

The Product Intelligence Base

A living system for connected product knowledge



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Why this guide exists

This eBook is part of the knowledge-sharing initiative of the **European Product Management Association (EuPMA)**, an open community created to improve product management knowledge, methods and practices through practical experience, collaboration and shared learning.

EuPMA promotes a responsible vision of product management, focused not only on profit, but on creating lasting value and prosperity for customers, companies and for the wider ecosystem.

Learn more about EuPMA at www.eupma.eu.

Who this guide is for

Ideal readers • Product managers and product owners • Innovation managers • R&D and engineering managers • Service designers • Consultants and facilitators • Business school participants	Best situations • Requirements are unclear • Roadmaps are based on opinions • AI outputs are too generic • Teams need traceability • Product/service concepts need validation • Market insights must become decisions
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How AI May Help in Managing Product Knowledge

Managing product knowledge can be a demanding and complex activity, especially when information comes from many different sources, evolves over time and must remain accessible, coherent and trustworthy.

In many organizations, **important product knowledge is fragmented** across spreadsheets, documents, databases, presentations, emails and collaboration tools. Part of it may even exist only in the experience and memory of a few people.

Imagine instead if the relevant product knowledge could be accessed and questioned from one connected place.

This is the purpose of the Product Intelligence Base: to create **a structured, connected and validated representation of product knowledge** that can be explored, maintained and reused throughout the product lifecycle.

AI agents can significantly support this work. They can transform scattered information into structured knowledge objects, apply consistent formats and terminology, preserve relationships between different pieces of information and help maintain the overall coherence of the knowledge base.

They can also support the continuous management of the Product Intelligence Base by:

- extracting relevant knowledge from heterogeneous sources;
- structuring it according to predefined knowledge models;
- identifying duplicates, inconsistencies, contradictions and missing links;
- comparing alternative interpretations;
- rationalizing large and evolving sets of information;
- retrieving and combining relevant knowledge through natural-language questions;
- generating focused outputs for specific teams, decisions or lifecycle stages.

A system of specialized AI agents can therefore support different knowledge-management tasks: some agents create and structure specific knowledge objects, others rationalize the overall knowledge base, while others extract and reframe information for a specific purpose.

This can make product knowledge easier to access, more connected, more consistent and more reusable, while significantly reducing the effort required to maintain it.

However, **AI should not replace human judgment.** Humans bring context, strategic intent, technical expertise and market sensitivity. They determine what is relevant, what can be trusted, what should be retained and how knowledge should be interpreted.

AI helps structure, connect and navigate product knowledge. Humans provide direction, judgment and meaning.

The Product Intelligence Base

The **Product Intelligence Base (PIB)** is a structured and reusable collection of the knowledge that is most relevant to understanding, defining and managing a product.

It does not store all available data. Instead, it brings together **selected information extracted and synthesized from multiple internal and external sources** — such as customer research, CRM, service data, product usage, technical documentation, market information and business data.

Knowledge in the PIB is organized into **defined information types** and where useful, expressed through **consistent formats and syntax**. Examples include:

- Customer Insights
- Customer Needs
- Jobs-to-be-Done
- Product Capabilities
- Product Requirements
- Technical Insights and Constraints
- Business and Economic Assumptions
- Product Usage, Quality and Service Indicators
- Market and Competitive Insights

Each piece of knowledge retains its **source, reliability and validation status**, making it easier to distinguish assumptions from well-supported information.

Each piece of knowledge is linked to the information that generated it, creating a clear and traceable chain of reasoning. For example, a **Product Capability** may derive from a specific **Job-to-be-Done**, while a **Product Requirement** may derive from one or more Product Capabilities.

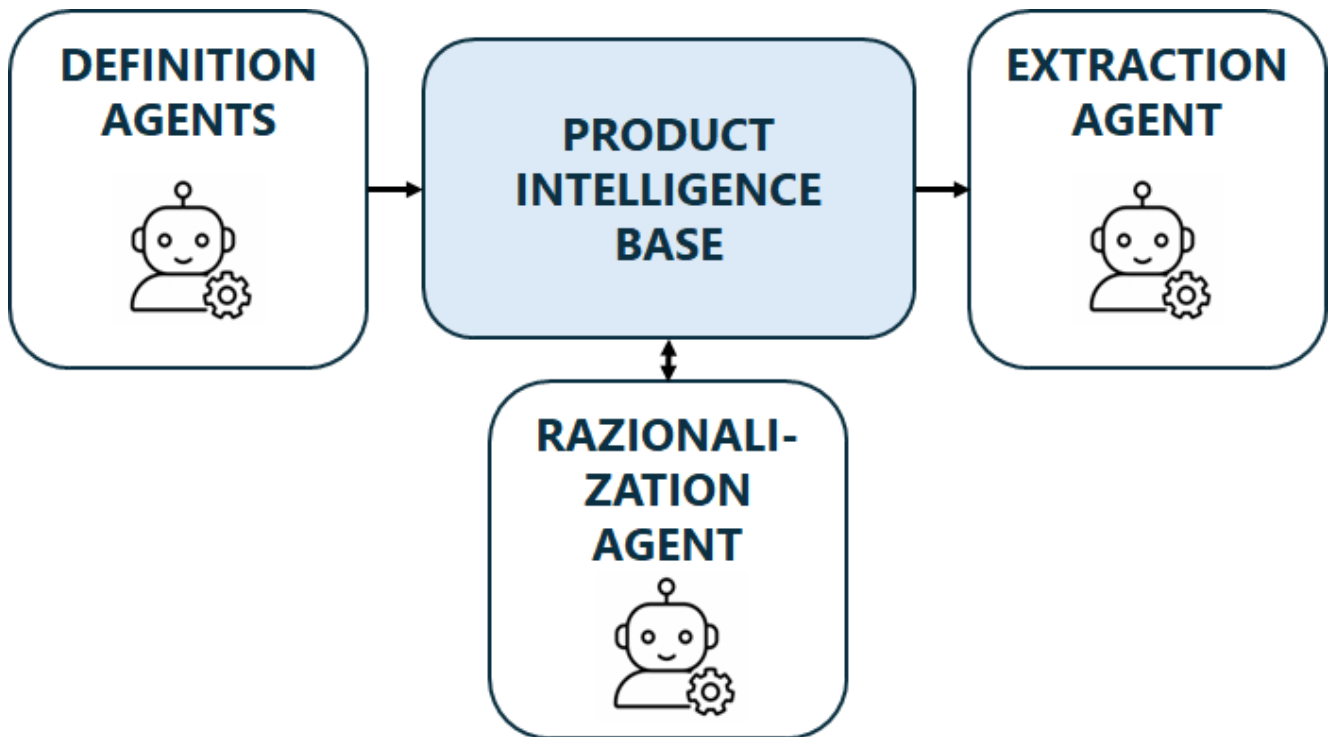
This makes it possible to understand not only **what** is known about the product, but also **why it exists, where it comes from and what other knowledge it supports**.

The PIB therefore acts as a common **product intelligence layer** between fragmented data sources and Product Management activities.

Different sources → Structured Product Knowledge → Better Decisions.

The PIB can be created and enriched by **Product Managers supported by specialized AI Agents**, which can also help structure, consolidate and rationalize its content. Whenever AI Agents contribute to the PIB, **each piece of knowledge should be reviewed and validated by a human before being considered reliable and ready for use.**

It can be used directly or can be queried to **generate** focused and concise documents for different purposes: component sheets, concept descriptions, improvement opportunities, roadmap inputs, validation checklists, stakeholder summaries and decision-support documents — also with the support of AI.



The Product Intelligence Base transforms scattered product knowledge into structured intelligence — making decisions clearer, faster and more strategically grounded.

Definition Agents

The Definition Agents are specialized AI agents designed to **transform heterogeneous information into structured, connected product knowledge**.

Each agent is specialized in one specific type of knowledge and understands the logic, level of abstraction and syntax required to create it. For example, one agent may focus on Customer Insights, another on Jobs to Be Done, another on Product Capabilities and another on Product Requirements.

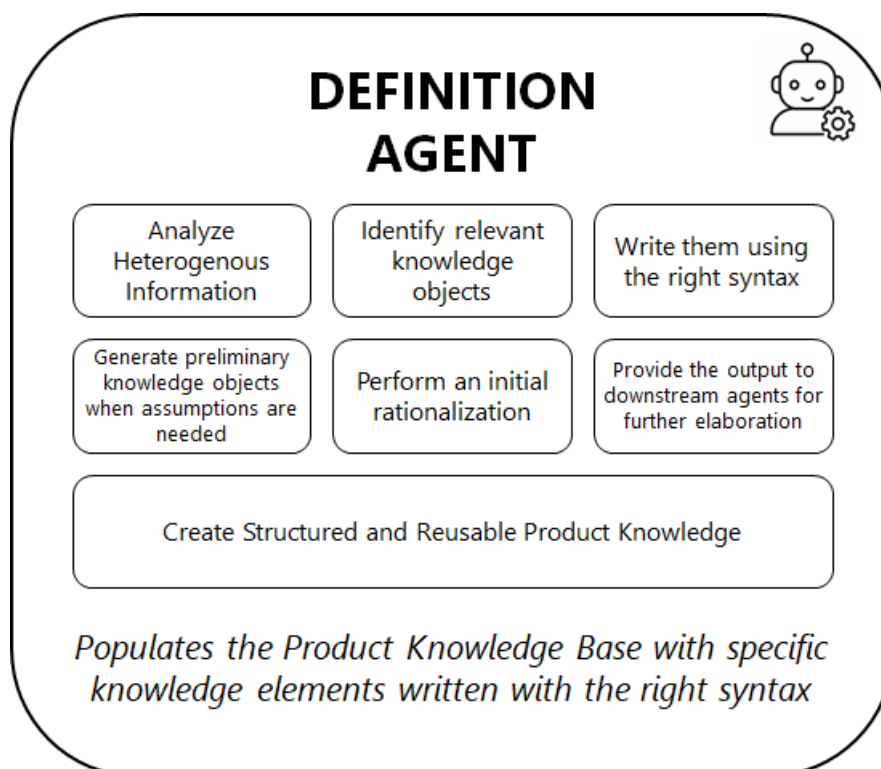
This specialization helps avoid mixing different kinds of information and supports a more consistent transformation from one knowledge layer to the next.

The agents can analyze interviews, observations, reports, feedback and existing product documentation; identify the relevant knowledge objects; express them using a consistent syntax; highlight assumptions, gaps and inconsistencies; perform an initial rationalization and provide structured outputs that can become inputs for subsequent agents.

Their purpose is not simply to generate content, but to create a traceable chain of connected knowledge, where each element can remain linked to the information or knowledge object from which it originated.

Some agents are designed to work together, but they can also be used independently whenever the required input is available.

Their outputs should always be reviewed, challenged and validated by people with the appropriate knowledge.



Rationalization Agent

Working in depth with multiple Definition Agents increases the quality of each individual knowledge layer, but it may reduce coherence across the overall Product Intelligence Base. This is why an additional Rationalization Agent is required.

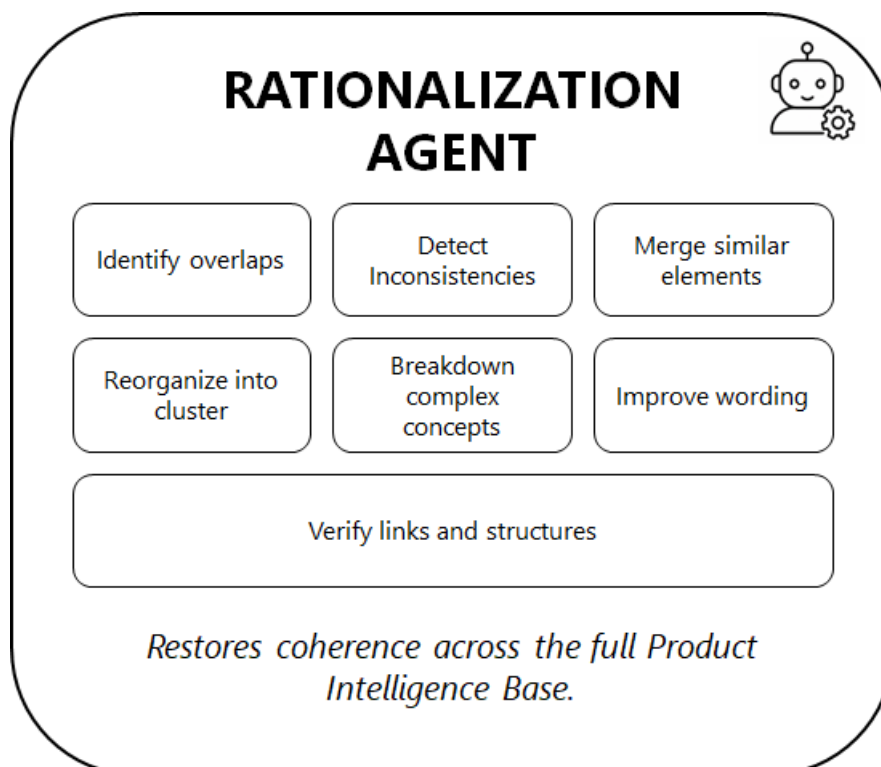
The **Rationalization Agent** reviews the knowledge objects stored in the Product Intelligence Base from a cross-functional and end-to-end perspective. It can **detect duplicated items, identify inconsistencies or contradictions, merge similar elements, reorganize content into clearer clusters and highlight missing or weak links across the knowledge chain.**

It can also identify situations where different knowledge objects are not logically aligned—for example, when a Product Capability is not clearly connected to a Job to Be Done or when a Product Requirement does not appear to support the capability from which it should derive.

The agent does not automatically rewrite the Product Intelligence Base. Instead, it proposes rationalization actions and suggested modifications, making the reasons for the proposed changes visible whenever possible.

All proposed changes must be reviewed, accepted and validated by a human before becoming part of the official Product Intelligence Base.

In this way, the Rationalization Agent helps preserve clarity, consistency, traceability and integrity across the entire product definition chain.



Data extraction agents

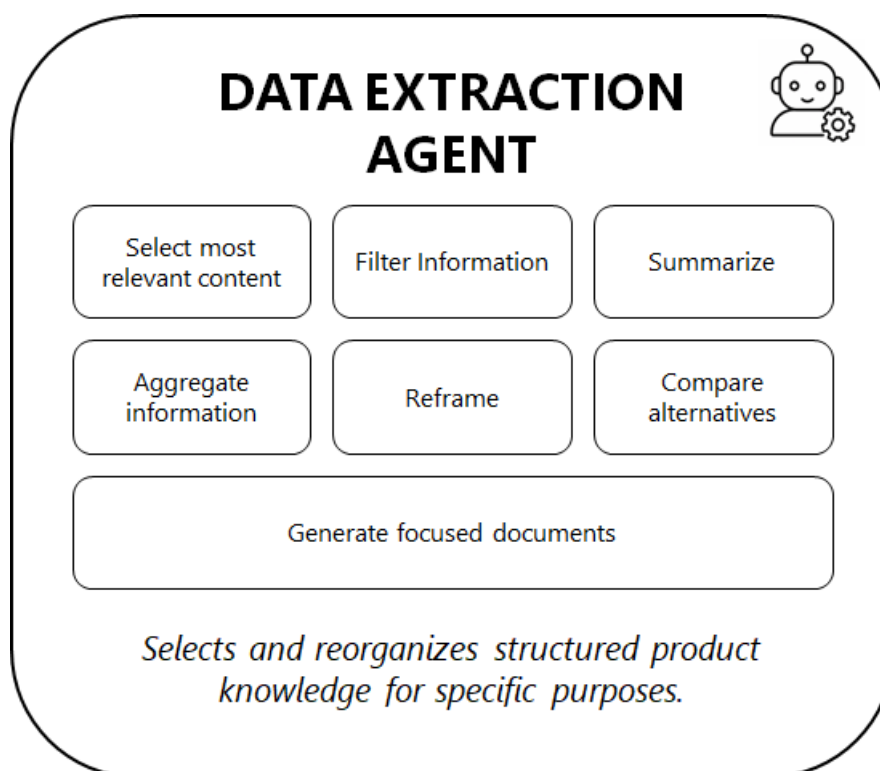
Data Extraction Agents use the **Product Intelligence Base** to extract, filter, select, aggregate, summarize and reframe validated product knowledge into focused and usable outputs.

Each Extraction Agent is **specialized in a specific type of extraction or output**. For example, one agent may generate a product brief, another a requirement summary, another a component sheet, a validation checklist, roadmap inputs, stakeholder reports or decision-support documents. This specialization allows each agent to apply the most appropriate selection logic, level of detail and output structure for its specific purpose.

Their role is to help teams move from a broad and detailed Product Intelligence Base to **focused views and reusable knowledge packages** tailored to specific teams, products, components, decisions or lifecycle stages.

Unlike Definition Agents, Extraction Agents do not create new product logic from scratch. They work primarily with **existing validated knowledge**, making it easier to access, understand, combine, reuse and communicate in the form required by different stakeholders.

In this way, the same connected knowledge base can generate multiple consistent outputs without duplicating or recreating information each time.



What to Expect from the Product Intelligence Base

The **Product Intelligence Base is different for every organization**, reflecting its products, information systems, processes, terminology and available knowledge.

Its implementation should therefore **not begin as a large, complete repository**. A more effective approach is to start with a **small number of meaningful knowledge objects**, focusing first on the information that creates the most value and is currently least supported by existing company tools.

In many cases, a good starting point is the **early product definition knowledge**—for example customer insights, Jobs to Be Done, product capabilities and initial requirements—because this information is often scattered across documents, workshops and individual experience rather than managed in a dedicated system.

From there, the PIB can **grow progressively**, adding new knowledge areas, links, evidence and levels of detail as the product evolves and as the organization sees value in extending it.

One of its main benefits is the ability to generate **different documents and views from the same underlying knowledge base**. Product briefs, requirement summaries, component sheets, validation checklists, stakeholder reports and other outputs can all be created using information that remains **consistent, connected and up to date**.

This is an important shift in perspective:

The Product Intelligence Base is the living system.

Documents are static outputs generated from it.

Instead of repeatedly creating and maintaining separate documents that gradually become inconsistent with one another, teams can maintain the knowledge once and generate the required outputs whenever needed.

The value of the PIB therefore increases over time. It starts small, supports a concrete need and progressively becomes a **shared, living source of product knowledge** that can serve different teams, decisions and lifecycle stages.

Go further with EuPMA

This guide is only a **starting point**. A Product Intelligence Base should be adapted to the specific knowledge, processes, terminology and tools of each organization. It can start small, around a few high-value knowledge objects and progressively evolve into a broader and more connected product knowledge system.

EuPMA partners can support organizations in **designing and structuring their Product Intelligence Base, defining suitable knowledge models and relationships and developing customized AI agents** for definition, rationalization and extraction.

The objective is not to introduce another repository, but to create a **living and usable product knowledge system** that helps people access the right knowledge, keep it coherent and generate reliable outputs whenever they are needed.

Join the EuPMA community to **contribute to new knowledge, exchange experiences and learn from other Product Managers**, while building meaningful relationships with peers across Europe.

Please visit: www.eupma.eu

Please contact us: info@eupma.eu

Please find more info about the [Product Intelligence Base](#)

PLEASE READ

Knowledge creates prosperity

Access to knowledge and education is one of the foundations of **prosperity**. Yet many children and young people are born in places where studying is not something they can take for granted.

For this reason, **EuPMA supports Schools for Future**, a non-profit initiative that provides scholarships and helps children and young people from disadvantaged communities access education **in their own countries and communities**.

Schools for Future is based on a simple principle of transparency: **100% of the donations received goes directly to supporting students**, while the organisation covers its own operating costs independently.

If you believe, as we do, that knowledge can change a life, please visit www.schoolsforfuture.it and consider whether you can help.

