Innovation

From Concept to Commercial Product
A Practical Approach

Win Cooke – ICT Chemicals
Thoughts Regarding Product Innovation

“Innovation is the central issue in economic prosperity”  Michael Porter

“Innovation distinguishes between a leader and a follower “  Steve Jobs

“Innovation is the process of turning ideas into manufacturable & marketable forms”  Watts Humphrey

“Creativity is thinking up new things. Innovation is doing new things”  Theodore Levitt

“Innovation is risky business, but not innovating is even riskier”  Anonymous
What is Innovation

- **Innovation** – the development of new **value** for **customers / markets** and the **ultimate consumer** through solutions that meet;
  - New and Constantly Changing Needs
  - Anticipating market changes driven by changes:
    - Competitive Market Dynamics
    - Shorter Product Life Cycles
    - Regulatory
    - Economic & Demographic
    - Globality of Markets & Competition
    - Socio- Political
    - Consumer Wishes for Convenience & Time saving
  - Uncovering Through a Diagnostic Approach the Immediate and the Inarticulate Needs
Reality of Innovation

• Many Corporate CEO’s point to Innovation
• Unfortunately, most new product projects fail!
• An estimated 50% of resources spent on product development fail to deliver
• Reasons:
  – True Commitment to the Innovation Process
  – Technical Problems , Capabilities & Resourcing
  – Insufficient Marketing Effort
  – Poor Timing....
  – Poor Marketing Research / Real Need Identification
Industrial Marketing

“If you find it difficult to accept failure, then you simply won’t get any innovation because employees will be too frightened” Sir Terry Leahy of Tesco

• A Badly Misunderstood Role
• Typically Focused on:
  – Market Launch & Promotion
  – Literature & Advertising
  – Pricing & Margin Maintenance
• Focus on the “Back End” of the Marketing Process
• “Poor Market Research”
• Finding the “Blue Ocean” (Kim & Mauborgne)
Product Innovation Management

Driving New Products to Market

Courtesy Of Robert G Cooper
Product Innovation Management

Discovery

Scoping

Build Business Case

Testing & Validation

Product Launch

Post Product Launch

Post Launch Review & Assessment

Comprehensive Business Plan & Communication

Courtesy Of Robert G Cooper
The Role of Marketing

“The Marketing Department is not the whole company; but the whole company is the Marketing Department”  Dr. James Hlavacek

• Strategically Assess Options vis-a-vis Resources
  – Markets / Lead Customers
  – Assess Competitors Strengths & Direction
  – Sub-segmentation of Lead Markets
  – Pursue Specific Need Identification
  – Allocation of Resources
Marketing Analysis/Segmentation

Strategic Choices - Assessing the Innovators

- Market Followers
- Innovation Drivers
- Cost Driven / Volume
- Cost / Niche Marketers

Profit & Growth Driven
Customer / Market Focus

• Subject of Much Debate
  – Incrementalism or True Innovation
  – Survey of Over 800 companies show that a greater customer need emphasis increases “new to the world” products...
  – ...but also reduces the number of “me-too” products  (Lukas & Ferrell)
  – Intimacy and Regular Dialog....Increases Ability to Anticipate Future Needs
Determining “Un-Met’ Needs

“If I had asked people what they wanted, they would have said faster horses”
Henry Ford

• Involves “Networking through the Customer’s Organization...in a cross functional approach

• Sometimes Easy....Sometimes Not

• Preparation and Questioning is the Key

• Uncovering the “Inarticulated Needs”

• Looking Over the Horizon ➡️ Technology Push
Optimizing Need Identification & New Product Development

“Our Challenge is to hire and develop the brightest and best scientists, and train them to think like business managers” Carmine Iovine CTO National Starch & Chemical

• Inter-functional Coordination or “Team Marketing”
  – Counterparts Across the Table
  – Cross Functional Approach to Need Identification
  – Leads to Better Definition....
  – ...and Creates a Feeling of Ownership for each Function
  – Important to Fully “Screen” Needs that are Identified vs “In-House” Capabilities
Product Innovation Management

Criteria for Success: Concurrent Planning, Regulatory/IP, Equipment, Production
Establish Milestones & Timeline
Strategic Alliances
Regular Project Review Involving Team & Others
Product or Platform???
Go or “No Go”...”Kill the Puppies?”

Courtesy Of Robert G Cooper
Product or Platform

Product Platform

Product A

Product B

Product C
Product Innovation Management

Discovery

Idea Screen

Gate 1

Scoping

2nd Screen

Gate 2

Build Business Case

Gate 3

Go / No Go

Testing & Validation

Gate 4

Development

Proof of Concept

Gate 5

Product Launch

Post Product Launch

Post Launch Review & Assessment

Internal Evaluation vs Lead Customer Qualification
Ability to Extract More Value....Also More Knowledge
Also Expedites Research Feed back
Production Integrity

Courtesy Of Robert G Cooper
Product Innovation Management

Discovery
  - Idea Screen
    - Gate 1
Scoping
  - 2nd Screen
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  - Build Business Case
    - Gate 3
Build Business Case
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    - Gate 4
Testing & Validation
  - Proof of Concept
    - Gate 5
Product Launch
  - Post Product Launch
    - Post Launch Review & Assessment

Product Literature
Training
MSDS & Regulatory Compliance
Coordinated Product(s) Launch
Sampling/Trade Shows/ Technical Papers

Courtesy Of Robert G Cooper
“Those who choose to ignore the mistakes of history, are doomed to repeat them”
Santiago
• Capitalizing on the Investment Through “Cross Fertilization”

Courtesy Of Robert G Cooper
BENEFIT OF MEETING NEEDS