Presentation Outline

- A Formalized New Product Development Process;
- Current Developments in NPD - Best Practices;
- Getting Started - Where do/should ideas come from?
- Preliminary Business Case - Assumptions & Analysis;
- Preliminary Business Case - Components;
- Idea Generation & Pre-technical Assessment;
- Pre-technical Product Definition & Evaluation;
- Preliminary Business/Financial Assessment;
- Strategic Planning Integration.
Recent Developments in NPD Practice

- In recent years NPD researchers and practitioners have moved to a more formalized process;
- To reduce inefficiency in present process.
- To increase the likelihood of success.
- To enhance communication between NPD team members and departments connected with NPD process activities.
- To increase speed to market & enhance competitiveness.
The Standardized Approach to NPD

Step 1 - Opportunity Identification:
Idea generation & preliminary business case development;

Step 2 - Preliminary Design:
First generation prototype and further market assessment;

Step 3 - Prototype Testing:
Ongoing market analysis, support materials, preliminary launch planning;

Step 4 - Market Introduction:
Final market analysis and actual launch;

Step 5 - Product Life Cycle Management:
Stage Gate Processes

1) Initial Screening:
2) Preliminary Market Assessment:
3) Preliminary Technical Assessment:
4) Detailed Market Study:
5) Pre-development Business & Financial Analysis:
6) Product Development:
7) In-house Product Tests:
8) Customer Product Testing:
9) Trial Sell:
10) Trial Production:
11) Pre-commercialization Business Analysis;
12) Production Start-up:
13) Market Launch
Key Success Factors

Customer Involvement: early and often;
Supplier Involvement: early and often;
Team Composition: contingency approach - depending on project complexity and newness;
Team Group Processes: the essence of good communication;
Team Organization of Work: flexible and overlapping;
Project Leadership: participatory versus autocratic;
Senior Management Involvement: flexible - depending on project nature.
Non-process Success Factors

Market Factors:
- market size;
- growth rate;
- nature of competition;
- degree of market regulation;
- ease of market access;

Product Concept Effectiveness:
- fit with market needs;
- fit with firm competencies.
Top 3 Critical Success Factors:

1) Implementation of a High Quality Development Process:
   - early product definition;
   - early customer involvement; and
   - willingness to kill a project if required

2) A Clear Product-market Strategy

3) Adequate Resources Allocated to the Project.
Other Performance Drivers

A High Quality Project Team: a singularly focused project leader - committed to one project at a time;

Employment of a (true) cross-functional team: with a leader who is responsible for the project from the beginning to the end;

Having a Superior Product: a differentiated product with unique customer benefits.
Idea Generation:

- The process should start with a review of the development game rules - corporate rules that govern development - or that are imposed by venture capitalists;

- Established firms allow people up to 20 per cent of their time to pursue ideas;

- The key is to look at the inputs: the proposed form; the technology; and the benefit;

  Need - Technology - Form
  Technology - Form - Need
  Form - Need – Technology
Product Concept Statement

Should tell what is going to be developed or changed so as to cause the customer to benefit from the proposed development;
The best seem to deal with the definition in the following order:

Benefit - Technology – Form

(Note) It is not enough to have a raw material that you need to do something with!!
Preliminary Business Case

Objective:

To examine the potential market for the proposed product or service - to scope it out - eliminating poor market opportunities;

- Market Opportunity Identification;

- Market Segmentation (consumer & industrial markets included);

- Market Characteristics;

- Estimating Market Potential
Market Opportunity Identification

Definition of the best markets to enter:
- definition of the product characteristics to be used as the basis for market entry;

Search for markets that are:
- new, have upside growth potential, growing, profitable, and vulnerable to attack by products such as the one proposed;

Market Description:
- structure, segments and bases for segmentation;
Market Description

**Market Size:** number of customers, volume purchased annually (consumed annually) - present & potential;

**Organizational buying criteria** - who influences, who buys, who decides - can be multi-faceted with many influencers;

**Present market concentration ratios:** how many firms control what % of the market - diverse or concentrated = indicator of market strength;

**Example:** 7 firms in the global GPS market 1 has 80 per cent share 6 others have 3 per cent each - should we enter?
Market Characteristics

Required Characteristics:
- above average sales potential;
- ease of market entry;
- low levels of competitiveness;
- large enough market to allow for rapid expansion;

The Key Question:

What is the ‘true market potential’ for the proposed product or service?
Estimating Market Potential

Look at ‘market factors’

Example - Minced Fish Washer

- How many plants?
- What species are they processing?
- What processing equipment is already in place?
- What other equipment is required to operate a mince washer?
- What is the current penetration rate for this equipment?
- At a given price what is the Break-even?
- What is the prevailing price for the output of the machine?
Calculating Market Potential

Bottom-up forecast:
use your own sales people – street knowledge;

Top-down Forecast:
use your own executive group and others with a similar background;

Other Approaches:
Executive Judgment;
Sales Force Composites;
Industry Surveys;
Regression Analysis - forecasts past on past results;
Intention-to -buy;
Layers of Market Potential:

**Market Potential** - total potential sales for a product or service being considered for a geographic territory or designated - all those who might buy the product under reasonable circumstances;

**Sales Potential** - the ability of the market to purchase the output of a single company in the industry

**Sales Forecast** - actual sales predicted for your firm
Remember:

The market potential estimates are the most important estimate that is input into the ‘Pro Forma’ statements that you will present to prospective financial supporters.

These estimates will be subject to the highest levels of scrutiny

You must be able to support these

How – via detailed market analysis