Abstract

The Product Creation Process is described in its context. A phased model for Product Creation is shown. Many organizations use a phased model as blueprint for the way of working. The operational organization of the product creation process is discussed, especially the role of the operational leader.
The Product Creation Process in Business Context

Customer

Policy and Planning Process

Customer Oriented Process

Product Creation Process

People and Technology Management Process
Phasing of the PCP at Business Level

0. feasibility
1. definition
2. system design
3. engineering
4. integration & test
5. field monitoring

sales
logistics
production
service
development & engineering: marketing, project management, design
Phasing the Design Control Process

0. feasibility
1. definition
2. system design
3. engineering
4. integration & test
5. field monitoring

Legend:
- core information in draft
- most information available in concept
- information is stable enough to use heavier change control
- full under development
- preparing or updating work
Advantages and Disadvantages of a Phased Process

**benefits**
- blueprint: how to work
- reuse of experience
- employees know *what* and *when*
- reference for management

**disadvantages**
- following blueprint blindly
- too bureaucratic
- transitions treated black and white
Characteristics of a Phase Model

The Product Creation Process

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PCPcharacteristics
Define a minimal set of *large-impact* decisions.

Define the mandatory and supporting information required for the decision.

Schedule a decision after the appropriate phase transition.

Decide explicitly.

Communicate the decision clearly and widely.
Evolutionary PCP model

requirements specification

test and evaluate

build
design

2% of budget (EVO)
2 weeks (XP)
up to 2 months per cyclus
Decomposition of the Product Creation Process

Product Creation Process

Operational Management
- specification
- budget
- time
- planning
- progress control
- resource management
- risk management
- project log

Design Control
- technical
- needs
- what is needed
- specification
- what will be realized
- design
- how to realize
- verification
- meeting specs
- following design
- engineering
- how to produce
- and to maintain

Marketing
- profitability
- saleability
- customer input
- customer expectations
- commercial structure
- product pricing
- market introduction
- introduction at customer
- feedback

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PCP decomposition
Operational Organization of the PCP

- **entire portfolio**: portfolio operational manager
- **product family**: family operational manager
  - **single product**: (single product) project leader
  - **subsystem**: subsystem project leader
  - **module**: developers
- **technical**: portfolio architect
  - **commercial**: portfolio marketing manager
  - **marketing**: family marketing manager
  - **product**: product marketing manager
  - **subsystem**: subsystem architect
  - **technical**: product architect
  - **portfolio**: portfolio architect
Prime Responsibilities of the Operational Leader

Specification

- Quality
- Resources
- Time

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PCPOperationalTriangle
The Rules of the Operational Game

business management

define project
update project

specification, resources, time
accept or reject

determine feasibility

assess risks

accept

execute project within normal quality rules

project leader

accept