solution and ensure to build on the learnings for future expansion in more markets, starting next February 2020. We have a long journey ahead still and we would like to invite brand owners, retailers, solution providers and the other GS1 MOs to engage with the Verified by GS1 team to participate to the efforts to make Verified by GS1 adopted broadly soon. Thank you all for your support!

Global Product Classification Standards Maintenance Group

Reviewed 10 work requests; motioned one to Community Review, returned two back to submitter for revision and 7 to submitter for clarification and approval. It was a lively session within depth review of the requests and their application.

THURSDAY, 12 SEPTEMBER 2019

Innovation Interest Group

This session was a "live" Innovation MO Interest Group meeting – enabling sharing and discussions amongst MOs on projects, trends, technologies and innovation processes. We had sharing about topics such as voice commerce, innovation and business strategy development, RFID and traceability trials around the world, and an enthusiastic agreement that success in Innovation means that you never stop learning! MOs presenting included GS1 Brasil, GS1 France, GS1 Ireland, GS1 Japan, GS1 Sweden and GS1 Switzerland.

Omni-Channel & Marketplace trends

Aaron Miller and Darren Edels led those in attendance from GS1 Member Organisations, GS1 Global Office and Industry members through a story line that paints a clear picture about what a Marketplace is juxtaposed to a retailer and why this difference is meaningful to both industry and GS1. There was a thorough introduction to all of the Marketplace ecosystem stakeholders, including Integrators. The GS1 value proposition for this ecosystem was clearly articulated as it exists in the present in addition to how additional value is unlocked with current global initiatives. There was a sector update that provided compelling information about the growth of this important channel. Darren introduced a novel stakeholder, Priceseacher, who was able to provide valuable insights on the current use and prevalence of the GTIN in product data feeds from over 20,000 retailers globally. The duo presented some feedback on leading trends in the marketplaces sector as witnessed first-hand at the eBay Open event where industry was talking about the benefits of utilising GS1 product identification standards. An overview of image-based shopping tools highlighted how these technologies are a compliment to GS1's offer and not a threat. The team did a deep dive into anti-counterfeit measures and GS1's role and offer in this space. Digital Link was explored as use cases abound in the Marketplaces space. Finally, a comparison between opposed fulfilment strategies was presented as GS1's value proposition varies radically in this context.

Low Level Reader Protocol Mission Specific Work Group

The RFID Low Level Reader Protocol is the newest group established in GSMP and is comprised mostly by RFID solution provider because of the technical focus. Lisbon was the kick-off meeting with teleconference features for wider participation. The project charter was discussed which included business case, objective, scope and milestones. The team provided their expectation, business requirements and discussion of the scope. Join us early in the project and shape the standard for more information [LINK](#).

Verified by GS1: GS1 MO's - get ready for Verified by GS1!

The objective of Verified by GS1 is for brand owners, retailers and marketplaces, solution providers and finally consumers to be able to say "This is indeed the product I think it is". In the same way you need your passport to enter a new country, products will need their ID card with 7 attributes to be able to enter the store. Verified by GS1 will enable verifying the identity of products on the basis of their ID card. Once valid product identity is confirmed, all other processes can effectively take place (exchange of master data, listing process, assortment/catalogue maintenance, app development, links to further information, ratings and reviews, and many more). Between June and November 2019, 8 GS1 MOs will be deploying Verified by GS1 (BR, IN, DE, US, BE, MX, NL, and FR). These initial 8 MOs are working together with the global office to develop the solution and ensure to build on the learnings for future expansion in more markets, starting next February 2020. For you GS1 MO to get ready, please ensure to update your licences to the licence registry (real-time), get equipped with a commercial grade Activate tool and engage on Verified by GS1! We have a long journey ahead still and we would like to invite all GS1 MOs to engage with the team to participate to the efforts and make Verified by GS1 adopted broadly soon. Thank you all for your support!

Global Product Classification Translation & Orientation

We discussed the translation process; tips and tricks from the more senior translation MOs were shared with those new to the process. Discussed next steps and future prospects for GPC use. Discussed the new tool development and drafted a wish list for the users based on experiences and local needs.

Digital Link Mission Specific Work Group – Open session

The GS1 Digital Link session was huge success, drawing 45+ attendees. The audience was treated to 11 presenters who provided their experiences and/or activities with GS1 Digital Link. The session also outlined the upcoming steps for the GS1 Digital Link from a standard and industry engagement perspective.

Transport & Logistics: key to customer experience

T&L is an integral part of ALL Value Chains covering a wide range of sectors GS1 has yet to penetrate. T&L is also a huge growth market. International Transport Forum predicts a three-fold increase of Transportation by 2050. The SMILE project presented by GS1 Germany identified that every second receiver is DISSatisfied as a result of T&L delivery issues. Clearly unless T&L will do better, Value Chains will not be able to improve the Customer Experience and even delight their customers. The SMILE project in Germany (funded by the Germany authorities) enables the Customer to take more control over the delivery process. When closing the purchase online, they indicate delivery will take place via a specific service provider chosen by them. The Customer arranges delivery methods and schedules with this service provider (e.g. to consolidate all deliveries for all the Customer's purchases at the same time at a timeslot chosen by the Customer). In effect the Customer is now in charge of the Final Mile Delivery working with a delivery service provider that is working for the customer rather than the shipper). Sandra Wagner presented the FENIX project. This is a pan-European project (partly funded by the European Commission) to improve the flow of information among stakeholders in European T&L networks spanning all transport modes (road, rail, ports, barges, parcel, airports). There are pilots all over Europe aiming to deliver solutions that will live long after the project completes. GS1 standards can deliver tremendous value in ensuring interoperability across (and within) all of the pilots within FENIX. Sandra raised a call to action to the attendees (MOs and User companies) to participate in the FENIX pilots. Jaco Voorspuij provided a quick update on the support for the IMO Vessel Number in EPCIS (closing a gap in Global Traceability) and Scan4Transport (S4T). S4T is a new application standard describing the content of a 2D barcode formatted according to the Digital Link standard. The content consists of data-elements necessary to be able to execute delivery of transport units even in the absence of connectivity to host systems and/or electronic advance data.

FRIDAY, 13 SEPTEMBER 2019

Architecture Group

The GS1 Architecture Group appointed liaison officers for all GSMP standard maintenance and mission specific working groups. The use of GPC attributes in GDSN is causing duplication of information and the progress of a Request for Finding on this topic was reviewed. The group also addressed the possible issues related to the management and use of the GS1 Company Prefix. The group worked on new versions of the GS1 architecture principles and the system architecture, which should be completed by early 2020.



SAVE THE DATES FOR THE 2020 EVENTS

GS1 Industry & Standards Event 2020

14 - 18 September 2020
Brussels, Belgium

Look for details at <http://www.gs1.org/standards-development>

GSMP IN A NUTSHELL

The GS1 Global Standards Management Process (GSMP) pairs efficiency with consensus building to develop standards that address real business challenges.

GSMP is a collaborative forum for creating standards, guidelines and other materials to serve our global users.

Through the GSMP, businesses facing similar problems work together to develop standards-based solutions.

As a neutral party, GS1 facilitates dialogue between participants from nearly 60 countries who work in sectors including retail, consumer goods, fresh foods, healthcare, transport & logistics and government.

Learn how we develop standards, find out what GS1 global work groups are developing, and see the different ways you can get involved by visiting our website at <http://www.gs1.org/standards-development>.