

How e-tailers win with smart product data & AI.

Shopping Today – 9 oct 2025



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Many organisations are in a **Digital Transformation** towards their North Star and face complex **Data** related challenges and uncertainties on their way forward

We believe in the power of **PEOPLE, DATA & AI**
to realize digital transformation, where trust
and personal relationships are central.



Data foundation.



Analytics.



Artificial
Intelligence.



Digital
commerce.



Digital
leadership.



Digital
transformation.

2016
Founded

70+
Colleagues

200+
Clients

Data Driven
Value Creation

Data
Leadership

Data
Value Creation

Data
Foundation

Squadra - The trusted partner in your data journey

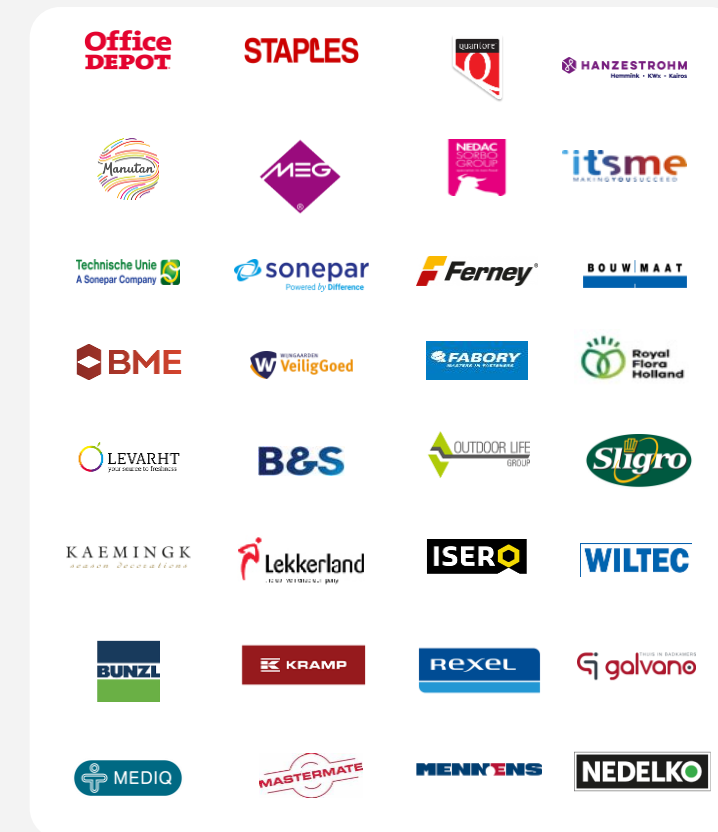
Our main customers.

Over the last 10 years we have serviced over 200 happy customers, ready to be your reference

Manufacturers



Wholesale/distribution

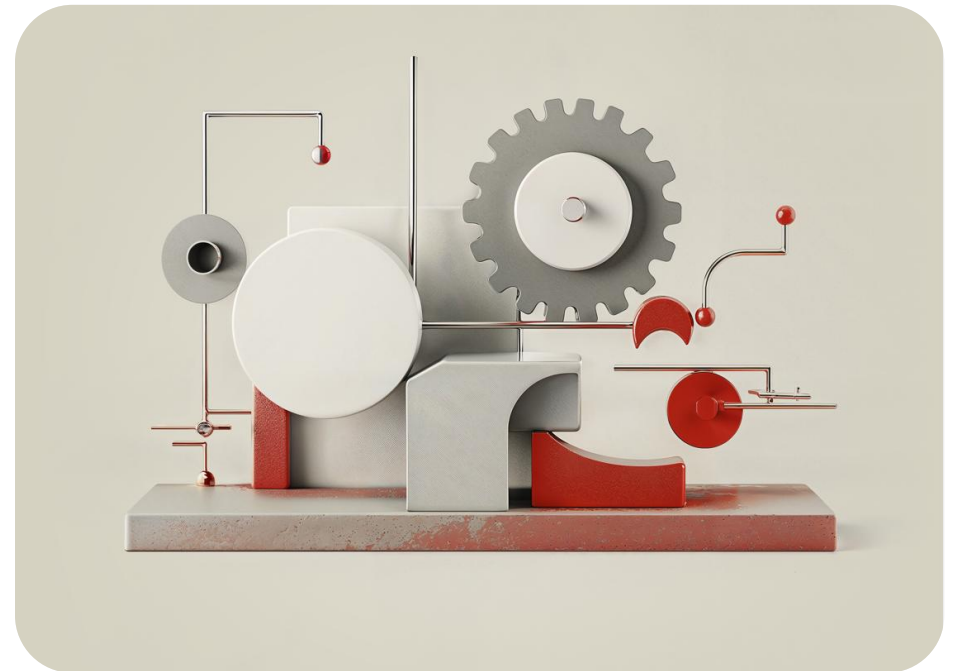


Retail



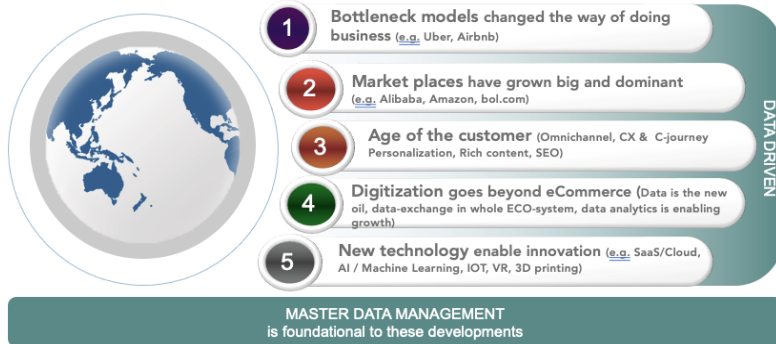
Agenda.

- 1. The business context of Product Data**
2. AI for Smart Product Data Management
3. AI Agents for product data automation
4. Q&A

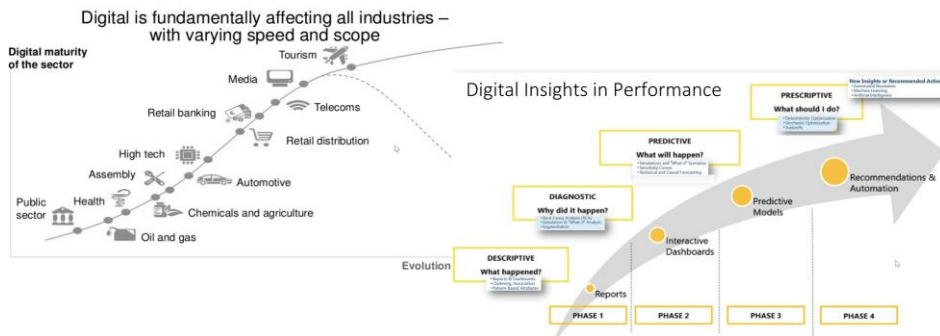


Business Context: the importance of data is rapidly increasing.....

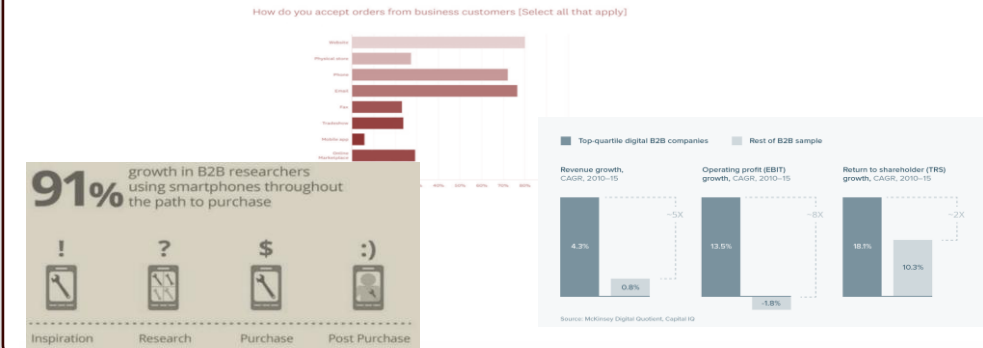
Data enables innovation, quality **master data is foundational**.



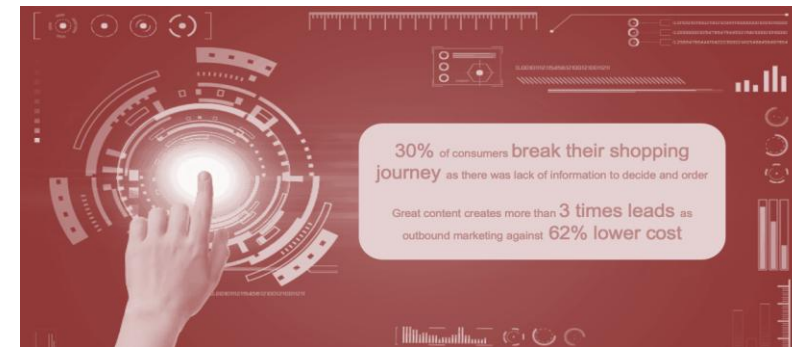
Data is the fuel for **digitalization** and **business insights**.



Digitisation **B2B market accelerates** and follows/learns from B2C.



Customer journey is key & needs fuelling by high quality data.



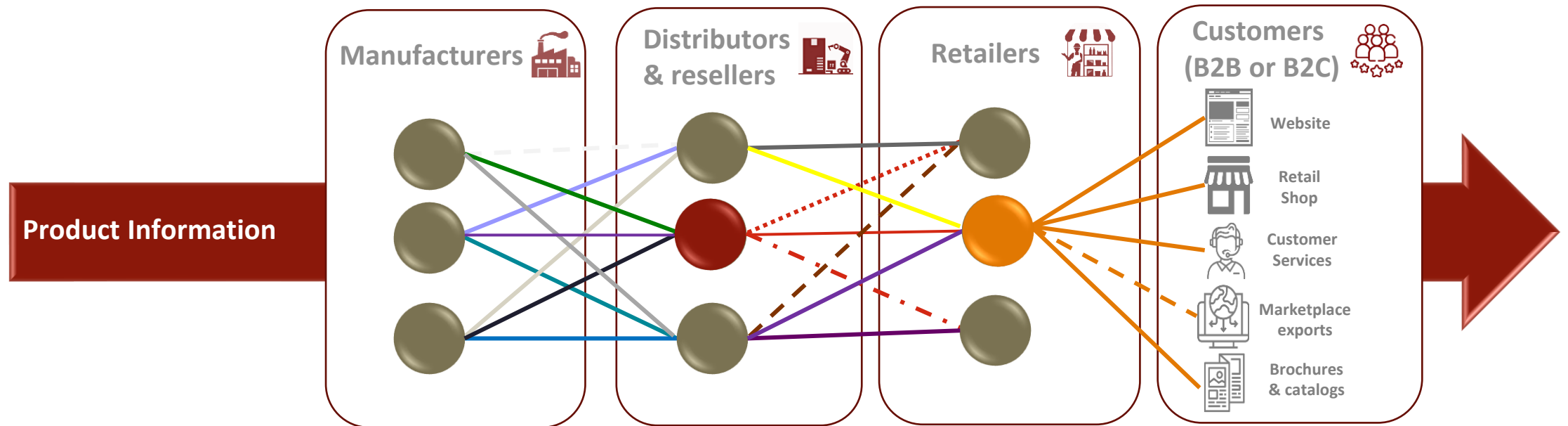
... And Product Data is important



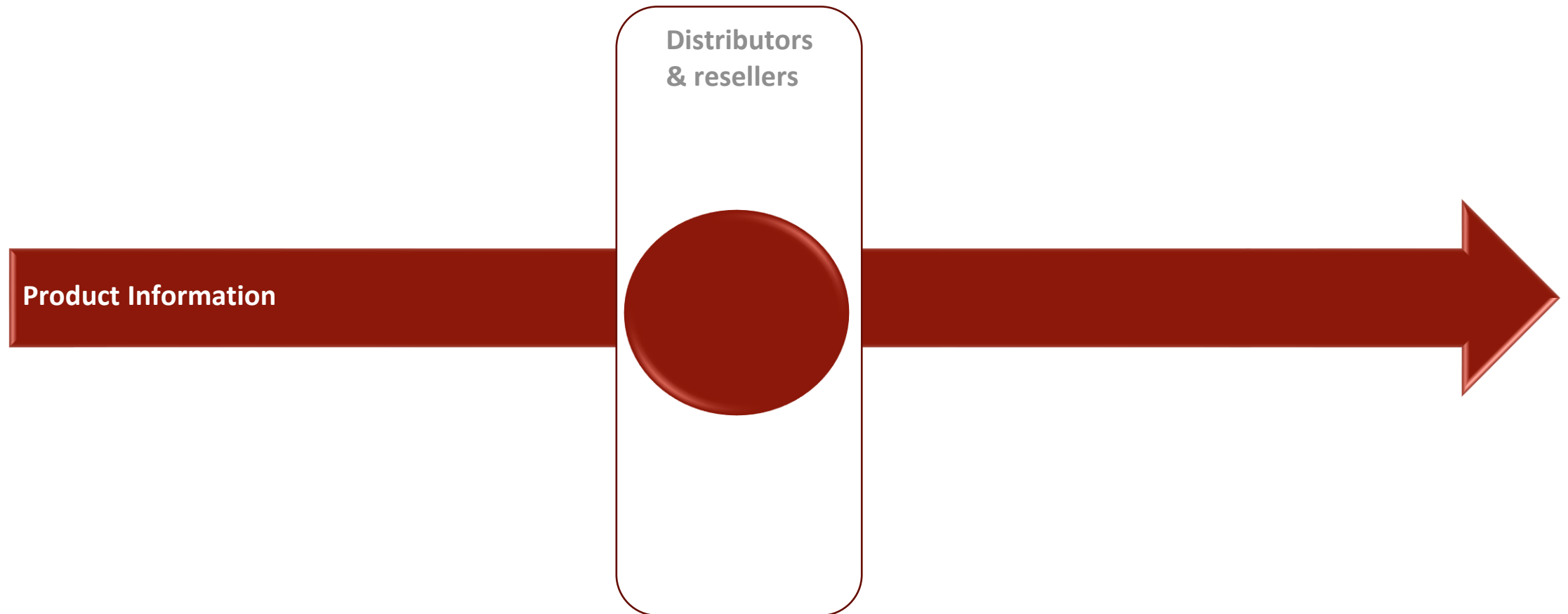
Source: <https://www.shiprocket.in/blog/product-page-optimization/>

- **98%** shoppers discontinue a purchase if the information about the product is incomplete or inaccurate
- **50%** of users return online purchases due to poorly written product descriptions.
- More than **85%** of users conduct online research before purchasing a product.
- Nearly **90%** of consumers rate product content extremely or very important when deciding to buy.

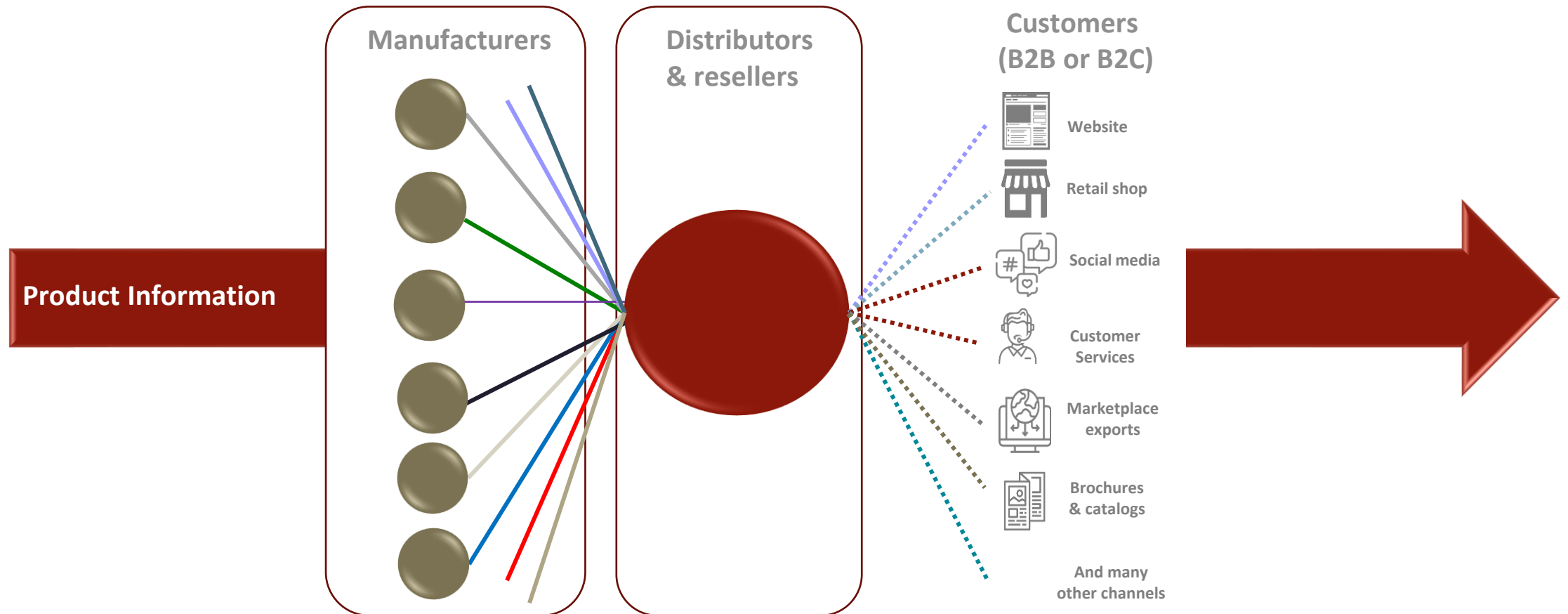
Data exchange in the value chain is chaotic



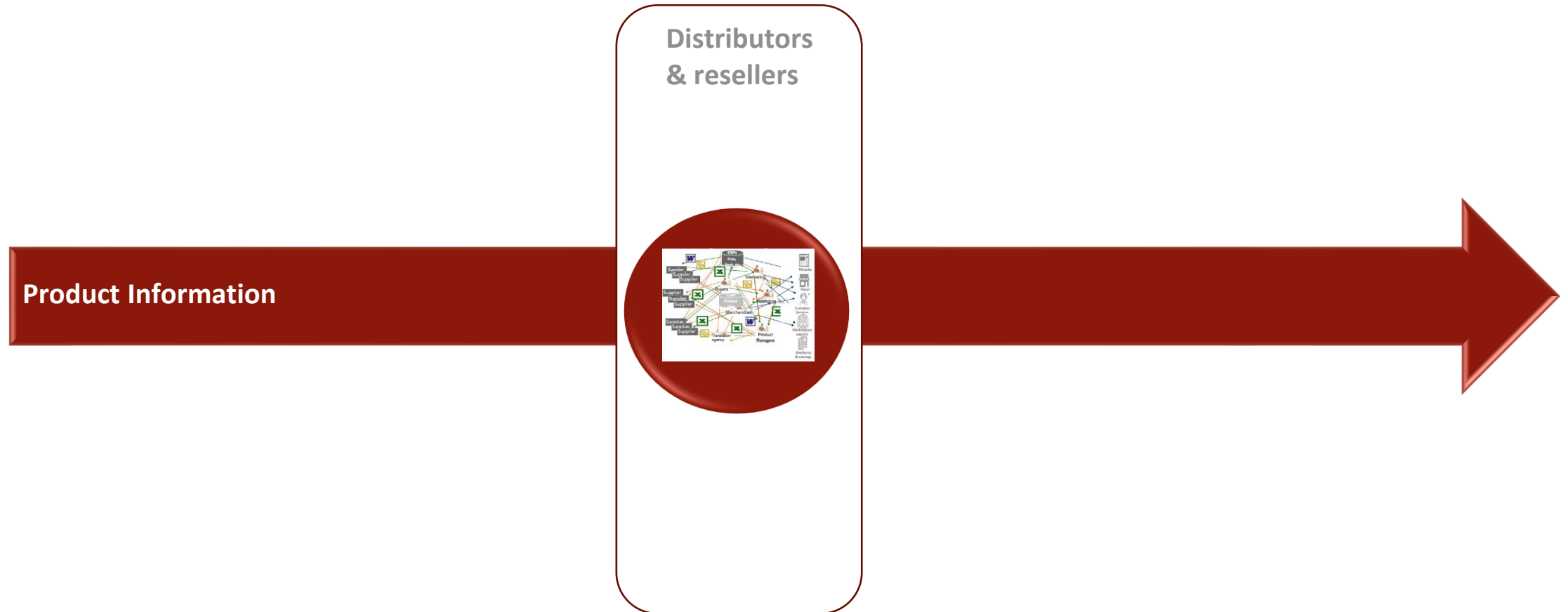
Data exchange in the value chain is chaotic



Data exchange **between value chain partners** is chaotic



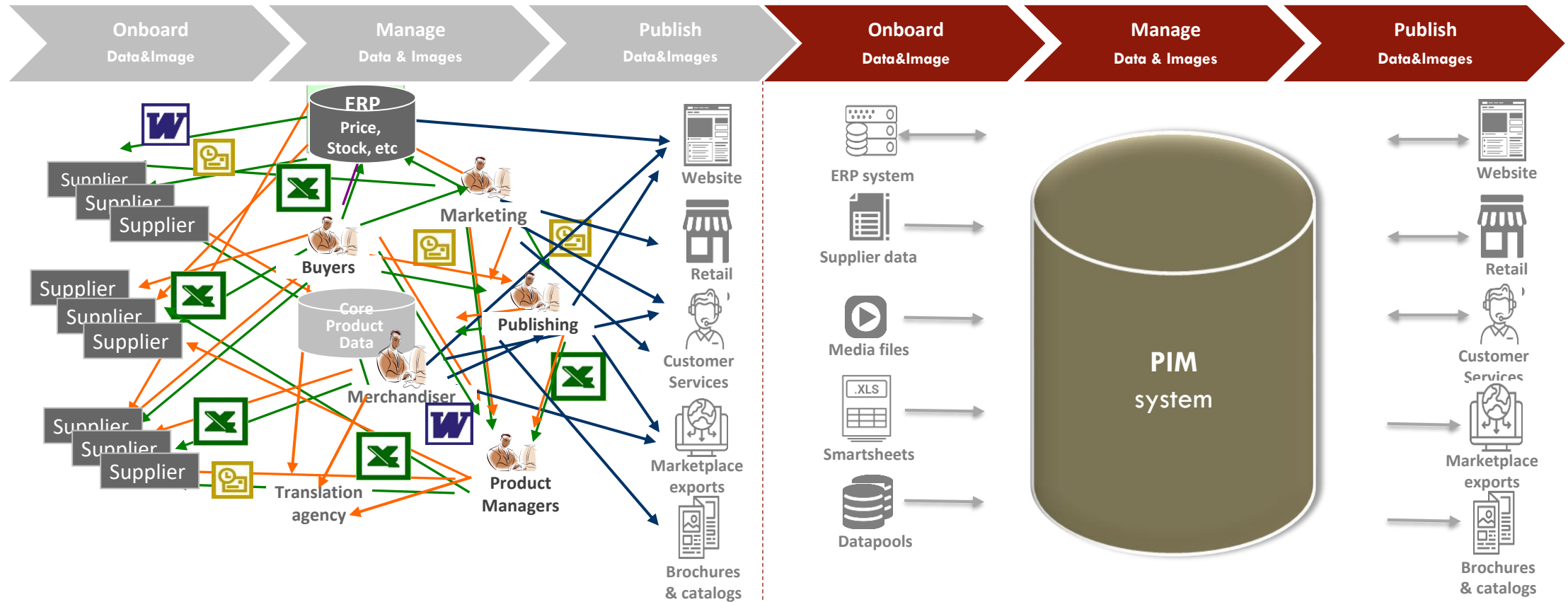
Data exchange **within a single company** is also challenging



PIM solutions enable organisations to onboard, manage and distribute complete, high quality product data

From silo's and scattered landscape....

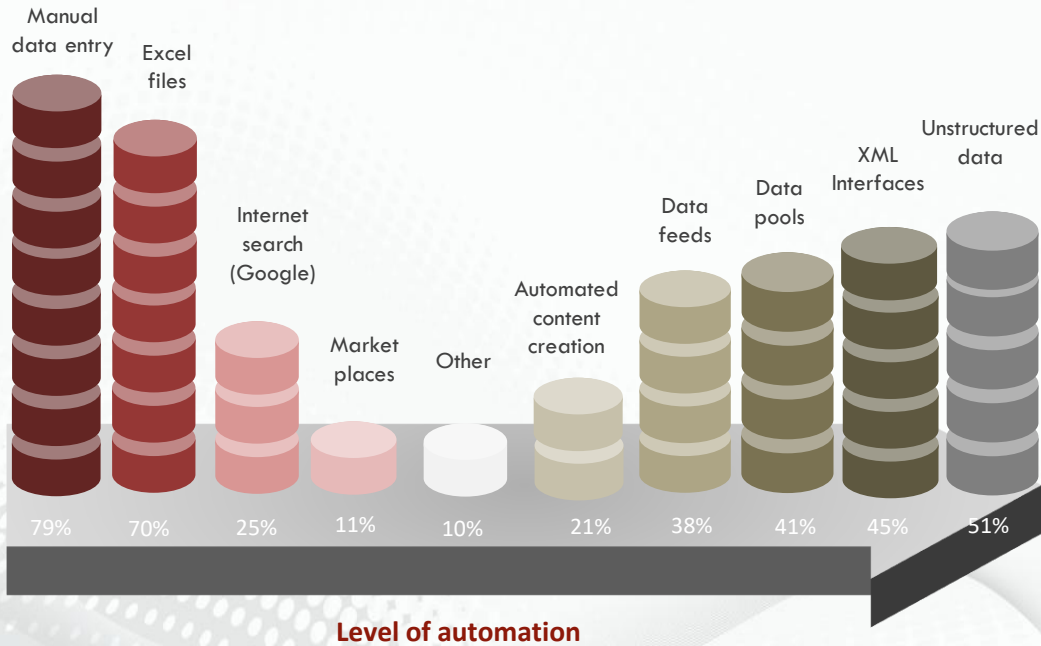
.....to a 360 degrees PIM solution



Efficient onboarding of product data is biggest challenge for wholesalers and retailers

Data onboarding challenges

One of the biggest challenges for platforms, wholesalers and retailers is to onboard data

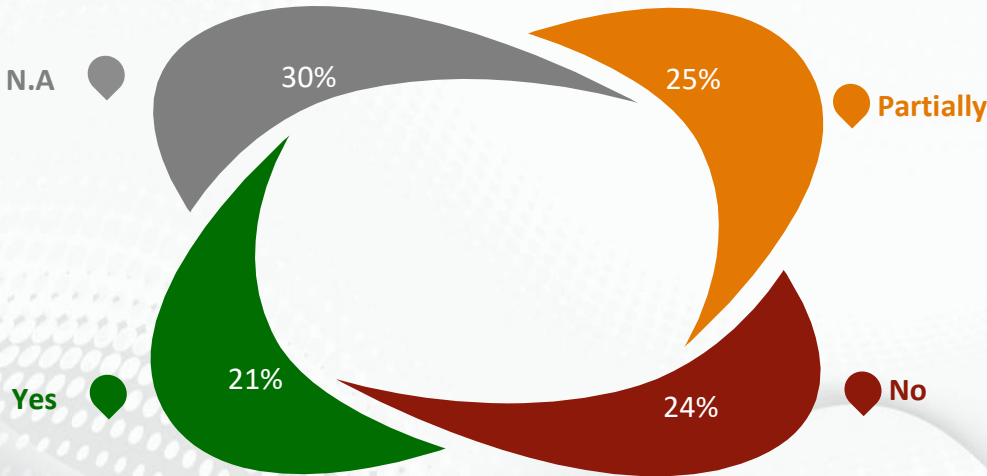


Source: Squadra research

Wholesalers & retailers suffer from data onboarding challenges

Suppliers have substantial challenges in providing customers with complete, qualitative data. Only 21% of the participants is satisfied

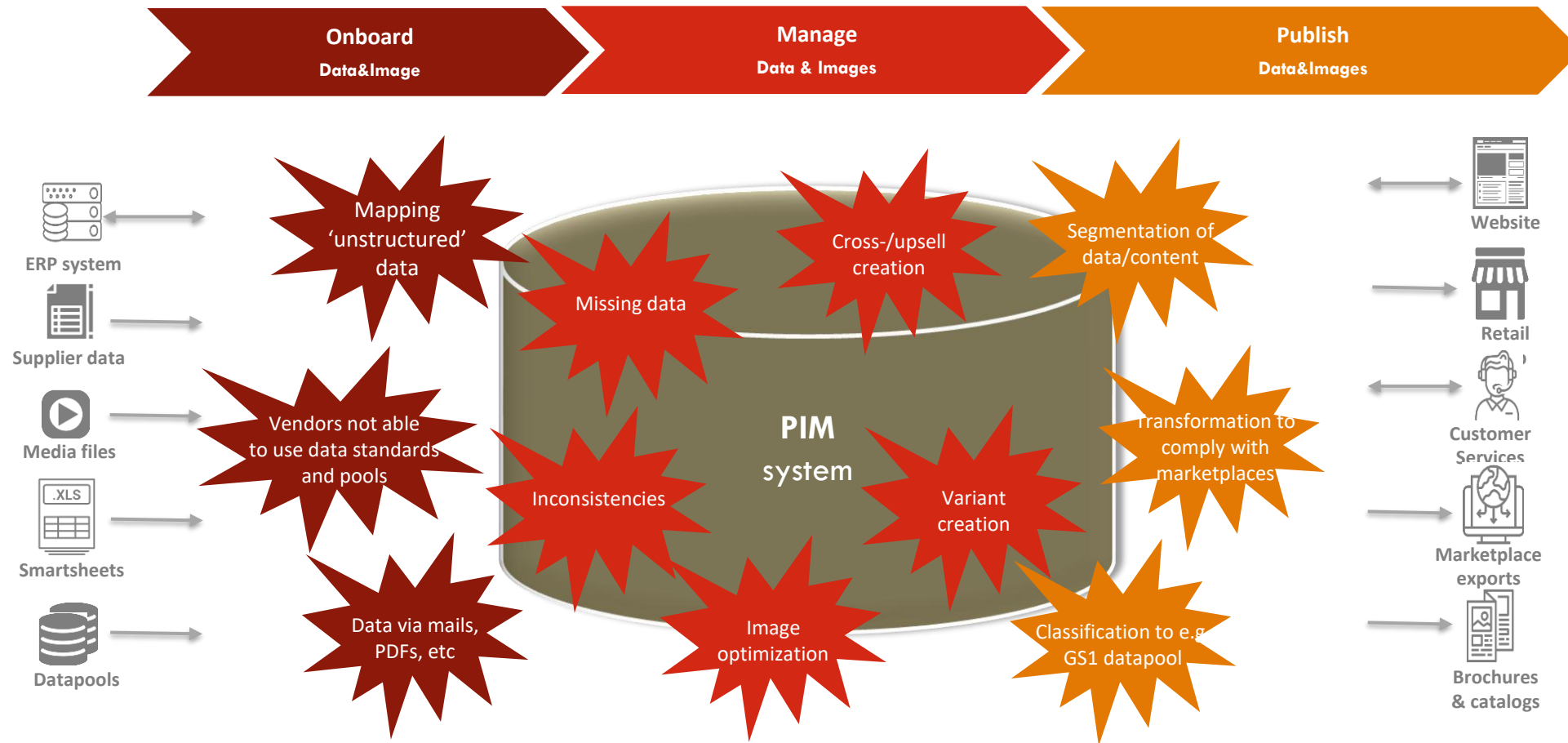
Does your supplier provide you with sufficient product data to support your business and make their products findable on your website?



Source: Squadra research

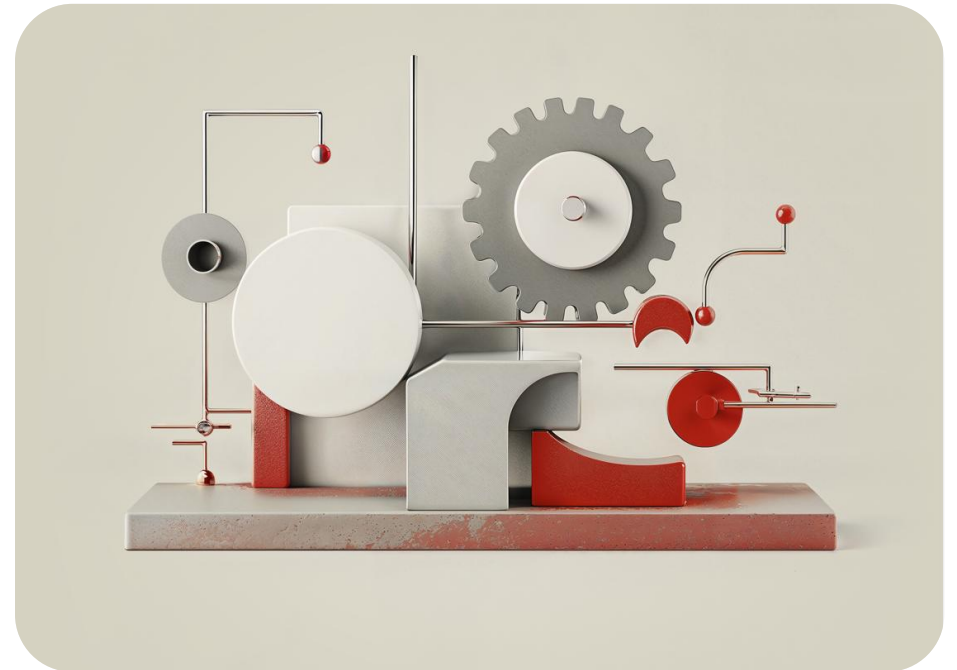
A single version of the truth is the foundation for AI based product data management

Smart product data management: reducing manual effort and interdepartmental data exchange and optimize data



Agenda.

1. The business context of Product Data
- 2. AI for Smart Product Data Management**
3. AI Agents for product data automation
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Common challenges with Product Data.

1. Product data is an extremely powerful asset of digital and omnichannel commerce, yet this data is often **not complete**, not in the **right format** or of **low quality**.
2. As a result, sales opportunities are missed: **low findability** of the products and **low conversion rates** (online and in store)
3. Manual labor is required to enrich and improve product data, but this is **expensive** and **not scalable**, especially for larger assortments.

Classification into the right (sub)category

← HVAC > Heating electric > Heating > Radiator (electric) > Oil radiator 2000W (900/1100/2000) - no timer - h630xb435xd281m

DIMPLEX - Oil radiator 2000W (900/1100/2000) - no timer h630xb435xd281mm -

KDImages

Cebeo ID 7007636

Ref Cebeo OCR2000

Show documentation



Important information

- Heating capacity - 2000 W

Packaging info

- 1 piece(s)
- Product standard in stock



Only one picture.

No picture of usecase e.g. in study/living room

References

+

Technical specifications

-

Heating capacity

2000 W

Missing related products for cross- and up-sell
(the one with a timer, or in black)

Not in multiple languages

No commercial product description which explains the function of the product (900/1100/2000? No timer?) => less sales

No relevant SEO keywords => not found in Google!

Missing specs:

- * Does it have a thermostat?
- * Has it frost protection?
- * What are the dimensions? Etc.

So also no filter possibilities on this website!

How can AI help?

1. Automated classification & conversion
2. Automated data enrichment
3. Enhanced data quality
4. AI powered product data onboarding
5. Content generation & optimization
6. Improved product search & discovery



1. Automated classification & conversion: ETIM, GS1, HS codes, proprietary models

Products are automatically classified to a proposed category, class, group or brick, using machine Learning models.
Supports ETIM, GS1, HS/Intrastat codes or proprietary taxonomies.

Based on textual data like manufacturer, product title/description and keywords or visual data like product images.

Select dataset
Liebherr v2

Select data model
ETIM9_BEL_NL

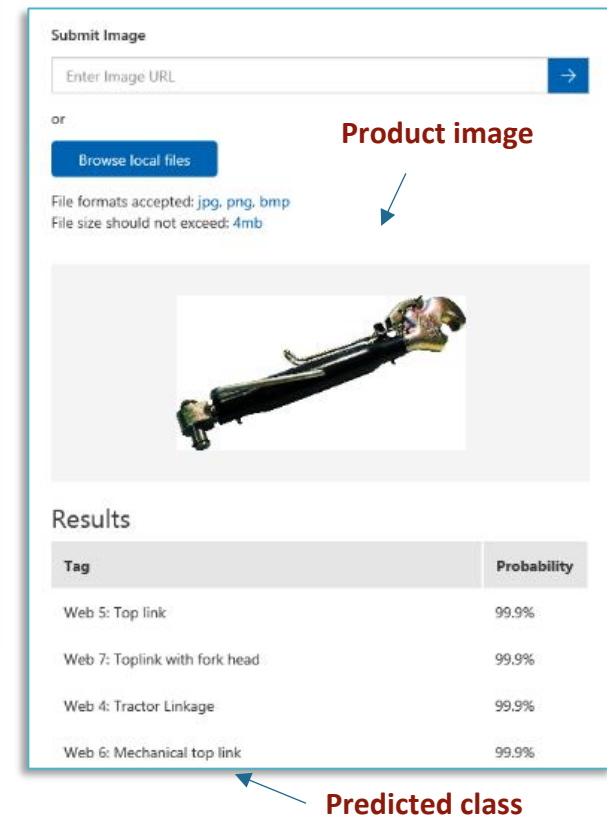
CLASSIFY

Product description

Predicted class

☐	Product ID	Product Description	Predicted Classes	Manual Class Selection	Set By
☐	ZKes 453	Liebherr humidor ZKes 453 Humidor, Humidor koelkast	EC000628 Koelkast (89.13)		classification
☐	SBSes 8496	SBSes 8496 PremiumPlus, Koelkast	EC000628 Koelkast (89.13%) EC000629 Koel-/diepvriescombinatie (7.89%) EC001551 Toebehoren voor koelapparatuur (2.50%) EC001388 Breekhamer (elektrisch) (0.02%) EC000664 Kookplaat (0.01%)		classification
☐	SKBbs 4370	Liebherr koelkast SKBbs 4370 Premium, Koelkast	EC001388 Breekhamer (elektrisch) (0.02%)		classification
☐	SKBes 4380	Liebherr koelkast SKBes 4380 PremiumPlus, Koelkast	EC000628 Koelkast (97...		classification
☐	IRBd 4151	Liebherr koelkast IRBd 4151 Prime, Koelkast	EC000628 Koelkast (96...		classification

- Saves time
- Ensures consistency
- Less dependencies on the knowledge of product experts



Submit Image

Enter Image URL

or

File formats accepted: jpg, png, bmp
File size should not exceed: 4mb

Product image

Results

Tag	Probability
Web 5: Top link	99.9%
Web 7: Toplink with fork head	99.9%
Web 4: Tractor Linkage	99.9%
Web 6: Mechanical top link	99.9%

Predicted class

1. Automated classification & conversion: ETIM, GS1, HS codes, proprietary models

AI supported conversion of product data from one standard to the other.
This can be industry standards like ETIM, GS1, Amazon or proprietary standards.

The screenshot displays the ETIM class interface for 'EC002347 - Wing nut'. It features a table with columns for 'Supplier' (value, feature, unit) and 'ETIM' (feature, unit, type, value), along with 'Match values' and 'Approve' buttons. A modal titled 'Value conversion for supplier feature Material' is open, showing a mapping from 'Supplier value' (PVC, Plastic) to 'ETIM value' (EV000139 - Plastic). Red annotations highlight the 'Proposed matched (ETIM) feature' and the 'Proposed ETIM value'.

Supplier		ETIM				Actions		
value	feature	unit	feature	unit	type	value	Match values	Approve
Stainless steel (SS), Stainless steel (2)	Material		EF002169 - Material		A	Stainless steel, Stainless steel (2)	☐	☐
Galvanized (1)	Surface		EF000139 - Surface protection		A	Hot dip galvanized (1)	☐	☐
Metric (1)	Type of thread		EF001758 - Thread type		A	Metric (1)	☐	☐
True (1)	US model		EF005626 - American model		L	1 (1)	☐	☐
20.0 (1)	W	mm	EF000008 - Width	mm	N	(0)	☐	☐
10.5 (1)								

Supplier value	ETIM feature	ETIM value
PVC	EF002169 - Material	EV000139 - Plastic
Plastic	EF002169 - Material	EV000139 - Plastic

- Saves time
- No more manual mapping
- Possibly done by supplier

2. Automated data enrichment: from texts, images, pdf files and internet

A set of algorithms to enrich product feature data from alternative sources. It uses AI to extract data from sources like product descriptions, product images, PDF files and internet. After extraction, features are converted to the right formats.

Settings

Realtime mode

Filters

category

All

assistant

All

Products per page

3

Sorting

Approved products last

Product 6120001272

EC002087 - Earplug

EARPLUG UNCORDED PLATINUM 200PR/BOX PILLOW PK - PROTECT YOUR HEARING WITH THIS CLASSIC PLATINUM E-A-R EARPLUG. - EARPLUG UNCORDED FOAM SCL80 23DB CLASS 4 SMALL SIZE PILLOW PK 200PR/BOX YELLOW PLATINUM

ADD RULES

Description	Feature	Value	Actions
EARPLUG <u>UNCORDED</u> PLATINUM 200PR/BOX PILLOW PK	With cord	False	
EARPLUG <u>UNCORDED</u> PLATINUM <u>200PR</u> /BOX PILLOW PK	Number of pairs	200	
EARPLUG <u>UNCORDED</u> FOAM SCL80 23DB CLASS 4 SMALL SIZE PILLOW PK 200PR/BOX <u>YELLOW</u> PLATINUM	Colour	Yellow	
EARPLUG <u>UNCORDED</u> FOAM SCL80 SMALL SIZE PILLOW PK 200PR/BOX			

Automatically extracted features and values



Color: Black
Heel: Low Heel
Lining: Leather
Pattern: Plain
Shaft: Ankle
Style: Lace-up boots

SGS

VERIFICATION OF COMPLIANCE

CE

TEST REPORT

MCSs

Su 200 M series C characteristic

Test item	Result	Test method	Test standard	Test result	Test date
1	Pass	100%	100%	100%	100%
2	Pass	100%	100%	100%	100%
3	Pass	100%	100%	100%	100%
4	Pass	100%	100%	100%	100%
5	Pass	100%	100%	100%	100%
6	Pass	100%	100%	100%	100%
7	Pass	100%	100%	100%	100%
8	Pass	100%	100%	100%	100%
9	Pass	100%	100%	100%	100%
10	Pass	100%	100%	100%	100%
11	Pass	100%	100%	100%	100%
12	Pass	100%	100%	100%	100%
13	Pass	100%	100%	100%	100%
14	Pass	100%	100%	100%	100%
15	Pass	100%	100%	100%	100%
16	Pass	100%	100%	100%	100%
17	Pass	100%	100%	100%	100%
18	Pass	100%	100%	100%	100%
19	Pass	100%	100%	100%	100%
20	Pass	100%	100%	100%	100%
21	Pass	100%	100%	100%	100%
22	Pass	100%	100%	100%	100%
23	Pass	100%	100%	100%	100%
24	Pass	100%	100%	100%	100%
25	Pass	100%	100%	100%	100%
26	Pass	100%	100%	100%	100%
27	Pass	100%	100%	100%	100%
28	Pass	100%	100%	100%	100%
29	Pass	100%	100%	100%	100%
30	Pass	100%	100%	100%	100%

2. Automated data enrichment: from images

Product: 25103150

Taxonomy Class

kersthanger

Description

20p wooden hanger forest copper-green

kersthangers hout bos - 20 stuks

Een set van 20 houten hangers in de vorm van verschillende wilde dieren en natuur, zoals een eekhoorn, vos en bomen. De platte hangers hebben verschillende afmetingen van 3 tot 5 cm. Leuk om een kleiner kerstboompje of kerststukje mee vol te hangen.

Dierlijke vormen

Boomvormen

Paddenstoelvormen

Bladvormen

Eikelvormen

Dennekegelvorm

Ophanglus van touw

[read more](#)

APPROVE ALL

REJECT ALL

+ ADD RULES

Confidence	Approve	Description	Feature	Value	Unit
87.42%	✓ ✕	Totaal 20 stuks	aantal stuks	20	
81.13%	✓ ✕	...ur, zoals een eekhoorn, vos en bomen. De platte hangers hebben verschillende afmetingen van 3 tot 5 cm . Leuk om een kleiner kerstboompje of kerststukje mee vol te hangen. read more	diameter (cm)	5	cm
75.45%	✓ ✕	Diverse dieren - en natuuraffiches	dessin	dieren	



2. Automated data enrichment: from web

PowerEnrich

Caractéristiques: Bouton de test

Indicateur de Statut: O. OFF

Symbole d'Avertissement: Avertissement de danger électrique (section jaune)

Marque : Schneider

Courant nominal (ampérage): 63 A

Courant de défaut nominal : 30mA

Type de courant de défaut : A

Type de disjoncteur : Interrupteur différentiel

Gamme : Resi9 XE

Nombre de pôles : 4

Méthode d'installation : Plug-in

Tableaux électriques compatibles : Mureva, Resi9 CX, PrismaSet XS, PrismaSet S

read less

APPROVE ALL

REJECT ALL

+ ADD RULES

Confidence	Approve	Description	Feature	Value
84.57%	✓ X	Courant de défaut nominal : 30mA	sensibilité / courant de déf	0.03
94.51%	✓ X	Niveau de pollution: 2	degré de pollution	2
91.09%	✓ X	Degré de protection IP: IP20, IP40 (boîtier modulaire)	indice de protection (IP)	IP20
84.49%	✓ X	Fréquence du réseau: 50 Hz	fréquence	50 Hz
79.98%	✓ X	Classe de différentiel: Type A	type de courant différentie	A
72.78%	✓ X	Température de fonctionnement: -25...40 °C	température ambiante en f	40
72.48%	✓ X	Sensibilité du différentiel: 30 mA conforme à EN/CEI 61008	section de raccordement c	30
67.98%	✓ X	Longueur de dénudage des fils: 13 mm pour haut connexion	profondeur d'encastrement	13

Connected to server

Schneider - disjoncteur différentiel Resi9 XE 3P+N 63A 30mA | Zelektro - Personal - Microsoft Edge

https://www.zelektro.be/fr/differentiel-resi9-xe-3p-n-63a-30ma.html#attr=31532,31534,31535,31536,31...

Zeलेktro.be e-shop Recherche FR Se connecter



Article nr : R9RA1463 Code-barres : 3606482215368 Fabricant : Schneider
Différentiel 4 pôles de 63A 30mA type A dans la gamme Resi9 XE. Cette gamme est conçue pour une installation sans vis où vous clipsez le différentiel dans le tableau électrique. Cette connexion plug-in réduit le risque de connexions lâches et permet moins de câblage dans le boîtier.

- Fiche technique
- Brochure Resi9 XE
- Tableaux électriques compatibles: Mureva, Resi9 CX, PrismaSet XS (petit/grand) et PrismaSet S.

En stock

85,06 € TVA incluse

- 1 +

AJOUTER AU PANIER

✓ Livraison gratuite à partir de €60

✓ Service rapide et professionnel de qualité

✓ Retour sous 60 jours

✓ Au moins 2 ans de garantie sur chaque produit

Spécifications

Marque	Schneider
Courant nominal (ampérage)	63 A
Courant de défaut nominal	30mA
Type de courant de défaut	A
Type de disjoncteur	Interrupteur différentiel
Gamme	Resi9 XE

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POWERIMPROVE.ai 25

3. Enhanced data quality: contradictions, outliers, compliance checks, duplicates

Smart algorithms that use a range of Artificial Intelligence techniques to scan a product dataset to find inconsistencies, anomalies, doublures, matches, unlikely data values and missing data.

- Contradictions in titles & attributes

HG schoendeo | 250 ml



?

PIM system:

Contents	100 ml
----------	--------

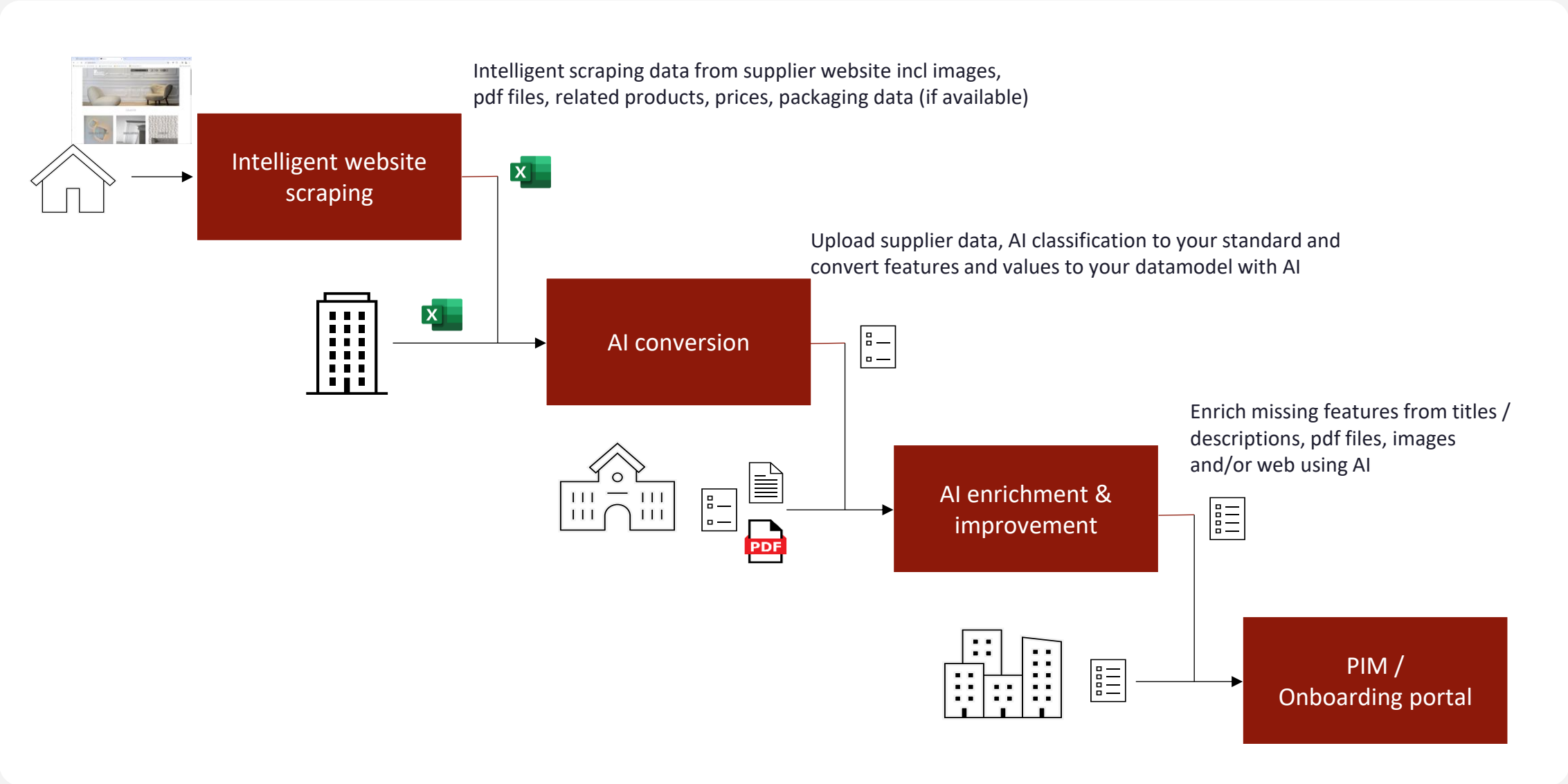
- Outliers

Bathtap with a width of 2,36m??

Damixa Thermixa THERMIXA 600 TMC DOUCHE						
820,00		2.360,00		2.800,00	2.263,00	
Hoogte (mm)		Breedte (mm)		Diepte (mm)	Gewicht (gr)	
Risk level	quality check	attribute	value_in	value_out	details	
orange	Outliers Dimensions	Breedte (mm)	2360		eps = 6.167272802794109	
orange	Outliers Dimensions	Diepte (mm)	2800		eps = 4.097859770425521	
orange	Outliers Dimensions	Hoogte (mm)	820		eps = 4.6325630879052415	
orange	Suspicious value in Attributes	Kraanmondstuk	Overig			
orange	Suspicious value in Attributes	Type handdouche	N.v.t.			

- Meaningless data: NA, 999, “-”
- Short / Long text anomalies
- Language and spelling errors, etc.

4. AI powered vendor onboarding



5. Content generation & optimization – Text

Home > Huishouden > Wasmachine > Wasmachine voorlader > Bosch i-DOS wasmachine WAT28650NL

Video

A+++30%

★★★★★ 4.9 | 50 reviews

649,-

Thuis bezorgen: ✓ Op voorraad

In winkelwagen

Bekijk winkelloorraad

Verlanglijst

The Bosch WAT28650NL i-DOS Washing machine

The Bosch WAT28650NL is a compact washing machine with 1-7 kg capacity for families of up to 4 people. The appliance's automatic load recognition automatically determines the load in three steps and adjusts power and water consumption accordingly. Continuous automatic load recognition in appliances with ActiveWater water management achieves even more precise results.

Productinformatie

Specificaties

Reviews

Services

Accessoires

Wash faster and more efficiently

The SpeedPerfect function is specially developed for situations when you have no time to waste. With SpeedPerfect, you reduce washing time by 65% but with no lesser results. Use it in combination with most wash programs, for all loads and fabrics. For example, if you choose the mix program in combination with SpeedPerfect, you can wash up to 4 kg in just 45 minutes.

Economical and quiet

Bosch's ActiveWater technology prevents water waste and precisely matches the amount of water to the amount of laundry. The laundry is

```
graph TD; A[Text generation AI agent] --> B[SEO keyword agent]; B --> C[Prompt optimizing agent]; C --> D[Feature optimization agent]; C --> E[Image selection]; D --> F[Text generation agent]; E --> F; F --> G[Anti hallucination agent];
```

The diagram illustrates a workflow for content generation and optimization. It begins with a 'Text generation AI agent' which feeds into an 'SEO keyword agent'. The 'SEO keyword agent' then connects to a 'Prompt optimizing agent'. From the 'Prompt optimizing agent', the flow splits to 'Feature optimization agent' and 'Image selection'. Both of these lead into a 'Text generation agent', which finally connects to an 'Anti hallucination agent'.

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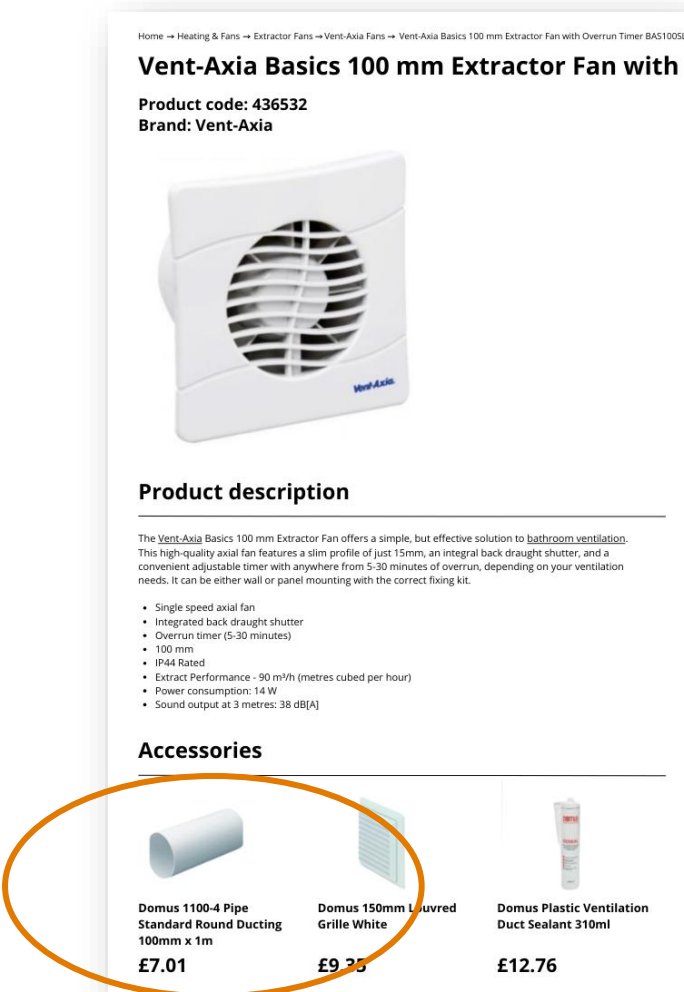
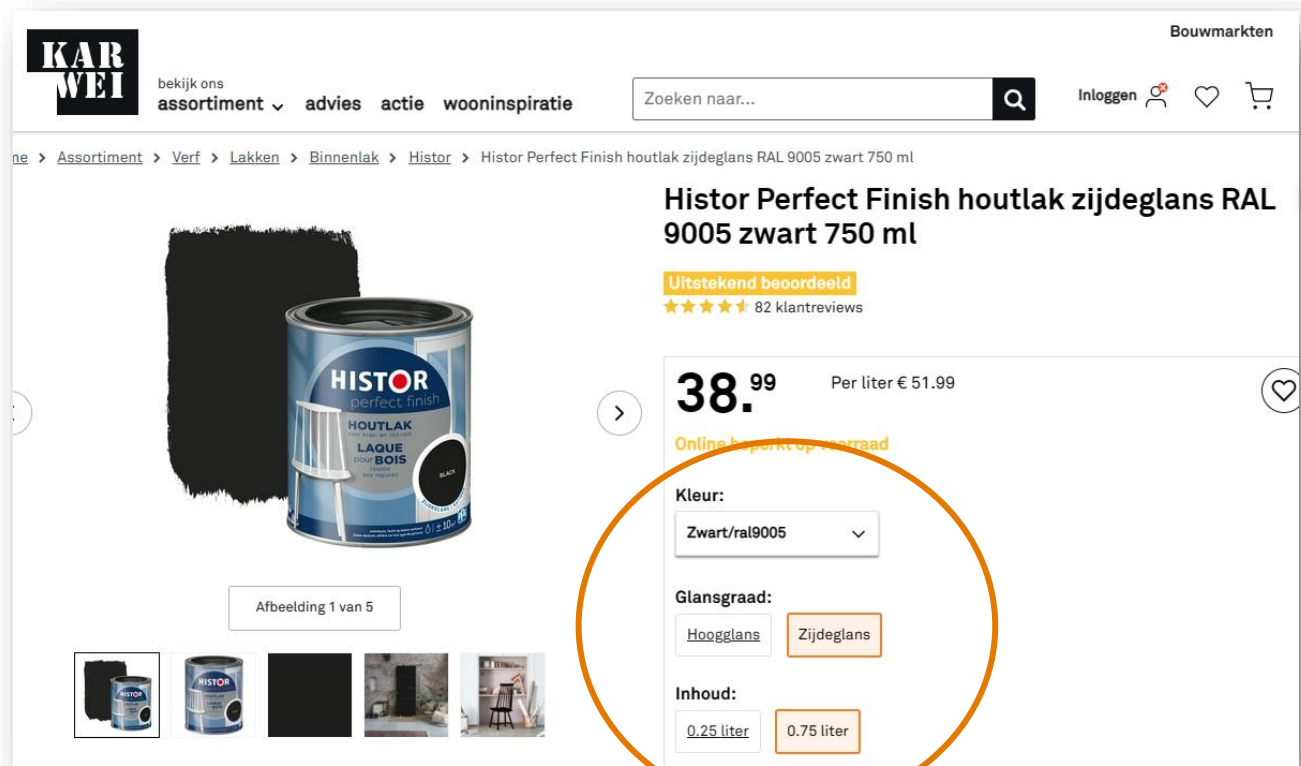
POWERTEXT.ai 30

5. Content generation & optimization - Images



6. Improved product search & discovery – product relations

AI detection of **variants** of the same product and **accessories** on the pdp.



6. Improved product search & discovery – AI sales support

 I am looking for a pressure washer for cleaning wooden decking. What should I look for and what pressure washers do you recommend?

 When looking for a pressure washer to clean wooden decking, you should consider a model that allows you to adjust the pressure to avoid damaging the wood. Look for a pressure washer with a variable pressure setting or one that includes specific attachments for delicate surfaces. A model with a water flow above 500 liters per hour and a pressure above 140 bar can be effective for various cleaning tasks, but for wooden decking, it's crucial to use a lower pressure setting.

Based on the context provided, I recommend the Kärcher K 4 Premium Power Control hogedrukreiniger. This pressure washer is suitable for cleaning various surfaces with the right pressure, and it supports the Kärcher Home & Garden app, which can help you find the optimal pressure setting for your decking. It's a versatile machine that can handle different cleaning tasks around your home and garden.

Here's a brief overview of the recommended pressure washer:

- **Kärcher K 4 Premium Power Control hogedrukreiniger**
 - Pros: Adjustable pressure settings, app support for op
 - Cons: May be more expensive than basic models, mig



Here's a comparison table of the top 3 pressure washers suitable for cleaning wooden decking:

Feature	Kärcher K2 Premium Home Full Control	Kärcher K3 Home	Kärcher K4 Premium Power Control
Max Pressure	110 bar	120 bar	130 bar
Water Flow Rate	360 L/h	380 L/h	420 L/h
Power	Not specified	Not specified	1800 W
Hose Length	6 m	6 m	7 m
Included Accessories	Home Kit with T-150, Patio/Deck cleaner	Vario Power Spray Lance, Dirt Blaster, T50 Surface Cleaner, Patio & Deck cleaner	Vario Power Spray Lance, Dirt Blaster
Special Features	Full Control System, Cleaning Agent Tank	Quick Connect, Water Filter	Full Control System, Water-Cooled Motor
Ideal for	Light soiling, Bicycles, Garden Furniture	Light soiling, Bicycles, Garden Fences, Motorcycles	Various surfaces with the right pressure, including decking
Image			

Based on the comparison, the Kärcher K4 Premium Power Control offers the highest pressure and water flow rate, which makes it suitable for larger or more soiled areas. It also has a longer hose for greater reach. The K2 Premium Home Full Control is more suited for lighter tasks and comes with a dedicated home kit for various cleaning tasks. The K3 Home sits between the two in terms of performance and is also equipped with a home kit for efficient cleaning.

POWERSUITE.ai

How can AI help?

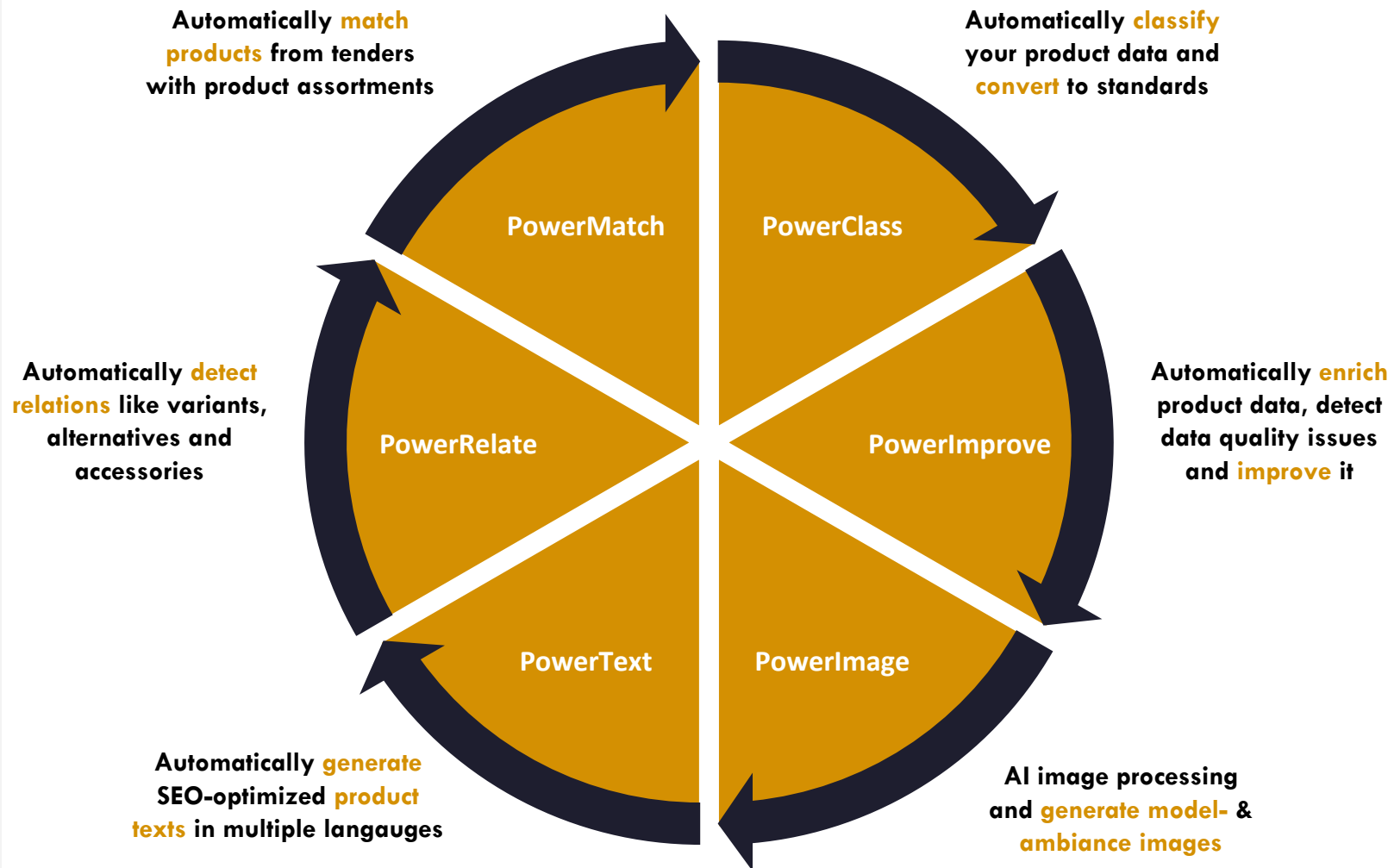
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5. Content generation & optimization
6. Improved product search & discovery



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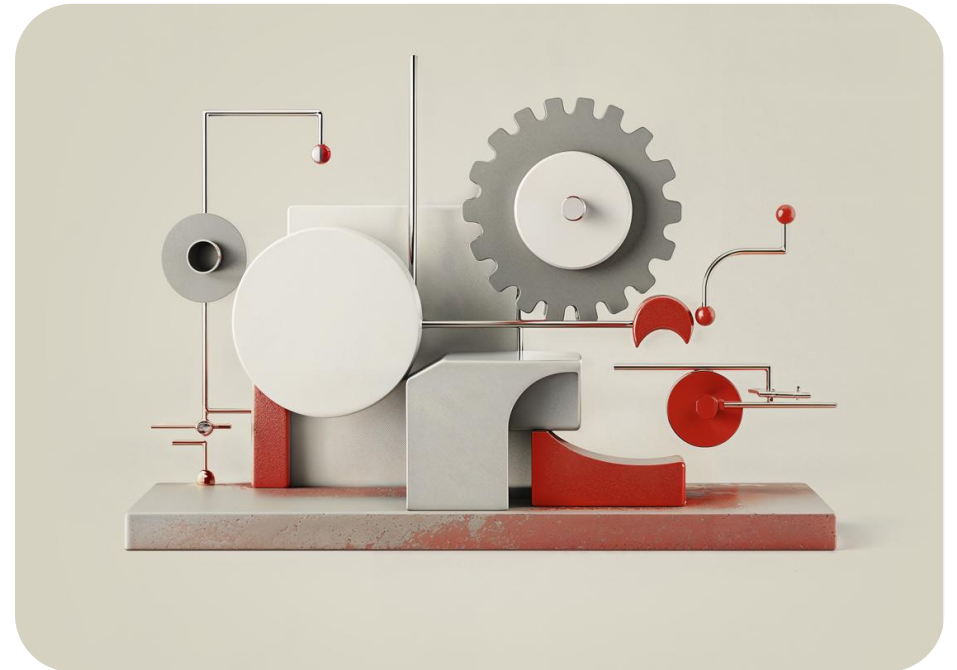
- Scalable
- Fit for composable architecture
- Open API's for PIM/e-commerce integrations
- Supports file processing (Excel, BMEcat, PDF, images, etc)
- Continuous innovation with the latest AI technologies
- LLM Agnostic



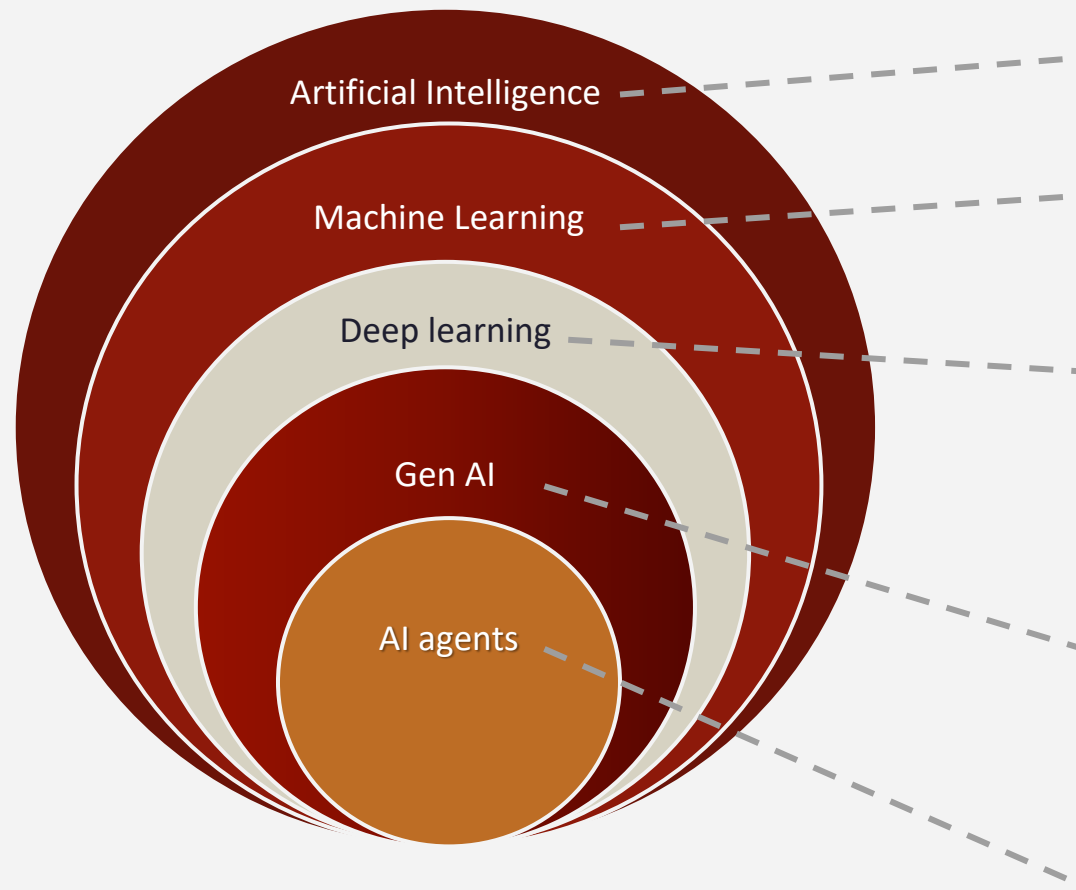
PowerSuite.ai is an AI-powered software suite designed to enhance product data and optimize e-commerce operations.

Agenda.

1. The business context of Product Data
2. AI for Smart Product Data Management
- 3. AI Agents for product data automation**
4. Q&A



3 AI Waves.



ARTIFICIAL INTELLIGENCE

Wave 1

AI (artificial intelligence) is the simulation of human intelligence in machines designed to think, learn and perform tasks autonomously

MACHINE LEARNING

Machine Learning is a technique that enables systems to learn and improve based on experience without being explicitly programmed

DEEP LEARNING

Deep learning is a subset of machine learning that uses neural networks to learn from large amounts of data

GENERATIVE AI

Wave 2

Generative AI is a form of artificial intelligence that creates new content, such as text, images or music, by learning patterns from existing data

AI AGENTS

Wave 3

AI agents enable AI systems to work autonomously and collaborate with other agents to solve complex problems.

Example: create a list of products in PIM

Task:
Process this list of products from Supplier X and add these into my PIM system.

[Link](#)

Dit is een kopie van een gesprek tussen ChatGPT en Anoniem.
Gesprek melden

ProductDataDemoSample Sheet1

	Entity Type	Auto Generate ID	Product ID	Product Name
1	Product	true		JS Working Shoe

I have a task for you: Create a new product in our MDM software by reading the data in the provided excel file.

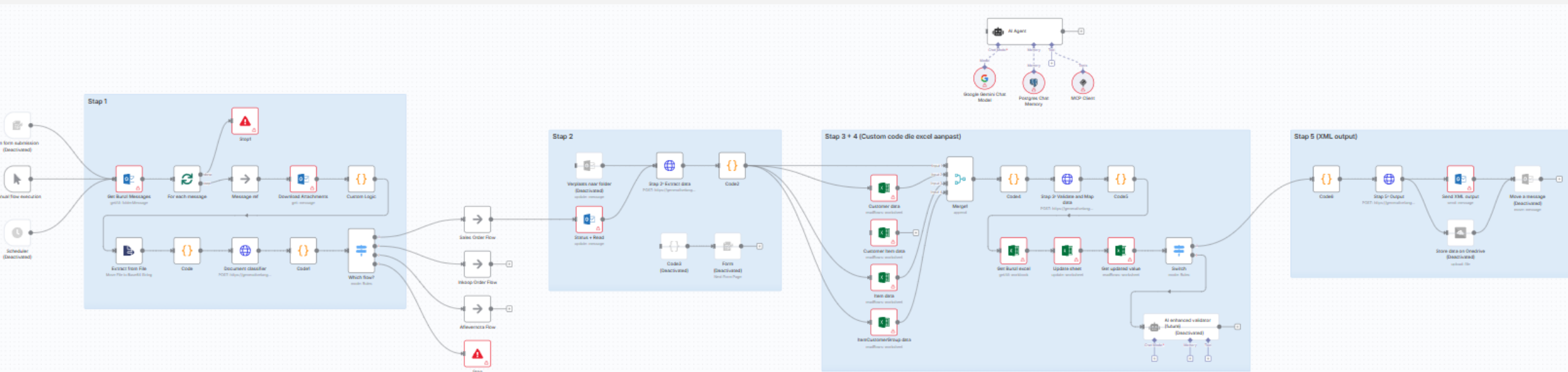
We use Syndigo.
Browse: <https://squadrapresales.syndigo.com/home> for the MDM software. This link will redirect for authorization. If this happens, immediately ask me to take over control and log in.

Creating an entity can be done in the top left corner under Quick actions . After filling in the supplied data create the product.

Understood! I will create a new product in Syndigo using the data from the provided Excel file. We'll need to navigate to <https://squadrapresales.syndigo.com/home> and start creating the product under "Quick actions." If a login is required, I'll let you know right away so you can take over to authenticate. Let me start by opening the website.

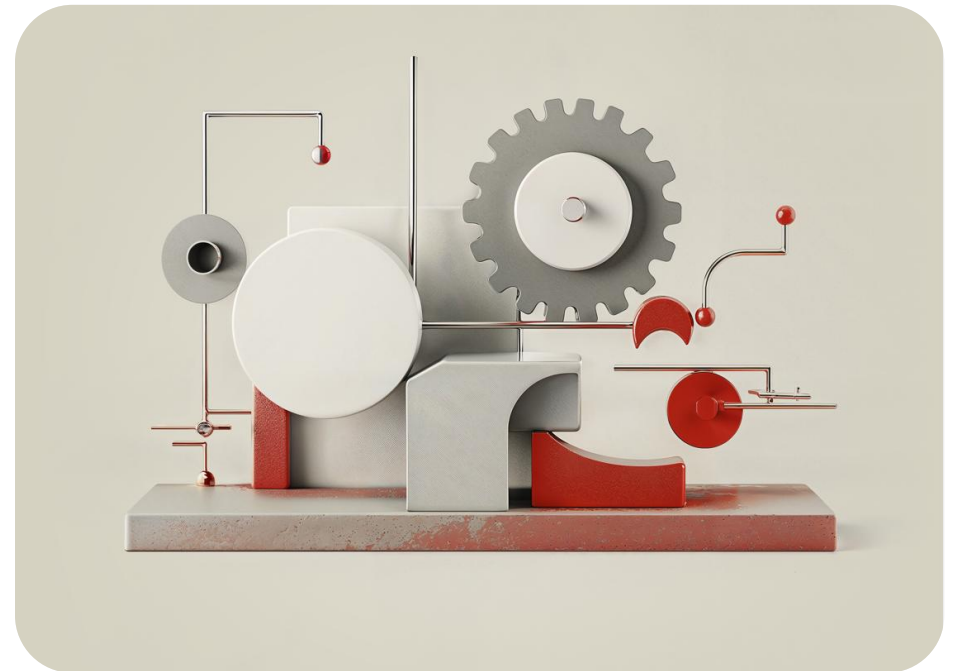
Build a workflow with AI agents -> Huge opportunity!

1. Agent 1: Check the email inbox for mails from suppliers with new/update product info
2. Agent 2: Extract the data from the attachment (Excel, PDF, etc.) with PowerImprove.ai agent
3. Agent 3: Login to the PIM system, find the supplier / product and update or create the product in the PIM



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Squadra

Data Driven Value Creation