



AMMUNITION ENTERPRISE EXCELLENCE

Ready for Tomorrow?

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Panel Wembers



- Kevin Fahey, Deputy PEO Ammunition
- Pat Serao, ARDEC
- Mark DeYoung, ATK
- Pierre Chao, Defense-Industrial Initiatives Center
- Jody Parker, Lockheed Martin
- Judy Solgaard, American Ordnance





The Ammunition Enterprise implementation of Enterprise Excellence is a <u>disciplined</u>, <u>structured</u> approach for process and product optimization that is focused on the <u>effectiveness</u> and <u>efficiency</u> of the organization.

Effectiveness x Efficiency = Enterprise Excellence



Enterprise Excellence Ammunition Enterprise



- Instilling discipline across the board
- Permeate six sigma/lean into our business both Service and Production Processes
 - Kicked off a Ammunition Enterprise six sigma/lean enterprise executive black belt program
 - Using Lean/Six Sigma principles in the establishment of Ammunition Enterprise wide processes
 - Encouraging contractors to use Lean/Six Sigma tools





Effectiveness



- Infrastructure
- Process Documentation
- Management
- Implementation
- ISO-9000

Cost

Cycle Time

Voice of the Customer

- IPPD
- Product to Process Link

TAKT Times

Unit Cost

- Performance Requirements
- Process

Six-Sigma **Project** Selection

- Focused Q\$S-R
- Payback
- Infrastructure Support
- Enterprise Map
- DMAIC Process

Six-Sigma Six-Sigma **Process Process** Control **Improvement**

- Descriptive Statistics
 - · Inferential Statistics
 - · Analysis of Variance
 - · Linear Contrasts
 - Design of Experiments

Requirements

· Process Capability

· Process Mapping

Process FMEA

Control

Evaluation

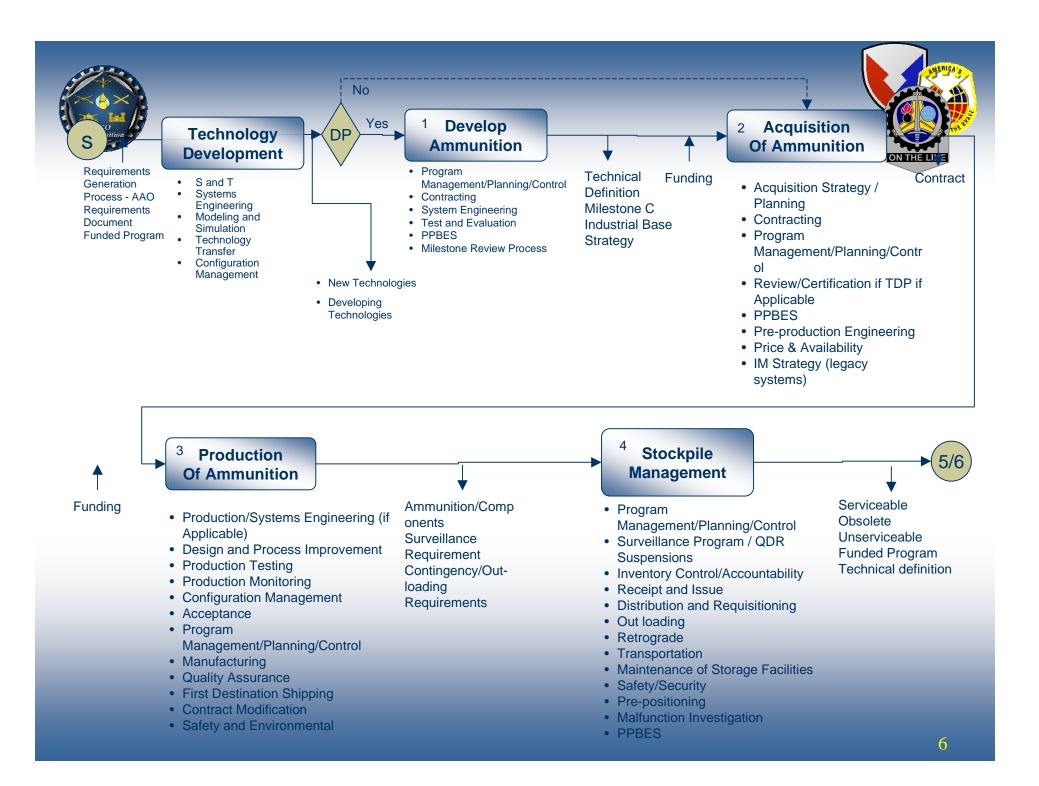
Automation

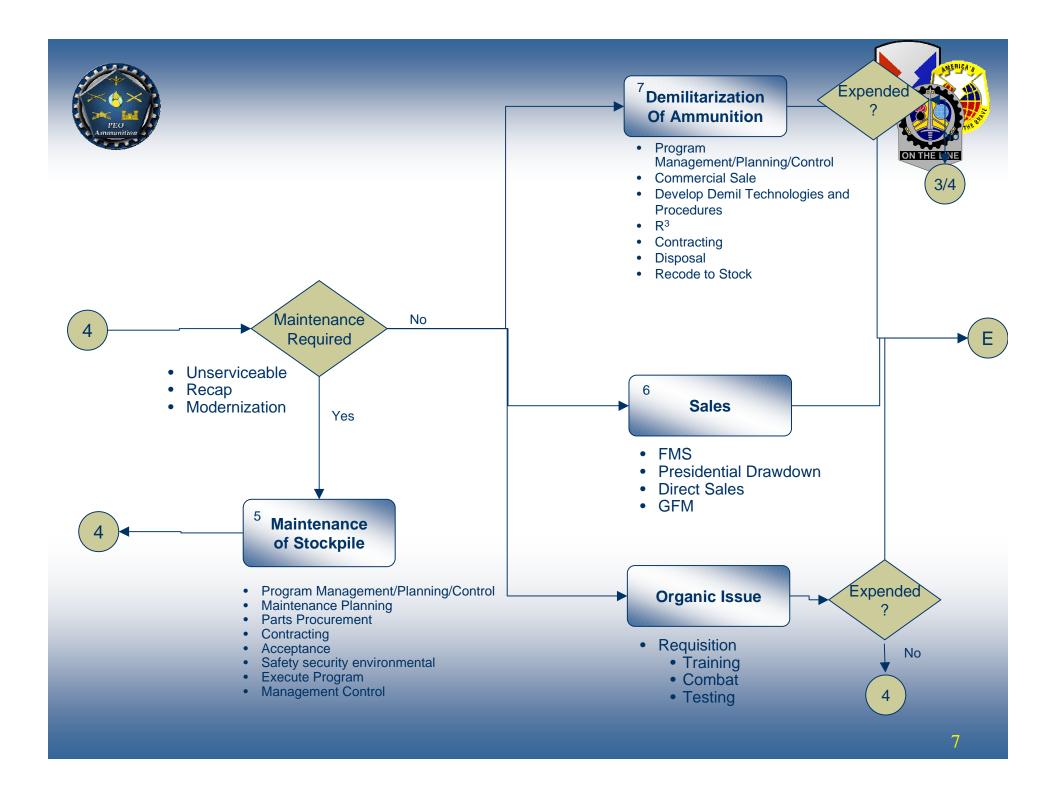
Statistical Process

Measurement Systems

Efficiency Lean **Process** Lean Lean **Process** Workload **Metrics** Metrics **Process Optimization** Balancing • Yield • A_O Routing Analysis Work Cells Scrap MTBF Work Cells Standardized Rework • MTTR Activities Standardized • RTR Activities • Cycle Times One Piece Flow

Line Balancing









Summary

- Ammunition Enterprise serious about continuous improvement
- Utilizing Lean/Six Sigma structured approach
- Expect all of ammunition enterprise to include industry partners commitment to this journey





What makes up a "perfect contractor" to you?





What benefits has your Lean/Six Sigma program had over other improvement programs you have tried in the past?







How have you and your customers benefited from your Lean/Six Sigma program?







How will the Army use Lean/Six Sigma as a factor in Best Value contracting if at all?





Is there a financial advantage to fully implementing Lean/Six Sigma tools in a business?





How do you verify and track the gains made from implementation of Lean/Six Sigma within your organization?





What price premium are you willing to pay to ensure a quality product?







If you were interested in starting a continuous improvement program tomorrow what are the first three things you would do?





The other Service's perception is our enterprise is not consistently making quality ammunition. Based on your experience can a robust Lean/Six Sigma program turn the tide on the quality of our products? How?



Questions from the Floor







Back up Charts





<u>Ammunition Enterprise Commitment</u>

The PEO Ammunition, JMC and ARDEC are leading the way in implementing Enterprise Excellence in the Ammunition Enterprise:

- ✓ Executive Champions 147
- ✓ Green Belt Six Sigma Lean 638
- ✓ Black Belts Six Sigma Lean 189
- ✓ Total Productivity Maintenance 41









