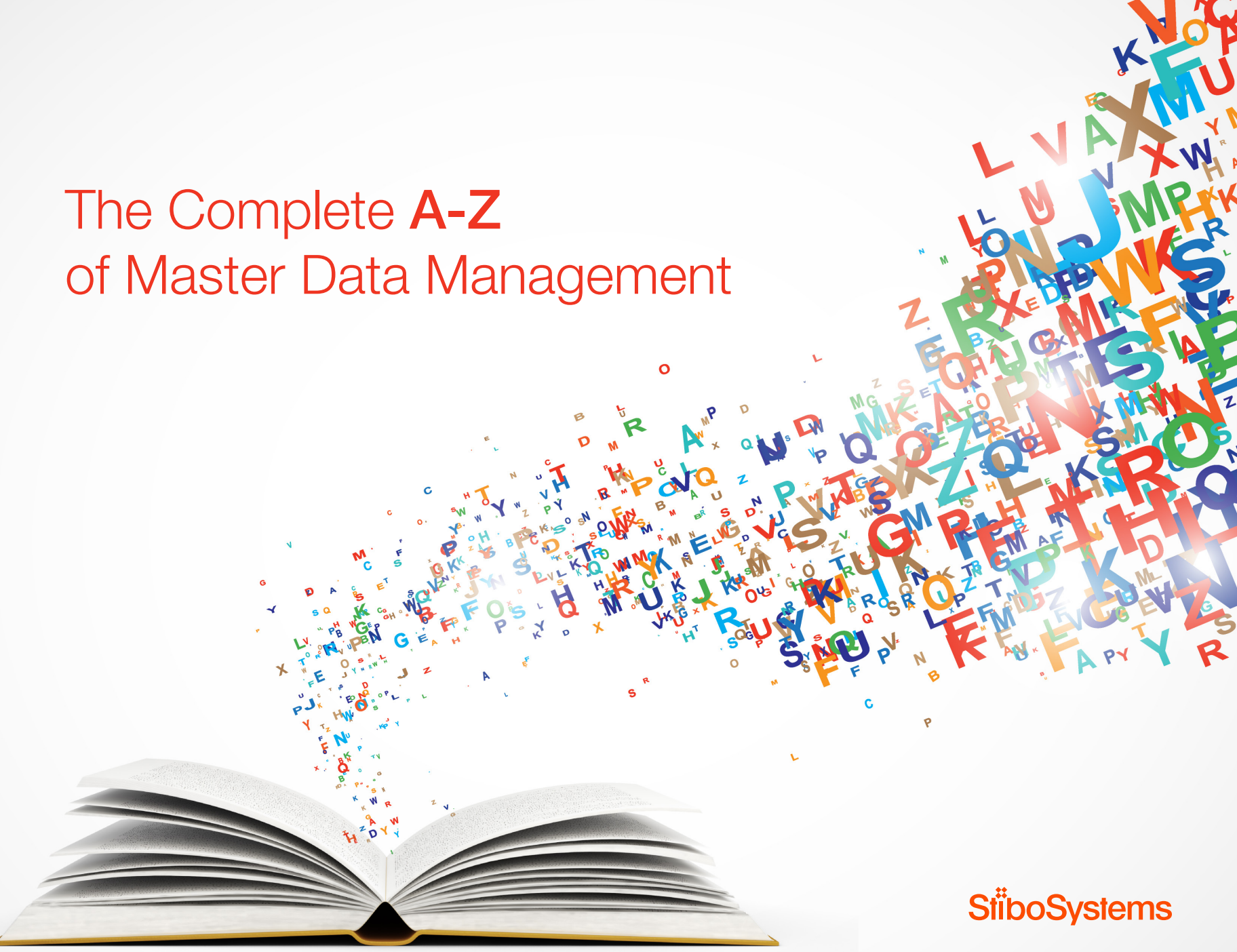
The Complete **A-Z** of Master Data Management



StiboSystems

Introduction

The world of Master Data Management (MDM) is a complicated place to navigate and its native speakers speak a language sometimes only they themselves understand. It is packed with complex descriptions, esoteric lingo and abbreviations.

We know it can be difficult to grasp. That's why we've tried to digest the most common MDM terms and explained them in a simple way. We hope this will give you some tools to understand the language in the world of Master Data Management.

The Stibo Systems Team

ADM. Application Data Management. The management and governance of the application data required to operate a specific business application. ADM performs a similar role to MDM, but on a much smaller scale as it only enables the management of data used by a single application.

Analytics. The discovery of meaningful patterns in data. For businesses, analytics are used to gain insight and thereby optimize processes and business strategies. Master Data Management can support analytics by providing organized master data as the basis of the analysis or link trusted master data to new types of information output from analytics.

API. Application Programming Interface. An integrated part of most software, such as applications and operating systems, that allows one piece of software to interact with other types of software. In Master Data Management, not all functions can necessarily be handled in the software platform itself. For instance, you want to be able to deliver or receive data to or from external systems and applications. By using APIs built into the software, you can do that and thereby expand the functionality of your MDM solution.

Assets. In the MDM lingo, an asset can be understood in slightly different ways. There's the term 'data as an asset', where asset is defined as something that can be 'owned' or 'controlled' to produce value. Here we talk about a way of perceiving something as an asset. But when you hear about asset management and enterprise assets in conjunction with MDM, an asset is a more tangible thing of which the management can be optimized. Assets can be physical - people, buildings, parts, computers - and digital - data, images. *Also, see DAM*.

Architecture. An MDM solution is not just something you buy, then start to use. It needs to be fitted into your specific enterprise setup and integrated with the overall enterprise architecture and infrastructure, which is why MDM architecture is required as one of the first steps in an MDM process.

Attributes. In MDM, an attribute is a specification or characteristic that helps define an entity. For instance, a product can have several attributes, such as color, material, size and components. MDM supports the management of product data, including related attributes. *Also see Entity.*

BI. Business Intelligence is a type of analytics. It entails strategies and technologies that help organizations understand their operations, customers, financials, product performance and a number of other key business measurements. MDM supports BI efforts by feeding the BI solution with trusted master data. *Also, see Analytics.*

Big Data. Large or complex data sets that make traditional data processing tools inadequate. Big data is characterized by the three Vs: Volume (a lot of data), Velocity (data created with high speed) and Variety (data comes in many forms and ranges). The purpose of using Big Data technologies is to capture the data and turn it into actionable insights. The information gathered from Big Data analytics can be linked to your master data and thereby provide new levels of insights.

BOM. Bill of Materials. A list of the parts or components that are required to build a product.

B2B, B2C, B2B2C. Whether you operate as a Business-to-Business company, Business-to-Consumer company or any combination, Master Data Management can be applicable if you deal with large amounts of master data about e.g. products, customers, assets, locations or employees.

Business rules. Business rules are conditions or actions set up in your MDM solution that allows for the modification of your data. According to your business rules, you can determine how your data is organized, categorized, enriched and managed. Business rules are typically used in workflows. *Also, see Workflow.*

CDI. Customer Data Integration. The process of combining customer information acquired from internal and external sources to generate a consolidated customer view. CDI is often considered a subset of MDM for customer data. *Also, see CMDM*.

CDP. Customer Data Platform. A marketing system that unifies a company's customer data from marketing and other channels to optimize the timing and targeting of messages and offers. An MDM platform supports a CDP by linking the CDP data to other master data, such as product and supplier data, maximizing the potential of the data.

Change Management. The preparation and support of individuals, teams, and organizations in making organizational change. A necessity in any MDM implementation if you want to maximize the ROI, as it is very much about changing processes and mindsets.

Cleansing. As in data cleansing. The process of identifying, removing, and/or correcting inaccurate data records, by e.g. deduplicating data. Data cleansing eliminates the problems of useless data to ensure quality and consistency throughout the enterprise, and is an integral process of any decent Master Data Management process. *Also, see Deduplication.*

Cloud. MDM solutions come in many variations, and a central question of today is whether to host it on-premises or in the cloud (or a mix, called a hybrid). Cloud MDM is very slowly on the rise and many vendors offer the possibility to host in the cloud, but still the majority of companies choose an on-premise solution due to primarily security concerns. With a hosted cloud solution, typically run on Amazon's Web Services, Microsoft's Azure or Google Cloud, organizations don't have to install, configure, maintain and host the hardware and software. It is outsourced to a third party and typically offered as a subscription service. *Also, see SaaS.*

Communication. Is something you don't want to forget in the implementation of an MDM solution. It's important that the whole company is made aware of what MDM is, what value it brings, and what it means for everyone on a daily basis. That's the only way people will commit to it. *Also, see Change Management.*

Contextual. As in contextual Master Data Management. Sometimes known under the name situational MDM (ref. Gartner Hype Cycle). The management of changeable master data as opposed to traditional, more static, master data. As products and services get more complex and personalized so does the data, making the management of it equally complex. The dynamic and contextual Master Data Management is forecast to be one of the next big hypes in the MDM world.

CRM. Customer Relationship Management. A system that can help businesses manage business relationships and the data and information associated with them. For smaller businesses a CRM system can be enough to manage the complexity of customer data, but in most cases organizations have several CRM systems used to various degrees and with various purposes. For instance, the sales and marketing organization will often use one system, the financial department another, and perhaps procurement a third. MDM can provide the critical link between these systems. It does not replace CRM systems but supports and optimizes the use of them. *Also, see ERP.*

Customer Master Data Management. Also sometimes referred to as MDM of customer data. The aim is to get one single and accurate set of data on each of your business customers – the so-called 360-degree customer view – across systems, locations and more, in order to create the best possible customer experience and optimize processes.

DAM. Digital Asset Management. The business management of digital assets, most often images, videos, digital files and their metadata. Many businesses have a stand-alone or home-grown DAM solution, inhibiting the efficiency of the data flow and thereby delaying processes, such as on-boarding new products into an e-commerce site. MDM lets you handle your digital assets more efficiently and connects it to other data. DAM can be a prebuilt function in some MDM solutions.

Data. Data is a computing term to describe the characters, symbols, numbers and media that a computer system is storing. Data is unprocessed information. *Also, see Information.*

Deduplication. The process of eliminating redundant data in a data set, by identifying and removing extra copies of the same data, leaving only one high-quality data set to be stored. Data duplicates are a common business problem, causing wasted resources and leading to bad customer experiences. When implementing a Master Data Management solution, thorough deduplication technique is a crucial part of the process.

Domain. In the MDM world a domain is understood as one of several areas in which your business can benefit from data management, for example within the product data domain, customer data domain, supplier data domain, etc. *Also, see Multidomain*.

Digital Transformation. (or Digital Disruption). Refers to the changes associated with the use of digital technology in all aspects of human society. For businesses, a central aspect of Digital Transformation is the 'always-online' consumer, forcing organizations to change their business strategy and thinking in order to deliver excellent customer experiences. Digital Transformation has however also major impact on efficiency and workflows, e.g. resulting in the so-called Fourth Industrial Revolution driven by automation and data, also known as Industry 4.0. MDM can play a crucial role in driving digital transformations as the backbone of these are data.

D-U-N-S. Data Universal Numbering System. A D-U-N-S number is a unique nine-digit identifier for each single business entity, provided by Dun & Bradstreet. The system is widely used as a standard business identifier. A decent MDM solution will be able to support the use of D-U-N-S by providing an integration between the two systems.

EAM. Enterprise Asset Management. The management of the assets of an organization, e.g. equipment and facilities. *Also, see Assets.*

ERP. Enterprise Resource Planning. Refers to enterprise systems and software used to manage day-to-day business activities, such as accounting, procurement, project management, inventory, sales, etc. Many businesses have several ERP systems, each managing data about e.g. products, locations or assets. A comprehensive MDM solution complements an ERP by ensuring that the data from each of the data domains used by the ERP is accurate, up-to-date and synchronized across the multiple ERP instances.

Enrichment. Data enrichment refers to processes used to enhance, refine or otherwise improve raw data. In the world of MDM, enriching your master data can happen by e.g. including third party data to get a more complete view – for instance adding social data to your customer master data. MDM eliminates manual product enrichment processes and replaces them with custom workflows, business rules and automation. *Also, see Workflows and Business Rules.*

Entity. A classification of objects of interest to the enterprise, e.g. people, places, things, concepts and events.

ETL. Extract, Transform and Load. A process in data warehousing, responsible for pulling data out of source systems and placing it into a data warehouse.

Golden Record. In the MDM world, also sometimes referred to as ‘the single version of the truth’. This is the state you want your master data to be in and what every MDM solution is working toward creating: The most pure, complete, trustable data record possible.

Governance. Data Governance is a collection of practices and processes aiming to create and maintain a healthy organizational data framework, by establishing processes that ensure that data is formally managed throughout the enterprise. It can include creating policies and processes around version control, approvals, etc., to maintain the accuracy and accountability of the organizational information. Data governance is as such not a technical discipline but an indispensable discipline of a modern organization – and a fundamental supplement to any data management initiative.

GS1. Global Standards One. The GS1 standards are unique identification codes used by more than one million companies worldwide. The standards aim to create a common foundation for businesses when identifying and sharing vital information about products, locations, assets and more. The most recognizable GS1 standards are the bar code and the radio-frequency identification (RFID) tags. An MDM solution will support and integrate the GS1 standards across industries.

Hierarchy Management. An essential aspect of MDM that allows users to productively manage complex hierarchies spread over one or more domains and change them into a formal structure that can be used throughout the enterprise. Products, customers and organizational structures are all examples of domains where a hierarchy structure can be beneficial, e.g. in defining the hierarchical structure of a household in relation to a customer data record.

Hub. A data hub or an enterprise data hub (EDH) is a database which is populated with data from one or more sources and from which data is taken to one or more destinations. An MDM system is an example of a data hub, and therefore sometimes goes under the name Master Data Management hub.

Identity resolution. A data management process where an individual is identified from disparate data sets and databases to resolve their identity. This process relates to Customer Master Data Management. *Also see CMDM.*

Information. Information is the output of data that has been analyzed and/or processed in any manner. *Also, see Data.*

Integration. One of the biggest advantages of an MDM solution is its ability to integrate with various systems and link all of the data held in each of them to each other. A system integrator will often be brought on board to provide the implementation services. *Also see API.*

IoT. Internet of Things is the network of physical devices embedded with connectivity technology which enables these 'things' to connect and exchange data. IoT technology represents a huge opportunity – and challenge - for organizations across industries as they can access new levels of data. A Master Data Management solution supports IoT initiatives by e.g. linking trusted master data to IoT-generated data as well as supporting a data governance framework for IoT data. *Also see Data Governance.*

Lake. A data lake is a place to store your data, usually in its raw form without changing it. The idea of the data lake is to provide a place for the unaltered data in its native format until it's needed. Why? Certain business disciplines such as advanced analytics depend on detailed source data. A data lake is the opponent to a data warehouse, but often the data lake will be an addition to a data warehouse. *Also see Warehouse.*

Location data. Data about locations. Solutions that add location data management to the mix, such as Location Master Data Management is on the rise, as effectively linking location data to other master data such as product data, supplier data, asset data or customer data can give you a more complete picture and enhance processes and customer experiences.

Maintenance. In order for any data management investment to continue delivering value, you need to maintain every aspect of a data record, including hierarchy, structure, validations, approvals and versioning, as well as master data attributes, descriptions, documentation and other related data components. Maintenance is often enabled by automated workflows, pushing out notifications to e.g. data stewards when there's a need for a manual action. Maintenance is an unavoidable and ongoing process of any MDM implementation.

Modelling. Modelling in Master Data Management is a process in the beginning of an MDM implementation where you accurately map and define the relationship between the core enterprise entities, for instance your products, and their attributes. Based on that you create the optimal master data model that best fits your organizational setup.

Matching (and linking and merging). Key functionalities in a Customer Master Data Management solution with the purpose of identifying and handling duplicates to achieve a Golden Record. The matching algorithm constantly analyzes or matches the source records to determine which represent the same individual or organization. While the linking functionality persists all the source records and link them to the Golden Record, where finally the merging functionality selects a survivor and non-survivor. The Golden Record is based only on the survivor. The non-survivor is deleted from the system. *Also see Golden Record*

Multidomain. A multidomain Master Data Management solution masters the data of several enterprise domains, such as product and supplier domain, or customer and product domain or any combination handling more than one domain. *Also see Domain.*

Metadata management. The management of data about data. Metadata Management helps an organization understand the what, where, why, when, and how of its data: where is it coming from and what meaning does it have? Key functionalities of Metadata Management solutions are metadata capture and storage, metadata integration and publication as well as metadata management and governance. While Metadata Management and Master Data Management systems intersect, they provide two different frameworks for solving data problems such as data quality and data governance.

NPD. New Product Development. A discipline in PLM, Product Lifecycle Management, that aims to support the management of introducing a new product line or assortment, from idea to launch, including its ideation, research, creation, testing, updating and marketing.

Omni-channel. A term mostly used in retail to describe the creation of integrated, seamless customer experiences across all customer touchpoints. If you offer an omnichannel customer experience, your customers will meet the same service, offers, product information and more no matter where they interact with your brand, e.g. in-store, on social media, via email, customer service, etc. The term stems from the Latin word omni, meaning everything or everywhere, and it has surpassed similar terms such as multi-channel and cross-channel that do not necessarily comprise all channels.

Party data. In relation to Master Data Management, party data is understood in two different ways. First of all, party data can mean data defined by its source. You will typically hear about first, second and third-party data. First-party data being your own data, second-party data being someone else's first-party data handed over to you, while third-party data is collected by someone with no relation to you and – probably - sold to you. However, when talking about party data management, party data refers to master data typically about individuals and organizations with relation to e.g. customer master data. A party can in this context be understood as an attorney or husband of a customer that plays a role in a customer transaction, and party data is then data referring to these parties. Party data management can be part of an MDM setup and these relations can be organized using hierarchy management. *Also see Hierarchy*.

PII. Personally Identifiable Information. In Europe often just referred to as personal information. PII is sensitive information that identifies a person, directly – on its own - or indirectly - in combination. Examples of direct PII include name, address, phone number, email address and passport number, while examples of indirect PII include a combination of e.g. workplace and job title or maiden name in combination with date and place of birth.

PIM. Product Information Management. Today sometimes also referred to as Product MDM, Product Data Management (PDM) or Master Data Management for products. No matter the naming, PIM refers to a set of processes used to centrally manage and evaluate, identify, store, share and distribute product data or information about products. PIM is enabled with the implementation of PIM or Product Master Data Management software

PLM. Product Lifecycle Management. The process of managing the entire lifecycle of a product from ideation, through design, product development, sourcing and selling. The backbone of PLM is a business system that can efficiently handle the product information full-circle, and significantly increase time to market through streamlined processes and collaboration. That can be a stand-alone PLM tool or part of a comprehensive MDM platform.

Pool. A data pool is a centralized repository of data where trading partners - retailers, distributors, or suppliers - can obtain, maintain, and exchange information about products in a standard format. Suppliers can for instance upload data to a data pool that cooperating retailers can then receive through their data pool.

Platform. A comprehensive technology used as a base upon which other applications, processes or technologies are developed. An example of a software platform is an MDM platform.

Profiling. Data profiling is a technique used to examine data from an existing information source, such as a database, to determine its accuracy and completeness and share those findings through statistics or informative summaries. Conducting a thorough data profiling assessment in the beginning of a Master Data Management implementation is recognized as a vital first step toward gaining control over organizational data as it helps identify and address potential data issues, enabling architects to design a better solution and reduce project risk.

Quality. As in data quality, also sometimes just shortened into DQ. An undeniable part of any MDM vendor's vocabulary as a high level of data quality is what a Master Data Management solution is constantly seeking to achieve and maintain. Data quality can be defined as a given data set's ability to serve its intended purpose. In other words, if you have data quality, your data is capable of delivering the insight you require. Data quality is characterized by e.g. data accuracy, validity, reliability, completeness, granularity, consistency and availability.

Reference data. Data that define values relevant to cross-functional organizational transactions. Reference data management aims to effectively define data fields, such as units of measurements, fixed conversion rates and calendar structures, to ‘translate’ these values into a common language in order to categorize data in a consistent way and secure data quality. Reference Data Management (RDM) systems can be the solution for some organizations, while others manage reference data as part of a comprehensive Master Data Management setup.

SaaS. Software as a Service. A software licensing and delivery model in which software is licensed on a subscription basis and is centrally hosted. SaaS is on the rise, due to change in consumer behavior and based on the higher demand for a more flat pricing model, since these solutions are typically paid on a monthly or quarterly basis. SaaS is typically used in e.g. cloud MDM. *Also see Cloud*.

SCM. Supply Chain Management. The management of material and information flow in an organization - everything from product development, sourcing, production, and logistics, as well as the information systems - to provide the highest degree of customer satisfaction, on time and at the lowest possible cost. A PLM solution or PLM MDM solution can be a critical factor for driving effective supply chain management.

Silos. When navigating the MDM landscape you will often come across the term data silos. A term describing when crucial data or information – such as master data - is held separately whether by individuals, departments, regions or systems. MDMs finest purpose is to 'break down data silos'.

SKU. Stock Keeping Unit. A SKU represents an individual item, product or service manifested in a code, uniquely identifying that item, product or a service. SKU codes are used in business to track inventory. It's often a machine-readable bar code, providing an additional layer of uniqueness and identification.

Stack. The collection of software or technology that forms an organization's operational infrastructure. The term stack is used in reference to software (software stack), technology (technology stack) or simply solution (solution stack) and refers to the underlying systems that make your business run smoothly. For instance, an MDM solution can – in combination with other solutions - be a crucial part of your software stack.

Stewardship. Data stewardship is the management and oversight of an organization's data assets to help provide business users with high-quality data that is easily accessible in a consistent manner. Data stewards will often be the ones in an organization responsible for the day-to-day data governance.

Strategy. As with all major business initiatives, MDM needs a thorough, coherent, well-communicated business strategy in order to be as successful as possible.

Supplier data. Data about suppliers. One of the domains on which MDM can be beneficial. May be included in a MDM setup in combination with other domains, such as product data. *Also, see Domain*.

Synchronization. The operation or activity of two or more things at the same time or rate. Applied to data management, data synchronization is the process of establishing data consistency from one endpoint to another and continuously harmonize the data over time. MDM can be the key enabler for global or local data synchronization.

Syndication. Data syndication is basically the onboarding of data provided from external sources, such as suppliers. An MDM solution will typically automate the process of receiving external data while making sure that high-quality criteria are met.

Swamp. A data swamp is a deteriorated data lake, that is inaccessible to its intended users and provides little value.
Also see Lake.

Training. No, not the type that goes on in a gym. Employee training, that is. MDM is not just about software. It's about the people using the software, hence they need to know how to use it the best in order to maximize the Return on Investment (ROI). MDM users will have to receive training from either the MDM vendor, consultants or from your employees who already have experience with the solution.

UI. User Interface. The part of the machine that handles the human–machine interaction. In an MDM solution – as in all other software solutions – users have an 'entrance'; an interface from where they are interacting with and operating the solution. As is the case for all UIs, the UI in an MDM solution needs to be user-friendly and intuitive.

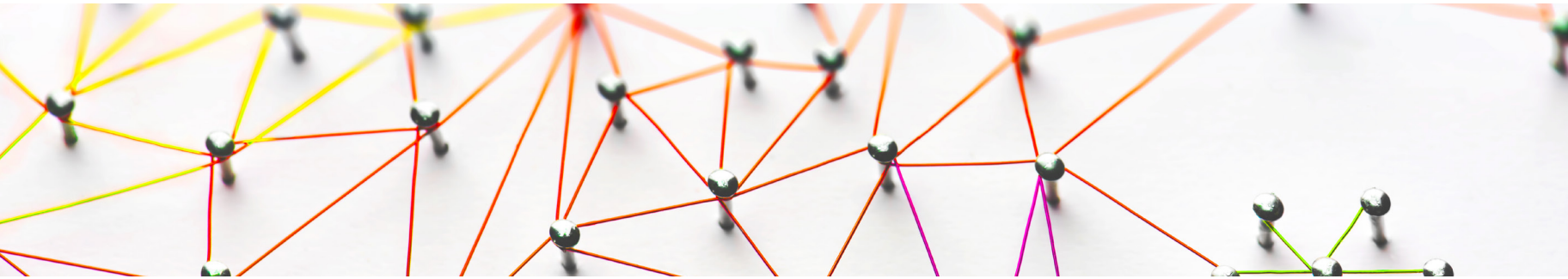
Vendor. There are many Master Data Management vendors on the market. How do you choose the right one? It all depends on your business needs, as each vendor is often specialized in some areas of MDM more than others. However, there are some things you generally should be aware of, such as scalability – is the system expandable in order to grow with your business? -, proven success – does the vendor have solid references confirming the business value? – and integration – does the solution integrate with the systems you need it to?

Warehouse. A data warehouse – or EDW (Enterprise Data Warehouse) - is a central repository for corporate information and data derived from operational systems and external data sources, used to generate analytics and insight. In contrast to the data lake, a data warehouse stores vast amounts of typically structured data that is predefined before entering the data warehouse. The data warehouse is not a replacement for Master Data Management as MDM can support the EDW by feeding reliable, high-quality data into the system. Once the data leaves the warehouse, it is often used to fuel Business Intelligence. *Also see Lake and BI*.

Workflow automation. An essential functionality in an MDM solution is the ability to set up workflows - a series of automated actions for steps in a business process. Preconfigured workflows in an MDM solution generate tasks, which are presented to the relevant business users. For instance, a workflow automation is able to notify the data steward of data errors and guide him through fixing the problem. *Also, see Business Rules*.

Yottabyte. Largest data storage unit, i.e. 1,000,000,000,000,000,000,000,000 bytes. No Master Data Management solution, or any other data storage solution, can handle this amount yet. But scalability should be a considerable factor for which MDM solution you choose.

ZZZZZ... With a Master Data Management solution placed at the heart of your organization you get to sleep well at night, knowing your data processes are supported and your information can be trusted.



Have more terms you want to have defined?

Let us know by sending an email to **juro@stibosystems.com**

About **Stibo Systems**

Stibo Systems believes the future of business requires a Digital Business Core™ of operational data that is continuously shaped and delivered to produce superior business outcomes. Stibo Systems is the driving force behind hundreds of forward-thinking companies around the world who have unlocked the full value of their information; empowering business users to act with confidence in their data, adapt quickly to changing market conditions and go beyond to anticipate what's next. Stibo Systems is a privately held subsidiary of the Stibo A/S group, originally founded in 1794. Its corporate headquarters is located in Aarhus, Denmark.
For more information, visit **www.stibosystems.co.uk**