**Continuous Improvement
at GD Mission Systems
Barbara E. Reinhardt**

GENERAL DYNAMICS
Mission Systems

GD Mission Systems Definition

"A **Continuous Improvement (CI) Process** is an ongoing effort to improve products, services, or processes. These efforts can seek "incremental" improvement over time or "breakthrough" improvement all at once. Customer valued processes are constantly evaluated and improved in the light of their efficiency, effectiveness and flexibility."

What Is Continuous Improvement (CI)

Is this CI stuff magic?

No, it's hard work, discipline and energy on your part.
Starts from the top, and requires commitment to make it PART of the Culture.

Overview

- **History of the Continuous Improvement (CI) Program**
- **2014 Results**
- **Roles and Responsibilities**
- **Goal Setting**
- **Benefit Types for Validation**
- **Requirements for Validation**
- **Examples of Validated CI's**
- **Top Ten Reasons for Failure**
- **Summary**
- **Questions?**

History

- **Prior to 2007**
  - **Regional Approach**
  - **No centralized tracking of submitted and completed projects.**
  - **Committee validated weekly**
  - **Results not visible to population**
- **2008**
  - **Standardized rules for Submission and Validation**
  - **Improvements captured in centralized database**
  - **Web based on-line submission**
  - **Goals established & tracked**
  - **Improvements validated by small group of OI Advocates by Function and Division**
- **2009**
  - **Improvement Portal released showing real time results**
  - **Culture moved from Cost Avoidance to Cost Reduction and Earnings**
- **2014**
  - **64% of Validated CI's either reduced Costs or improved Program Margins**
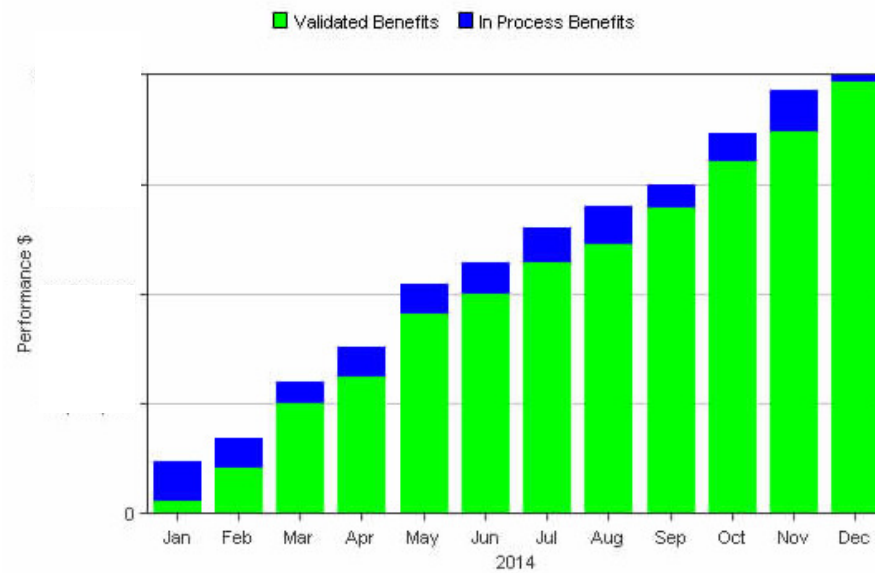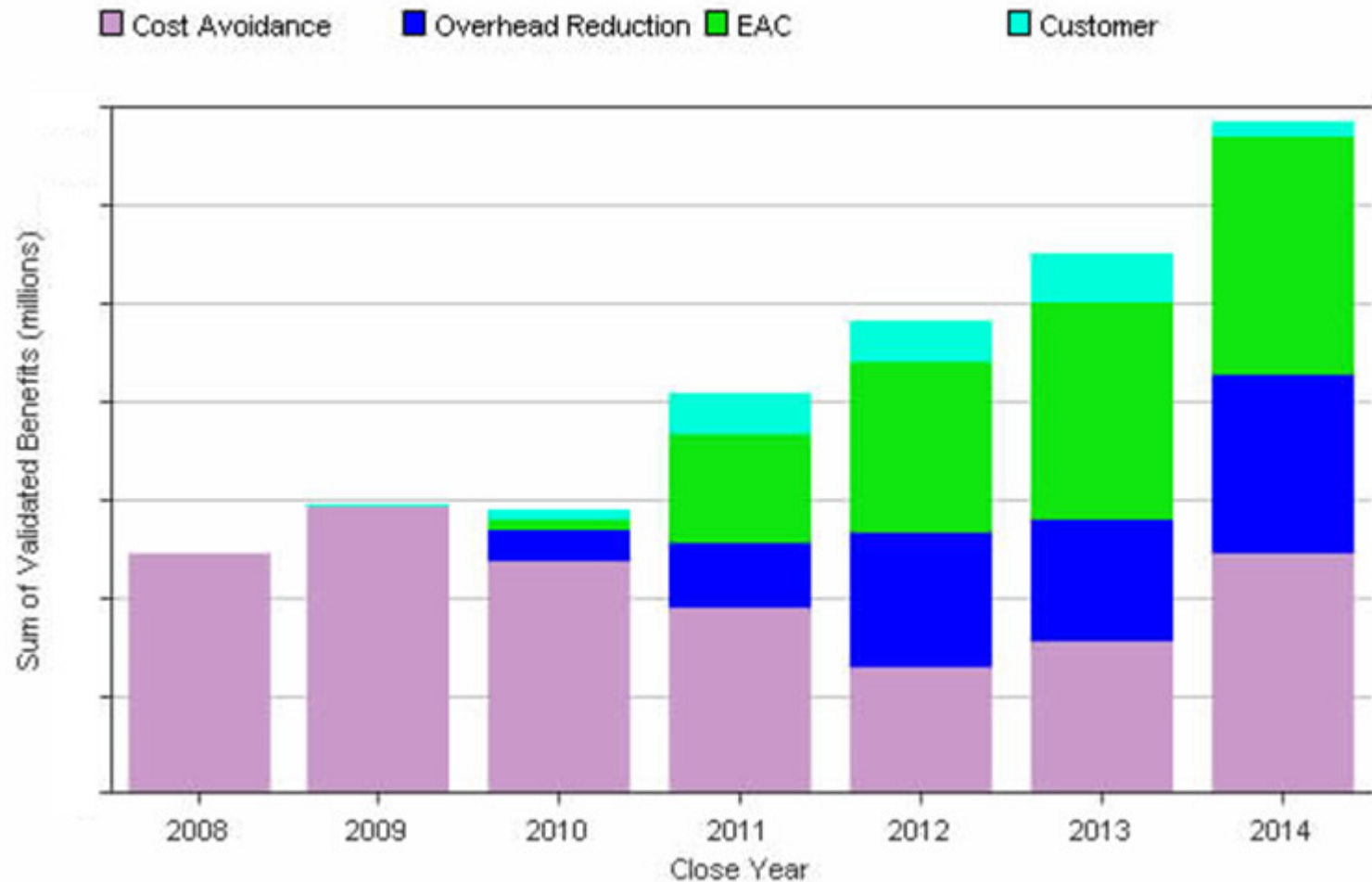
2014 Results

2014 OI Results

Goal	
Validated	

2014 Benefit Type Performance

Benefit Type	Actual Value
Cost Avoidance	
EAC Labor	
Overhead Reduction	
EAC Material	
Customer	
Total	

OI Goal Organization - GDAIS
2014 Performance through December - Blue

Legend: ■ Validated Benefits ■ In Process Benefits

Y-axis: Performance $

X-axis: Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec — 2014

Annual Improvement Trends

Roles & Responsibilities

Role: **Leadership Team**

Responsibilities*:*

• **Champion the CI program**

• **Set yearly objectives and communicate**

• **Identify high impact projects and provide resources for execution**

• **Enable Culture**

    o **Discuss CI**

    o **Establish Time for teams**

    o **Recognize positive results**

Roles & Responsibilities

Role: **Subject Matter Expert**

Responsibilities:

- **Develop a tool to enhance visibility**
- **Train the team on requirements, submission, process and validation**
- **Assign CI's that meet the requirement**
- **Close out CI's in the database**
- **Generate Monthly charts that reports to the goals.**
- **Ensure that all participants achieve business objectives**

Roles & Responsibilities

Role: CI Advocate

Responsibilities:

- Champion the program in key business areas
- Train employees on requirements for approval
- Set aside time for individuals to work initiatives
- Identify high impact projects and provide resources for execution
- Support objectives and communicate throughout organization
- Recognize and Reward successes

Driving the Culture by Setting Goals

- **Set Goals to align with Business Objectives**
- **Measure what is important to your Business**
- **Flow down to goals to Team**
- **Add goals into individual performance objectives**
- **Continuously Re-evaluate your objectives**
- **Share Successes and Best Practices**
- **Capture those improvements**

Most people already DO this as part of their normal job!
Everybody needs to participate!

Benefit Types – 3 Types of 'Savings'

1) Enhancements

Traditionally called 'soft' savings, are of general benefit to the business, can include safety and environmental changes.

- **Inclusive of all minor improvement activities and cost avoidances**
- **Require minimal validation (sponsor)**
- **Reason to track**: **Culture**

2) Overhead

Improvements that have a direct impact on overhead rates.

- **Inclusive of all rate impacting improvements**
- **Validation requires two sources of objective evidence (eg. Functional Manager and Finance representative**
- **Reason to track**: **Affordability**

Benefit Types – 3 Types of 'Savings'

3) Re-Investable Earnings

Dollars that can be re-invested in other areas of the business or captured as increased EBIT.

- **Margin improvements or savings sharing profit**
- **Require extensive finance validation (with recorded evidence)**
- **Reason to track: Earnings**

Requirements for Validation

Three Main Requirements
1. Deliberate act or Process Improvement
2. Improvement is Measured and Documented
3. CLEAR evidence of Financial Benefit

Examples of Validated CI's

- Reduction of Software Tool Costs
- Attrition
- In-Sourcing of Services (ie, Calibration)
- Leveraging Buying power for Materials
- Repairing vs. Procuring new Equipment
- Combining Meetings and Reports
- Reducing Electricity and Heat Costs
- Defect Reductions
- Mitigating Cost Over Runs

Validated Example

- Reduction in Force - Attrition
  - Five Administrative Assistants in a Department
  - One Retirement
  - Work is dividing among remaining assistants
  - Salary was $30,000
  - Compensation and Benefits ratio is 27% ($8,100)
  - Total value of the OI is $38,100
- Deliberate act, Measured and Documented and CLEAR Evidence of Financial Benefit

Top 10 Challenges to Success

10. **Failure to obtain management buy-in and sponsorship**

9. **Not setting time aside to work projects**

8. **Selecting projects that don't align with business objectives**

7. **Focusing on the monetary goals vs. improving the process**

6. **Completing improvements with no clear evidence of benefit**

5. **Validating CI's that don't meet the requirements to make the goals.**

4. **Failure to plan and conduct comprehensive communications**

3. **Left out Information Technology component**

2. **Gave up too soon; did not stay the course**

1   **IMPACT ON THE CULTURE WAS UNDERESTIMATED!**

Summary

- A CI program will help drive down costs, increase earnings and make you more competitive
- Must start with a commitment from Senior Management
- People work to what they are Measured to
- All employees must participate
- Time must be set aside for the CI efforts
- Validation must be rigorous and disciplined

Questions?