Use of IDEAL Model in a Multi-Organization Environment

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Presentation Objective

In this presentation you will learn how the SEI IDEAL model is used in a multi-national organization to manage CMMI continuous process improvement cycles and introduction of new technologies for product development into the business units.

“The people who are crazy enough to think they can change the world are the ones who do”

Apple Computer, Inc., television add, CNN, December 15th of 1997
Presentation Agenda

- Examples of activities where IDEAL has been successfully employed
- IDEAL in SPI activities
- IDEAL in introduction of new technologies which result in considerable change
- IDEAL in new product development
CMMI-based Process Improvement Projects

- Analyze and assess development processes of software-intensive systems and use CMMI best practices to implement software process improvement (SPI) projects to fulfill specific business objectives of each business unit.

- Manage SPI cycle at the Business Area level, which incorporates clusters of Business Units, which share a common set of goals.
Introduction of New Technologies and/or New Product Development

- Analyze and determine how a new technology can be used to enhance software-intensive products in the development Business Unit and/or to develop new products based on specific business objectives. These activities often result in product re-architecting activities.
IDEAL Model to Manage Change in the Organization

IDEAL Model
1. Initiate
2. Diagnose
3. Establish
4. Act
5. Leverage

- CMMI Continuous Process Improvement
- Introduction of New Technologies
- New Product Development
- Business Area SPI
- Business Unit SPI
- Other Major Changes in the Organization
IDEAL Framework for Continuous Process Improvement

IDEAL

At BU Cluster

Initiation (1)

Diagnosis (2)

Establishing (3)

Acting (4)

Learning (5)

IDEAL Local BU SPI Activities
IDEAL Framework for SPI at BU-cluster Level

- **Initiate (1)**
- **Diagnose (2)**
- **Establish (3)**
- **Leverage (4)**
- **Act (5)**

- **Leverage**
  - Collect, analyze, and report metrics
  - Collect and analyze lessons learned

- **Diagnose**
  - Analyze appraisals findings in clusters
  - Define cluster diagnostic

- **Establish**
  - Establish a common cluster Process Improvement Plan (PIP) derived from local BU PIPs

- **Act**
  - Carry out common cluster Process Improvement Plan (PIP)
Discussion – IDEAL SPI at BU-Cluster Level

- Need to have a global perspective on business goals, coordination efforts, reporting, and communication within the BU cluster.
- Develop a global improvement plan and monitor it.
- Ensure business objectives of cluster are filtered to individual BUs.
- Have a global change agent that coordinates improvement efforts.
- Need to extract commonalities within the cluster to manage the global process improvement activities.
- Allow local BU improvement activities to be managed locally.
- Define metrics that “make sense” at the cluster level and congruent with metrics at BU level.
- Ensure lessons learned from each BU are collected at the end of the cycle.
IDEAL Framework for SPI at BU Level

IDEAL Local BU SPI Activities

- Initiate (1)
- Diagnose (2)
- Establish (3)
- Act (4)
- Leverage (5)
Discussion – IDEAL SPI at BU Level

- Need to create a **Strategic Action Plan** for Local BU that goes beyond one improvement cycle
- Align local BU business goals with global cluster business goals
- Ensure local BU Sponsor and local Change Agent are in “sync” with global cluster
- After internal CMMI appraisal, develop a **Process Improvement Plan** that “acts locally but thinks globally”
- Collect metrics and lessons learned as input for next improvement cycle and benefits obtained
IDEAL Framework for New Technology Introduction at BUs

Product Enhancement Or New Product Development

- **Initiate** (1)
- **Diagnose** (2)
- **Establish** (3)
- **Act** (4)
- **Leverage** (5)

Establish
Develop a technology conversion plan, or new product development plan
Discussion – IDEAL Introduction of New Technology

- Need to define the business benefits associated with the introduction of new technology or development of new product (identify metrics associated with the business benefit)
- ATAM/ADD/AHP have been used to diagnose product architecture and technology evaluation for new products
- Essential to develop an implementation plan
- Collect metrics and lessons learned
Other Potential Areas where IDEAL can be Applied

- Other process improvement activities:
  - Manufacturing
  - Business
- Introduction of new information systems in the organization
- Internal project to address people issues
Any Questions?

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