PIMCORE®

Own the Digital World

8 MDM + PIM Challenges You can't ignore!

Challenges throughout the implementation of PIM-MDM that enterprises must not overlook

PIMCORE ®

Own the Digital World

8 Master Data and Product Information Management Challenges You Can't Ignore!

There are recognizable challenges which run throughout the implementation of PIM-MDM that enterprises mustn't overlook

TABLE OF CONTENTS

INTRODUCTION

Change—the old bugbear brings along great many challenges in business processes and often renders enterprises out of their depth. This is because optimizing of business processes demands digitization.

Organizations must relentlessly work towards creating new business models and redesigning IT landscapes for environments like e-commerce, warehouse or ERP systems. Compliance with laws and regulations is another concern. Organizations must not only have rich, accurate data available to them, they must also design processes to manage that data properly, so it can be distributed to all their desired channels.

There's no doubt that Master Data Management (MDM) and Product Information Management (PIM) can turn the tide for businesses. The real question is, though, how to counter the challenges while leveraging them?

EVERYTHING REVOLVES AROUND DATA FOR TODAY'S ENTERPRISE

Data is overflowing in present day companies. Data can be anything. It can be related to a product or service offered by enterprises, distributors, wholesalers or retailers. It can be a functional product description, a how-to videos, user reviews, price information, leaflets, pdfs, drawings, catalogs, et al., that need to be updated, managed and integrated. It comes from different sources and is suggested and improved by various people or departments who manage it.

In addition to all the data about products and services, there's also content for the website: knowledge articles, success stories, inspirational articles, successful applications, events, and all other information that must be made available online.

Lastly, content is not just for the website, but also for marketing purposes, e-mailing, as well as for social media channels, external sales portals, customers and suppliers. And then there's the question of how such multitude of data can be used qualitatively, within a certain time and with minimal effort to meet the internal quality or legal requirements. In short, data management is one of the biggest challenges across organizations.

DATA REQUIREMENT CAN'T BE ONE SIZE FITS ALL

Data management poses different challenges to different people. A marketing manager of an e-commerce company can be faced with fragmented data, a CIO might want a smooth omni-channel experience, an inventory manager may want to build better relationships with suppliers. Everybody knows what they're looking for, but something holds them back every time they aim for perfection.

Many times, the source data is untraceable. Nobody takes the ownership or the responsibility for the data. The handling of data by multiple people is not easy to manage. And certainly not if each participant has the power to actively adjust that data. On top of that, there's redundancy of data, a common pain for organizations.
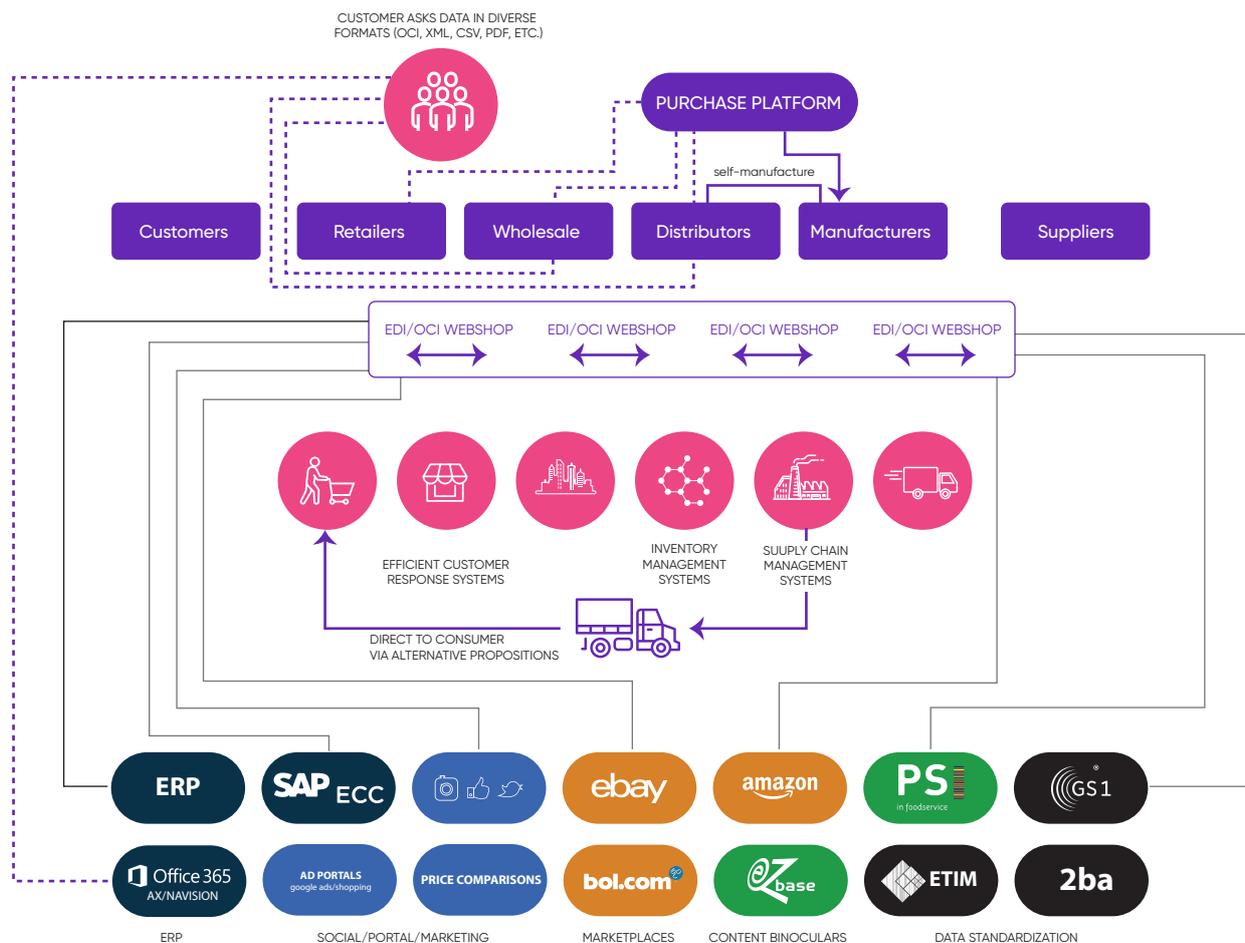
Fig: The data environment for manufacturers, distributors and organizations

MASTER DATA
AND
PRODUCT INFORMATION
MANAGEMENT
CHALLENGES

I.   How to use data from an ERP system?

II.   How to ensure consistency and uniformity of data in external
        appearance and communication, efficiently and effectively?

III.   How to create a single place for data, offer a consistent
        experience to customers on any device and any channel?

IV.   How to manage and get insights on data quality. Also, how
        to make the process of data quality improvement more efficient?

V.   How to ensure that the data meets the laws and regulations?

VI.   How to distribute data to the customers?

VII.   How to create magazines, leaflets and brochures, quickly
        and inexpensively?

VIII.   How to create an API driven IT architecture? And why
        should it be done?
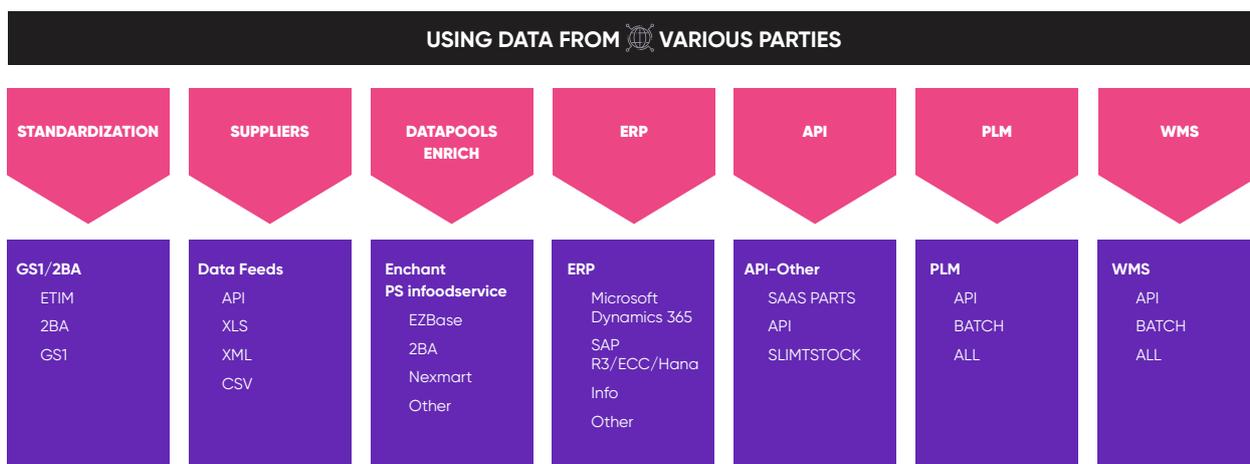
Challenge I.

How to Use Data From an ERP System?

It's quite likely that you have already arranged the basic product information in your ERP system (for example, SAP ECC/R3 or Microsoft Dynamics 365 Enterprise/Navision). Now, it's time to make sure that this data is retained and with an integration via web services, is used as a 'basic set' for PIM-MDM. This will help in the creation of a single point of truth.

In a multi-form PIM-MDM solution, what's usually needed is associated software components and separate technical concepts, where some of them might run a central MDM hub, while others might run as part of applications.

Many times important decisions such as whether the ERP UI or the MDM UI should be used for creating and maintaining the master data must be made.

USING DATA FROM VARIOUS PARTIES						
STANDARDIZATION	SUPPLIERS	DATAPOOLS ENRICH	ERP	API	PLM	WMS
GS1/2BA ETIM 2BA GS1	**Data Feeds** API XLS XML CSV	**Enchant** **PS infoodservice** EZBase 2BA Nexmart Other	**ERP** Microsoft Dynamics 365 SAP R3/ECC/Hana Info Other	**API-Other** SAAS PARTS API SLIMTSTOCK	**PLM** API BATCH ALL	**WMS** API BATCH ALL

Challenge II.

How to Ensure Consistency and Uniformity of Data in External Appearance and Communication, Efficiently and Effectively?

Marketers, product data specialists, CEOs and CMOs have realized that data within the organization exists in many different systems. Often uniformity in look and communication is lacking and nobody in the organization knows where the source data is and no one feels they are responsible for it.

Employees may experience the following situations within an organization:

Managing data with multiple people gets difficult.

Employees work hard to improve the data, but they feel it's often saved or is captioned like "data from 'x' source" or "data from 'y' colleague".

Many times, the data created by data specialists can't be used by sales and marketing people. Sometimes it's out of their reach, and when they get hold of it, it's outdated or redundant.

Work is being done inefficiently, because several people are driven by a "source data thinking" thereby creating duplicate data in many places.

Having consistency and uniformity in products and services on every channel starts with organizing the data in one place.

Challenge III.

How to Create a Single Place for Data, Offer a Consistent Experience to Customers on Any Device and Any Channel?

For that cool digital experience not only rich product data should be centralized, but other information like 'inspiration', 'knowledge', 'application', 'events' and 'cases', should also be bundled with it. You should put all the data in your PIM-MDM tool.

> **Tip:** *Choose a single digital platform, instead of separate tools for PIM-MDM, DAM, CMS, e-commerce and MAM.*

The data must then be sent from one source (PIM-MDM) to three systems (CMS, ecommerce and Mobile app), where each presents its own challenge. Most likely this will be the beginning of new content issues, since content is added in the CMS and/or eCommerce system. This content should be pushed from just one source.

It would be even better if the website, e-commerce and mobile application is made from one platform. In other words, one digital platform solution. Take a look at Adobe's or Pimcore's software experience. Their products emphasize on a single digital platform.
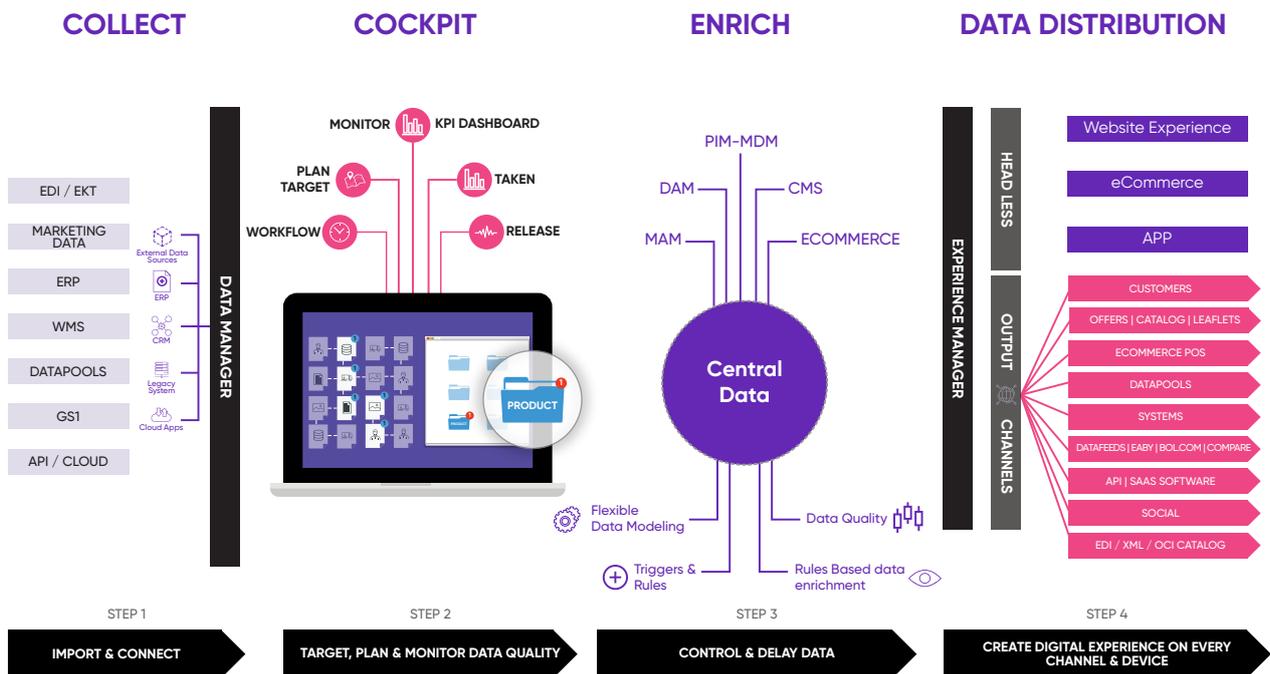
They go by two simple principles:

Data: There is data and it needs to be managed in a smart way; for this you need a 'Data Manager'

Experience: Data should be distributed in a cool way to devices or customers/suppliers

These products then offer tools and pre-programmed components to e-commerce website or app. Everything in one source and everything directly made on one platform provides an extreme simplification of Information and Communication Technology (ICT) landscape, resulting in faster time to market.

COLLECT

COCKPIT

ENRICH

DATA DISTRIBUTION

EDI / EKT
MARKETING DATA
ERP
WMS
DATAPOOLS
GS1
API / CLOUD

External Data Sources
ERP
CRM
Legacy System
Cloud Apps

DATA MANAGER

MONITOR — KPI DASHBOARD
PLAN TARGET — TAKEN
WORKFLOW — RELEASE

PRODUCT

PIM-MDM
DAM — CMS
MAM — ECOMMERCE

Central Data

Flexible Data Modeling
Triggers & Rules
Data Quality
Rules Based data enrichment

EXPERIENCE MANAGER

HEAD LESS
OUTPUT CHANNELS

Website Experience
eCommerce
APP

CUSTOMERS
OFFERS | CATALOG | LEAFLETS
ECOMMERCE POS
DATAPOOLS
SYSTEMS
DATAFEEDS | EABY | BOL.COM | COMPARE
API | SAAS SOFTWARE
SOCIAL
EDI / XML / OCI CATALOG

STEP 1
IMPORT & CONNECT

STEP 2
TARGET, PLAN & MONITOR DATA QUALITY

STEP 3
CONTROL & DELAY DATA

STEP 4
CREATE DIGITAL EXPERIENCE ON EVERY CHANNEL & DEVICE

Challenge IV.

How to Manage and Get Insights on Data Quality. Also, How to Make the Process of Data Quality Improvement More Efficient?

Data in one place is just the start. However, it can also be a solution to the questions from organization's C-Level or management, like:

What is the quality of the data now and what do we really want from it?

How can we upgrade the data to the desired quality while gaining insights?

How do we enrich data and monitor its quality on crucial variables such as legislation, specification of materials or ingredients (e.g., food)?

All this requires proper tooling to: organize, determine targets, plan for data improvement projects, monitor the data quality, filter from exceptions, match data to legislation, and release the data.

Challenge V.

How to Ensure That Data Meets the Laws and Regulations?

More and more organizations are required to prove that their data meets the laws and regulations. In addition, they need to be able to show which data-sheets (including specifications) have been sent to which customers.

Producers from the food industry, for example, supply the information (ingredients) of products to comply with legislation of the country in which it is actively sold. Setting up this compliance process can be very complex as well as labor intensive without any suitable tooling.
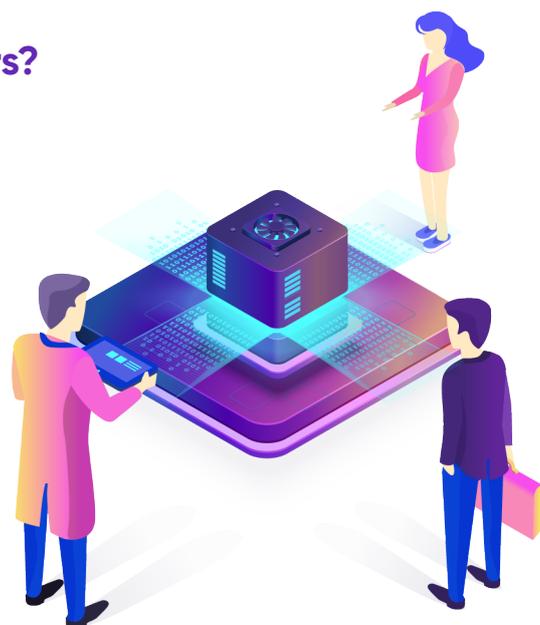
In a construction project, for instance, products are used in digital format by various buildings, architects, and Building Information Modeling (BIM) software applications where installations, buildings and spaces are drawn. If there are errors in the product data in terms of carrying capacity, length, width, weight or material type, then the consequences can be humongous. The product data must therefore be correct.

Challenge VI.

How to Distribute Data to the Customers?

The need to distribute data to customers, suppliers, consumers, portals, other applications and systems simultaneously on different channels and on different devices, is increasing.

It means that data needs to be presented in an appealing way for a better online experience in mobile app and e-commerce website. In the 'old world ', several systems were needed to distribute this data on: website (often with separate CMSes), webshop (separate e-commerce system) and mobile app (with a separate MAM application; Mobile Application Manager).

However, with the centralization of data and assets, it is important to not only understand where the product data is coming from, but how it's used, in order to understand where the pieces of the master data record are needed. Enterprises will need to get familiar with new ways of marketing by disseminating product information along with messaging, consistently to customers.

USING DATA FROM ⬡ VARIOUS PARTIES

DATAFEEDS XML, CSV OF XLS	WEBPORTAL	OPENING API	EDI / OCI CATALOG

Challenge VII.

How to Create Magazines, Leaflets and Brochures, Quickly and Inexpensively?

Data is also available for physical communication such as leaflets, magazines and brochures. It is equally important, along with high-quality visuals and other images. When you manage data in one digital tool, all data and images can be accessed from this central location and can be distributed to graphic software such as Adobe Indesign.

One of the enterprise solutions currently used by companies for automating catalogs and leaflet production with Adobe Indesign is 65bit software's 'Easycatalogger tool'.

This tool ensures that data from PIM-MDM gets immediately available in Adobe InDesign. The tool also ensures that products are automatically enumerated in the templates, provides automatic page numbering and aligns automatically when visuals are placed between the products.

Also, consider the possibilities of PDF-catalog generators. Various PIM-MDM tools support the generation of print-ready leaflets, price lists and catalogs without the intervention of designers. That saves not only man hours, but also the license costs of software programs. Such tools can also generate leaflets and magazines for your customers. As for the errors in data, they belong to the past, as the data is generated in real time for each version.

Tip: *Make sure that all original images of products, other visuals, themes and the like are stored in your digital data platform. Save designers time by setting up the 'Easycatalogger' tool. This tool does many things automatically and retrieves the images and data from your PIM-MDM tool, which is a part of your central digital platform.*

Challenge VIII.

How to Create an API Driven IT Architecture? And Why Should It Be Done?

Traditionally, various systems existed for data storage: CMS for website content, MAM for mobile content, DMS for documents, PIM for product data, DAM for assets such as images and files and MDM for all the data.

Then, a desire arose to link all the data together. This is often done by setting up an Enterprise Service Bus (ESB) that stays above and pulls all that data from the system 'evenly' and distributes it.

When we use a tool such as Pimcore, to cover all data in one digital platform, this problem is solved effectively.

There are many reasons behind the need for an API driven IT landscape:

Data is increasingly being distributed in real-time and thus via web services (API). A central API solution ensures that data and functions can always be accessed via the API. However, a function in a platform can only be developed through the API.

The current IT landscape consists of many SaaS software packages, each of which offers an API. To get better linked in this world, where all kinds of tooling are available, you should be prepared to be 'connected'.

GETTING STARTED
WITH PIMCORE

As you go about managing your data, consider this:

PIM-MDM is not just about tools and systems, it's a business philosophy that relies on organizational policies and support. They can't function in a vacuum.

Almost as important as the customer facing information, is the data accessed and used by various departments in your own enterprise.

Product data is altered by multiple users at multiple stages, but the information should be uniform at every touchpoint, at any point of time.

Enablement, collaboration and efficiency should be your unwavering focus behind PIM-MDM implementation.

Pimcore, the software stack for managing data and user experiences, prides itself on providing one of the most effective, strongest open source digital platforms.

Be it any data, any channel or any process, Pimcore keeps information management at the center of all digital experiences & integrations; no matter the quantity of your data.

PIMCORE®

Own the Digital World

Gartner.

Cool Vendor
for PIM & E-Commerce

IDC

MarketScape PIM
for Commerce 2019–2020

FORRESTER®

PIM Vendor Landscape,
Now Tech Report:
Digital Experience Platforms

G2 | CROWD

★★★★⯪
4.4 out of 5

Gartner peer insights™

★★★★⯪
4.9 out of 5

◥ Capterra

★★★★⯪
5 out of 5

ABOUT PIMCORE

- **Founded in 2013**

- **120+ solution partners**
  such as Infosys, Arvato Systems and
  many digital agencies and system
  integrators

- **100+ enterprise customers**
  such as Audi, Pepsi, Dr Oetker, Yamaha

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