# Defining Innovation: Analyzing the Product Development Process

## September, 2011

# Topics to Address

- Innovation Defined

- Experience of an Anonymous Association

- Group Discussion

# Innovation Defined

- Change that creates a new dimension of performance (Peter Drucker)

- "The creation and implementation of new processes, products, services and methods delivery, which result in significant improvements in outcomes, efficiency, effectiveness or quality" (G. Mulgan and D. Adbury)
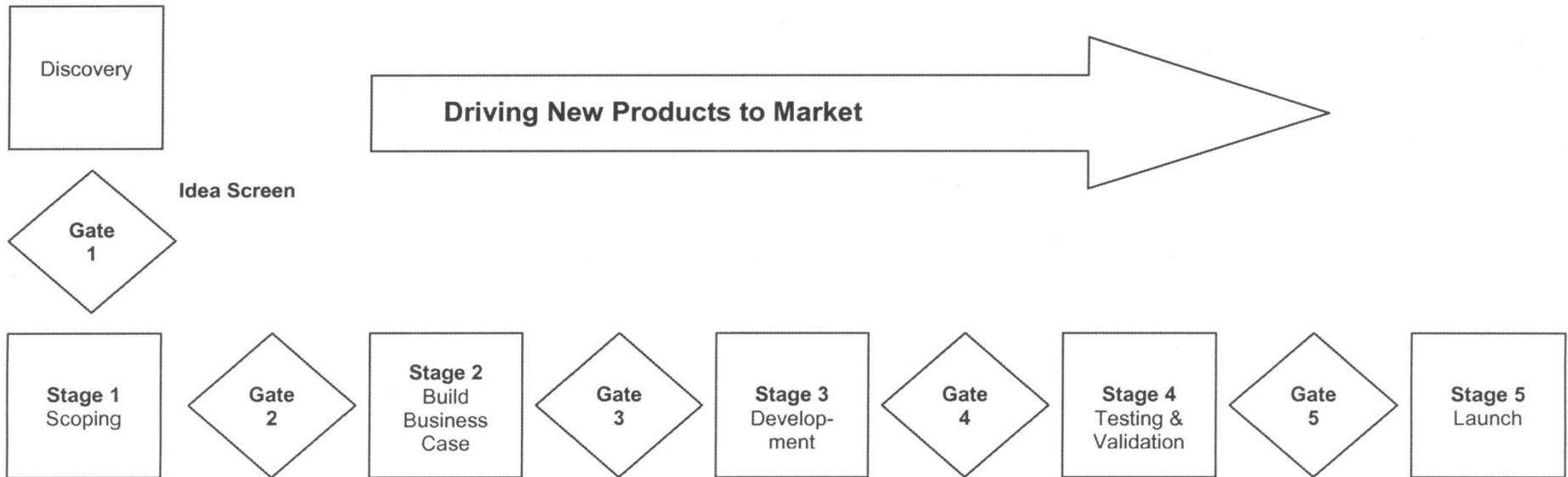
# Experience of an Anonymous Association

- Why develop a formal innovation/product development process:
  - Recognized need for new products, programs, and services to ensure long-term vitality
  - Overwhelmed with ideas from multiple sources – too many to act upon
  - Haphazard process to select ideas for development and launch
  - Unexpected/unpleasant surprises relative to resource requirements associated with some launches
  - Recognized waste of time and money on launches that ultimately flopped

- How the process was developed
  - Researched how other organizations generated and assessed ideas for new products, programs, and services
  - Selected an approach
  - Utilized the staff officer team to fine-tune the selected process to the operating environment
  - Established a Business Excellence Office (BEO) to facilitate and monitor compliance with the process
  - Kept the board informed and attained their buy-off on process components

# Selected Methodology

- Reliance on Stage Gate®, popularized by Robert Cooper in *Winning at New Products,* published in 1986

- 70-85% of leading U.S. companies now use this methodology to drive new products to market

- Overview of process components

    - Stage 1: Scoping

    - Stage 2: Build Business Case

    - Stage 3: Development

    - Stage 4: Testing and Validation

    - Stage 5: Launch

# Stage Gate® Process Map



Discovery

Idea Screen

Gate 1

Driving New Products to Market

Stage 1
Scoping

Gate 2

Stage 2
Build
Business
Case

Gate 3

Stage 3
Develop-
ment

Gate 4

Stage 4
Testing &
Validation

Gate 5

Stage 5
Launch

R.G. Cooper, *Winning at New Products*

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# Discovery – Stage 0 and Gate 1

- Description
  - Provide a structured approach for accumulating and categorizing new product, program, and service ideas – as identified from multiple sources
- Process
  - All ideas directed to the Business Excellence Office (BEO)
  - BEO logs and tags ideas in the Idea Vault
  - Monthly consideration by the staff executive team (SET) using screening criteria
- Key Decision
  - Whether or not to proceed with charter development
    - Ideas going forward assigned a Project Manager and team
    - Ideas not going forward are killed (stored in Crypt) or deferred for reconsideration
- Communications
  - Executive Committee notified of SET action if the idea comes from a member (may override SET decision on charter development)
  - On annual basis full board receives report detailing the entire Idea Vault and Crypt and actions taken

# Project Charter

- A framework for initially assessing ideas for new products, programs and services

- Typically bullet-point in nature, 2 to 5 pages in length

- Includes some or all the following headings:
  - Executive summary
  - Product, program, or service (PPS) description
  - PPS goals/purposes served (SMART approach)
  - In scope/out of scope relative to the PPS
  - Anticipated PPS benefits
  - Assumptions, risks, and constraints associated with further PPS development

# Scoping – Stage 1 and Gate 2

- Description:
  - A quick, inexpensive assessment of the technical merits of the project and its market prospects
- Process
  - Project Manager and team develop charter document
  - May include limited market/member research
  - Project Manager presents charter to the SET
  - SET assesses charter based on screening criteria
- Key Decision
  - Whether or not to proceed with business case development
    - If yes, project manager and team assigned/reassigned (typically members added), with SET guidance
    - If no, charter logged in Crypt/may be reconsidered at later time
- Communications
  - Executive Committee notified of SET action if the idea comes from a member (may override SET decision on business case development

# Business Case

- A fleshed out proposal, which ultimately will be reviewed by the board

- Addresses PPS definition, justification, and high level planning

- Typically narrative in nature with supplemental charts and graphics

- Includes the same headings as the charter, with more detail, as well as additional headings addressing:
  - Market/member research
  - Financial implications
  - Suggested timeline and milestones

# Building the Business Case – Stage 2 and Gate 3

- Description:
  - Critical homework stage – the one that makes or breaks the project
- Process
  - Project Manager and team develops and presents business case document to the SET
  - SET assesses business case based on screening criteria
  - If applicable, Project Manager and SET member present business case to the board
- Key Decisions
  - Whether or not SET approves business case for presentation to the board
  - Whether or not board subsequently approves the business case (AKA board proposal)
    - If yes, proceed to next stage
    - If no, business case logged in Crypt/may be reconsidered at later time
- Communications
  - Executive Committee notified of SET action if the idea comes from a member (may override SET decision on whether or not to move forward with board consideration)

# Development – Stage 3 and Gate 4

- Description
  - Plans are translated into concrete deliverables
  - Actual design and development of the new PPS occurs
- Process
  - Project Manager leads the project team in finalizing the mapped out PPS development plan covering staffing, production, marketing launch, ongoing administration, etc.
  - Project Manager develops and presents development plan to SET with recommendation whether or not to move forward with testing and validation
  - SET assesses development plan based on screening criteria
- Key Decision
  - Whether or not to proceed with testing and validation. Same options apply as previous stages
- Communications
  - Executive Committee and board notified of development progress via milestone update document twice annually

# Testing and Validation – Stage 4 and Gate 5

- Description
  - Provide validation of the entire project, the PPS itself, the production process, customer acceptance, and PPS economics

- Process
  - Marketing executes test plans outlined in Stage 3 to gather data on pricing sensitivity and customer acceptance
  - Budget and financial analyst finalizes cost analysis as well as pricing strategy, in conjunction with marketing
  - Project Manager prepares and presents summary report to SET with recommendation whether or not to move forward with launch
  - SET assesses summary report

- Key Decision
  - Whether or not to proceed with PPS launch. Same options apply as previous stages

- Communications
  - Board notified of testing and validation progress via milestone update document twice annually

# Launch – Stage 5 and Gate 6

- Description
  - Full commercialization of the PPS
  - Includes subsequent evaluation of success

- Process
  - Project Manager monitors execution in comparison to project plan – tracking variances in scope, time, cost, and quality – reporting regularly to the sponsoring officer
  - Evaluation criteria are developed based on success criteria
  - Project Manager and SET undertake periodic evaluations – typically 6 months and 1 year post launch

- Key Decision
  - Whether or not to make PPS launch adjustments

- Communications
  - Board notified of launch progress via milestone update document twice annually

# Examples of Process Utilization

- Learning Management System
    - Need identified based on competitor and member research
    - Followed Stage Gate® process as defined – charter development and business case approved by board
    - Assured all key bases were covered and development of realistic timeframe for implementation – member expectation management
    - Resulted in postponing implementation of other initiatives

- Writing Style Consistency
    - Multiple styles utilized by various departments – significant waste of time/energy for documents requiring inter-department input (e.g., Annual Conference Program)
    - Idea submitted to BEO and approved for consideration by SET
    - Project Team convened to develop project charter – subsequently approved by SET
    - Team ultimately developed and implemented a new process which cut number of edit rounds from five to two with documented time savings in excess of 80 hours annually

# Process Reinforcement

- Performance management system
  - Stage gate® milestones incorporated as metrics for individual performance planning and assessment for staff officers and directors
  - Further reinforcement by performance competencies assessing teamwork orientation

- Reward and recognition program
  - Organization-wide employee incentive plan
  - Team Synergy awards
  - Above and Beyond the Call of Duty (ABCD) individual awards

# Successes, Failures, and Lessons Learned

- ## Board perspective
  - Mixed bag
  - Appreciated detailed business cases for decision-making
  - Concern that staff using process in some instances to "bury" ideas
  - Key lesson: Assure Executive Committee is kept more up-to-date on idea progress through "gates" and given opportunities to selectively intervene

- ## Staff perspective
  - Again mixed bag – some departments/individuals embraced whereas others didn't
  - Viewed by some as excessively bureaucratic
  - Key lesson: Occasionally debrief with key participants to result in process "tweaks"

# Group Discussion Questions

- What has been your experience in driving innovation and creating a process around it?
  - Successes
  - Challenges

- Under what circumstances should a formal, multi-stage process be used?

# Selected Other Innovation Resources

- *The Ten Faces of Innovation* (IDEO – one of the world's most renowned product design and development firms)

- *Creating an Innovation Pyramid or Portfolio* (Rosabeth Moss Kanter, Harvard Business School)

- *Little Bets: Think Differently* (Peter Sims)

- *New Ideas About New Ideas* (Shira White)

- *Where Good Ideas Come From* (Stephen Johnson)