

**Overview Training:** 

# **Innovation Management**

We offer our training to all innovative companies, which want that their managers in strategic planning, research, development and production know the best methods of innovation management.

*Target group:* All persons that are directly or indirectly responsible for innovation:

Technical managers, strategic planners, heads of research and development, project leaders, project engineers and researchers.

*Contents:* The training presents the *procedures to systematically realize innovation projects* and the *management methods* necessary for the different phases of the innovation processes.

We start with possible *strategies for innovation*. Then we discuss the close interrelation between the *acquisition of accurate information* (concerning markets, the state of the art, technical trends) and the identification of promising fields for innovations.

We continue with *methods to generate, evaluate and select ideas*. Then we present methods of *systems engineering*, to systematically develop ideas into concepts and products. Here we address, too, questions concerning patents, and discuss options for cooperative research and funding.

Then we show appropriate methods for project planning and *project organization*. This includes methods of *profitability analysis* to permanently monitor all costs.

We close with aspects of implementing innovations to the shop floor and introducing new products to the market.

*Individual Programs:* We can put together a training matching your specific needs by selecting form the following topics:



# 1. Overview: Aspects of Innovation Management

- Aligning strategy and innovation
- Investigating markets, the state of the art and technical trends
- Generating ideas
- Conceptualizing ideal products and deriving realistic ones
- Estimating achievable market prizes and determining targets costs
- Calculation, evaluation and selection of ideas
- Forms of organization for innovation projects: Sequential development, parallel developments, Agile / Scrum
- Systematic development of ideas into detailed designs
- Planning of R & D projects
- Realizing R & D projects step by step
- Evaluating every step with an appropriate profitability analysis
- Prototyping
- Implementation
- Introduction to the market
- 2. Strategic Orientation of Innovation
  - Starting with the strategy of the company: Leader in the market in terms of price / quality / lead time / flexibility / in a niche
  - Product improvement Product innovation Diversification:
    Within a branch In a new branch
    Within a market Into a new market
    With available know how With new know how
  - Service innovation
  - Innovation in distribution channels
  - Relations between the complexity of innovations and the necessary resources



#### ENGINEERING EFFICIENCY

## 3. Generating Ideas

### 3.1. Defining Objectives

- Strategic Orientation
- Innovation of products, services, or distributive channels

## 3.2. Detailed Analysis of the Field

- Life cycle of the product / of the family of products
- Current market situation
- State of the art Technical trends
- Patents Standards and laws Specific testing procedures of branches, firms, etc.

#### 3.3. Methods of Systems Engineering to Generate Ideas

- Disney strategy
- Creativity techniques From brain storming to the morphological grid
- Tools for systematic conception
  From Quality Function Deployment to TRIZ / ARIZ
- Conceptualizing ideal products Determining necessary functions of products Deriving a real product between ideality and necessity
- Designing first technical drafts

#### 3.4. Evaluation and Selection of Ideas

- Target Costing
- Profitability analysis First estimation of development and production costs
- Selection of ideas: Profitability and strategic fit



# 4. Developing and Selecting Ideas

## 4.1. Detailing Ideas

- Systematic conception of options for the design of the innovation
- Systematic conception of options for the production of the innovation

## 4.2. Evaluation and Selection of Concepts

- Extended profitability analysis Calculation of expected development and production costs
- Selection of concepts:
  Profitability and strategic fit

## 5. Planning Innovation Projects

### 5.1. Definition of the Setting

- External, internal, or cooperative research and development / Open Innovation
- Seeking Funding
- Strategic patents

## 5.2. Detailed Project Planning

- Time to Market
- Resources and costs
- Milestones Stage gates
- Condensed network planning

#### 5.3. Preparing the Start Decision

- Extension of profitability analysis
- Criteria for start decisions



## 6. Project Realization

### 6.1. Priorities and Forms of Organization

- Priority for crucial developments
- Selecting a form of organization:
  - Sequential development (Systems Engineering, Stage Gate Model)
  - Parallel developments (Simultaneous Engineering, Set Base Concurrent Engineering)
  - Agile / Scrum

## 6.2. Overview on methods of efficient research and development

- Methods to predetermine critical parameters and interactions
- Introduction to design of experiments and statistical model building

### 6.3. Project controlling

- Control of dates, costs and milestones
- Permanent extension of the profitability analysis
- Decisions at stage gates
- 7. Aspects of Prototyping
  - Planning of test series in correspondence to laws and standards
  - Testing of prototypes in correspondence to specific testing procedures of markets, branches and corporations
- 8. Aspects of Implementation
  - Adjusting final developments to available productions plants
  - Aligning final developments and the specification of new equipment



# 9. Aspects of Introducing Innovations to the Market

- Planning the introduction to the market
  Early contact with selected clients / users Providing specific information for important deciders Marketing channels
- Questions concerning the abilities of a given marketing organization for the introduction of completely new products

Selecting from the named topics you can put together a seminar matching exactly your demands. Usual duration ranges from one to three days.

In addition to these primarily technical methods of innovation management we offer, too, an introduction to the "soft" facts of efficient communication, methods to efficiently run meetings and to lead teams. Knowing these "soft" facts allows to maintain a relaxed and creative atmosphere that is particularly important in innovative teams.

Furthermore, we offer detailed training in design of experiments, the method to carry out developmental projects with the minimal number of experiments.

You can find out more about all our training programs at:

#### www.nechansky.co.at

Or contact us directly: + 43 / 1 / 817 58 63.

As an ideal we see the training within an exemplary innovation project, which we carry out mutually. So we can introduce your team members to all these techniques along the way.

Please contact us, so that we can put together a program satisfying your specific needs.