# Product Life Cycle Management

- How can organisations use quantified decision rules to guide activities, optimise trade-offs, and keep all departments aligned?

- What exactly is the "fuzzy front end" of product development, and how can it be managed to accelerate time-to-market?

- How can businesses generate product specifications that truly reflect customer needs and expectations?

- Why is the concept of the "whole product" different from the core product, and why does it matter for long-term success?

## Introduction

Product Life Cycle Management (PLM) is more than just a framework—it is a strategic approach to managing products from design through retirement. By integrating data, processes, business systems, and people, PLM enables organisations to streamline operations and ensure that engineering, manufacturing, sales, and marketing all work in harmony. Through PLM, companies can make smarter, quantified decisions that optimise trade-offs, improve time-to-market, and align efforts across departments. This program provides participants with a comprehensive understanding of how to manage every stage of the product life cycle, from the uncertain "fuzzy front end" to end-of-service strategies. By learning how to capture customer insights, translate them into actionable specifications, and manage the full scope of a product beyond its core features, participants will be able to create offerings that deliver value, reduce waste, and build lasting customer satisfaction.

## Program Objectives & Learning Outcomes

After completing this program, participants should be able to:

- Apply a product lifecycle management framework reference or to practically improve the current product management methodologies

## Who should attend?

- Companies or departments who have implemented a product management function recently and want to take it to the next stage
- Companies who have a mature product management function in place and desire a refresher


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- Companies who have recently undergone a structural change in their business model or other significant change and who need to retool product management
- Companies who have recently expanded their product management organisations and want to educate the new employees

**Methodology**

Case studies, forum discussion, role-play, presentations, gamification

**Program Outline**

| Time | Day One |
|---|---|
| **9.00am– 10.30am** | **Product Level of Economic Analysis**<br><br>Product-level economic analysis establishes the foundation for making sound business decisions throughout the product lifecycle. Topics covered include:<br>• Quantifying trade-offs among key product objectives (product cost, product attributes, time-to-market and development expense)<br>• Methodically estimating the value of cycle time on a new product<br>• Developing trade-off rules to guide decision making<br>• Incorporating these tools into existing business processes |
| **10.30am-11.00am** | **Morning Break** |
| **11.00am-1.00pm** | **Idea Generation Stage**<br><br>The "Fuzzy Front End", the time that elapses between the time a company could be working on a new product and the time it starts the development process, is often longer than the development process itself. Managing this "predevelopment" time can enable products to result in products coming to market months earlier with significantly less stress on the development team and lower cost for expediting and rush charges. |
| **1.00pm-2.00pm** | **Lunch** |
| **2.00pm-3.30pm** | **Product Service Definition** |


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| | **Incremental Innovation**<br>• Avoiding the megaproject trap<br>• The non-linear relationship between scope and schedule<br>• The hidden benefits of incremental innovation<br>• When incremental innovation will not work<br><br>**Developing Product Specifications**<br>• The importance of market segmentation in addressing market needs and avoiding the doomed project<br>• Methods for segmenting the market<br>• Tools for understanding the customer<br>• Identifying the real customer need<br>• Creating a specification that properly guides the development process<br>• Using (and avoiding misusing) the specification during development<br><br>**Designing the Whole Product**<br>• Understanding the whole product concept<br>• Elements of the whole product<br>• Defining a whole product that meets customer needs<br>• Using application economic analysis to make whole product design trade-offs |
| **3.30pm-4.00pm** | **Tea Break** |
| **4.00pm-5.00pm** | **Practical Session One** |

| Time | Day Two |
|---|---|
| **9.00am– 10.30am** | **Product/Service Development**<br><br>**Understanding process queues**<br>• Applying queuing theory to product development<br>• Analysing the economics of process development queues<br>• Setting the right level of capacity and justifying it economically<br>• Evaluating other options for reducing queues<br><br>**Generating Information Efficiently** |


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| | • Viewing development as an information generation process<br>• Improving process design to produce information earlier<br>• Embracing failures as an important learning tool<br><br>**Designing the Process**<br>• Tailoring development processes to projects<br>• The common "Staged Gate" Process<br>• Advantages and disadvantages<br>• Process designs that mitigate the disadvantages<br>• Changing the way shared resources are measured<br>• Evaluating opportunities for overlap in development processes<br><br>**Using Product Architecture**<br>• Fitting architecture to economics<br>• Partitioning systems to optimise risk management, increase market coverage and reduce support costs.<br>• Identifying leverage points for managing architecture<br>• The role of product management in architecture decisions |
| **10.30am-11.00am** | **Morning Break** |
| **11.00am-1.00pm** | **The Product Management/Marketing Launch Process**<br>• Key activities and deliverables<br>• Forecasting<br>• Pricing strategies<br>• The internal launch: important steps to cover before and during the external launch<br>• Getting the product to customers<br><br>**The Transfer from Development to Operations**<br>• Achieving early Operations involvement<br>• Approaches to managing the transition<br><br>**Maturity**<br>• Ongoing forecasting<br>• Product enhancements<br>• Cost reductions |


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| | • Pricing actions<br>• Sustaining engineering and support<br><br>**Decline/Obsolescence**<br>• Managing product obsolescence and transitions<br>• Using Economic Analysis to guide the obsolescence decisions<br>• Methods for gracefully retiring products |
| **1.00pm-2.00pm** | **Lunch** |
| **2.00pm-3.30pm** | **Factors Impacting the Entire Product Lifecycle**<br><br>**Organisational Considerations**<br>• Evaluating the strengths of various organisational forms<br>• Establishing clear responsibilities in a matrix organisation<br>• Exploiting the power of co-location and partial collocation<br>• Choosing and enlisting team members<br>• Effectively managing part-time team members<br><br>**Selecting Metrics**<br>• Determining the correct metrics for a specific project<br>• Avoiding unnecessary overhead<br>• Identify leading indicators of future problems<br>• Decentralise control with decision rules<br><br>**Managing Uncertainty and Risk**<br>• The difference between risk minimisation and risk management<br>• Differentiating between technical and market risk<br>• Tools to manage these risks, primarily the market risk<br>• The importance of differentiating between bad decisions and bad outcomes |
| **3.30pm-4.00pm** | **Tea Break** |
| **4.00pm-5.00pm** | **Beyond the Traditional Tools**<br><br>In this module, the participants would look into the leadership and staff choice, KPI development, portfolio planning, marketing planning and budget |


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