



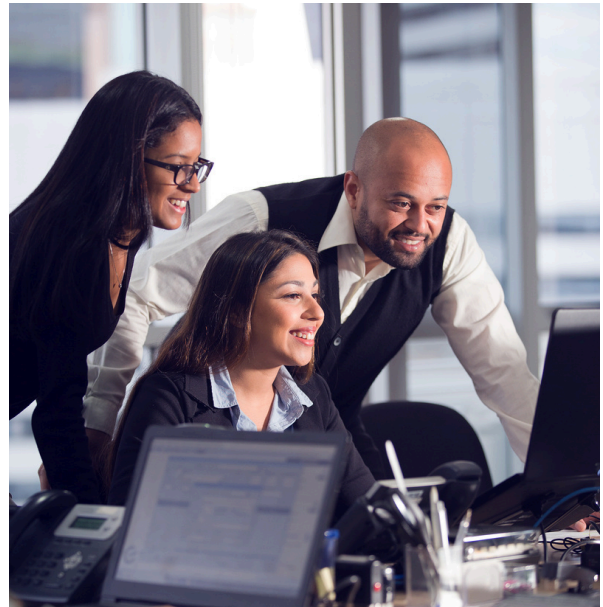
Preparing Product Information for the AI Era

Why manufacturers and distributors need to make their products understandable to both people and machines

Introduction

For many years, manufacturers and distributors have managed product information primarily with people in mind. Product descriptions have been written for customers, technical specifications prepared for engineers, catalogs produced for distributors, and digital content created to support websites, ecommerce platforms, marketplaces, and sales teams. Although the number of channels through which this information is delivered has continued to expand, the underlying objective has remained largely the same: provide customers with the information they need to understand a product, determine whether it is suitable for their requirements, and make a confident purchasing decision.

Artificial Intelligence is beginning to change this model because machines are increasingly involved in the activities that take place before a customer reaches a product page, speaks with a salesperson, or contacts a distributor. Search engines are evolving from presenting lists of links toward generating direct answers, ecommerce platforms are becoming more sophisticated in the way products are classified and recommended, procurement technologies are using intelligent tools to identify suitable products, and AI assistants are increasingly being used to research, compare, and evaluate possible solutions.



This creates an important new consideration for manufacturers and distributors. Product information must continue to communicate effectively with people, but it must also become sufficiently structured and meaningful for machines to interpret it accurately. The information surrounding a product therefore needs to do more than look complete when displayed on a website or within a catalog. It needs to explain clearly what the product is, what it does, how it differs from similar products, where it can be used, and which characteristics are important when determining whether it is suitable for a particular requirement.

Humans are remarkably effective at interpreting incomplete information because we instinctively use context to fill gaps. An experienced engineer may immediately understand an abbreviation, recognize that two differently expressed measurements represent the same value, or infer the purpose of a component from a photograph and a small number of specifications. AI does not necessarily have the same understanding of the conventions that exist within an organization, industry, or product catalog, particularly when information is inconsistent, poorly classified, or distributed across multiple systems.

For this reason, the rapid development of Artificial Intelligence is bringing product information management into sharper focus. The question facing manufacturers and distributors is no longer simply whether customers can find and understand their products. Increasingly, businesses must also consider whether the technologies influencing those customers can understand them as well.



Chapter 1

The buying journey is becoming less predictable

The digital buying journey has traditionally been relatively easy to understand. A potential customer begins with a search, visits a website or ecommerce platform, navigates through categories or filters, reviews several products, and eventually reaches the information required to make a purchasing decision. As digital commerce has matured, businesses have invested significantly in improving this experience through richer product pages, better imagery, stronger descriptions, more detailed technical documentation, and increasingly sophisticated ecommerce platforms.

These investments remain important, but Artificial Intelligence is changing what happens before a buyer arrives at the point of conversion. A customer may now ask an AI assistant to identify products suitable for a particular application, request a comparison between several alternatives, or ask which products meet a defined set of technical requirements. Search engines are increasingly interpreting questions rather than simply matching keywords, while marketplaces and ecommerce platforms continue to improve the algorithms used to classify, rank, and recommend products.

As a result, part of the buying journey is beginning to take place outside the environment controlled directly by the manufacturer or distributor. A potential customer may form an initial view of a product, create a shortlist, or eliminate an option before visiting the manufacturer's website. In these situations, the machine interpreting the available information becomes an intermediary between the product and the person considering it.

This shift changes where organizations need to focus their attention because product content performs different roles throughout the buying journey. Some information exists primarily to help a customer discover the right product, while other information becomes important once the customer has found it and is deciding whether to purchase.

Discovery content

Discovery depends upon the information that allows a product to be identified, classified, filtered, matched, and compared.

Product names, categories, structured attributes, dimensions, materials, applications, compatibility information, search terminology, and primary imagery all contribute to helping the right product appear at the right point in the journey.

Conversion content

Once a suitable product has been identified, another layer of information helps the buyer evaluate it with confidence.

Marketing descriptions, secondary imagery, technical documents, CAD files, certifications, manuals, videos, and other supporting materials provide the depth required to move from consideration toward purchase.

Historically, many organizations have concentrated their investment on conversion because this content is highly visible and closely associated with marketing. However, as intelligent systems become more involved in identifying and recommending products, discovery becomes equally important.

A beautifully presented product page provides limited commercial value if the systems helping a customer search are unable to determine that the product is relevant in the first place.

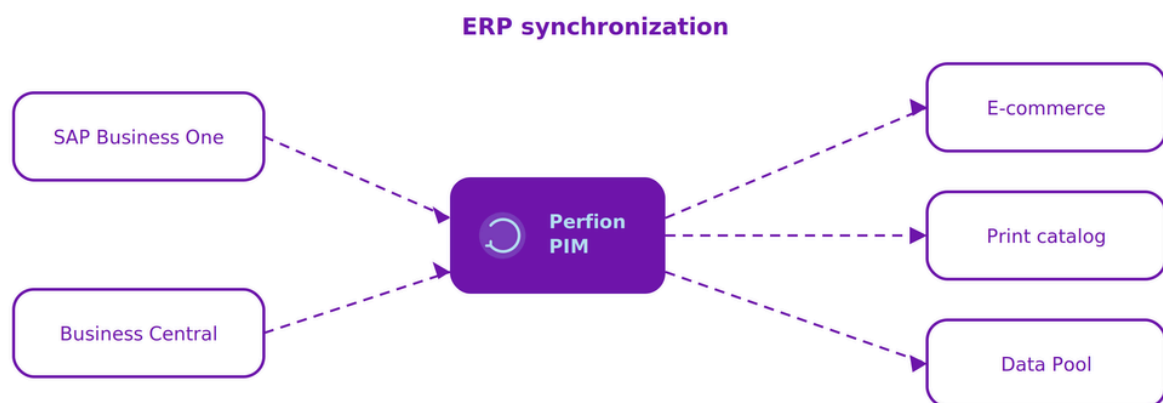
Chapter 2

Having information is not the same as making it understandable

Manufacturers and distributors rarely suffer from a complete lack of product information. In most organizations, significant volumes of data and content already exist, but they have often accumulated over many years across different systems, departments, and formats.

Technical specifications may be maintained within ERP systems, engineering platforms, or spreadsheets. Marketing descriptions may exist within ecommerce platforms. Product images can be stored within shared folders or digital asset systems, while certifications and technical documentation frequently remain within PDF files. Supplier information may arrive through portals, spreadsheets, or email, while translations and regional variations may be managed independently by local teams.

For people who understand the organization and its products, these different sources can often be interpreted successfully. Employees learn where to find information, become familiar with internal terminology, and understand how different systems relate to one another. The knowledge required to interpret the product exists partly within the information itself and partly within the experience of the people working with it.



AI systems require considerably more explicit context. A numerical value, for example, provides very little useful information unless the system interpreting it understands what the value represents. A value of 0.5 could refer to inches, millimeters, kilograms, liters, capacity, diameter, tolerance, or any number of other characteristics. The value may be completely accurate, yet without the attribute, unit, and relationship surrounding it, its meaning remains uncertain.

This principle applies across an entire product catalog. Product names, technical characteristics, classifications, compatibility relationships, and application information need to be represented in ways that allow their meaning to be understood consistently.

For AI to distinguish between an attribute and a description, recognize that different variants belong to the same product family, understand that two products are compatible, and determine which characteristics are relevant when comparing alternatives.

This is why Artificial Intelligence does not reduce the need for structure within product information. In many respects, it increases it. The more businesses expect technology to interpret, compare, enrich, and distribute their product information, the more important it becomes to establish a reliable product model beneath those activities.



Chapter 3

A practical framework for AI ready product information

As Artificial Intelligence becomes more involved in product discovery, comparison, and recommendation, manufacturers and distributors need a practical way to assess whether their product information is ready for this new environment.

Traditional content reviews have often focused heavily on presentation. Does the product page look complete? Is the description well written? Are the images good enough? Have the required fields within the ecommerce platform been populated? Those questions remain relevant, but they no longer tell the whole story.

Intelligent language models consume product information differently from people. A customer looking at a product page can interpret headings, images, categories, page layout, and surrounding content together. An AI assistant, search engine, marketplace, or procurement platform may encounter individual attributes and descriptions without all of that supporting context.

Product information therefore needs to remain useful and understandable even when it is removed from the environment in which it was originally presented. A practical way to assess this is through four requirements: **Linked**, **Intentional**, **Factual**, and **Explicit**.



Together, these four principles provide the **Life Framework** for evaluating whether product information can support both the customer experiences businesses manage today and the AI-driven experiences that are rapidly emerging.

Linked

Product families, variants, accessories, applications, standards, and compatibility are clearly connected

Intentional

The information reflects what customers and systems genuinely need to identify, compare, and select the product

Factual

Specifications, measurements, certifications, assets, and descriptions are accurate, current, and properly governed

Explicit

Attributes, terminology, units, and context are clear enough to retain their meaning wherever the information appears



Chapter 4

Why the challenge is greater for manufacturers and distributors

The need for AI interpretable product information applies across many industries, but manufacturers and distributors face particular challenges because industrial and technical products are often considerably more complex than consumer goods.

A purchasing decision may depend on dozens or even hundreds of characteristics not immediately visible from a photograph or short description, dimensions, materials, capacity, tolerance, compatibility, certifications, voltage, performance, or operating conditions may determine whether a product suits a given application. Product variations add further complexity, since items that look almost identical may serve very different purposes. When the information explaining those differences is incomplete, buried in documents, or represented inconsistently across products, customers struggle to compare alternatives, and machines encounter the same problem at much greater scale.



For manufacturers, this complexity often begins during product development because technical and commercial information is created by different departments for different purposes. Engineering may establish the technical definition, compliance teams maintain certifications and regulatory requirements, product managers add commercial information, and marketing develops the content required for external channels. Unless these activities are connected, different interpretations of the same product can gradually emerge.

Distributors face another dimension, since they often depend on information supplied by hundreds or thousands of manufacturers, each classifying products differently, using its own terminology, and following different conventions for attributes and units of measurement.

These challenges aren't new, but AI increases their commercial significance, because weaknesses once managed through employee knowledge or manual intervention can now directly affect how products are discovered and interpreted by intelligent systems.

Chapter 5

AI amplifies the information it receives

There is considerable excitement around the ability of Artificial Intelligence to generate and enrich product content. AI can assist with descriptions, translations, classifications, summaries, and other activities that previously required significant manual effort, creating opportunities for manufacturers and distributors to accelerate the preparation of information across large product ranges.

These capabilities can deliver significant value, but they do not remove the need for governance or reliable source information.

Artificial Intelligence works with the information available to it. When that foundation is reliable, well structured, and sufficiently detailed, AI can help transform and enrich information efficiently. When the underlying sources are fragmented, inconsistent, or poorly organized, automation can reproduce those weaknesses much faster and across considerably more content.

This distinction is important because AI should be viewed as an accelerator rather than a replacement for effective product information management. A business that does not know which specifications are correct, which attributes are required, how products relate to one another, or which source should be considered authoritative cannot resolve those questions simply by introducing generative AI.

Before Artificial Intelligence can create meaningful value at scale, the organization needs a dependable foundation from which it can work. Human expertise also remains important. AI can reduce the effort associated with repetitive and time-consuming activities, but product specialists continue to provide the knowledge required to determine whether information is technically accurate, commercially appropriate, and suitable for its intended market.

The strongest approach therefore combines structured product information, appropriate governance, automation, and human expertise rather than treating any one of these elements as a substitute for the others.

Chapter 6

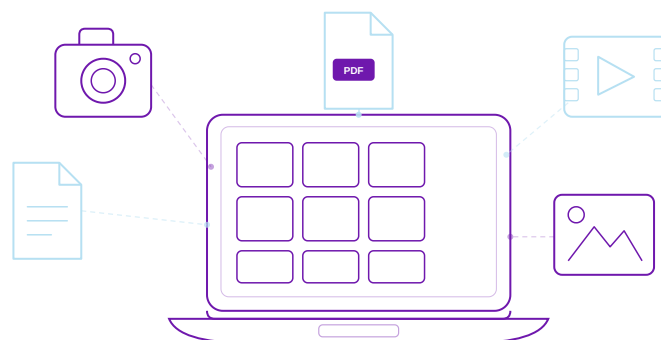
Discovery increasingly begins before the website

Manufacturers and distributors have traditionally placed significant emphasis on the digital experience customers encounter once they reach the corporate website or ecommerce platform. Strong navigation, effective onsite search, useful filters, and detailed product pages all contribute to helping customers identify appropriate products.

The emergence of AI means that discovery increasingly begins before the customer arrives.

A buyer may ask an intelligent search tool to identify a suitable component, compare several products against a technical requirement, or explain the differences between competing alternatives. The system may interpret information from multiple sources before presenting a recommendation or summary to the customer, potentially influencing which brands or products are considered before the buyer has visited any supplier website.

This creates an important challenge for B2B commerce because buyers increasingly expect the convenience associated with consumer ecommerce while still requiring the knowledge traditionally provided by an experienced salesperson.



A skilled salesperson understands the customer's requirement, asks questions, interprets technical terminology, eliminates unsuitable options, and provides reassurance when a decision is complex. A strong ecommerce experience provides speed, search, filters, comparisons, and immediate access to information. Artificial Intelligence has the potential to bring elements of these experiences together, but it can only do so when sufficient product knowledge exists to support the interaction.

If a product cannot be identified accurately, if important characteristics are hidden within documents, or if equivalent attributes are represented inconsistently, AI cannot reliably reproduce the expertise that businesses expect it to deliver.

The quality of the digital buying experience therefore begins much earlier than the product page. It begins with the information that enables the product to be discovered, interpreted, and considered in the first place.



Chapter 7

Product information is becoming business infrastructure

For many organizations, product content has historically been treated as an output created toward the end of product development. Engineering defines the product, technical teams prepare documentation, marketing develops customer-facing descriptions, and ecommerce teams publish the final information.

The growing influence of Artificial Intelligence challenges this sequence because product information is increasingly becoming infrastructure that supports many different business processes simultaneously.

The same structured product definition can support corporate websites, ecommerce platforms, distributor portals, marketplaces, printed catalogs, technical documentation, sales presentations, customer service, product comparison, intelligent search, and AI-enabled experiences. Information created during product development can therefore continue to create value throughout the commercial life of the product rather than being recreated for each new destination.

This significantly increases the strategic importance of managing product information effectively because it is no longer simply something a business publishes for customers to read. It is increasingly something that other systems consume, interpret, transform, and use to inform decisions.

When each channel maintains its own independent version of a product, inconsistencies become difficult to avoid. A specification may be updated in one system but not another, translations can fall behind, imagery becomes outdated, and different channels gradually present different interpretations of the same product.

A structured product information environment provides an alternative by allowing information to be maintained through a governed process and distributed according to the requirements of each channel. The objective is not centralization for its own sake, but greater control over how product knowledge is created, enriched, approved, and reused throughout the organization.

Chapter 8

Building an AI-ready product information foundation

Preparing product information for an increasingly machine-influenced market does not require an organization to rebuild its entire catalog overnight. For manufacturers and distributors managing large product ranges, attempting to address every SKU simultaneously can quickly turn an important strategic initiative into an expensive and difficult exercise.

A more practical approach begins by understanding where information has the greatest commercial impact. Organizations can identify important product categories and examine the information required to discover, understand, compare, and select products within those categories.

This analysis should consider whether the available information explains what each product is, which applications it supports, what differentiates it from alternatives, which products or components are compatible with it, what standards or certifications apply, and which characteristics influence the purchasing decision.

The LIFE framework provides a useful foundation for this assessment. Businesses can determine whether information is sufficiently **Linked** to explain how products and attributes connect, **Intentional** in supporting the buying decision, **Factual** enough to be trusted, and **Explicit** enough to retain its meaning when interpreted outside its original environment.

This exercise frequently reveals a significant difference between information that exists somewhere within the business and information that is genuinely usable.

Once those gaps have been identified, information requirements can be defined by product category, terminology and measurement conventions can be standardized, and the relationships between products, attributes, and applications can be represented more clearly. Ownership can also be established so that responsibility for information quality continues as products and markets evolve.

Only after these foundations have been established should organizations consider how artificial intelligence and automation can accelerate the process. AI can assist with enrichment, translation, classification, and content preparation, while automated validation and workflow can help identify missing information and ensure appropriate review.

Technology becomes considerably more effective because it is operating within a defined product information model rather than attempting to create order from fragmented sources.





Chapter 9

Prioritize where better information creates greater value

Not every product within a large catalog contributes equally to revenue, margin, strategic differentiation, or customer demand, which means that not every product necessarily requires the same level of content investment.

Organizations sometimes approach product information improvement by attempting to enrich every SKU to exactly the same standard. For manufacturers and distributors with tens of thousands of products, this can consume significant resources without necessarily improving commercial performance.

A more effective approach is to segment the catalog according to factors such as revenue, margin, strategic importance, customer demand, search behavior, and the role individual products play within important categories. The products that define the business or generate the greatest commercial value can then receive deeper enrichment, including more comprehensive attributes, application guidance, supporting documentation, stronger imagery, comparison information, and other content that assists discovery and decision-making.

Products within the long tail still require a reliable and well-structured information foundation, but they may not justify the same level of enrichment. This allows manufacturers and distributors to direct investment toward the areas where improved information is most likely to increase discoverability, strengthen customer confidence, reduce friction, or influence purchasing decisions.

The objective is therefore not to create the maximum possible amount of content for every product. It is to ensure that every product has the information required to be understood while investing additional effort where greater depth creates measurable value.

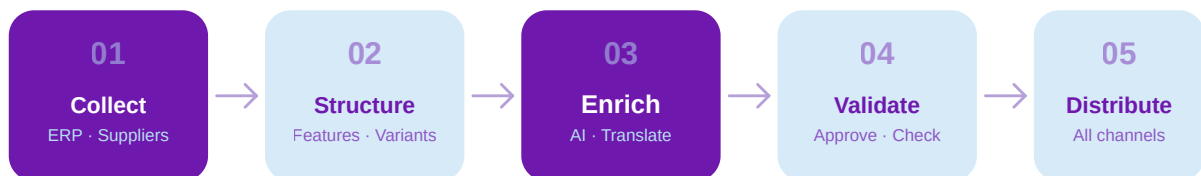
Chapter 10

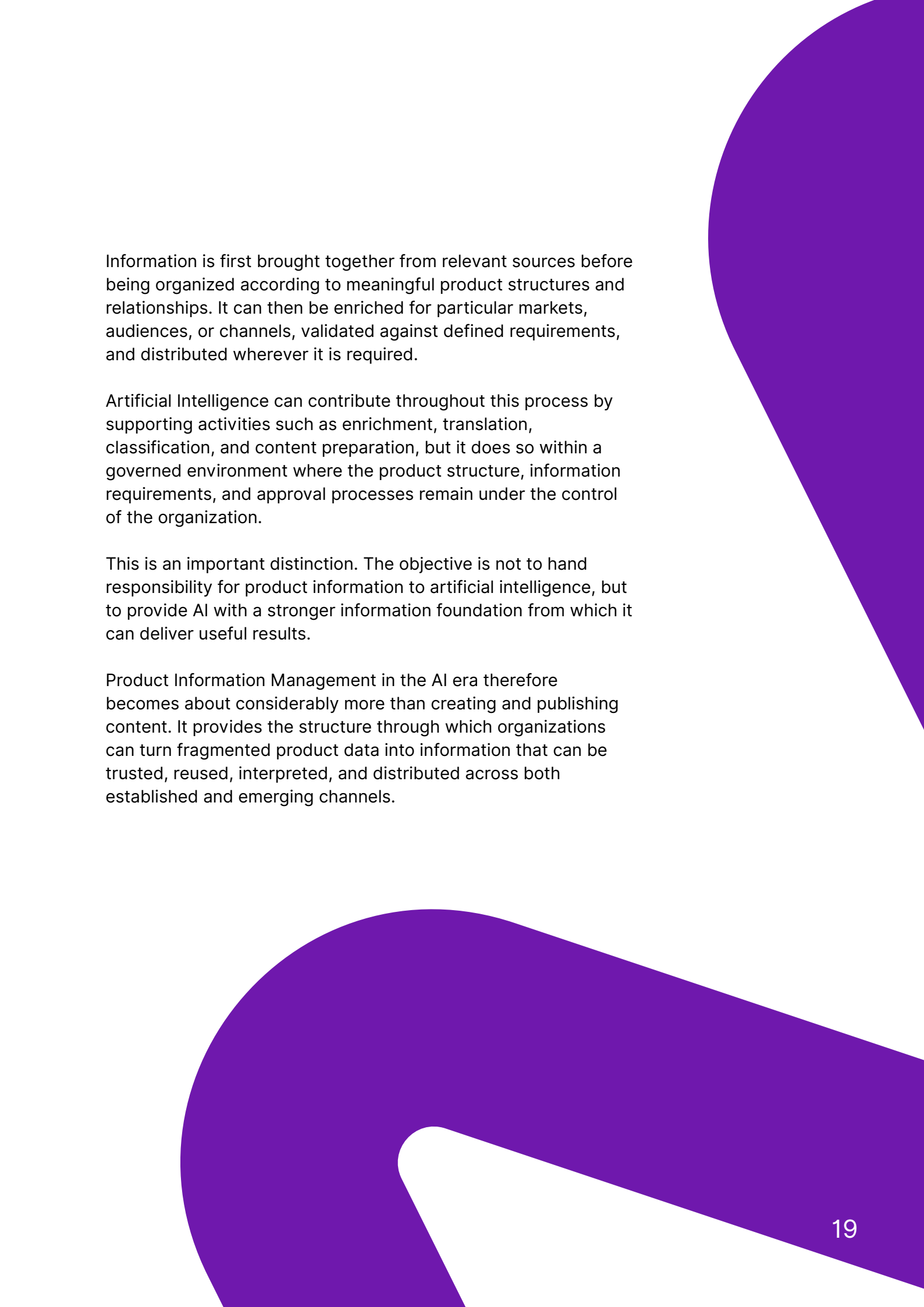
The role of PIM in the AI era

The development of Artificial Intelligence strengthens rather than diminishes the case for Product Information Management because intelligent systems depend upon access to reliable, structured, and meaningful source information.

A Product Information Management solution (PIM) provides an environment in which product information can be collected from ERP systems, suppliers, and other sources before being organized according to a consistent product model. Attributes, variants, classifications, specifications, documents, imagery, translations, and commercial information can then be managed as parts of a connected product definition rather than isolated pieces of content.

This creates a controlled progression through the product information lifecycle.





Information is first brought together from relevant sources before being organized according to meaningful product structures and relationships. It can then be enriched for particular markets, audiences, or channels, validated against defined requirements, and distributed wherever it is required.

Artificial Intelligence can contribute throughout this process by supporting activities such as enrichment, translation, classification, and content preparation, but it does so within a governed environment where the product structure, information requirements, and approval processes remain under the control of the organization.

This is an important distinction. The objective is not to hand responsibility for product information to artificial intelligence, but to provide AI with a stronger information foundation from which it can deliver useful results.

Product Information Management in the AI era therefore becomes about considerably more than creating and publishing content. It provides the structure through which organizations can turn fragmented product data into information that can be trusted, reused, interpreted, and distributed across both established and emerging channels.

Chapter 11:

Perfion Product Information Management

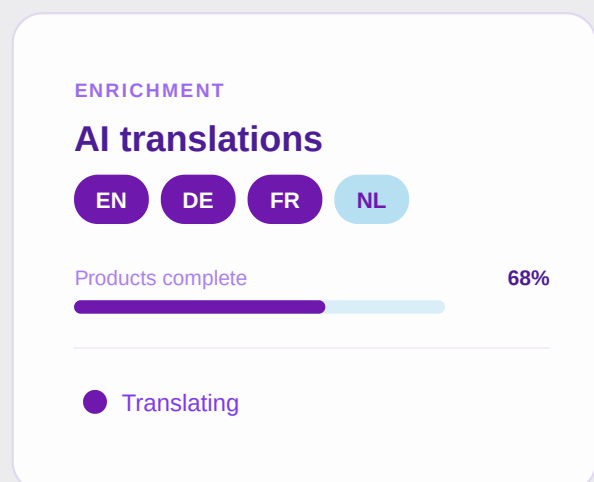
Perfion helps manufacturers and distributors manage the complexity of product information throughout its lifecycle by providing a structured environment where information can be created, governed, enriched, validated, and distributed across the organization. Rather than treating product information as documentation completed only after product development, Perfion allows that information to evolve continuously as products change and move toward market.

Technical specifications, product attributes, digital assets, certifications, translations, supplier information, documentation, and commercial content can become part of a connected product definition rather than evolving independently across multiple systems and departments. This structured approach also helps different areas of the organization work with greater confidence because information can be reviewed and validated before it progresses to the systems and channels that depend upon it.

This becomes increasingly valuable as product information needs to support both established digital channels and emerging AI-driven experiences. Perfion enables organizations to manage descriptions, technical specifications, digital assets, certifications, translations, videos, documents, and commercial information within a structured environment before publishing that information to destinations including corporate websites, ecommerce platforms, distributor networks, marketplaces, customer portals, and sales materials.

AI-assisted capabilities can support enrichment activities and accelerate the preparation of product content, while workflow and validation help maintain appropriate governance as information moves through the organization.

For manufacturers and distributors, the result is not simply more product content. It is a stronger product information foundation that can support the way products are discovered, understood, compared, and presented today while giving the business greater flexibility to respond as AI continues to change the digital buying environment.



Conclusion

Preparing products for the next generation of discovery

Artificial Intelligence is changing the way customers search for information, compare alternatives, and make purchasing decisions, but the fundamental requirement behind those activities remains familiar. Customers still need to understand what a product is, determine whether it meets their requirements, compare it with appropriate alternatives, and feel confident that the information supporting their decision is accurate.

What is changing is the technology involved in helping them reach that decision.

Search engines, ecommerce algorithms, procurement platforms, marketplaces, and AI assistants are becoming increasingly influential intermediaries between manufacturers, distributors, and their customers. As that influence grows, product information must be capable of supporting both the person making the decision and the machine helping to inform it.



For manufacturers and distributors, this creates an opportunity to reconsider product information as a strategic business asset rather than simply the content required to populate a website, catalog, marketplace, or sales document. Information needs to be reliable enough to trust, relevant to the questions customers are trying to answer, connected in ways that explain the relationships between products and attributes, and readable when it is interpreted outside the environment in which it was originally created.

These are not requirements created solely by Artificial Intelligence. They represent good product information management, but AI is making their importance considerably more visible.

Organizations that establish this foundation will be better positioned to take advantage of artificial intelligence because they will be able to apply new technologies to information that is already organized and governed rather than expecting those technologies to compensate for fragmentation.

The emergence of AI therefore does not fundamentally change the importance of product information. It changes the standard that product information must now meet. As machines become part of the buying journey, manufacturers and distributors need to make sure their product information can be understood by machines as well as people.



Bring Your Products to Life

Perfion is Boyum IT Solutions' Product Information Management (PIM) solution, helping manufacturers, distributors, and brand owners manage complex product data with confidence. By centralizing product information, digital assets, and product content, Perfion enables businesses to enrich, govern, and deliver consistent product experiences across every sales and marketing channel, accelerating time to market while improving data quality and operational efficiency.

Built for organizations with complex product information, Perfion gives businesses the flexibility to evolve their product data model, workflows, and integrations without changing the core platform. Supporting ecommerce, marketplaces, print catalogs, customer portals, sales enablement, and digital commerce initiatives, Perfion empowers business users to take control of their product information while ensuring consistency, governance, and scalability as products, channels, and markets evolve.

Backed by Boyum IT Solutions and more than 28 years of software innovation, Perfion is supported through a global partner network spanning more than 130 countries and trusted by organizations worldwide. Guided by our purpose, Bring Your Products to Life, reflects our commitment to helping businesses deliver richer product experiences through trusted information, operational efficiency, and continuous innovation.





Boyum IT Solutions A/S

✉ marketing@boyum-it.com

🌐 boyum-solutions.com

🌐 linkedin.com/company/boyumit

📺 youtube.com/user/boyumit

📷 instagram.com/boyumit

📍 Boyum IT Solutions
Sintrupvej 71b, 1th
DK - 8220 Braband