The Global Language of Business

GS1 Business implementation overview of the Global Data Model

Best practices for implementation of the GS1 Global Data Model in FMCG food, near-food, pet food, alcohol, tobacco

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Executive Summary

This document aims to provide an overview of best practices to implementation the GS1 Global Data Model (GDM). It provides detailed information on how an organisation should go about the executing a GS1 Global Data Model implementation.

The document draws from experience of members of the Consumer Goods Forum and other companies who have piloted the GDM in Europe, Latin America and North America. Best practices and other industry-specific guidance are included in this document based on brand owner, retailer, service providers (e.g., certified Global Data Synchronisation Network (GDSN) data pools) and/or GS1 Member Organisations (MOs).

This guidance outlines the different phases that are required for the successful implementation: preparatory phase, pre-implementation phase, implementation phase, and post implementation phase. They all entail different actions to ensure a successful implementation of the GS1 Global Data Model.

This guide has been written to help any industry member who wants to explore the development and implementation considerations, in order to demonstrate the value of the GS1 Global Data Model in their overall business plan.

There is a dedicated webpage featuring an overview of the *GS1 GDM Programme* with links to additional implementation tools and resources, a training video and an Executive Summary of the first GDM pilots.

These resources reflect the tremendous amount of work done over the past year, which has been only possible thanks to the support and commitment from industry and certified GDSN data pools, as well as GS1 MOs.

Visit the page at *www.gs1.org/globaldatamodel*.

We have additional materials and deployment resources for GS1 MOs on the GS1 MOZone here: *https://mozone.gs1.org/global-data-model*

Further questions? Contact the GS1 Global Data Model Team: *globaldatamodel@gs1.org*.

Contents

1 Introduction

Businesses today must keep pace with demand from consumers, trading partners and regulators to deliver more and better product data than ever before. At the same time, fragmentation of global commerce has created a complex business environment where every stakeholder across every market requires different datasets to meet their own unique needs, resulting in high data management costs and poor overall data quality.

Meanwhile, brand owners and retailers spend a huge amount of time, money and energy to manage product data to meet consumer expectations and the unique requirements.

Companies could unlock a tremendous potential if this cost could somehow be minimised.

By implementing the GS1 Global Data Model, industry could reduce complexity and deliver efficiency, speed and quality while significantly improving consumer experience.

This Business implementation overview includes information the following topics:

- The Power of Harmonised Product Data
- The GS1 Global Data Model
- The Value Unlocked and Investments required
- The GDM Implementation Journey

2 The power of harmonised product data

2.1 Changes in Consumer Expectations

With the transition of businesses from the physical to the digital or an Omnichannel world, there has been significant change in consumers' expectations of brand owners and retailers.

In the physical world, consumers can view the product information for example on the nutrition labels or on ingredients lists directly from the product label. In the digital world consumers have to rely on rich product data being available on their devices. Moreover, there is inconsistency in details of the same product in different channels. This further leads to confusion and frustration, very often resulting in a loss of sales.

In a digital world there is no opportunity to engage with the product; for example, there is no way to feel the packaging or taste the samples, which reinforces the necessity of rich and accurate product data.

2.2 Brand Owner and Retailer Challenges

The fragmentation of global commerce has created a complex business environment where every stakeholder across all markets requires different datasets to meet their own unique needs, resulting in high data management costs and poor overall data quality.

Brand owners need to create unique data formats too often for each business partner and face difficulty when expanding to new geographies and channels due to varying market and channel needs. This results in a risk of losing control over data quality and, therefore, losing sales and brand trust.

At the same time, retailers spend too much time aggregating and verifying foundational data instead of creating differentiated experiences. They collect data from multiple sources to augment missing or inaccurate pieces. They also find it difficult to synchronise between online and offline channels due to different data formats and requirements.

2.3   A mindshift is needed

It is very obvious that brand owners and retailers today spend time, money, and energy managing foundational product data, and that retailers very often require data from brand owners in a wide range of formats, which can require thousands of hours of labour that otherwise can be devoted to more valuable work.
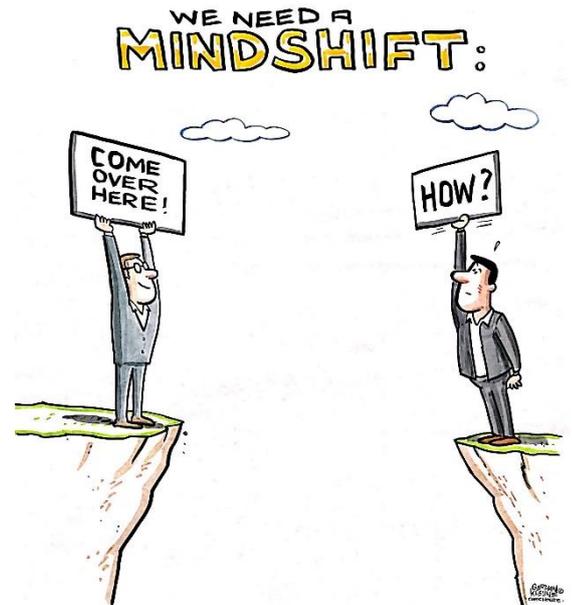
Some background information. Despite global commerce and largely a global or regional product offering, data exchange is mostly decentralised and managed on a local level. Which is why over time too many unique variations of the same or similar data need have evolved. More and more adding to complexities, inefficiencies and even raising high entry barriers to new markets or business partners.

We will need a mindshift to resolve these challenges!

The implementation of the Global Data Model will require a mindshift to stop competing on foundational data and requesting brand owners to provide highly individualised or localised sets of attributes describing a product. This mindshift will be needed at all levels across GS1, Consumer Goods Forum (CGF) companies, data pools, industry and at GS1 Member Organisations level for this initiative to be successful.

2.4   The Value of Harmonised Product Data

How can brand owners and retailers deal with these challenges? The answer lies in handling product data differently.

Product data has both **foundational and differentiated attributes**. If foundational data is harmonised across the industry, not only will the retailers and

brand owners gain time, money and reduce effort, but consumer experience will also improve.

Harmonised foundational attributes enable timely, accurate, and consistent data exchange for brand owners and retailers, thus, resulting in more efficient data exchange. Therefore, retailers and brand owners can shift their focus from aggregating and verifying foundational data to designing differentiated consumer experiences. Increased transparency makes the consumers' omnichannel experience seamless and reduces complexity. Moreover, harmonised data unlocks new opportunities through advanced analytics.

This is further augmented by the fact that foundational data is non-competitive in the digital and physical retail environment.

> ⓘ What is foundational data? Foundational data is the minimum set of data attributes that are needed by business partners to execute key business processes, such as list, order, mover, store or selling of products. In the context of GDM, the community has agreed on a standardised set of these so-called foundational data attributes.

3 The Global Data Model – an overview

3.1 The Global Data Model - One product. One experience. Every channel.

The Global Data Model defines a consistent set of product attributes to harmonise and simplify data exchange between trading partners, helping to deliver more reliable and complete product information to consumers.

We have touched already briefly on the benefits of harmonising foundational product data. But how companies harness the power this standardisation offers? The answer is the GS1 Global Data Model (GDM).

Over 30 companies globally partnered with GS1 to develop a Global Data Model. Together they organised a series of validating pilots, developed a business case and designed a programme that helps leverage product content for a seamless shopping experience across every channel. The development work and ongoing implementation is also supported by The Consumer Goods Forum (CGF).

GDM simplifies and harmonises product data, enabling seamless global and local exchange of data. It defines product attributes in a clear, business friendly manner, standardises a minimum set of attributes required for product data

exchange, accounts for varying needs by category, region, and location and supports seamless, technology agnostic data exchange. In this section it will be explained how the Global Data Model works.

3.2 How does the GDM work?

GDM uses the concept of layers to identify product attributes required for data exchange. The four layers of GDM are Global core layer, Global category layer, Regional category layer and the Country or Local layer.

Global Core Layer

The Global Core layer contains attributes required across **all product categories globally**, for example, the Global Trade Item Number (GTIN) and Country of Sale Code are required in food products as well as in cosmetics and toiletries.

Global Category Layer

The Global Category layer has attributes required only for a **specific product category**, such as FMCG Food, which is applicable at the **global level**. For example, the storage temperature for a distinct category applicable at the global level.

Regional Category Layer

The Regional Category layer has attributes required for a **specific product category for a specific region**. For example, an allergen statement is mandatory in the North American region due to regulatory requirements and may also be mandatory in another region(s). However, being required for one region does not mean it is necessarily mandatory in other regions.

Country (or Local) Layer

The Country layer has attributes required for **a specific product category and for a specific location within a region**. For example, packaging material quantity is mandatory in some countries, while it is not required in others. Attributes in this layer are often defined by local regulation.

3.2.1 Global Data Model layers

Global core layer
- Comprised of **attributes** required across **all product categories**

Global category layer
- Comprised of **attributes**[1] required only for a **specific product category** (i.e., FMCG Food, DIY…), applicable at a **global level**

Regional category layer
- Comprised of **attributes**[2] required only for a **specific product category,** only for a specific **region**

Country layer
- Comprised of **attributes**[3] required for a **specific product category,** only for a specific **location** within a region

1 These attributes are mandatory or optional depending on the product subcategory (e.g. "Storage temperature" is mandatory for "Meat" subcategory, while it's not mandatory for "Canned shelf stable products" subcate
2 These attributes are mandatory or optional depending on region (e.g. "Allergen statement" is mandatory in North America region due to regulatory requirements, while it's not mandatory in other regions)
3 These attributes are mandatory or optional depending on country (e.g. "Packaging Material Quantity" is mandatory in some countries, while it's not mandatory in others)

3.2.2 Example of product attributes by GDM layers for food category

Global core layer
- GTIN
- Country of Sale Code

Global category layer
- Ingredient statement
- Nutritional facts

Regional category layer
- Serving Size
- Allergen statement

Country layer
- Minimum orderable quantity
- Batteries included indicator
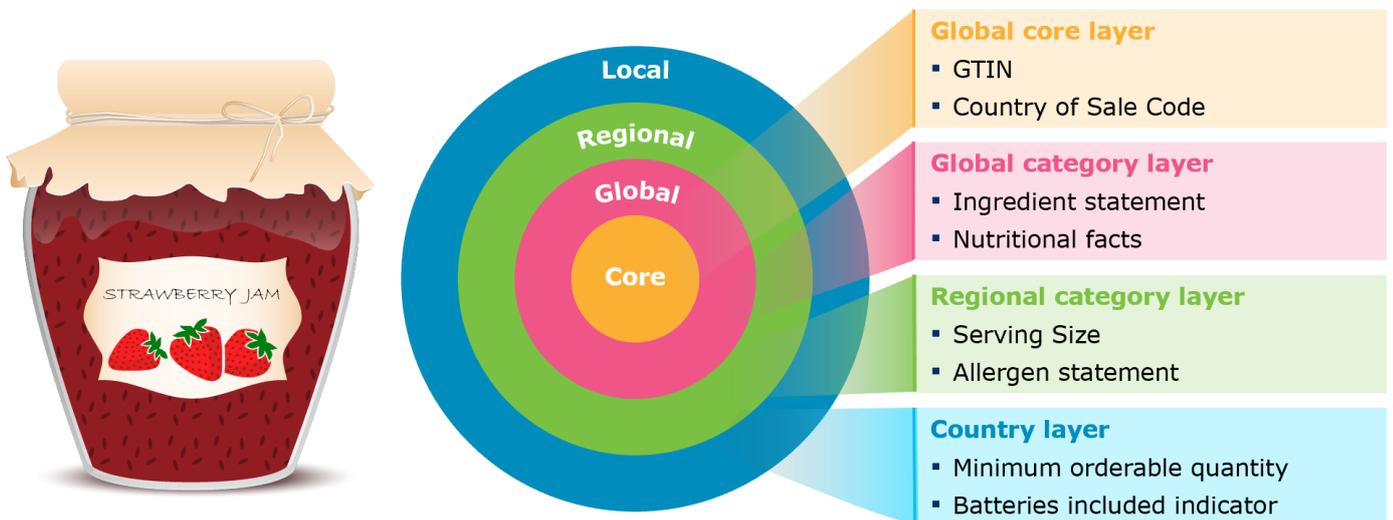
3.2.3 Access the Global Data Model (GDM) Standard and implementation tools

The Global Data Model Standard is in Excel format. Current and legacy versions are available here: https://www.gs1.org/standards/gs1-global-data-model.

Implementation tools are available to help you to get started implementing the GS1 Global Data Model. See section 5 of this document for more information.

GS1 Global Data Model navigator tool
Use this database application to explore the set of attributes which are relevant for your product and geography, and as well have a clear definition for each of these attributes. See section 5.5.4 of this document for more information.

GS1 Global Data Model attribute analysis tool
Use this spreadsheet to perform an attribute analysis comparing the GDM attributes to your internal data model. The gaps or missing attributes will define your level of readiness and will help in creating an implementation roadmap. See section 5.4 of this document for more information.

3.3 Attribute Definitions for Business (ADB) Standard

Industry examined how required data (attributes) and definitions vary greatly by retailer and region leading to confusion at the consumer level and untold complexity and cost and requested GS1 facilitate a global effort to address the data inconsistencies that lead to challenges, particularly in a consumer-focused model.

The *GS1 Attribute Business Definitions (ADB) Standard* provides simplified, business-friendly names, definitions, examples and usage statements for the data attributes in the GDM. An overview of the standard, most current version and also legacy versions of the standard are available on gs1.org: *https://www.gs1.org/standards/attribute-definitions-for-business*.

Attribute Business Definitions are understandable to the business community, as well as the technical community that supports the means of data exchange, so there is no confusion over what information is needed.

Attribute Business Definitions are intended to compliment, not replace, the existing more technical names and definitions of attributes.

ADB is a standard supportive to the Global Data Model, but not exclusively limited to it. Attribute Definitions for Business brings clarity to data exchange.

Today, even the most basic information that trading partners need to exchange lacks agreed, common definitions that are easily recognised by business users. Current definitions do not fully address this challenge because they provide technical descriptions rather than user-friendly definitions.

Attribute Definitions for Business aims to provide clear business-oriented attribute names, definitions, examples and usage statements. These are easily understood, consumer-relevant and support the business processes to verify, list, store and sell all digital and physical products.

For each GDM Attribute identified the following were developed:
Business Name: A title clearly understandable to the business

Business Definition: A clear, concise and business friendly definition
Examples: One or more use case
Usage Statement: Encapsulating the main scenario(s) where used

The business-friendly names and definitions do not replace the already existing technical equivalents, they provide clarity and busines context to reduce confusion for attribute use.

3.3.1 Attribute Definitions for Business example

Technical Definition		Attribute Definitions for Business			
GDSN Name	**GDD Definition**	**Business Oriented Name**	**Business Oriented Definition**	**Example**	**Usage Statement**
targetMarketCountryCode	The code that identifies the target market. The target market is at the country level or higher geographical definition and is where a trade item is intended to be sold.	Country of Sale	The code representing the country where the product/service is intended to be sold.	An image of two identical products with French and German on the pack, target market of Germany and France.	Used to determine the intended country(ies) of sale.

3.3.2 Access the Attribute Definitions for Business Standard

The ADB Standard is in PDF format. In addition, an Excel version is provided to make sorting, searching and sharing easier and can be found in the "Find out more" section on gs1.org: https://www.gs1.org/standards/attribute-definitions-for-business.

3.4 What does it mean to implement the Global Data Model?

Given the importance of GDM and the benefits it offers, the following section discusses what it means to implement GDM.

Implementing GDM involves sending product data for the required or conditional attributes identified in GDM. Then the information shared by brand owners must be accepted by retailers who implement GDM. The outward facing user interfaces are updated to leverage the ADB attribute names. This ensures a common language and understanding between trading partners and promotes internal understanding and usage. The five principles should be recognised to understand implementation:

- Send product data for required or conditional attributes identified in the GDM
- Accept data shared from suppliers for the same GDM attributes

- Change outward-facing user interfaces by using clearly defined and business friendly ADB attribute names and definitions
- Promote internal understanding and usage
- Follow the GDM governance model

3.5 The GDM is technology agnostic

The GDM is technology agnostic. It can be implemented with no technology e.g., using a spreadsheet.

It can also be implemented with any type of content service provider and/or Global Data Synchronisation Network (GDSN) data pool.

It can be used with offerings available in your market to enrich product information and scalable to varying levels of data-sharing technology.

For example, it can be implemented using the GS1 **GDM Navigator tool** for companies who share data using Excel or that enter product information in brand owner or retailer portals. It can also be used in the Global Data Synchronisation Network (GDSN).

3.6 GDM Governance

The GDM Governance defines the governance process for the ongoing development of the Global Data Model (GDM) and its incorporation into GS1's Global Standards Management Process (GSMP). The governance for the Global Data Model will be phased in as the layers of the Global Data Model are approved as GS1 standards, starting with the Global & Regional Layers.

The GSMP processes are defined within the GSMP Manual; the GSMP Manual shall be the default reference for procedures. Any differences between the GDM Governance Manual and the GSMP Manual are clarified in this document. For any occurrence that is not specifically defined in this document, the processes & procedures in the latest version of the GSMP Manual are to be followed.

The latest version of the GSMP Manual can be accessed via the GS1.Org website. The process described here is to create and maintain the Global Data Model. Any changes that need to occur to the Global Data Synchronisation Network (GDSN) or other means of data exchange are outside the scope of the Global Data Model Maintenance Teams and need to be addressed separately.

- Ongoing Maintenance - GDM governance also follows the Global Standards Management Process or GSMP for ongoing maintenance of the model. It covers the three layers: global, regional and local maintenance. The local and regional maintenance teams ensure consistency of the GDM for the attributes in the respective layers and collaborate to identify further harmonisation potential. Once the work request for changes to the layer is submitted in the GSMP system, the GS1 Global Data Model team performs a logical review to ensure

consistency and prevent duplication. The proposed new standard is then motioned for community review voting through eBallot.

- New Category Development - The process begins with entering a work request in the GSMP system. Once this is approved by the Industry Engagement Steering Committee, a call to action for a new Mission Specific Work Group is issued. The work group proceeds with initial development and pilots, if required, depending on the size of change. Based on the pilot results the work is updated and submitted for ratification within GSMP. On approval, the GDM standard is published on the GS1 website.

GS1 Global Data Model Governance Manual is available here: https://www.gs1.org/sites/default/files/docs/gsmp/gdm_manual_i1_a_2020-03-19.pdf

4   GDM value unlocked and investment required

Now that you understand what the GS1 Global Data Model is, it is important to understand how to unlock the value it creates and learn about the investments you would be required to make.

The GDM Business Case is available here to review and share: https://www.gs1.org/sites/default/files/gs1_gdm_business_case_executive_version.pdf

4.1   Value for Consumers

GDM creates value for consumers by improving product searchability and product data availability and consistency, reducing consumer returns, reducing delays in product launch due to inaccurate or incomplete product data and lowering entry barriers for new players.
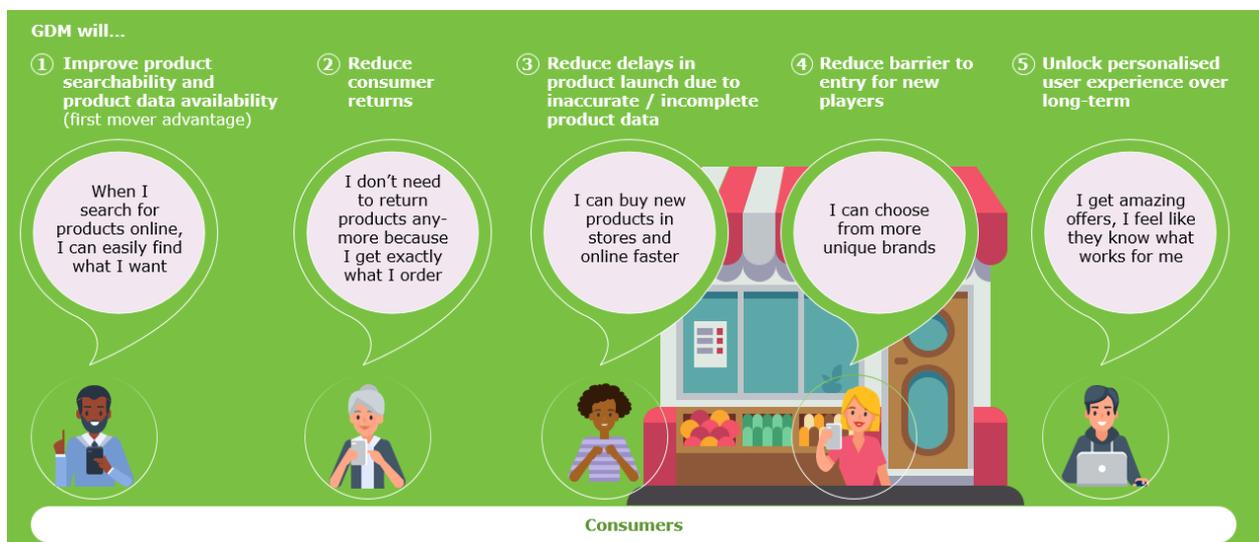
4.2　Value for Brand Owners

GDM creates value for brand owners by reducing effort to map and exchange data, simplifying data management and governance, reducing cost of mitigating data quality issues and maximising opportunity of advanced analytics.
Brand Owners have time to work on what matters:

1.　Reducing effort to map and exchange data - GDM will increase quality of data due to common format and business friendly definitions, thus reducing number of iterations when sending data to retailers. GDM will also enable faster data sharing and reporting inside organization, including across geographies. GDM is also likely to reduce need for physical product verification.

2.　Simplifying data management and governance - GDM will reduce number of retailer's formats, simplifying data exchange and improving data accuracy. That should in turn reduce complexity of data management and data governance. GDM will enable seamless integrations of new data from M&A (long term opportunity).

Brand Owners can spot product issues and respond quickly:

3.　Reducing cost of mitigating data quality issues - Simplified data requirements across retailers will increase data accuracy and completeness to reduce the frequency of data related incidents and reduce need for physical product verification.

Brand Owners can unlock new capabilities

4.　Maximising opportunity of advanced analytics - Harmonised product data will create opportunities to apply advanced analytics to unlock, e.g., demand forecasting, financial planning and accounting, reduced effort to address counterfeit products

4.3　Value for Retailers

GDM creates value for retailers by reducing effort to define data format and attributes for new product categories and to onboard new brand partners on data requirements. It also optimises efforts to verify completeness and quality of data, simplifies data management and governance and maximises opportunity of advanced analytics.
Retailers have time to work on what matters:

1.　Reducing efforts to define data format and attributes for new product categories - GDM will define a list of foundational data attributes that retailers need for a product setup, thus reducing retailer's efforts to define data needs when launching new product categories.

2.　Reducing effort to onboard new brand partners on data requirements - GDM will synchronise data requirements across retailers, thus reducing each retailer's individual efforts to train new brand partners on data requirements.

3. Optimising efforts to verify completeness and quality of data - GDM will increase quality of data due to common format and definitions, thus reducing number of iterations to verify data from brand owners and need for physical verification of products.

4. Simplifying data management and governance - GDM will reduce number of attributes, simplifying data creation and improving data accuracy. That should in turn reduce complexity of data management, data governance, internal data quality control. GDM will enable seamless integrations of new data from M&A (long term opportunity).

Retailers can unlock new capabilities:

5. Maximising opportunity of advanced analytics - Standardised product data will create opportunities to apply advanced analytics to unlock, e.g., demand forecasting, advanced inventory modelling and out-of-stock prevention.

4.4   Requirements for successful implementation

While implementing the GS1 Global Data Model it gives users strategic benefits, but it needs a certain amount of investment from you as well. GDM requires investments in technology, processes and people.

Technology Investments
Technology investments require performing gap analysis to identify changes needed to support the new model. Brand owners and retailers need to introduce changes to current systems, including external interfaces, product data systems and operational systems.

Process Investments
Process investments include performing data cleansing and adaptation for existing GTINs and making changes to business processes to capture the new required attributes. GDM may require creation of new attributes for some brand owners, especially for those that are not currently following the GS1 standards.

People Investments
People investments involve training staff for changes due to GDM across business processes, for example, new product data processes or usage of GDM attributes and definitions. Internal communication within the organisation is critical for the successful adoption of GDM.
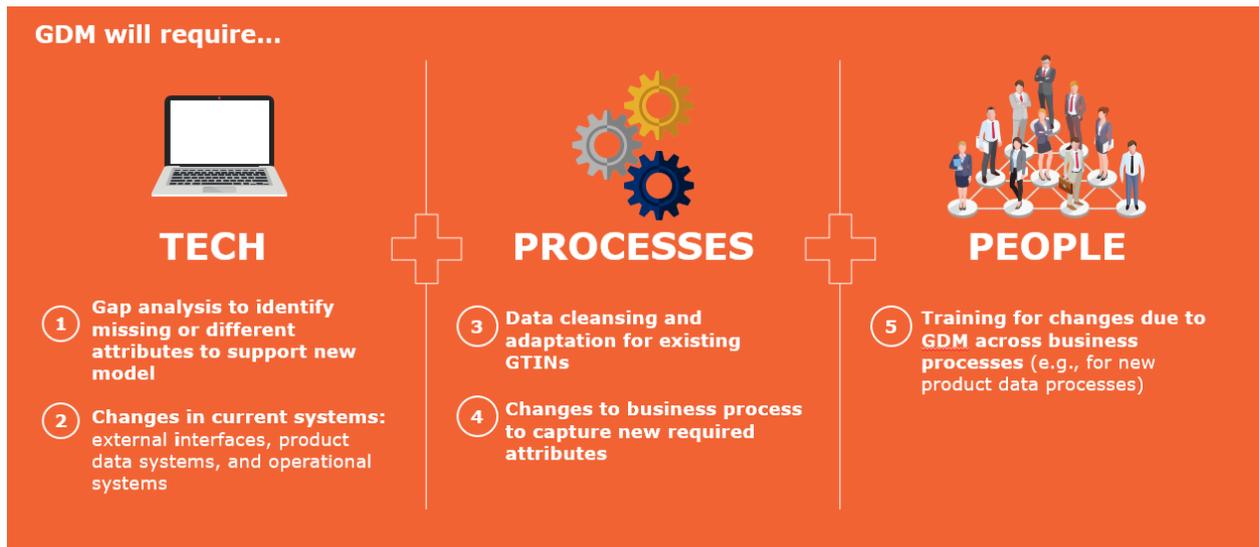
4.5 Requirements for Successful Adoption

Adoption and change management are keys to a successful implementation. of the Global Data Model. It requires a compelling vision, change leaders and formal reinforcement.

The vision should clearly state why GDM matters to the organisation. For example, it improves the consumer experience or provides more time to work on critical matters. GDM adoption may require changes in data practices across a product's lifecycle, thus requiring cross-functional buy-in and participation.

The organisation wanting to implement GDM should identify senior leaders who will prioritise this change, invest in it and provide their commitment. This will help set the priority and get the resources and budget to support and sustain the change. These change agents will also promote the adoption of GDM.

To formally reinforce the GDM implementation, organisations need to develop a GDM implementation plan, including a plan for regional rollout. This plan should incorporate changes across the operational and technical teams that align with timelines for industry adoption and categories rollout. People need to be motivated to comply with the GDM requirements. Think of KPIs and incentives.

The next section will provide more information on these topics and show to best embark on the GDM journey.

5   The GDM Implementation Journey

Step Zero: Commitment to implement GDM

Being part of the GDM Programme and getting a voice in this group will require formal commitment to either implement (i.e., industry action) or support the deployment of the Global Data Model (i.e., GS1 MO action). This formal commitment needs to have senior leadership support.

Understanding the willingness and commitment of individual companies and GS1 Member Organisations will help us orchestrate implementation and leverage the vital network effects.

Global Data Model implementation process

After you commit to implement, there is a recommended five-step process.

- Step 1 - Reach out to GS1 contact and getting support
- Step 2 - Review available GDM documentation
- Step 3 - Assess your organisation's readiness and initiate internal conversations
- Step 4 - Perform an attribute analysis
- Step 5 - Develop an implementation plan

5.1   Step 1 – Getting involved with GS1

Organisations committed to GDM adoption should get involved with GS1 to leverage one-to-one company support, learn how to use the implementation tools and resources and collaborate with other companies across the world also actively implementing.

Contact the Global GS1 GDM team at *globaldatamodel@gs1.org* or your local GS1 Member Organisation (*Contact GS1 around the world*) to get more information. This could include answering more detailed questions on the model and the business case, review of findings from previous pilots, implementation guidance or plans for training and local events they plan to conduct.

❗ Your local GS1 Member Organisation will also be able to help you understand local attributes and nuances of the GDM and learn about companies implementing in your market to help you coordinate plans for adoption.

5.2   Step 2 – Review available GDM documentation

Important information on implementation is available in the GDM business case (see section 4) and also in an *Executive summary of first GDM pilots*.

The GS1 Global Data Model was first piloted in three regions: Europe, Latin America and North America in late 2019. The primary objectives of the pilots were to collect learnings needed to improve or implement the GS1 Global Data Model and establish "what it will take" to implement.

These first pilots provided some valuable recommendations and best practices for GDM implementation. Lessons learned and recommendations from the pilot companies include:

- Involve all relevant service providers early in the implementation journey

- Plan to train and educate people from across all departments and business units in your company who will be affected

- Perform an attribute analysis and compare Global Data Model with the attributes you use currently. For more information on how to perform an attribute analysis and a tool to assist you, see section 5.4.

- Include the local layer attributes of the target market profile in your attribute analysis. Your local GS1 Member Organisation can help with identifying the corresponding local target-market profile.

- Choose diverse GTINs to pilot from across your product portfolio/product offering. Pilots are optional but are recommended. For more information on pilots, see section 5.5.3.

- Pilot the same GTIN across multiple retailers when possible

- Discuss your company's readiness with your implementation partners – brand owners and/or retailers, service providers and your GS1 MO

5.3 Step 3 – Assess your organisations readiness and initiate internal conversations

Organisations will need to invest in the right people, processes and technology.

How ready is your company to implement? You can assess the readiness against four fundamental aspects: people, industry, technology and processes.

Assess Company Readiness

People
- ☐ Identify and engage **key people** in your organisation to **drive** the change
- ☐ Reflect on **key benefits** of GDM adoption for your organisation and prepare a compelling internal **change story**

Industry
- ☐ Review **GDM materials** and understand **industry partners and GS1** plans and timings

Technology
- ☐ Review **readiness** against data maturity per GS1 standards
- ☐ Review your **internal systems** and **technological readiness**

Process
- ☐ Assess impact of **GDM implementation** on **current processes**

GDM adoption will affect processes and data for many functions in the organisation. Therefore, getting cross-functional buy-in and involving all parties in developing and driving an implementation plan is essential. It is also important to ensure the sponsorship of senior leaders.

Initiate
Conversations

- Get cross-functional executive sponsorship and participation
- Involve subject matter experts from across relevant departments to develop and drive an implementation plan.
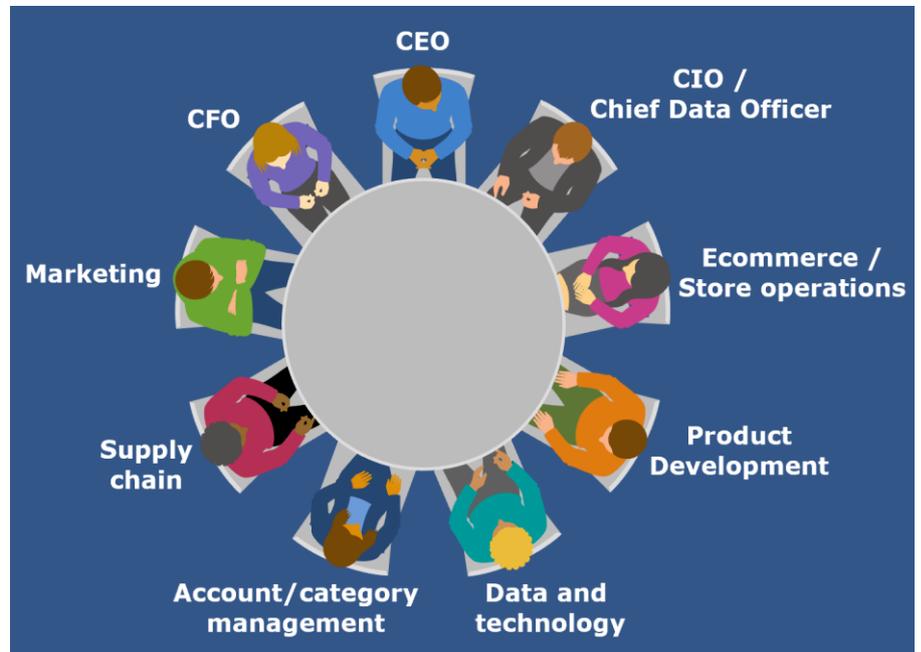
5.4   Step 4 – Perform an attribute analysis

It is important to understand how your organisation uses attributes currently as compared with GDM and whether any additional attributes are needed. This will help you determine the level of readiness to provide attributes (brand owners), receive attributes (retailers) or enable the exchange of attributes (service providers).

Follow these steps for a GDM attribute analysis:

- Compare GDM and the local layer attributes with the attributes your company currently uses
- Communicate internally and with your trading partner to share the list of attributes which are NOT used today
- Plan the use and exchange of any GDM attributes NOT currently used

You can also use the **GS1 Global Data Model Attribute Analysis tool** to analyse the attributes.

5.4.1   GS1 Global Data Model Attribute Analysis tool

The GS1 **Global Data Model (GDM) Attribute Analysis tool** is a Microsoft Excel spreadsheet designed to provide an easy-to-use mechanism for analysing

the attributes used in your local market data model and comparing them to those used in the Global and Regional layers of the Global Data Model.

Download the GDM attribute analysis tool

⊘ Use this spreadsheet to perform an attribute analysis comparing the GDM attributes to your internal data model. The gaps or missing attributes will define your level of readiness and will help in creating an implementation roadmap.

Watch webinar >

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5.5 Step 5 – Develop an implementation plan

Developing an implementation plan includes creating the plan with the recommended actions, utilising key milestones and available resources and partnering with service providers and GS1 Member Organisations.

5.5.1 Recommended actions

- Action 1: In one or two sentences, summarise the organisation's goals for the first 12 months of the GDM implementation journey.

- Action 2: Determine the priority and sequence for adoption across product categories, target markets and trading partners.
  - Products: You could implement by category or type of product, business unit or by phases: new items, item maintenance and existing items.
  - Target markets: If your products are sold in more than one market, consider the order that will be best for your company based on overarching business considerations (e.g., rollout of a new Product Information Management (PIM) system, launch of a new product line) or local needs (e.g., plans to begin selling your product online, plans to start using GDSN).
  - Trading partners: Discuss plans for GDM adoption with your trading partners in each market. There may be synergies in timing or interest to pilot.

- Action 3: Discuss your implementation timeline internally and communicate expectations with your trading partners.
- Action 4: Prepare to send/receive data, make business process and/or IT changes and execute data cleansing.

5.5.2   Milestones

Organisations need to develop a detailed implementation plan with key milestones and desired rollout date.

⚠️   Your company's timeline for implementation will be informed by learnings from your readiness assessment (see section 5.3) and the results of your attribute analysis (see section 5.4).

5.5.2.1   Brand owner key milestones using a 12-month plan

Example of key activities in a brand owner's implementation plan

Onboard key internal stakeholders and understand GDM requirements — Month 0

Map attributes and perform attribute analysis between GDM and internal data model — Month 1

Operating systems and master data revision — Month 2

Review PIM, aggregate and adjust product data — Month 5

Train organisation on GDM data input and quality control — Month 8

Launch pilot with selected business partners and identify priority markets to implement — Month 9

Adjust for complete roll out — Month 10

Roll out with all business partner — Month 12

5.5.2.2   Retailer milestones using a 12-month plan

Example of key activities in a retailer's implementation plan

Onboard key internal stakeholders and understand GDM requirements — Month 0

Conduct attribute analysis between GDM and current, internal data model — Month 1

Operating systems and master data revision — Month 3

Review PIM and discuss data adaptations with suppliers — Month 6

Train organisation on GDM data verification and quality control — Month 8

Launch pilot with selected business partners and identify priority markets to implement — Month 9

Adjust for complete roll out — Month 10

Roll out with all business partner — Month 12

5.5.3 Considering a pilot

It may be useful to complete a pilot with one or more trading partners in key target markets through simple spreadsheet exchange, Global Data Synchronization Network (GDSN) or any other method of data exchange.

Please see section 5.2 for a list of best practices from the first GDM pilots.

Executing a pilot:

- Determine your pilot partner(s). You can work with your local GS1 MO to help find a pilot partner
- Decide on how to exchange product attributes (spreadsheet, GDSN or another form)
- Select a set of products (type of products, categories, hierarchy levels, and specific GTINs)
- Compare attributes of pilot GTINs with the GDM, identify any differences and share results
- A brand owner will compare pilot GTINs with Global Data Model and identify any differences such as missing attributes, attributes without value or attributes with an incorrect value.
- A retailer will compare pilot GTINs with GDM and identify any differences, document the differences and share them with their pilot partners.
- Review the pilot results with the pilot partners

5.5.4 Supporting resources

Tools and resources are available to support you with implementation.

- **Training video "How to Implement the GS1 Global Data Model"**: *https://www.gs1.org/standards/gs1-global-data-model/gdm-training-tool*
- **GS1 Attribute Analysis** *tool*, tutorial *webinar* and *quick-start guide*
- **GS1 GDM Navigator** *tool*, tutorial *webinar* and *quick-start guide*

🛑 The GS1 **GDM Navigator** is database application to explore the set of attributes which are relevant for your product and geography, and as well have a clear definition for each of these attributes.

Download the GDM Navigator

Watch webinar >

View quick start guide >

🛑 Additional resources are being developed. These will include a *GS1 Global Data Model Attribute Implementation Guide* and a readiness checklist to support GDSN data pools.

5.6   Key partners in the GDM implementation journey - Service Providers

As a reminder, the GDM is technology agnostic (i.e., it can be implemented with no technology e.g., using a spreadsheet, or with any type of content service provider and/or GDSN data pool).

It can be used with offerings available in your market to enrich product information and scalable to varying levels of data-sharing technology.

For example, it can be implemented using the **GS1 GDM Navigator tool** for companies who share data using Excel or that enter product information in brand owner or retailer portals.

It can also be used in the Global Data Synchronisation Network (GDSN).

Calling on service providers for support and expertise to drive faster and better implementations.

Service providers play an important role in successful GDM implementations. Early involvement and ongoing collaboration with both the Brand Owner and Retailers' service providers will provide additional value and help identify key actions to take to get ready.

Examples include:

- Obtain additional, company-specific insights on current attribute use during the attribute analysis activity. This can result in earlier identification of additional information to collect that required for each attribute.

- Understand and plan for internal system changes may be required for technical readiness. There may also be updates required by service providers, including GDSN Data Pools.

- Support to progress use of GDM attributes not currently being used with step-wise or temporary approaches while systems are being updated.

Partnering with Data Pools in the Global Data Synchronisation Network

The Global Data Synchronisation Network (GDSN) is the world's largest product data network. GDSN makes it possible for any company, in any market, to share high-quality product information seamlessly.

Any company that needs to send or receive product information can take advantage of GDSN by subscribing to a data pool.

Your data pool will enable you to set up your product content and synchronise it with all your trading partners, so you can plug in reliable data for all markets at one time.

GDSN Data pools are certified by GS1 and data in GDSN follows GS1 standards, including the GDM.

Service Provider starting actions

Use the **Attribute Analysis Tool** to assess compliance to the GDM, beginning with the Global and Region levels. Key questions for GDM readiness to consider include:

- Does your company enable use of all attributes in the GDM? Does your company maintain the most updated attribute code lists, validations and rules for the Global and Regional layers of attributes?

- Do you need to add attributes to your taxonomy to be GDM compliant and be able to support and exchange all global and regional attributes between trading parties? Are you leveraging the ADB naming convention on all the GDM attributes? Do you provide your customers with a list or reference sheet on what those attributes mean, use cases, and how to best use them?

- What attributes are missing? How might your company and your brand owner or retailer customers prioritise the order of enabling these attributes to be used and exchanged? How long would it take for your company to add those to your data set?

- Are you able to support the GDM in and outside of GDSN in order to accompany both retailers and brands owners' preferred methods of data exchange?

- Be ready to support brand owners and retailers with implementation journey and the key steps.

- What is the starting point for each company in each target market? Brand owners and retailers will implement the GDM inclusive of each target market profile, the local layer. Companies may not have the attributes they use today mapped to the GDM or the market may be using non-standardised attributes.

- Is your staff trained on the GDM and ADB? Can they answer customer questions on the GDM, ADB and attributes?

- Do you have customer information, tools, or templates regardless of the data exchange technology, that may need to be updated to reflect GDM readiness?

6 References

Overview of the GS1 Global Data Model *https://www.gs1.org/standards/gs1-global-data-model*

Get support - contacts

- GS1 Global Data Model Programme: globaldatamodel@gs1.org
- GS1 Member Organisations around the world: https://www.gs1.org/contact/overview

Get prepared - implementation tools and resources
https://www.gs1.org/standards/gs1-global-data-model/getting-prepared

- Training video "How to Implement the GS1 Global Data Model": *https://www.gs1.org/standards/gs1-global-data-model/gdm-training-tool*
- **GS1 GDM Navigator** *tool*, tutorial *webinar* and *quick-start guide*
- **GS1 Attribute Analysis** *tool*, tutorial *webinar* and *quick-start guide*
- Additional information for GS1 MOs to support user engagement and deployment of the GDM is located on the GS1 MOZone: *https://mozone.gs1.org/global-data-model/global-data-model-overview*