A Methodology for Determining the Organization’s Readiness for Process Improvement

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Introduction to ABB

- ABB is a multi-national power and automation technologies corporation that develops products, such as robots, instruments, power delivery components, and monitoring and control systems.

- ABB's customers include industrial companies such as power companies, process industries, and manufacturing plants.

- Beginning in 1999, ABB expanded its corporate strategy to include capabilities for enabling the horizontal and vertical integration of systems, as well as integration of other vendors’ products.
ABB’s Organizational Structure

- Power Technologies Division
  - Power Systems
  - Medium-Voltage Products
  - High Voltage Products
  - Transformers
  - Utility Automation Systems

- Automation Technologies Division
  - Automation Products
  - Manufacturing Automation
  - Process Automation
ASPI - CEPG Mission

To assist ABB organizations to improve their product development processes by implementing a sustained continuous process improvement culture using the Capability Maturity Model Integration (CMMI)

This mission is achieved by employing:

- The Capability Maturity Model Integration (CMMI) and IDEAL Model for continuous process improvement
ASPI Support

Product Development Units in ABB Globally in PT and AT Divisions

Local EPG  Local EPG  Local EPG  Local EPG  Local EPG

Support ABB Development Units in the Continuous Improvement of their Product Development Processes

USCRC ASPI Team (5 people)  CECRC ASPI Team (5 people)  SECRC ASPI Team (6 people)
Implementing Continuous Process Improvement at ABB

- Define organization’s yearly Business Goals
- Define Process Improvement Plan (PIP)
- Conduct CMMI Appraisal
- Develop Strategic Action Plan (SAP) prioritizing process improvement activities using Business Goals
- Implement PIP and SAP
- Monitor ROI
- Re-start cycle
Organizational Change Readiness

- Capability that an organization possesses to adopt new behavior to respond to new challenges in its operational environment
- Change means replacing what is established in favor of something new
- Change occurs in an organization when any part of the organizational system is altered or replaced
MTC: Forces in Change

History:
Applying lessons learned from past implementations

Sponsorship:
Obtaining the commitment of key stakeholders

Resistance:
Using the inevitable resistance that will emerge from all groups

Culture:
Minimizing the conflict between the change and the organization's values, behaviours, and unwritten rules.

Change Agent Skills:
Ensuring that the transition managers have the skills and motivation required to manage implementation of the change.

Barriers

Direction of Change
MTC: Managing Complex Change

Vision — Skills — Incentives — Resources — Action Plan — Change

Vision — Skills — Incentives — Resources — Action Plan — Gradual Change
Relevant Stakeholders in Process Improvement Projects

- Sponsor of Improvement Activity
- Change Agent
- Affected Organization
Sponsor

- The sponsor in a process improvement project is a decision maker that has resource ownership for product development and process improvement
  - Sometimes it is difficult to identify who the real Sponsor is
  - Sponsor has many responsibilities
  - Sponsor is interested in the “bottom line”
  - The Sponsor can be the “Engaged” type or the “Disengaged” type
- The Sponsor should be the Leader for change
  - Shows visible commitment to process improvement
  - Puts incentives or dis-incentives in place for behavioral change
Change Agent

- Is the person that will lead the process improvement project and make it successful

Different types of Change Agents

- Traditional
  - Focuses on the delivery
- Facilitator
  - Emphasizes transfer of change to stakeholders
- Advocator
  - Is a true champion of change
Commitment

Commitment is a pact that is freely assumed, visible, and expected to be kept by all parties (CMU/SEI-94-HB-1, Appendix 6)

Commitment Types (Abrahamsson, 2001)
- Affective Commitment
- Continuance Commitment
- Normative Commitment
Sponsor

- Communicate to the organization ownership of change
- Select and empower qualified Change Agent
- Work with Change Agent
- Establish an infrastructure for change with incentives
- Commit resources
- Model any changes in behavior
- Continue to communicate
Change Agent

- Work with Sponsor
- Manage process improvement project
  - Build support across the organization for process improvement project
  - Assist affected people in organization
- Collect and consolidate data needed to monitor progress
- Report progress to sponsors
- Identify sources of resistance
A Model for Monitoring Readiness

Change Readiness Factors

Organizational Readiness
- Strategy
- Financial Changes
- Management Issues
- Process Changes
- Operational and Legal

Sponsor Readiness
- Communication
- Characteristics
- Behavior

Change Agent Readiness
- Communication
- Characteristics
- Behavior

Organizational Expertise
- Sponsor Expertise
- Change Agent Expertise
- Organization Expertise
Monitoring Readiness for Process Improvement

Sample Organizational Readiness Chart

- Organizational Acceptance
- Sponsor Commitment
- Change Agent Readiness
- Organizational Expertise

- Jun-03
- Dec-03
- Apr-04
- Oct-04
Lessons Learned

- Sponsors
  - Limited time and attention span
  - Have enormous pressure to show economic benefits
  - Sometimes difficult to identify the real sponsor
  - Sometimes are not aware their need for training in CI Management
  - No time for training
  - Need to continuously communicate
  - Change positions often
  - Needs to align incentives to reward process improvement
  - Needs to align process improvement to business goals
  - Needs to make his/her direct reports responsible for process improvement
... Lessons Learned

Change Agents
- Not easy to find
- It is not an attractive role
- Need to have back-ups
- Needs to proactively update the Sponsor
- Needs to proactively communicate to the organization
- Needs to act as the project leader for the process improvement project
- Continuous monitoring of the organizational readiness allows to take corrective actions and maintain the process improvement project moving forward

Organization
- Organizational infrastructure for process improvement needs special attention to be created and maintained
- Continuous training required
- Process improvement project needs to be visible
Questions?