CMMI® and Business Improvement at Raytheon

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Raytheon Today

A Global Leader in Defense, Homeland Security and other Government Markets

- $23.2 billion in sales in 2008
- 73,000 employees worldwide
- More than 8,000 technology-driven programs
- Locations in 50 states, 80 countries, 7 continents
- Among the top 5 aerospace and defense companies in the nation
Raytheon’s Core Markets

Expanding opportunities to provide innovative solutions

Our Domain Knowledge and Technical Leadership Creates Expanding Opportunities in Four Core Defense Markets:

1. **SENSING**
   Technologies that acquire data and create the information needed for effective battlespace decisions

2. **C3I**
   (Command, Control, Communications and Intelligence Systems)
   Integrated real-time systems that optimize operational planning and execution

3. **EFFECTS**
   Technologies that achieve specific military actions or outcomes

4. **MISSION SUPPORT**
   Total life-cycle solutions that ensure NoDoubt™ performance
Raytheon Businesses

- Global Headquarters
  - Waltham, MA
- Integrated Defense Systems
  - Tewksbury, MA
- Technical Services
  - Reston, VA
- BD and Raytheon International Operations
  - Rosslyn, VA
- Network Centric Systems
  - McKinney, TX
- Space and Airborne Systems
  - El Segundo, CA
- Missile Systems
  - Tucson, AZ
- Intelligence and Information Systems
  - Garland, TX
- Customer Success Is Our Mission
Raytheon Process Improvement

The way we develop products & provide services

A critical success measure

Our focus on No Doubt™ solutions for the warfighter

Our primary mechanism for continuous improvement
Most divisions now operating at Maturity Level 5, including two v1.2 appraisals in last 12 months

Virtually all of the engineering population engaged with CMMI®

Early Adoption and Commitment to High Maturity at Raytheon
Sample Benefits

■ Productivity
  ‒ Systems Engineering: 14.3% Improvement
  ‒ Software Engineering: 43 - 65% Improvement (depending on project)
  ‒ Hardware Engineering: 25 – 56% Improvement (depending on discipline)

■ Quality
  ‒ Systems Engineering: requirements volatility reduced by 56%
  ‒ Software Engineering: 12% improvement in defect containment
  ‒ Hardware Engineering: 65% improvement in drawing defect density

■ Cost/Schedule
  ‒ 4% decrease in CPI and significantly reduced variability
  ‒ 5% improvement to on-time deliveries

■ Process Management Cost
  ‒ $15M savings over 5 years in process infrastructure cost
  ‒ 5:1 reduction in process guidance levied on business execution

Maturity Levels Don’t Tell the Whole Story
Non-Quantitative Benefits of CMMI®

- Establishes clear roles and responsibilities for business execution
- Documents a common language across broad spectrum of business functions
- Focuses process improvement on quality and performance objectives
- Provides for structured decision making instead of “seat of the pants”
- Helps answer the “are we there yet?” process institutionalization question
- Expands the reach of Raytheon Six Sigma
- Changes expectations (and behavior) of management

Achieving the “I” in CMMI®
Looking Ahead

■ Continued focus on High Maturity
  – Leverage established best practices in the company to enable high maturity practices across the board
  – Invest in Capability Levels where Maturity Levels don’t make sense

■ Implementation of CMMI-SVC
  – A visibly better “fit” for the engineering services business
  – Provides a new benchmark in an increasingly competitive market

■ Integration with other improvement paradigms
  – ISO9001 and AS9100 in development organizations
  – ITIL, ISO20000 and COBIT in services organizations
  – Lean models in production organizations

Steady Momentum for CMMI® Implementation
The Bottom Line

Common Process for Reachback Across Work Locations

One set of Processes to Address External Requirements

Clear Functional Roles and Responsibilities for Program Execution

Repeatable Process to Drive Productivity

Leverage Company Investment through Process Asset Reuse

Centralized Process Management

Enterprise-Wide Process Certifications as a Competitive Discriminator

Effective and Efficient Process Deployment to Programs

CMMI® Drives Business Value for Raytheon

Performance Excellence and Business Growth

CMMI® Drives Business Value for Raytheon