PROCESS INNOVATION
Process innovation doesn’t have the same limitations and assumptions.

• Simply innovation directed at internal processes.
• Let’s get back to breakthrough...
  – Remember when...?
  – No more low-hanging fruit
  – Program fatigue
• Next generation of breakthrough process improvement
• Fundamental assumption of lean and six sigma
  – Problem is inherent in the existing process
  – Optimization and waste elimination
  – Simple brainstorming
• Next level of performance
  – Once a decade
  – More sophistication
  – Delivery of 50%-99% improvement
  – In other words, developing entirely new ways to get things done
• It’s time to transition from improvement to innovation
  – Innovation for the customer vs. internal processes, customer buy-in generally not required
  – No competition and delivers faster results
  – Near-term success more probable
The Ambidextrous Paradox

Are you investing enough in innovation and future growth?

- The rate of change of obsolescence is increasing
  - Companies must find new forms of differentiation
  - This requires agility, innovation and adaptability

- Process innovation for the 3D MBE
  - “Model Based Enterprise (MBE) is a digital tapestry which has been optimized around a core set of annotated product models enabling rapid, seamless, and affordable deployment of products from concept to disposal.”
  - “MBE is also a business strategy for achieving higher levels of profitability through continuous process improvement.”

- Why MBE?
  - There is no process in your organization that can’t be made more low-risk manner
  - The savings achievable through MBE practices can result in:
    - Reduction in non-recurring costs of between 50%-70%
    - Acceleration of time to market by as much as 50%
    - Updated MIL-STD-31000A

---

A Great Place to Start

For organizations looking to embrace the innovation revolution taking place.

• Process innovation is a great place to start:
  – Faster results than product or service innovation
  – Greater probability of near-term success
  – No customer buy-in required
  – Virtually no competition

• Approach
  – Why go after the perfect design of a bad idea?
  – Misunderstanding the Job-To-Be-Done

• What is the Job-To-Be-Done?
  – A framework
  – Developed by Clayton Christenson, Harvard Business School
  – It is the reason your customers hire your product or service.
  – Customer needs
  – Fundamental motivation
  – May be applied internally or externally

• How is innovation different from other methods?
  – DFSS, Design for Six Sigma done right the first time
  – Has your process reached entitlement?
The Innovation Life Cycle

This is where innovation meets continuous improvement and translates from a one-time competitive advantage to one that lasts for the long-term.

Right Opportunity

Right Needs

Right Design

Right Solution
Opportunity Exploration

Exploring the entire realm of innovation possibilities.

Ongoing process:
- Incubation
- Saturation
- Illumination

Key input to growth and innovation strategy development

Develop the innovation portfolio

Identify and prioritize opportunities
- Market trends
- Technology trends
- Customer needs
- Organizational goals

Benefits include:
- Directly align innovation efforts to your organization’s strategy
- Identify and prioritize relevant market trends
- Develop insights into JTBD for each customer segment
- Identify and analyze key technology trends
Using a rapid systematic process and customer input to advance prioritized innovation opportunities.

- Multiple rounds of design thinking
- Quantitative assessments of design
- Qualitative user experience testing
- End game: innovation solution ready for design

D4 process is the second in the innovation lifecycle.
Back End Design

Taking innovation solutions and perfecting them.

Design for “X” approach
- Manufacturability
- Assembly
- Usability
- Reliability
- Durability
- Robustness
- Serviceability
- Maintainability
- Sustainability

Proven prototypes are the foundation.

Building structure around full launch in the marketplace.

Takes the prototyped solution and perfects it using the rapid design and prototyping philosophy:
- Drives comprehensive development of all the elements of the products, services, processes or business models
- Ensure your prototypes become detailed offerings
- Minimized investment
- Integrate various Design for X concepts
Operationalize

Delivering the solution internally.

Implement the:
- Processes
- Metrics
- Structure
- Culture
- Change Leadership

Customer adoption
Continued operational excellence
Long-term success of the innovation

Full implementation and rollout is when your innovation is revealed to the entire market and when you have your organization set up to deliver with excellence every day.
Process Innovation Life Cycle

D4 methodology for the front end of innovation.

- Create Innovation Opportunity
- Scope Innovation Opportunity
- Manage People and Products
- Checkpoint

Transition Project

Improve and Transition

Optimize Processes

Map Processes

Build a Working Model

Refine Innovation Opportunity

Leverage Team Brain Power

Prioritize and Select Ideas

Search Knowledge Bases

Checkpoint

Define the Opportunity

Discover Ideas

Develop Designs

Demonstrate Feasibility

Optimize Design

Select Design

Formulate Design

Checkpoint

Transition Project

Insight. Expertise. Results.
After process entitlement, destroy your process and improve using innovation.

Use systematic innovation through a series of proven methodologies that are tailored to each organization’s specific needs:

- Innovation Opportunity Discovery
- Rapid Innovation Cycles (RICs)
- D4 (Define, Discover, Develop, Demonstrate)
- Design for “X”
- Kirton Adaption-Innovation (KAI) Problem Solving Style
- TRIZ
- Ethnography
- Design Thinking
- Innovation Infrastructure Design
Building context through multiple external sources.

Successful innovation seldom happens by getting people in a room together to brainstorm creative ideas and hoping for the bolt of lightning or the single stroke of genius...

Innovation requires:

1. Building context
2. Gathering information
3. Collecting data
4. External sources

Innovation differs from Lean Six Sigma because of a dramatic emphasis on seeking inspiration from outside the business.

- Taking the outside in perspective
- Letting go of existing paradigms
- Overcoming psychological inertia

Visit InspiringUs.com to explore sources of inspiration...
Capturing people’s needs.

Have you ever developed a new process only to have people summarily reject it...?

Or, have you developed and implemented a new process that was used as intended for only a few months before people reverted back to their old ways of doing things...?

The reason process innovations typically fail is lack of alignment with the true needs of the business and the internal customers the process serves...
Prototyping

Use a systematic, yet rapid, iterative approach.

Going beyond brainstorming

- Using a variety of innovation techniques
  - Random stimulus
  - Provocation and movement
  - TRIZ

- Inspiring cross-functional teams
  - Team based approach to innovation
  - Using highly diversified teams
  - Diversity over conflict

Genius is one % inspiration and ninety-nine % perspiration.
-- Thomas Edison
Define the Opportunity

Link internal needs with those of the end-user.

Establish teams and define the charter

Identify the job-to-be-done and map the process

Extract outcome expectations and identify opportunities
Discover Ideas

Going beyond brainstorming.

Establish the ideal state innovation

Ideate and discover

Group ideas and select concepts
Develop the Design

Design and develop a small set of ideas to prototype.

Identify functions and formulate designs

Strengthen and optimize your designs

Communicate and sell designs internally
Demonstrate Feasibility

Prove the process designs.

Develop prototypes

Pilot and test

Optimize design
Process innovation goes beyond typical improvement efforts.

...once your process reaches its level of entitlement...

...or the best performance it can achieve within its paradigm...

Innovation can deliver unprecedented results in quality, speed and cost.

Innovation can ultimately enhance your end-customer experience.

Innovation can further build your competitive advantage.

Make this a consideration as you move your organization to a 3D MBE...!