An Introduction to Product Portfolio Management

What is Product Portfolio Management?

Product Portfolio Management is the next step in the evolution of business applications that work to enable product development and innovation.

While Project Portfolio Management (PPM) solutions focus on the selection and delivery of new products, Planisware’s Product Portfolio Management solution goes a step further and addresses new and existing products, from inception or selection to retirement, thus covering the full lifecycle of products at the portfolio level.

Within a single solution, Planisware streamlines communication across all the product stakeholders (e.g., marketing, development, and manufacturing) and aggregates product data from many disjointed sources and systems in order to provide enterprise-wide visibility around the company’s product portfolio.

The Product Lifecycle Managed at the Decision Level

Planisware Product Portfolio Management enables users:

• To actively manage all products in order to maximize the future value of the company, prioritize development projects and foster cross-functional communication across the marketing, development and manufacturing departments at the portfolio level.

• To support the decision process throughout the complete lifecycle and track design decisions and their rationales through time. This is achieved with the help of dedicated tools such as high-level requirement and configuration management, competitive analysis, and advanced profit and loss assessment at the product level.

Thanks to its flexible design, Planisware Product Portfolio Management accommodates both discrete and process manufacturing industries.

Product Portfolio Management compared to Product Lifecycle Management (PLM)

Planisware Product Portfolio Management focuses on business and decision support with tools such as sales and market forecasting, competitive intelligence, business and market requirements analysis, sourcing strategy, idea management and configuration management.

On the other hand, traditional Product Lifecycle Management solutions focus on process and data with tools such as product and data configuration, product mock-up and visualization, material sourcing, and manufacturing process management.

Planisware Product Portfolio Management is fully complementary to traditional Product Lifecycle Management (PLM) solutions. The Planisware solution aggregates information that can be found in other product lifecycle solutions like configuration details, requirements and various product and market metrics, in order to provide high-level visibility of the company’s entire product portfolio.

Benefits of Planisware Product Portfolio Management

At the portfolio level, Planisware Product Portfolio Management:

• Ensures that the product portfolio is aligned with the company strategy.

• Raises awareness concerning corporate goals with visual representations of the company strategy.

• Improves decision-making with data shared among all product development stakeholders.

At the product level, Planisware Product Portfolio Management:

• Standardizes Profit & Loss assessment with consistent methodology and supporting data.

• Helps shape a cohesive sourcing strategy with global visibility by providing product configuration and sourcing options.

• Tracks key product trends, inflection points and design decision rationales.

• Enables a common platform among the various product stakeholders including development, marketing, research, executives, and sales.

Typical scenario: Product development Go/No Go

Companies are often faced with too many initiatives and far too little budget. How can Planisware help the company select the best initiatives and build a healthy product portfolio?

• Ideas for new products are submitted to the Ideation Portal in order to be scored, and monitored in terms of popularity.

• Marketing is asked to provide market estimates on the most promising ideas. Marketing exchanges information with development and manufacturing to obtain figures around costs, e.g., configuration expenses and processes costs.

• Each product is assessed against several metrics, e.g., expected Return on Investment, gross margin, consolidated development costs, the resultant cashflow, the sourcing strategy, as well as the strategic fit within the corporate strategy and goals.

• The impact on existing products and components is assessed (e.g., cannibalization, shared component rationalization, economies of scale) as well as the global impact on the product portfolio (positioning, balance, contribution, company capacity, etc.)
Planisware Product Portfolio Management Module Architecture

Planisware Product Portfolio Management Overview

Planisware Product Portfolio Management provides:
- High-Level decision support through a comprehensive **roadmapping** framework and inception to retirement lifecycle product management (See pages 4-5).
- The management of **Ideas** and **Requirements** up to the **release** of a product (See pages 6-7).
- An in-depth understanding of the the **Product Profit and Loss** and **cashflows** (See pages 8-9).

Main Product Portfolio Components and Information Flows

Figure 1: Planisware Product Portfolio Management can aggregate information coming from the project management components of the Planisware solution or third-party systems such as Product Lifecycle Management (PLM) solutions. It also provides standalone capabilities such as competition analysis, requirement management and product configuration. The ideation management, document management, workflow engine, and risk analysis features are shared by both Planisware Product Portfolio Management and Planisware Project Portfolio Management.
Where is the Organization Going? Roadmapping and the Product Lifecycle

Creating and Managing Roadmaps

The Planisware Roadmap is a composite view within a specific time frame – usually up to 5 years – that includes at its top level, all relevant key components needed to understand the company’s strategic intent, including information around the markets, company products, key technologies, improvement processes and people.

In addition to a top level roadmap summarizing the company’s strategic goals at the CEO level, any number of specific roadmaps can be added, like product or technology roadmaps. Each roadmap includes its own milestones and deliverables, as well as external components from other roadmaps or projects.

In order to manage such a heavily interconnected network of roadmaps and projects, all dependencies can be visualized. Discrepancies between the roadmap and its dependencies are singled out and can be resynchronized on demand. All changes in the roadmap are traced with the ability to compare versions through time.

The Product Lifecycle: from Inception to Retirement

Planisware Product Portfolio Management follows products from inception to retirement:

• During the inception phase, the solution enables seamless communication between the marketing and development teams around the product requirements, and early cost and sales assumptions.
• During the development phase, the solution provides a global vision of the multiple project and technology deliverables that contribute to the product. It also helps the company control releases, set sourcing strategies, and monitor the competition.
• During the maintenance phase, it serves to introduce product enhancements and scope extensions.

All product and progress information is consolidated at the portfolio level where gate decision, product assessments and budget revisions are performed based on the latest information available.

Understanding the Competitive Landscape

A key addition to Planisware Product Portfolio Management is its comprehensive competitive analysis tool. Product Managers can add any number of competing products and use scorecards to weigh company products against competitors’, or perform SWOT analyses (Strengths, Weaknesses, Opportunities, and Threats).

Competition data can be updated and compared on an ongoing basis. Users can visualize when a product is behind or ahead of the market or financial targets, and understand market dynamics and trends. Planisware thus serves as a decision tool, helping decision-makers understand the competitive position of company products throughout their lifecycles.

Typical scenario: A Business Case reconsidered

After a product launches, several issues are raised; it turns out the actual business case is materially different than what was originally presented. Where are the discrepancies and how can the company address them?

• A first glance, the product profit and loss confirms that market shares are lower than forecasted and that the cost of goods sold is higher than the baseline plan.
• Changes in the competitive roadmap show that stronger-than-anticipated competitors have appeared in the marketplace. Meanwhile, value assessment reveals that customer expectations have shifted to new areas where the competition scores better.
• Assessment of the product configuration points to a key component that has not been updated with the rest of the product line and is therefore more expensive to purchase.

In order to address these issues:

• Some new requirements are introduced into the product in order to address the market changes.
• Quotes are asked from several on-going technology projects in order to produce a new component deliverable.
• A profit and loss update is provided to management with new sales and cost figures for approval.
Figure 2: A product roadmap sample is shown here. The full product lifecycle is displayed at the top followed by key marketing events such as tradeshows, and high-level contributions from research & development, and operations.

Figure 3: Competitive assessment and value analysis views are shown above. Changes are tracked through time and can be displayed within a bubble chart.
How are Design Decisions made? Tracking Requirements from Idea to Release

Idea Management
Planisware’s Ideation Portal provides a central repository to collect, assess and track all ideas submitted to the organization. The Ideation Portal organizes ideas during campaigns, gathering input either directly from regular users of the solution and/or via imports from third party systems (e.g. innovation front-end specific tools, CRMs, Help desks.)

Once collected, Planisware tools like popularity voting, scoring, and idea correlation help users assess, sort and improve ideas while a commenting feature fosters discussions around ideas. Once documented, ideas can be discarded, inserted into existing projects or products, or they can serve as the basis for new products or projects.

Planisware’s Ideation Portal includes robust reporting capabilities so users can monitor idea flows and quality as well as assess global feedback of contribution to the business in terms of maintenance, new products, new requirements, and potential cashflow impact.

Submitters can access their ideas through the user-friendly Ideation Portal and are able to manage their contributions as well as view idea statuses. Planisware also tracks contributor involvement metrics, including number of ideas and comments, and comes with the ability to define rules for rewards.

Managing Requirements
Planisware Requirement Management provides the ability to create, evaluate and manage high level product requirements. Requirements improve the communication and understanding of the product for stakeholders – marketing, development and product management – specifically at the early stages of development and during release cycles.

Requirements are organized around several categories: business, regulatory, functional and technical requirements, and users are able to add, remove or rename categories as needed. Requirements are populated through the import of structured Microsoft Word documents, aggregated from PLM requirement solutions, augmented from the Ideation Portal, and/or manually entered.

Once created, requirements are further organized into hierarchies, with dependency relationships, and evaluated against criteria by multiple scorers. Each requirement score will later serve as a basis to discuss inclusion in a release.

Requirements are then matched across categories: for instance a business requirement may be linked to functional requirements that can be refined into several technical requirements. Cross-category dependency networks enable quick visualization of nodal points and orphaned requirements, thus supporting the creation of a strong product release.

Releases and Versions
Once ranked and documented, some requirements are selected and grouped to serve as the basis for one or several releases, depending on product objectives. Release decisions are built upon strong requirement value analysis, and considered against the product deadline and development time available. The product can be refined through several versions in order to incrementally include more features and thus secure improved market value without compromising the time-to-market of a first release.

Requirements are tracked during development and can be referenced at any time during the release cycle. For example, users may want to review which requirement dependencies have been met, view the test and validation statuses, and see the final release inclusion status. Decision rationales are recorded in order to explain decisions that have been made and inform future product enhancements.

Typical scenario: Portfolio rebalancing
Several products show a decrease in sales and margins. Should the company try to develop sales, “milk” the products, or withdraw them?

- At first assessment, the global product roadmap shows that new products are set to come “online” to replace some of the aging products. A withdrawal strategy is already implemented for the corresponding products.
- For a few of the remaining products, market and competition analysis proves that some markets are still developing. Given the current company market position and the level of additional development required, the profit and loss is cashflow positive within six months and the ROI is on par with corporate standards. Some new development projects can be launched.
- Finally, a couple of products have fallen outside company scope; after value analysis is complete, it appears that maintaining market share would be difficult and the product configuration assessment demonstrates that it would require a disproportionate amount of effort from the company to maintain the supply price level. Retirement projects are launched on these remaining products.
Figure 4: Product requirements are displayed with their descriptions. Each requirement can be scored as well as linked to requirement categories.

Figure 5: The view above shows release information, with requirements ranked according to their relative importance. The ranking is based on Planisware’s multi-scoring framework.
Understanding Product Costs: Planisware Configuration Management

Planisware Configuration Management helps Product Managers define and explore sourcing strategies. In addition to providing a system that catalogues all product components and their corresponding quantities, pricing, and supplier information, Planisware Configuration Management supports advanced features such as volume discounts, alternative configurations and variations.

With the help of Planisware Configuration Management, users are able to provide a documented estimate of the cost of a product and estimate of the impact of a sourcing change. With a focus on providing high level estimates, the configuration details (e.g., price of components, shipping costs, ingredients within a formulation), are either entered manually or imported from an existing bill of material/receipt management system.

Users can explore options and scenarios iteratively before opting for any particular sourcing strategy. Once defined, results are synchronized with profit and loss statements.

Estimating Sales and Revenues

Planisware provides an advanced sales and revenues estimation tool directly connected to the product profit and loss statement. At early phases of the product lifecycle, users can forecast product revenues and sales with the help of adaptable sales profiles, and distribution curves that take into account market events like cannibalization and patent expirations.

Later in the product lifecycle, sales assumptions are maintained against actual sales. Revisions are automatically tracked and compared through time, providing insight on product trends. Users can perform dynamic analysis and simulations, and derive scenarios for comparison at any time.

Product Profit and Loss

Planisware’s Product Profit and Loss (P&L) feature summarizes input about the product including cost of goods sold, expected sales revenues, and the consolidated cost from contributing projects, providing a comprehensive vision over the product’s financial position.

The product cashflow can then be compared to the product’s expected results or to other products in the portfolio. All changes to the product cashflow are tracked and incorporated into the product portfolio trend analysis in order to detect unexpected results early on.

At any time, the P&L can be exported and edited within Microsoft Excel. The exported spreadsheet includes a dynamic link to Planisware, so users can stress-test the product sales and cost assumptions and quickly create new variations.

Reconnecting the dots: Revisiting the Portfolio

All estimates and actuals are rolled back into the portfolio. The organization is thus able to monitor the health of the portfolio, as well as feed its strategic portfolio decision cycle, all in real-time.

Products can be grouped together and their associated P&Ls consolidated. At this aggregated level, simulations and scenarios can be executed. For example, a user may simulate a sourcing change to preview its impact on the complete product line. Product lines can also be used to consolidate metrics (sales, warranty returns, etc.) and other cross-product information.

Planisware Product Management enables early detection of distress signals and key trends across the portfolio, resulting in the proactive management of opportunities. Real-time visibility assists in the understanding of organizational capacity and room for initiatives.

What is my Product’s Profit and Loss Projection? Measuring the Product Business Contribution

Typical scenario: Product Configuration Management

A company supplier is about to drop one of its products. What is the risk for the product portfolio and what mitigation plan can be set?

- **The product configuration** capabilities help the company identify all products impacted by the change.
- A study is initiated to explore the feasibility of a development project to replace the component and its costs. Alternative suppliers are considered in the short term. Adaptation costs are assessed through a dedicated project, with costs shared by all impacted products.
- **Roadmaps** of impacted products are referenced to see if new releases are already planned.
- For the products that have no release planned in the short term, the cost and feasibility of a new release is considered. Relevant **Profit and Loss** statements are updated.
- All changes are simulated; scenarios are developed at the portfolio level in order to assess the final sourcing trade-offs as well as to validate the change in strategy.
Figure 6: Product Configuration Management provides the ability to break down a product into discrete components with pricing and supplier information, to support the product profit and loss statement and provide global awareness around key supplier information.

Figure 7: The Planisware Product Profit and Loss views aggregate all revenues and costs in order to compute a cashflow and calculate various financial indicators. All figures are reported at the portfolio level for further line or cross-product analysis.
Planisware Project and Product Portfolio Management

Product Portfolio Management, the next step for Product-focused companies

From Program Management to Product Portfolio Management

In many organizations, Planisware Project Portfolio Management provides product management capabilities through programs, i.e., projects of projects, which are used to consolidate and monitor development around one or several products. Programs enable companies to understand the interconnections among various components and to monitor the progress of development.

The more recent Planisware additions for new product development provide increased control over the “idea-to-market” pipeline. The main features added were the Ideation Portal and enhanced Opportunity Management. These additions enable better strategic alignment of new products and improve execution of supporting projects, bringing ideas more quickly to the market.

However, new product development commonly contributes about 30% of the activity and budget of a product organization, while 70% of the effort is spent on maintaining and enhancing existing projects. Providing effective support for the full product lifecycle brings the Planisware solution to an entirely new level.

Product Portfolio Management, a necessary step forward

Planisware Product Portfolio Management solves several shortcomings of a purely Project Portfolio Management solution when it comes to managing products. For example, it provides:

- The ability to follow a product over its entire life-cycle, whereas projects have a clear beginning and end.
- The addition of several management tools such as requirement management, configuration management and competition analysis, that would not logically fit within a project toolbox but make sense when dealing with products.
- The ability to address both high-level discrete and process manufacturing product management needs through the easy and intuitive modeling of the company’s portfolio of products, components and technologies within a single solution.
- The ability to aggregate and integrate information from legacy PLM (Product Life Cycle Management) systems.

Planisware Product Portfolio Management is tightly integrated with the project and portfolio capabilities of the solution:

- At the Portfolio level, both products and projects benefit from Planisware simulation, global roadmapping and budgeting tools.
- At the Execution level, Planisware Product Management is able to aggregate the cost and scheduling information of contributing projects in order to feed the product decision process.
- Projects and Products share many components of the Planisware solution such as the Ideation Portal, the workflow and value analysis tools, and documentation management.

The Planisware Solution for Project and Portfolio Management

Planisware’s Project and Portfolio Management solution has been evolving for the past fifteen years. It is the solution that over 250 of the Forbes Global 2000 companies rely on for their corporate project and portfolio needs. Over 70% of Planisware’s existing customers are in the Product Development space. Planisware’s strength in this market is three-fold:

- Industry-specific “out-of-the-box” solutions - Planisware 5 provides ready-to-use screens, reports, and processes based on industry best practices. Planisware 5 benefits from years of collaboration with leading analysts in IT and Product Development, such as PRTM®, Kalypso®, and Stage-Gate®, and a strong relationship with its customers, including industry leaders such as Airbus, International Truck, and Johnson & Johnson. The result is the inception of industry-specific solutions that deliver immediate value and return.
- “All in One” Integration - Planisware is a 100% web-based, best-of-breed solution for Portfolio and Enterprise Project Management. Built around a single enterprise database and platform, Planisware 5 ensures global availability of project information, real-time data consolidation, and a consistent and intuitive user interface.
- Stand-out Flexibility - Projects, processes, and even organizations are subject to constant evolution. Planisware 5 makes it easy to tailor the solution to align with your organization’s processes and requirements. These processes can be revised and improved at any time via easy-to-maintain business rules and workflows. Planisware 5 was designed to allow for flexible configuration and minimal customization.

For more information on Planisware Project and Portfolio Management (PPM) capabilities, visit planisware.com.
Planisware Solution Capabilities: Global Overview

Functional Scope
- Marketing
- R & D
- Manufacturing

Portfolio
- Operations

Product Capabilities
- Profit & Loss
- Roadmapping
- Business Case
- Investment Scenario
- Simulation
- Budget
- Cost Management
- Resource and Skills Management
- Planning
- Requirement Management
- Requirement Management
- Release Management
- Product Configuration
- Cost of Goods Sold
- Product Revenue
- Metrics
- Simulation
- Product Revenue

Project Capabilities
- Capacity
- Business Case
- Initiative management
- Scenario
- Budget
- Cost Management
- Resource and Skills Management
- Planning
- Requirement Management
- Release Management
- Product Configuration
- Cost of Goods Sold
- Product Revenue
- Metrics

Shared Capabilities
- Product Lifecycle
- Revenues
- Sales Forecast
- Time Tracking
- Resource and Skills Management
- Planning
- Requirement Management
- Release Management
- Product Configuration
- Cost of Goods Sold
- Product Revenue
- Metrics

Planisware Solution Capabilities: Global Overview
Sample Planisware Customers

New Product Development - R&D
Air France, Bayer CropScience, Biomérieux, Bosch Engineering, CNIM, Candy, Comau, Die Bahn, FCB
Ciments, Faurecia, Hexion, IBA, International Trucks, LG Display, Medtronic, Michelin, Renault, Renault
Trucks, Rexam, Schaeffler Technologies, Siemens Mobility, Syngenta, Transdev, Turbomeca, Volvo Parts,
Volvo Trucks, Whirlpool

Aerospace and Defense: Program Management, Earned Value Management
Airbus, Arianespace, Avio, CEA (Public Nuclear Research), CNES, DCNS, DGA (French DoD), EADS
Astrium, Eurocopter, Europropulsion, Messier Bugatti, ONERA, Sogitec, ThalesRaytheonSystems,
Williams International

Energy - R&D
Aramco, Areva, EDF, GDF Suez, IFP - Petroleum Research Institute, RTE, RWE Power, Snam Rete Gas

Pharma & Biotech - R&D
Abbott, Actelion, Alcon Labs, Amgen, Angelini, Astellas, AstraZeneca, Biogen Idec, Bristol-Myers-Squibb,
Chiesi, DCRI, GlaxoSmithKline, Galderma, Genentech, Johnson&Johnson, Laboratoires Pierre Fabre,
MedImmune, Merck Serono, Merial, Novartis, Novartis Vaccines, Roche, Sanofi Pasteur, Sanofi-Aventis,
Servier, Solvay, UCB Pharma

IT Management, Hightech, Services
Air France KLM, Arval, Axa, Bouygues Telecom, Dexia, EDF IT, GE Capital Bank, GIPS (APICIL group),
GISA, HUK-Coburg, LCL - Crédit Lyonnais, La Poste, MAIF, Orange, Raiffeisen, SBB CFF FFS - Swiss
Railroad, SFR, SNCF, Skyguide, Vauban Humanis

Civil Services
Assistance Publique - Hôpitaux de Paris, Canton of Vaud (Switzerland), DoT Montana, INRAP (French
Preventive Archaeology Institute), Ifremer - Sea Public Research Institute, Lyon County (France), Lille
County (France), Minefi (French Public Accounting Services), Rhone-Alpes Region, Landesbetrieb
Strassenbau NRW, Utrecht Province, vts Politie Nederland

Planisware is the leading global provider of world-class project and product portfolio management
solutions. Planisware’s acclaimed configurability accommodates the company’s global custom-
ers across a variety of industries and empowers users to align the solution with key business
programs and portfolio management processes. With more than 250 customers worldwide and
a 98% customer retention rate, Planisware has been recognized as an industry leader by several
esteemed analysts and has achieved Stage-Gate Ready® and SAP® integration certifications.