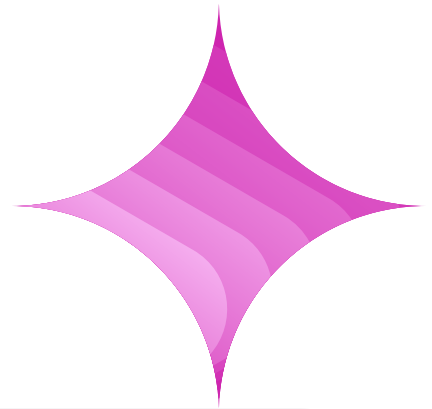


Product Lifecycle Profitability



A reliable product cost at every stage of a product's life, from the first design through serial production to phase-out.

- Built on SAP Business AI Platform · Integrates with SAP S/4HANA (cloud or on-premise), SAP Integrated Product Development, SAP ERP Central Component, and other sources

Summary

Product Lifecycle Profitability joins bills of materials, recipes, and routings to the prices, rates, overheads, and tariffs that value them, keeps that costed structure current, and calculates at scale on SAP Business AI Platform.

On this one foundation, cost engineering, R&D controlling, cost controlling, sales and pricing, and investment controlling answer five questions: what a product will cost, what it may cost and how far off it is, what happens when something changes, what a product or variant contributes, and whether it pays off over its life.

The solution fetches its data from SAP S/4HANA, in the cloud or on-premise, SAP Integrated Product Development (SAP IPD), and SAP ERP Central Component (SAP ECC), in any combination, and from other sources such as PLM systems, supplier quotes, market data, and spreadsheets. It runs as a multi-tenant cloud service with intuitive SAP Fiori screens and flexible, role-based access that uses the authentication and authorization services built into SAP Business AI Platform.

The challenge

The cost questions that matter most come up before the data to answer them is ready.

IN DESIGN

No structure in ERP yet

The product exists only as an engineering structure: no bill of materials, no routing, often no price for new parts, yet the biggest cost decisions are taken now.

IN PRODUCTION

Built for another purpose

Bills of materials and routings sit in ERP, maintained for production planning and inventory valuation, not for what-if questions across many products.

ALL THE TIME

Change comes fast

Tariffs, trade restrictions, material prices, and exchange rates can shift overnight, often for geopolitical reasons. Companies need to know quickly which products are hit, by how much, and what they can do about it.

The result is spreadsheets: costs rebuilt by hand, product by product, out of date by the time they are presented, and too slow for the decisions a sudden change demands.

The solution: one costing foundation

Product Lifecycle Profitability builds a costed structure from two inputs and keeps it current as either one changes.

INPUT 1

The costing structure

A multi-level bill of materials or recipe, together with its routing or process steps.

INPUT 2

The costs that value it

Material and ingredient prices, activity rates, surcharges, overheads, exchange rates, and tariffs, each with its validity period.

The result is a costed structure: every assembly, component, and process step carries its quantity and its cost, rolled up to the product. Every question the business asks of a product's cost, at any stage of its life, is answered against this one foundation. Users work in SAP Fiori screens designed for cost engineers and controllers.

How it works

A calculation runs in six steps, and every step can be traced afterwards.

1

Bring in the data

Structures, prices, rates, and master data are fetched from the connected SAP systems and from non-SAP systems such as PLM, loaded from files, or maintained directly in the solution. Each item keeps a record of the system it came from.

2

Pick the right value

A valuation strategy decides which price counts, for example the standard price first, then the planned price. Validity dates and quantity price scales are respected. Where a part has several valid prices, the solution keeps the full range, from low to high, instead of hiding it in a single number.

3

Apply your costing logic

Costing sheets add overheads and surcharges as percentages or formulas, with rates that can change by date. A cost component split groups the result into material, labor, overhead, or whatever buckets your reporting uses.

4

Define what to calculate

A costing scope combines products, points in time, and scenarios. One calculation is generated for every combination: two products, two points in time, and two scenarios give eight calculations in one run.

5

Read and compare the results

Every structure item shows its quantity and cost, rolled up to the product, with a low, high, and average cost where a part has several sources. Calculations can be compared item by item, and versions frozen for reference.

6

Look beyond cost

Add volumes over time, prices, and investments and one-time costs such as tooling and development, and the same costed structure shows what a product contributes, its margin, and when it pays off.

Five questions, one foundation

Each use case answers a different question for a different team, and none is a prerequisite for another. A company can start with any one of them.

1 · EARLY COSTING

Cost engineering

What will it cost?

Cost a new or changed product while it still exists only as an engineering structure. The solution joins the design structure to the prices and rates that would value it and rolls up a costed structure. Where a new part has no price in SAP yet, the AI assistant estimates it or a user enters it by hand, and either way it is marked, so the early number arrives with its confidence attached.

2 · TARGET COSTING

R&D controlling

What may it cost, and how far off are we?

A target cost comes from the price the market will pay, less the margin the business needs. The solution breaks that target down by cost component, such as material, activities, and overheads, so each component carries a target of its own. The cost gap is calculated for every component and moves as soon as the design or the costs change. Measures to close it carry an owner, a value, and a date, and move from idea to committed to realized. Target achievement counts only realized measures, and versions keep the history across every gate.

3 · SIMULATION COSTING

Cost controlling

What happens when something changes?

Run mass simulations across the portfolio. Model a change in material prices, activity rates, overheads, exchange rates, quantities, or tariffs, by part, group, plant, company, or country, as a yearly change or a one-off. A rise in energy prices, for example, is modeled through the activity rates it drives. Where-used analysis finds every product the change touches, and the solution re-costs thousands of products and variants in one pass, ranked by impact. Where a product carries a target, the simulation shows at once where it now stands against it.

4 · QUOTATION COSTING

Sales and pricing

What does it contribute?

Give sales what a product or variant actually costs and contributes to margin, alongside the configuration the customer asked for. Frequently sold variants can be costed in advance and the rest on demand, so each quote is priced against its own cost rather than an average. The solution complements a configure-price-quote tool rather than replacing it.

5 · PROFITABILITY ANALYSIS

Investment controlling

Does it pay off?

Build the business case for a product over its life: volumes at each point in time, investments and one-time costs such as tooling and development, and scenarios for how costs will move, such as inflation by plant, separately for material and activities, and tariff changes over time. The result shows whether and when the product pays off, based on the same costed structure the cost engineers and controllers work from.

From disruption to decision

When a tariff, a trade restriction, or a price shock hits, the solution turns it into a decision in three steps.

STEP 1

See the impact

Model the change, for example a new tariff on one trade corridor. Where-used analysis finds every affected product across the portfolio and ranks them by margin impact.

STEP 2

Compare your options

Calculate possible responses side by side as scenarios: another supplier country, a different material, an adjusted price, or a change in volumes. See which one limits the damage or improves profitability.

STEP 3

Act with full transparency

Move from the portfolio to an individual calculation, and down to each part, process step, and price in a few clicks. Every number shows where it came from.

Tariffs built into the cost

Tariffs are calculated as part of every product cost, not added afterwards in a spreadsheet: the duty for each purchased part follows from where it comes from, where it goes, and how it is classified.

Classification

Customs tariff (HS) codes at any level of detail, from the 2-digit chapter to the 10-digit national line.

Trade corridors

Origin and destination as a single country or a trade group such as the EU or Mercosur. Trade inside a customs union carries no duty.

Rates over time

Every rate has a validity period.

Part-specific rates

A rate can also be maintained for an individual part, and the calculation shows which source each rate came from.

Combined with simulation costing, this answers a question many manufacturers face today: if a tariff changes for one corridor, which products are affected and by how much?

AI on a high-performance calculation engine

Every calculation runs on a deterministic engine: the same inputs always give the same cost. AI is built in where it saves time, never in place of the arithmetic.

- **High performance at scale.** Calculations run in the database on SAP HANA Cloud, so a scope of thousands of products, points in time, and scenarios is calculated in one background run.
- **Spots what looks wrong.** The assistant flags unusual prices and rates, such as an activity rate that jumped since the last update, before they distort a cost.
- **Answers in plain language.** Ask a question such as "Which products fall below 25% margin if steel rises another 10%?" The assistant runs the simulation and answers with the affected products, ranked.
- **Explains any change.** Ask why a product's cost went up, and the assistant traces the change through every level of the structure to the parts and prices that caused it.
- **Fills gaps, visibly.** When a price is missing, the assistant estimates it and marks it as an estimate, so users can review it before relying on it.
- **Works in your AI workplace.** A Model Context Protocol (MCP) server connects the solution to the AI workplace or agent platform a company already uses, such as Claude Cowork or SAP Joule Work, so people can work with cost data in natural language.

Every number explained

A cost is only useful if people trust it, so every figure can be traced to where it came from.

Calculation explained

Each quantity, price, and adjustment carries a plain explanation of how it was derived: which value was picked, which scrap and lot size applied, which scenario changed it.

Data-quality signals

Checks flag stale prices, a wide spread between low and high cost, unusual scrap rates, or parts with no matching price. Companies add their own checks with formulas.

Confidence levels

Where users adjust a value by hand, they record how confident they are, so estimates and firm numbers are never confused.

Stable results

Each calculation keeps a snapshot of the costing sheet it used, so later changes never alter an existing result. Versions can be frozen for reference.

Built for the SAP landscape

The solution runs on SAP Business AI Platform and fits into the SAP landscape a manufacturer already has.

Finding the right data is the hard part. In SAP, what a cost needs is spread across many objects: material masters and valuation, bill of materials alternatives and usages with their validity, routings and work centers, purchasing info records and conditions, and activity prices by cost center, version, and period. Choosing the right one for a given product, plant, and date is where integration projects usually stall. The solution brings this knowledge built in and reads exactly the data each calculation needs.

- **Data from your SAP systems.** Structures, prices, rates, and master data are fetched from SAP S/4HANA (cloud or on-premise), SAP IPD, and SAP ECC, in any combination.
- **Other sources alongside.** Engineering structures from PLM systems, prices from supplier quotes and price files, market data such as exchange rates, metal prices, and tariff schedules, and your own cost data from spreadsheets.
- **Multi-tenant cloud service.** Each customer works in its own tenant, with no infrastructure to install or operate.
- **Intuitive SAP Fiori screens.** Users move from the portfolio to an individual calculation, and from there to each part, process step, and price, in screens that look and work like the SAP applications they already know.
- **Flexible, role-based access.** Access uses the authentication and authorization services built into SAP Business AI Platform and is set up around each customer's roles and responsibilities, so every user sees and changes exactly what their work requires, and nothing more.
- **Familiar conventions.** Units of measure, exchange rate types, and cost elements work the way SAP users expect.

About Vianta

Vianta GmbH, based in Heidelberg, Germany, builds product costing and profitability software for manufacturers on SAP Business AI Platform. Founded in 2025, Vianta brings together a team with many years at SAP in product costing, enterprise finance, and customer implementations.

See it in action.

A 30-minute live demo, tailored to your questions.

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