



“The Role of CMMI® in Facilitating Program Performance in Large Scale Systems”

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VISION

People working together as a global enterprise for aerospace leadership

Strategies

- Run healthy core businesses
- Leverage strengths into new products and services
- Open new frontiers

Core competencies

- Detailed customer knowledge and focus
- Large-scale systems integration
- Lean enterprise

Values

- Leadership
- Integrity
- Quality
- Customer satisfaction
- People working together
- A diverse and involved team
- Good corporate citizenship
- Enhancing shareholder value

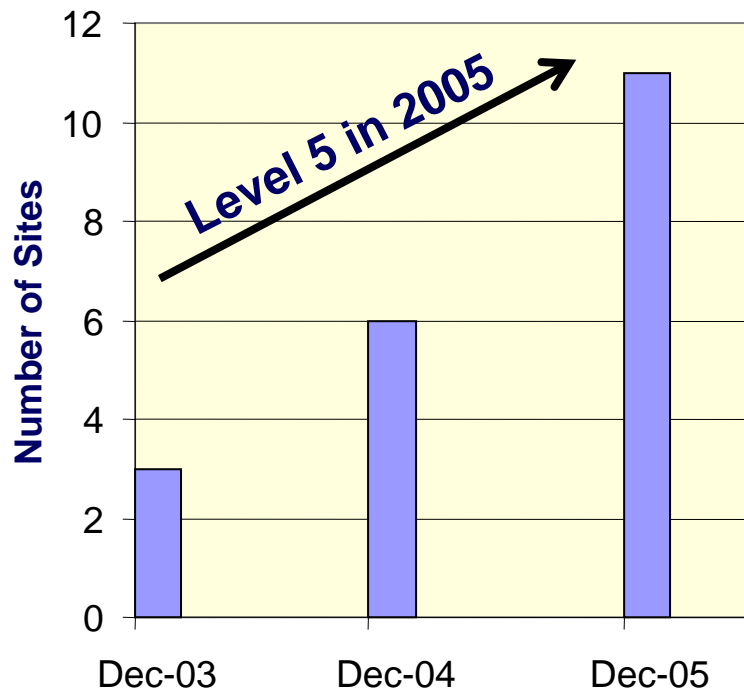
Topics

- **Boeing Progress on CMMI**
 - 11 sites at Maturity Level 5
 - Continuing effort to deploy CMMI across all programs
 - Moving to “common”
- **Current Limitations of CMMI**
 - Industry Issues
 - Program Issues
- **Boeing Approach and Initiatives**
 - Corporate Initiatives
 - Key Focus Areas – Integrated Defense Systems
 - Program Management Best Practices
 - Strengthen Systems Engineering
- **Summary**

Boeing is Committed to CMMI

Programs at 11 major Boeing sites supporting all Business Units have been appraised at Maturity Level 5

Boeing Sites Appraised at ML5



Major Programs Appraised:

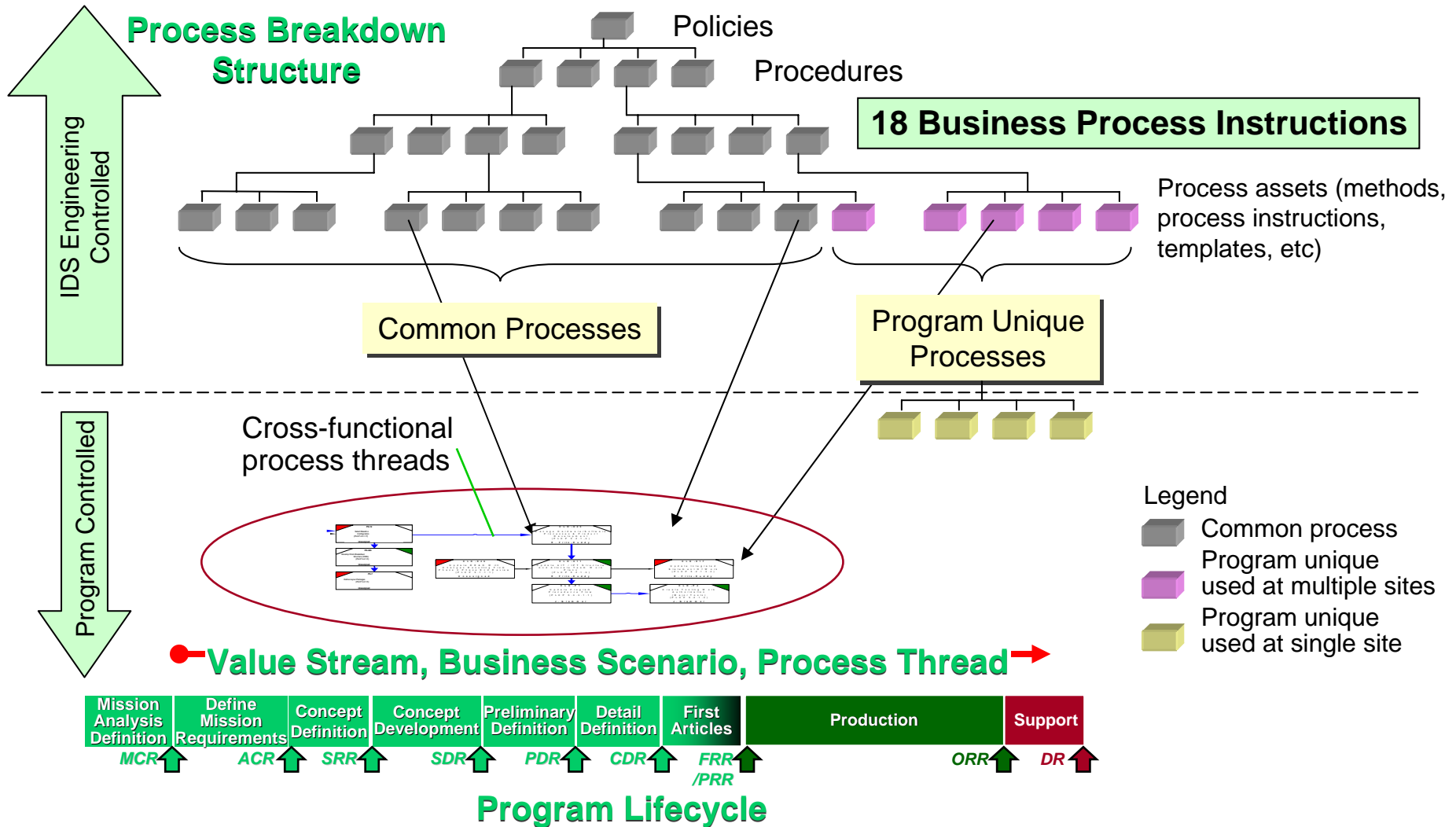
- B-1B
- C-17
- F/A-18 E/F
- F-22
- V-22
- Satellite Systems
- Mission Planning
- International Space Station
- Delta
- GPS

All Major Boeing Sites at Maturity Level 5

Continue to Deploy CMMI Across All Businesses and Programs

- Business Units and Sites continue to expand deployment of CMMI-based processes
- Goals include:
 - Increase the number of programs and projects
 - Increase the penetration into the Engineering population
- Expand use of CMMI processes from main business programs into supporting Engineering activities and functions:
 - Modeling and Simulation
 - Engineering Laboratories
 - Ground Support Equipment

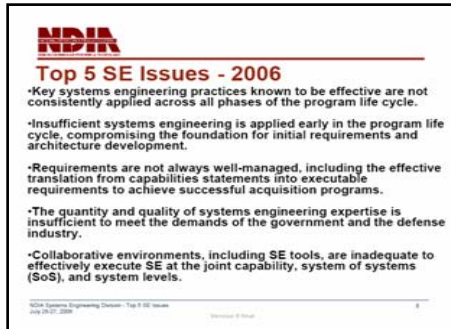
Move to Common Processes Consistent With CMMI Process Areas



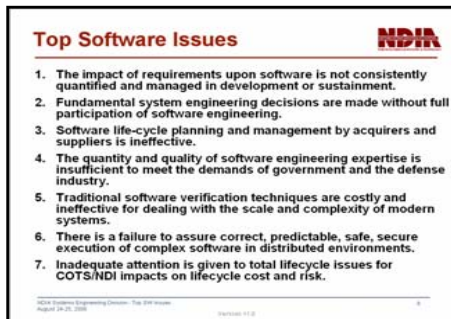
Industry Issues

Industry Issues:

■ Top 5 System Engineering Issues



■ Top Software Engineering Issues



Typical Program Issues:*

- Requirements instability
 - Weak baseline management
 - Weak risk management
 - Weak supplier management
 - Inadequate specifications
 - Poor project management
 - Management change control
- * Issues developed during joint Government/Boeing Systems Engineering Interchange meeting and from list of top reasons projects fail from the Project Management Institute

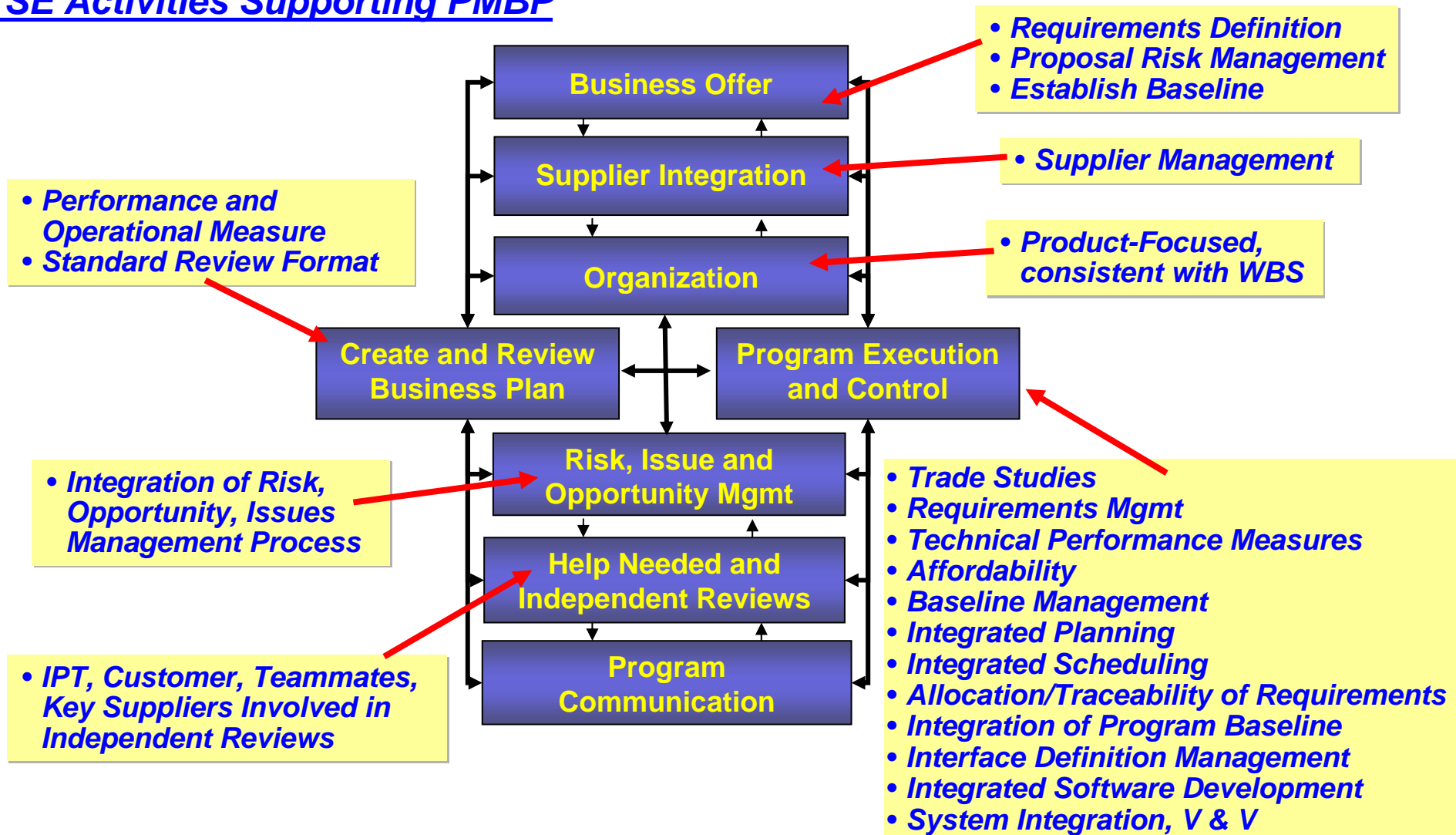
Boeing Recognizes the Limitations of CMMI-based Process Implementation

Approach to Integration of Broad-based Initiatives

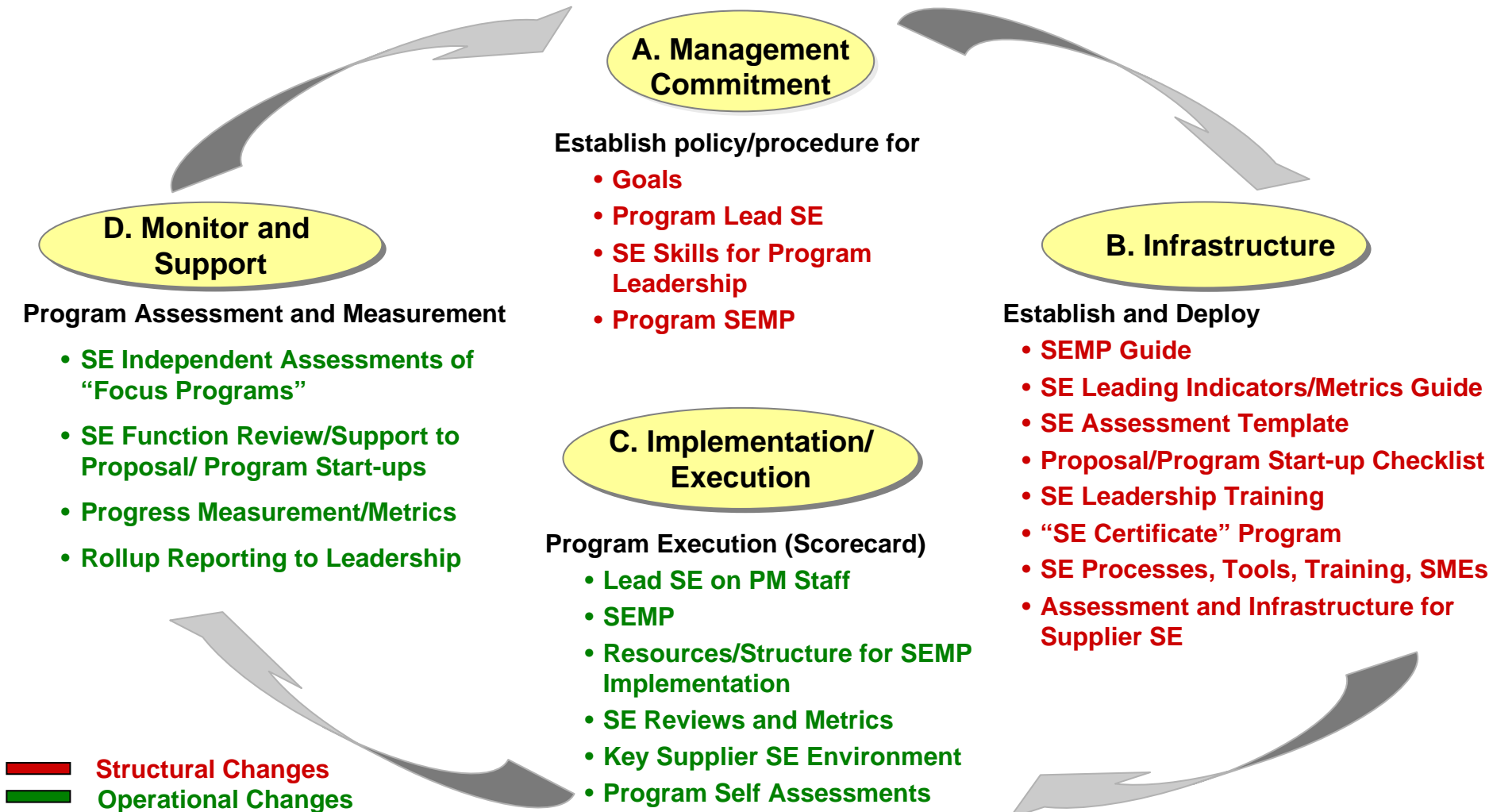
- **Boeing Corporate – Growth and Productivity Initiatives**
 - Internal Services Productivity
 - Lean+
 - Global Sourcing
 - Development Product Excellence
- **Boeing Integrated Defense Systems – Key Focus Areas**
 - Supplier Management and Quality
 - Program Management Best Practices
 - Strengthen Systems Engineering
 - Cost Reduction

Strong/Robust SE Support of Program Management Best Practices (PMBP) Required for Successful Program Performance

SE Activities Supporting PMBP



Process to Strengthen Systems Engineering



Closed Loop Process to Strengthen SE at Boeing

Summary

Vision 2016

Supplier Management and Quality

**Program
Management
Best Practices**

Strengthen Systems Engineering

Lean +

Global Sourcing



**Development Process
Excellence**

- Project Planning
- Project Monitoring & Control
- Supplier Agreement Management
- Integrated Project Management + IPPD
- Risk Management
- Quantitative Project Management

- Requirements Management
- Requirements Development
- Technical Solution
- Product Integration
- Verification
- Validation

- Configuration Management
- Process & Product Quality Assurance
- Measurement & Analysis
- Decision Analysis & Resolution
- Causal Analysis & Resolution

- Organizational Process Focus
- Organizational Process Definition
- Organizational Training
- Organizational Process Performance
- Organizational Innovation & Deployment

CMMI Supports the Boeing Vision

