Building the Innovation Machine Inside Your Organization
What, Why, How and Where to start

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Objectives

• What is innovation?
  – Innovation introduction
  – Innovation is not improvement
  – Innovation is not creativity
  – Innovation is not invention

• Why do you need to innovate?
  – External pressure is greater than ever

• How to be innovative?
  – Two layers of capabilities

• Where to start?
  – Excellence with Baldrige
  – Innovation with Lean startup
What is Innovation

• 1934, J. Schumpeter “A phenomenon that includes the introduction of any of the following:
  – New good
  – New method of production
  – Opening new market
  – A new organization structure
  – New source of supply for raw material
What is Innovation

• “Innovation is the generation, acceptance and implementation of new ideas, processes, products or services”
  – (Thompson, 1965)

• “Innovation is the degree to which changes are intentionally implemented that is new to the organization”
  – (Mohr, 1969)

• “The generation, implementation, and adaptation of novel ideas on the part of the firm”
  – (F. Damanpour, 1991)
What is Innovation

- Making meaningful change to products/services, processes or organizational effectiveness to create new value “Baldrige”

- The successful conversion of new concepts and knowledge into new products, services, or processes that deliver new customer value in the marketplace. “ASQ”
What is Innovation

Innovation

New - Implementation - Value

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It is not improvement

- Improvement: making things better in terms of Speed, weight, look, efficiency, etc..

- Continuous improvement: Continue making things work better.
Improvement-Innovation

Value

Disruptive Innovation

New business model

Core Business

Small Improvements

Break through Sustaining Innovation Improvements

New

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Improvement-Innovation

Disruptive Innovation

New Business Model
- Leadership
- Strategy
- System
- Alignment
- Capabilities

Core Business

Continuous improvement

$ Invest

$ Sustain

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“The light bulb wasn’t invented by continuously improving the candle…”
It’s not Invention

• Invention convert a new idea into a workable product/process

  Invention = Creative Idea + execution
  Innovation = Invention + commercialization

• Invention requires technical knowledge in the domain
• Innovation requires the rest of the skills

• Innovations add value
• Inventions might not add value
Invention not Innovation

- Over 500K patent application filed in 2010
Invention ➔ Innovation

- Innovation does not require invention.
- Invention can contribute to innovation.

<table>
<thead>
<tr>
<th>invention</th>
<th>Light Bulb</th>
<th>innovation</th>
</tr>
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<tbody>
<tr>
<td>1800</td>
<td>1880</td>
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It’s not creativity

• Creativity is the process of coming up with novel ideas

• Creativity is the first step in innovation

Innovation = Idea X Execution X Commercialization
Creativity - Innovation

+ Comm.

Execution

Lacking

Frustration

Innovation

Improvement

Creativity

Low

High

Lack of Creativity and Innovation:

- Low Execution
- Low Communication

Improvement and Innovation:

- High Execution
- High Communication

Innovating through Improved Execution and Communication:

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Innovation Summary

• Creativity generates novel ideas

• Invention make them tangible

• Innovation make them valuable $$$$
Why to Innovate

• Empowered customers

• Globalization

• It’s easier to start a business

• Hundred of startup workshops & incubators
Ave. lifespan of S&P 500

75% will be new by 2025

Year (each data point represents a rolling 7-year average of average lifespan)
DATA: INNOSIGHT/Richard N. Foster/Standard & Poor’s

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S&P 500 churn

S&P 500 Churn Over the Past Decade
Sample companies that have entered and exited the index since 2002

Entered the index:

[Logos of companies that entered the index]

Exited the index:

[Logos of companies that exited the index]

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Unicorn new members

Source: WSJ

US  Europe  Asia  Others

Valuations as of January 2014

Uber  Xiaomi  Airbnb  Palantir  Snapchat  Didi Kuaidi  Flipkart  SpaceX  Pinterest  Dropbox  WeWork

Valuations as of January 2015

Select companies from the chart or table for more detail.

Valuations as of August 2015

Select companies from the chart or table for more detail.

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How Innovation

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Missing Pieces!

Innovation

Leadership  Culture  Strategy  Customer  Process  Measures

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Building Capabilities

Vs.

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Building Capabilities

Excellence
- Efficiency
- Make things right
- Sustainability
- Build stamina
- Stable short-term revenue
- Predictable and quantifiable

Innovation
- Effectiveness
- Make the right things
- Disruption
- Build Agility
- Promised long-term payoff
- Uncertainty and Assumptions

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Startup vs. Established

- **80% Innovation**
- **20% Excellence**

Startup

- **20% Innovation**
- **80% Excellence**

Establish

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Balancing capabilities

Management must learn how to manage & balance these two contradictory forces

Disruption

Stability

20 % Innovation

80 % Excellence

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Where to start

Fit

UnFit

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Excellence with Baldrige

Holistic Integrated management system

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Full Alignment

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Building the Foundation

Excellence: 80%
Continuous improvement: 15%
Sustaining Innovation: 5%
Disruptive Innovation: 5%

Innovation with excellence

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Innovation in Baldrige

• Innovation: making meaningful change to products/services, processes or organizational effectiveness to create new value

• Intelligent Risk: opportunities for which potential gain outweighs potential harm or loss
Innovation in the criteria

• **Leadership:**
  – Create an environment for innovation & intelligent risk-taking and enable innovation.
  – Focus on action to achieve innovation

• **Strategic Planning:**
  – How do you incorporate innovation in your strategy, how do you prioritize intelligent risks. What are your key strategic opportunity.
Innovation in the criteria

• **Measurement, Analysis & Knowledge Management:**
  – How do you use performance findings to identify opportunities/priorities innovation. How to manage organizational knowledge for use in innovation

• **Workforce Focus:**
  – How does your workforce performance management and learning systems reinforce intelligent risk-taking and innovation
Innovation in the criteria

• **Operations Focus:**
  – Manage innovation, pursue the strategic opportunities that you determine are intelligent risks, make the financial and other resources available to implement these opportunities, discontinue others to support higher-priority opportunities?

• **Results:**
  – What are your current levels and trends in key measure such as innovation.
Building the Foundation

- Disruptive Innovation: 5%
- Sustained Innovation: 15%
- Continuous Improvement: 80%

Innovation: (Disruptive + Sustained) = 20%
Excellence Foundation: Continuous Improvement = 80%

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“We are what we repeatedly do. Excellence, then, is not an act, but a habit.”

Aristotle
Disruptive innovation
Lean startup

Startup: A human institution designed to create something new under conditions of Extreme uncertainty
Customer development

“The vast majority of startups fail NOT because they could not build a great product or technology, but because no one wanted the product!”

— Steve Blank
Lean startup thinking

• Every customer has a problem and every problem has a solution.
• But not every solution solves a problem that is related to a customer.

1 2 3
Customer - Problem - Solution

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Business Model Canvas

Alexander Osterwalder
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Validation board

Trevor Owens
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Lean startup principles

1. Minimum viable product
   - Landing page + Video (Dropbox)
   - Concierge (one customer)
   - Wizard of Oz (Zappos)
Lean startup principles

2. Pivots or persevere
Lean startup principles

3. Early adopters

Innovation Adoption Lifecycle

- Innovators: 2.5%
- Early Adopters: 13.5%
- Early Majority: 34%
- Late Majority: 34%
- Laggards: 16%

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Who’s doing Lean startup
1. Begin using Lean startup
2. $50M in new product Revenue
3. 1800 concurrent experiments
Excellence

- Neutron Jack
- Bring people together
- Implement and review
- Make decisions at town-hall meeting
- Give them a challenge
- Brainstorm solutions
- Present recommendations
- Control
- Improve
- Analyze
- Measure
- Define

A Six Sigma process is one in which 99.99966 percent of the products manufactured are free of defects.

Innovation

- Learn
- Build
- Code
- Minimize total time through the loop

Define the problem and the objectives before starting.

WELCH: BROOKS KRAFT/CORBIS; GRAPHIC BY BLOOMBERG BUSINESSWEEK; DATA: COMPILED BY BLOOMBERG

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Embracing Lean startup

1. New thinking; Training
2. Workshops for customer/problems discovery
3. Small teams (2-3)
4. Dedicated & independent team
5. Small funds
6. Link to Organization (top management)
Building the innovation machine inside your organization

Think like a fortune 500

Act like a startup

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Thank you

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