

Workshop on Hard Questions for Process Improvement in Multimodel Environments

Ray O Johnson, Ph.D.
Chief Technology Officer
Lockheed Martin Corporation

LOCKHEED MARTIN



The Men and Women of Lockheed Martin



- **140,000 Employees**
- **70,000 Scientists and Engineers**
 - **25,000 IT Professionals**
- **Operations in 1,000 Facilities, 500 Cities, 50 States and 75 Countries**

Partners to Help Customers Meet Their Defining Moments

Vision and Values



Our Vision:

Powered by innovation, guided by integrity, we help our customers achieve their most challenging goals

Our Value Statements:

- **Do What's Right**
- **Respect Others**
- **Perform With Excellence**



Full Spectrum Leadership



- ***Shape the Future***
- ***Build Effective Relationships***
- ***Energize the Team***
- ***Deliver Results***
- ***Model Personal Excellence, Integrity, and Accountability***



Building Full Spectrum Leaders for Competitive Advantage

Delivering Products and Services That Perform ... with Extraordinary Reliability

Executing complex projects

... Requiring integrated solutions

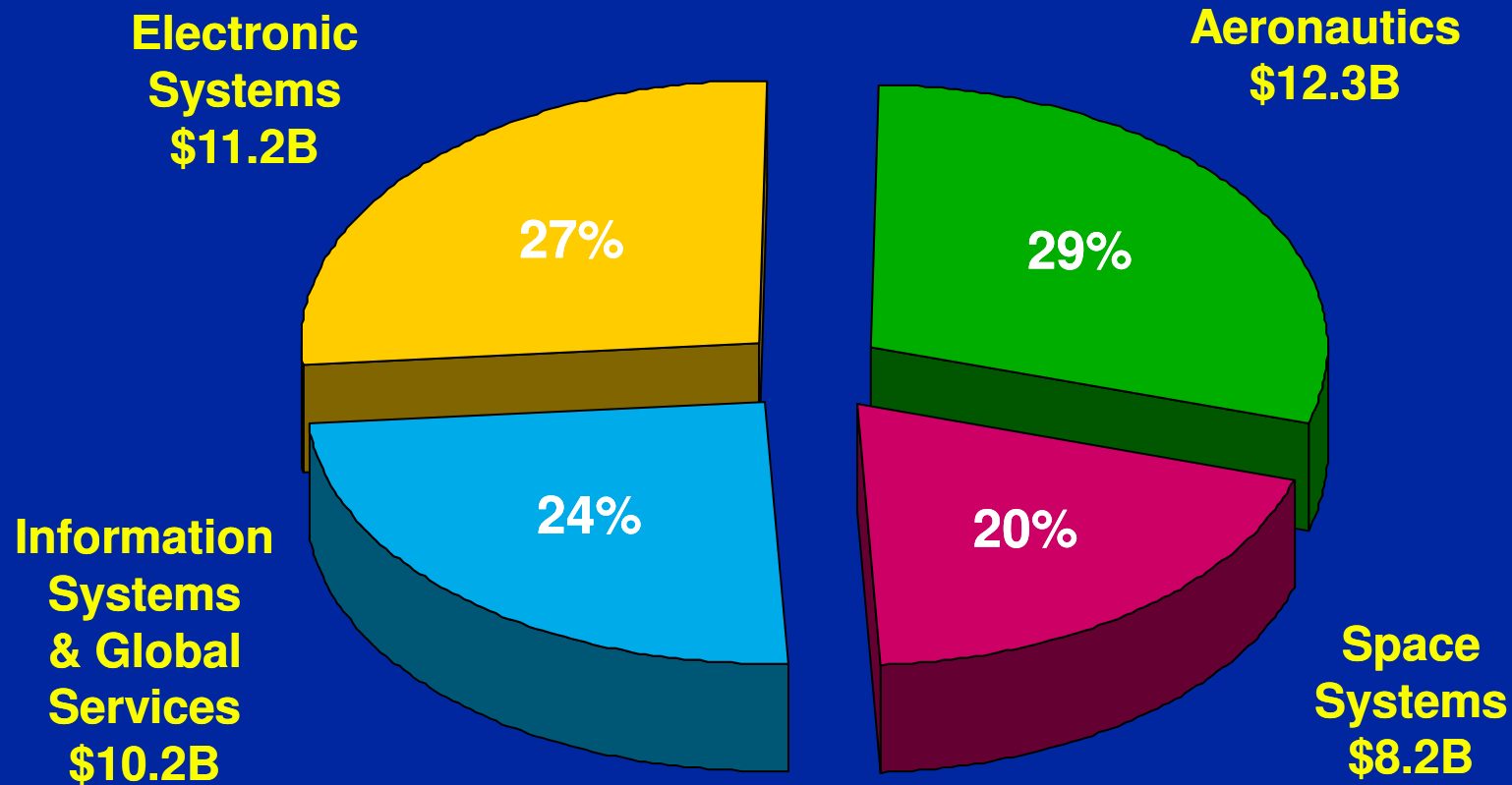
... With advanced technology and systems integration skills

... Across Lockheed Martin and with our partners

... For our government customers

Distinguished by Whole-Systems Thinking

2007 Sales by Business Area



Total Sales - \$41.9B

New Business Models



Previous Model

- Domestic markets
- Defense products
- Government-funded development
- Exports and co-production

Recent Models

* VH-71 * PFI/PPP * RD 180 * F-2 *

* GMLRS * F-16 BIK60 *

- Defense and civil govt.
- Customer-funded R&D
- International launch customers
- Global supply chain

* C-130J * T-50 * UKMFTS/BWC *

Future Models

F-35 (JSF)



Maritime AMD

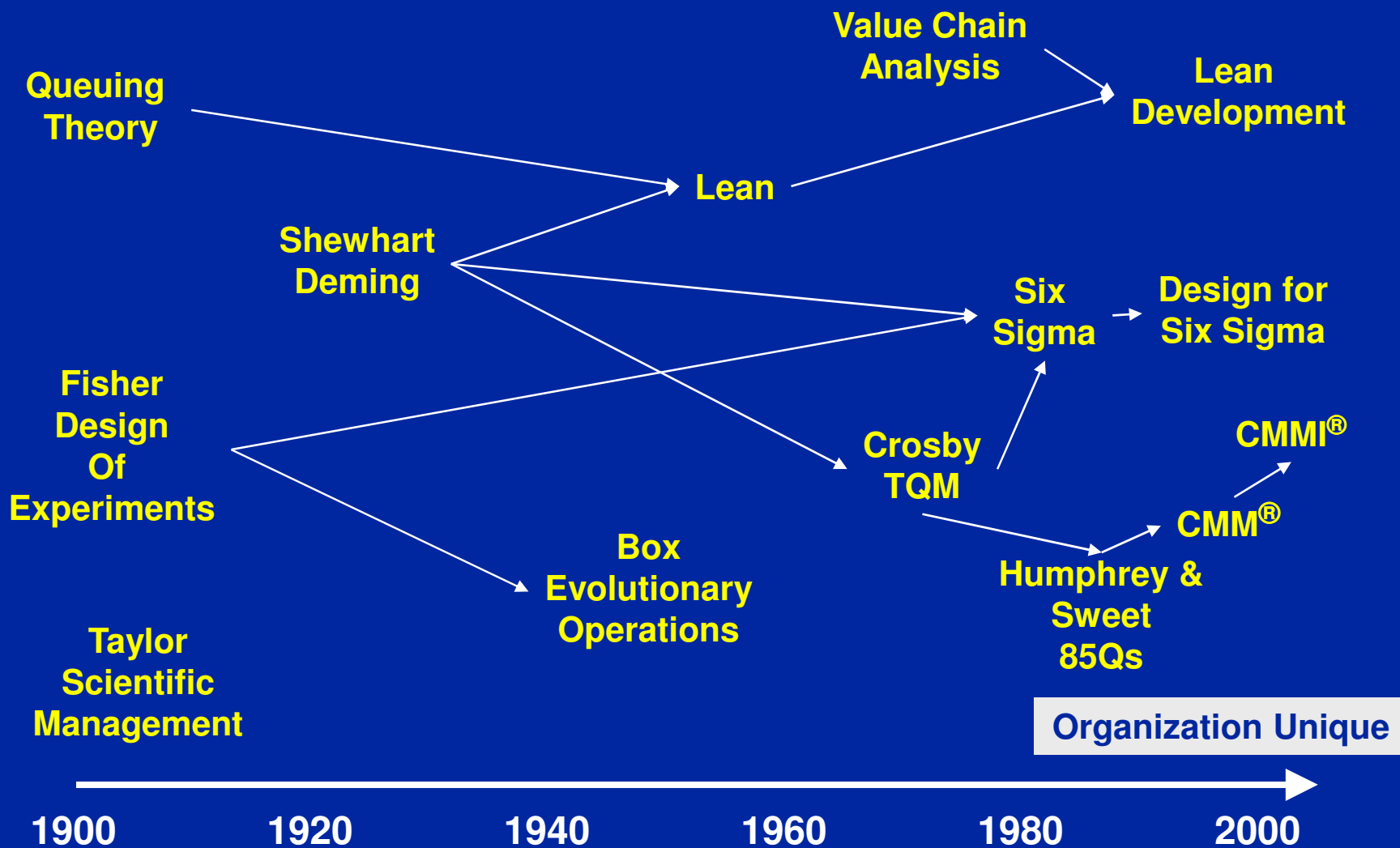


MEADS



Global Products for Global Markets

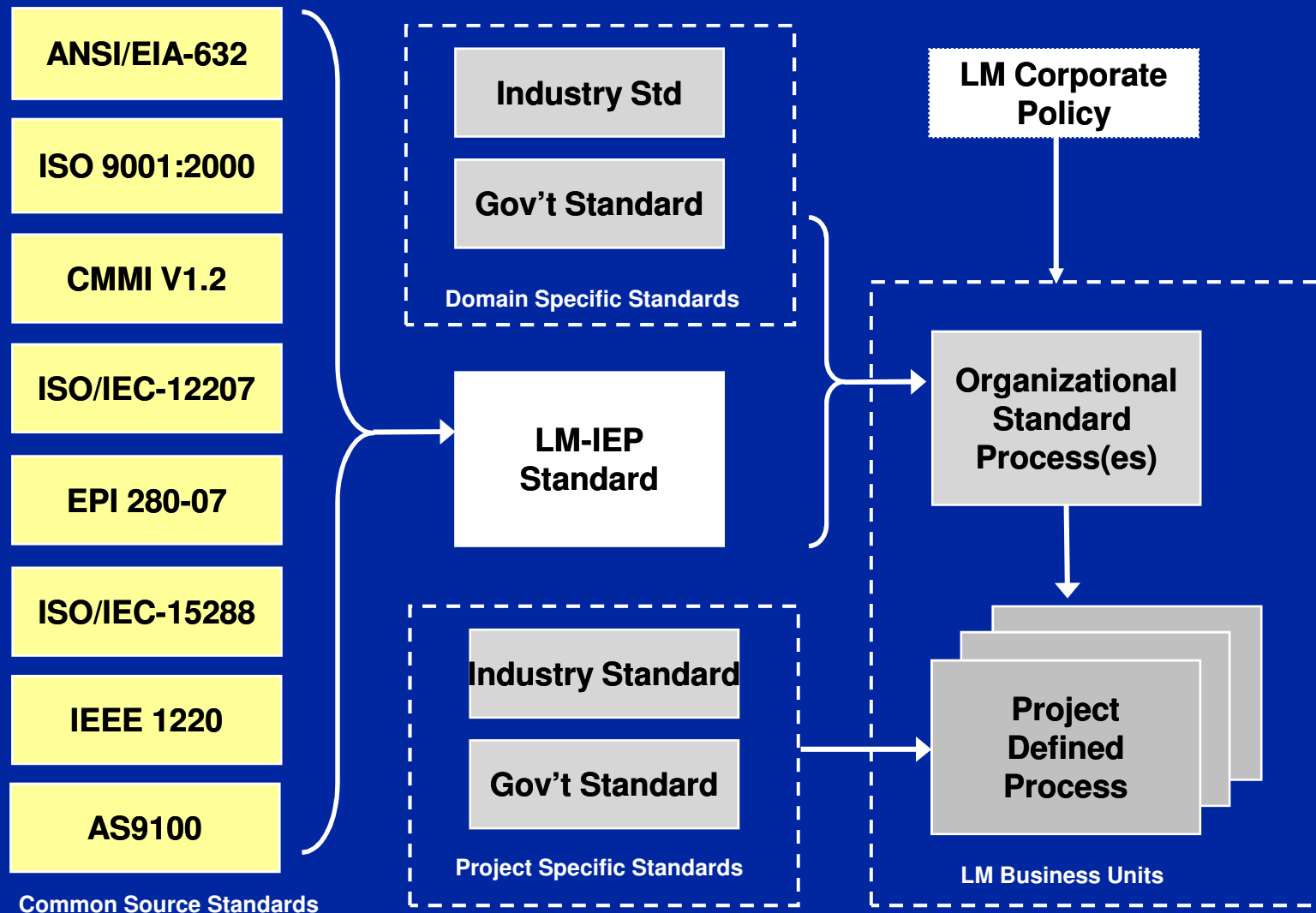
Frameworks, Standards, Models, and Methods



Adapted from Card, *Integrating Lean, Six Sigma, and CMMI*

®CMM and CMMI are registered in the U.S. Patent and Trademark Office by Carnegie Mellon University.

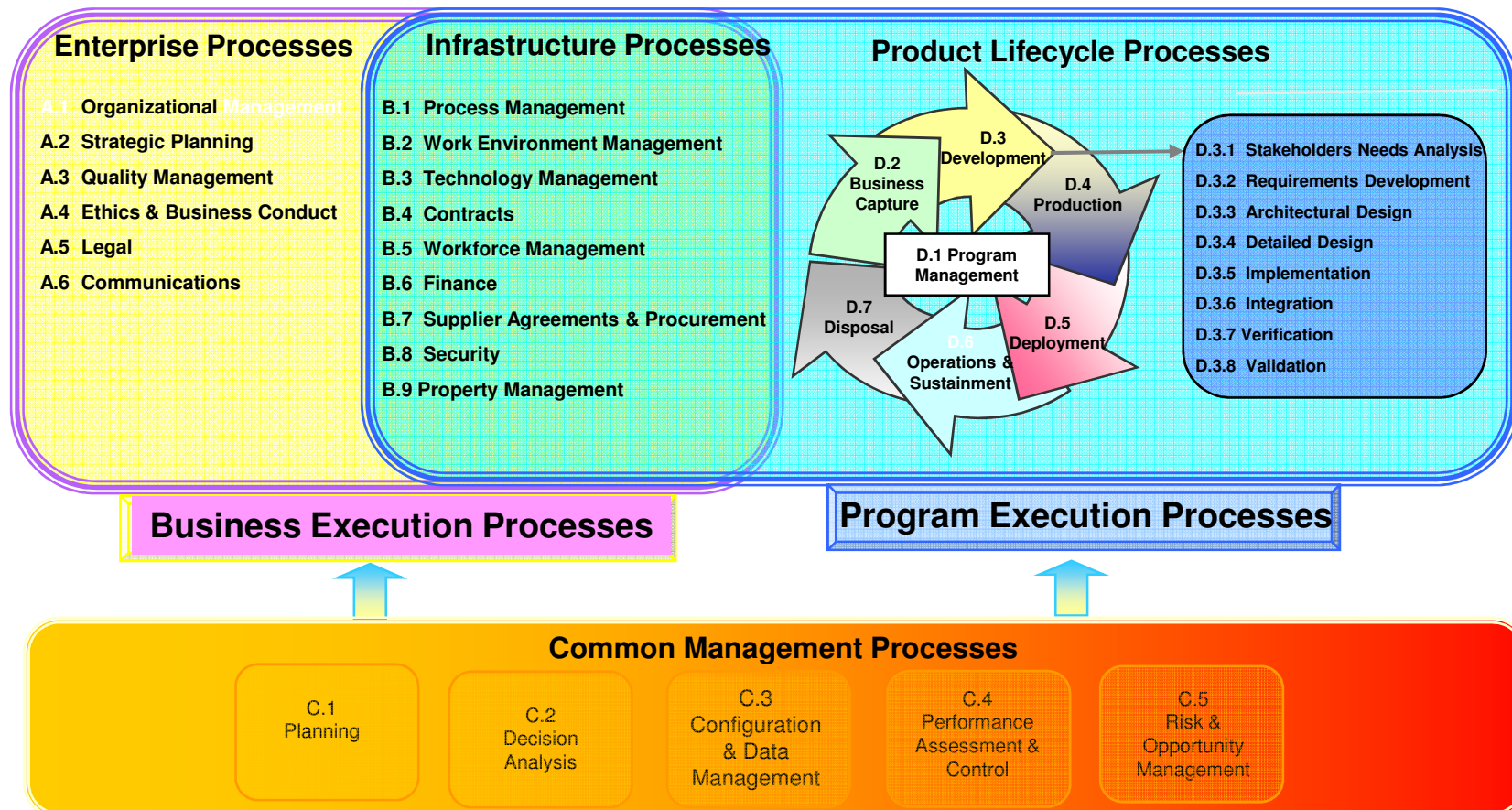
Lockheed Martin Integrated Enterprise Process (LM-IEP) Standard



Lockheed Martin Integrated Enterprise Process (LM-IEP) Architecture



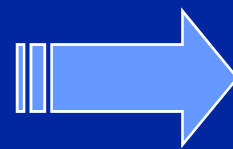
A comprehensive enterprise architecture serves as the foundation for an Integrated Team Process Architecture



The LM21 Approach to Process Improvement



- **This tool gives leadership a strategic look at its value streams and the ability to see waste at a macro level**
- **Leaders identify and prioritize the improvement events necessary to**
 - **Eliminate the waste**
 - Kaizen events (an activity where a team is chartered for a period of 3–5 days)
 - **Identify waste for a given process and**
 - **Implement immediate, sustainable solutions for waste elimination/reduction**
 - Other VSMS, projects - activities that require extensive work and change
 - Just Do Its - short term projects



The result: a plan is in place to strategically identify and eliminate the waste that most interferes with the ability to deliver value to the customer.

Consistently Deliver Value Growth Thru Operating Excellence

Business Results



**Horizontal
Integration**

Battlespace Awareness

Command & Control

Net-Centric Operations

Information Superiority

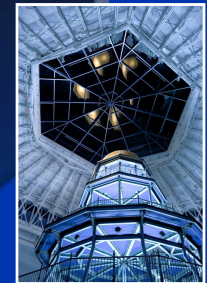
Force Application

Focused Logistics

Government IT

Training

**Homeland
Security**



**Center for Innovation
The Lighthouse**

Aeronautics

**Electronic
Systems**

**Space
Systems**

**Information Systems &
Global Services**

Enhanced Solutions for Our Customers

