

# LEAN Product Development

## Master-Class

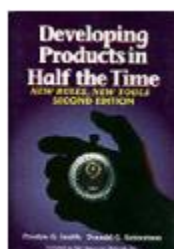


### World-Renowned Product Development GURU

#### DONALD REINERTSEN

World renowned expert in Rapid Product Development Techniques and Lean Product Development. He has coached managers and teams in product development & innovation worldwide at more than 1000 companies over the past 30 years.

- I Don began pioneering rapid product development techniques in the early 1980 while at McKinsey & Co, where he worked with leading management thinkers such as Bob Waterman, the co-author of "In Search of Excellence".
- I In 1983, Don coined the term "Fuzzy Front End" and wrote a landmark article in Electronic Business magazine that first quantified the value of development speed.
- I Don is the co-author and the most important ideas source of "Developing Products in Half the Time", and continued to advance these ideas much further. This book, now in its third edition with 100,000 copies in use, plus four translated editions. Latest book, "Managing the Design Factory: A Product Developer's Toolkit" is recognized as a powerful and thoughtful application of lean manufacturing thinking to product development.



By attending this workshop, you will be:

**Identifying** and **eliminating** the primary causes of delay in PD

**Increasing** quality levels and **containing** costs by finding problems when they are easy to correct

**Removing** unnecessary variability, learning strategies to reduce its economic impact

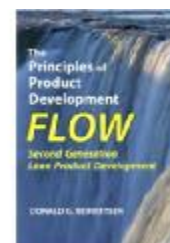
**Improving** the efficiency of your PD process by eliminating activities that add little value

**Developing** a step-by-step implementation plan to incorporate these principles into your own development process

#### Bonus:

Book two courses, and you will receive a copy of Don's

#### New Book.



**The Principles of Product Development Flow: Second Generation Lean Product Development (Hardcover)**

# Day 1 - Tuesday, October 25 2011

## Key Learnings

### I. Establishing an Economic Foundation

The key to making good business decisions in product development is economic quantification. This section will cover practical tools for understanding project economics, process economics, and customer application economics.

- | Modeling development project economics
- | Modeling development process economics
- | Modeling product application economics
- | Adopting these methods in your organization

## Key Learnings

### II. Understanding Process Queues

Queues caused by overloaded shared resources are a major source of unnecessary delay in most development processes. Most developers are unable to make credible financial cases for interventions to reduce these queues.

- | Applying queuing theory to development process design
- | Analyzing the economics of process queues
- | Techniques for controlling queues
- | Why queues hurt development performance
- | Setting the right level of excess capacity

## Key Learnings

### III. Generating Information Efficiently

The purpose of product development is to generate new information efficiently. Information theory gives us great insights into how we can do this. It shows common approaches like "doing it right the first time" can hurt profitability.

- | Development as an information generation process
- | Assessing the value of early information
- | Calculating optimum failure rates
- | The critical role of failures

## Key Learnings

### IV. Choosing an Organizational Form

There is no best organizational structure for product development. Instead each organizational form optimizes different economic factors. We will learn how to choose the right structure for each type of project.

- | Assessing organizational forms
- | Linking organizational form and economics
- | Clearly dividing responsibilities
- | Colocation and communications issues

## Key Learnings

### V. Designing the Process

Most companies carry excess baggage in their development processes because they assume they can create a universal process that meets the needs of all projects. They use excessively large batch size, and experience delays at shared resources. We will discuss a more advanced approach to development process design that is based on economics.

- | Modular development processes
- | Designing input and output processes
- | Subprocess design using economics
- | Managing centralized resources effectively

# Day 2 - Wednesday, October 26 2011

## I. Using Product Architecture

Many companies underestimate the enormous importance of product architecture. They view it as a technical solution to a technical problem. In reality, product architectural choices strongly influence business economics. Good architectures for speed can be different than those that provide low manufactured costs.

- | Understanding the economic impacts of architecture
- | Fitting product and process architecture
- | Promoting subsystem reuse across projects
- | Preventing high system integration costs

## II. Product Specification Process

Defining requirements is much more complex than asking customers "what" they want. We must deal with customers who don't know what they want, and those who change their mind when they get what they asked for. We will cover:

- | The best methods for understanding the customer
- | How to deal with changing requirements
- | Who should be involved in creating the specification
- | How we should use the specification during development
- | Key tools to supplement the specification

## III. Selecting Process Measurements

Too many companies are collecting lots of data without achieving effective control. They fail to understand the metrics are very different from control systems. It is critical to use metrics that fit the economic goals of the development process and those of individual projects.

- | Basing metrics on economics
- | Project-level controls
- | Process-level controls
- | How to select leading indicators

## IV. Managing Uncertainty and Risk

Risk minimization is not risk management. Minimizing risk involves avoiding any chance of failure. Managing risk is taking gambles that make economic sense.

- | Risk-taking as a rational betting process
- | Tools to manage technical risk
- | Tools to manage market risk
- | Creating World-Class Testing processes

## V. Implementation

It is not enough to find superior new methods for product development. Adopting new methods requires convincing many people to change what they are doing. Often these people demand strong evidence of success before they will support new ideas. In this section we will discuss lessons learned from implementing these new methods.

- | The right way to design pilot projects to prove new ideas
- | What is likely to affect the speed of implementation
- | How to create an implementation plan
- | How to use this plan to create a successful change process

2011年10月  
25-26日  
上海  
淳大万丽  
酒店

# 精益 产品开发 法则

## 大师班课程

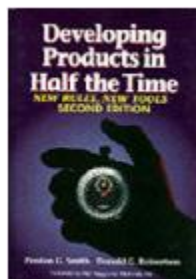


### 国际产品开发领域权威

**DONALD REINERTSEN**

1 产品开发研究领域全球公认的大师级人物。他在快速产品开发和精益产品开发领域的研究已超过30年。持有美国康乃尔大学电机工程学学士学位和哈佛商学院工商管理学硕士学位

- 1 1980年就职于麦肯锡国际管理咨询公司期间，Don就同管理学大师Bob Waterman一起研究加速产品开发的全新理念及方法，并在《电子商务杂志》发表了具有里程碑意义的文章，第一次提出了“加速产品开发节奏，缩短一半开发周期”这个具有全新意义的理念，这个理念随后被列入麦肯锡公司内部员工培训必修课。
- 1 Don在1983年首次提出了“模糊产品前端”概念，“模糊产品前端”是缩短开发周期时间成本最初的地方，并且在1985年被各大公司广泛用于产品开发及生产过程。
- 1 在第一本著作《Developing Products in Half the Time》中首次提出了他本人对于产品开发管理许多理念的邹型，这本书目前已经发行了第三版，发行量100000册，并被译成了四种语言版本，包括中文。
- 1 第二本著作《Managing the Design Factory-A Product Developer's Toolkit》中向读者阐述了自1985年以来，他花了15年的时间实践、修改、精炼而成的理论和方法，这本书已被IBM美国研发总部用作研发人员必读的教科书。



通过本次大师班课程的学习，你将获得：

识别和消除产品开发中的潜在浪费

消除不必要的变化，寻找正确的策略降低变化带来的影响并管理风险

通过有效利用迅速反馈来增加质量级别和控制成本

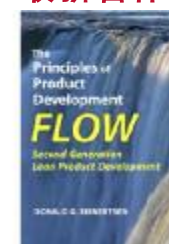
实现信息流通畅以确保开发过程不被破坏

制定一个渐进式的实施计划使精益原理结合到自己的产品开发流程中

### 特别赠送

报名两个课程即可获赠Donald的

### 最新著作



产品开发流程法则  
第二代精益产品开发  
(精装版)

学习要点

### I. 建立经济基础

针对产品开发作出合理的商业决策的关键在于经济量化。通过这一讲的学习，能使你了解项目经济、流程经济和应用经济的适用工具。

- | 开发项目经济模型
- | 开发流程经济模型
- | 产品应用经济模型
- | 在你的组织中采用这些方法

学习要点

### II. 理解过程队列

由于共享资源过量而导致的队列是大多数开发流程出现不必要延误的主要原因。大多数的开发者都无法提出可靠的财务分析来实现减少这些队列的目的。

- | 将队列理论运用到开发过程中
- | 分析过程队列的经济意义
- | 控制队列的技术
- | 优化效率的方法
- | 设定合适的剩余容量水平

学习要点

### III. 有效创建信息

产品开发的目的在于有效地创建新的信息。信息理论使我们更好地了解了如何创建新的信息。它向我们证明了我们常用的一些方法，如：在第一时间创建新的信息，会给利润带来消极影响。

- | 创建信息产生的流程
- | 评估早期信息的价值
- | 计算最佳失败率
- | 失败的关键意义

学习要点

### IV. 选择一种组织模式

产品开发并不存在最佳的组织结构。然而，每一种组织模式都充分利用了不同的经济因素。我们将学习如何为不同类型的项目选择适合它的组织结构。

- | 评估组织模式
- | 联系组织模式与经济模型
- | 明确地分配工作职责
- | 场地和沟通问题

学习要点

### V. 设计过程

大多数的公司在开发过程中带有过重的思想包袱。这是因为他们认为他们能够创造出一种可广泛适用于所有项目的开发过程。他们使用过大的批量，从而遭受到共享资源延误的惨痛经历。我们将讨论出一个以经济情况为基础的、更为先进的开发过程设计方法。

- | 模块化的开发过程
- | 设计投入和产出的过程
- | 子过程设计
- | 关键的设计原则

学习要点

### I. 使用产品架构

许多公司低估了产品架构的重要性。他们将其视为解决技术问题的处理方式。事实上，产品架构的选择会对商业经济情况产生巨大影响。速度良好架构不同于那些提供低制造成本的架构

- 了解架构的经济影响力
- 联系产品架构与流程架构
- 促进项目次级系统的再次使用
- 避免系统整合所造成的高成本

学习要点

### II. 产品规格加工

界定需求远比询问顾客想要什么复杂的多。我们必须应付这样的顾客：他们不知道自己想要什么；当他们拿到自己要求得到的东西，他们又会改变主意。我们的课程将囊括以下内容：

- 理解顾客需求所需使用的工具
- 如何应对不断变化的需求
- 创造优质的产品规格
- 使用规格
- 补充规格的主要工具

学习要点

### III. 选择过程评估方式

许多公司在收集数据时都忽略了实施有效的控制。它们并不了解，量度同控制系统之间有着天壤之别。使用适合开发过程和独立项目的经济目标的量度至关重要。

- 根据经济情况设立量度
- 项目水平的控制
- 过程水平的控制
- 如何选择最重要的标志

学习要点

### IV. 应对不确定性因素和风险

风险最小化并等同于风险管理。风险最小化包括避免任何可能导致失败的情况的发生。风险管理则是为达到经济目的而进行的赌博。

- 承担风险过程
- 用来应对技术风险的工具
- 用来应对市场风险的工具
- 创建“世界级测试过程”

学习要点

### V. 实施

找到优质的产品开发新工具并不够。采用新的工具必须说服很多人改变他们正在做的事情。这些人往往会在接受新的观点之前要求获得有力证据以证明这些新观点能带来成功。在这一讲中，我们将讨论这些新方法的实施给我们带来的启示。

- 设计能证实新观点的实验性项目的正确方法
- 制定实施计划
- 影响实施进度的因素
- 如何使用这些计划创建转变过程