The Future of Program Management

NDIA – IPMD Meeting

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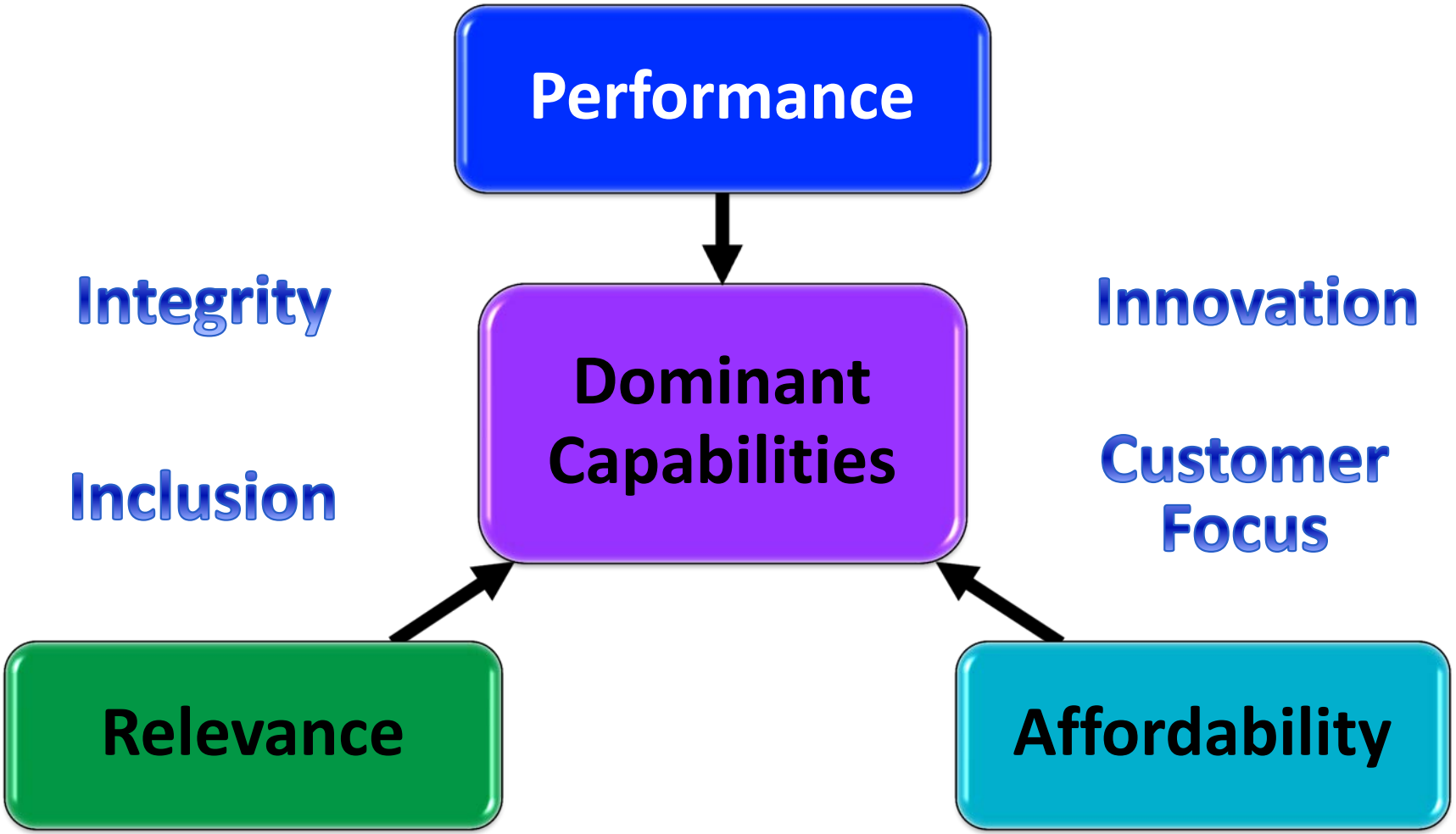
Overview

- Challenges & Opportunities
- Innovation in Program Management & Tools
- Agility and Managing Complexity
- Future of Program Managers
- Program culture: Playing to Win

Excellence in Program Management



Historical Perspectives

Packard Commission Report, 1986

- Chronic instability in . . . funding and . . . programs . . . eliminates key economies of scale, stretches out programs, and discourages . . . investments
- Program managers have . . . been deprived of control
- Better job of determining requirements and estimating costs . . . needed
- A high priority should be given to building and testing prototype systems
- More competition . . . is beneficial, but mechanistic pursuit of competition . . . would be inefficient and sacrifice quality
- Multi-year procurement, baselining and the use of non-developmental items . . . would yield far greater benefits in program stability
- The truly costly problems are those of overcomplicated organization and rigid procedure

Today's Imperatives - BBP

- **Achieve Dominant Capabilities While Controlling Life Cycle Costs**
  - **Should cost analysis, affordability as a requirement**
  - **Make production rates economical, hold stable**
- **Anticipate / plan for responsiveness, emerging threats**
- **Incentivize Productivity**
- **Incentivize Innovation**
  - **Prototyping, Open Systems Architectures, Draft requirements**
- **Promote real competition, encourage new entrants**
- **Eliminate unproductive processes and bureaucracy**

Do More Without More

Source: USD AT&L BBP, BBP 2.0, BBP 3.0 Draft

Traditional Program Management Success Factors

1. Well defined and understood scope and requirements
2. Full understanding of technical scope and complexity
3. Realistic schedules and pricing
4. Systematic risk identification and management
5. Proven technology, sufficient prototyping and test
6. Rigorous HW and SW development, integration
7. Strong subcontract management & req’ts flowdown
8. Experienced personnel in key positions
9. Rigorous functional processes and program documentation
10. Systematic program startup and transition

Clear Scope – Realistic Baselines – Rigorous PM Processes

What has changed?

- Industry consolidation
- Global supply chains
- Relative industry power of A&D

- Computing power, big data, analytics
- IT network advantages and vulnerabilities
- Product complexity and level of integration
- Workforce needs

- Threat diversity and “velocity” (rate of change)
- Decade+ of constant, high operational tempo
- Budget constraints; breakdown of “regular order”

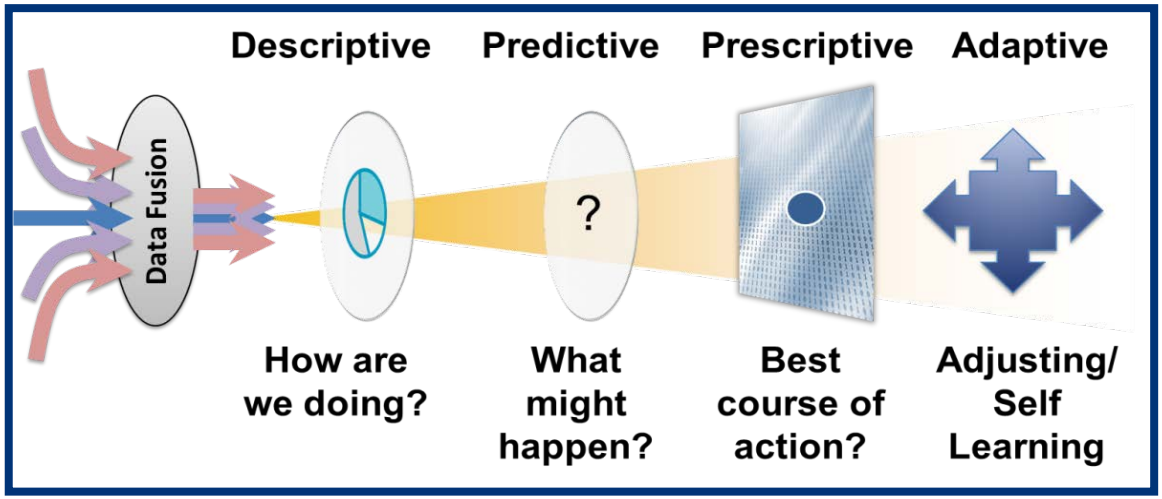
Today's Opportunities

- Drive innovation in program management
- Prepare for agility in acquisition
- Develop PM workforce of the future
- "Play to win" versus "play not to lose"

Lockheed Martin Committed to Partnership in Achieving Better Buying Power

Innovation in Analytics for Program Excellence

- **Program Management:** **Focus, predictive power and decision aids vs. EVM mechanics. Link systems, automate data entry**
- **Supply Chain:** **Supplier risk, market assessments, disruption prevention and recovery**
- **Production:** **Factory flow, bottlenecks, efficiency improvements**

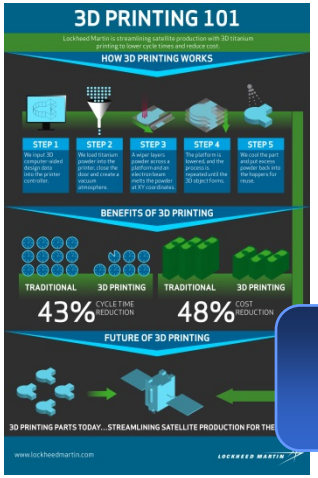


Program Agility

- **Anticipate and Plan**
  - Mission understanding
  - Modeling and simulation
  - Early requirements sharing
  - P3I and capability insertion
  - Thoughtful competition
- **Reduce Cycle Times**
  - Digital tapestry
  - Collaborative engineering
  - Product commonality
  - Advanced & additive manufacturing
  - Open systems architectures
  - Streamlined contracting

Center for Innovation

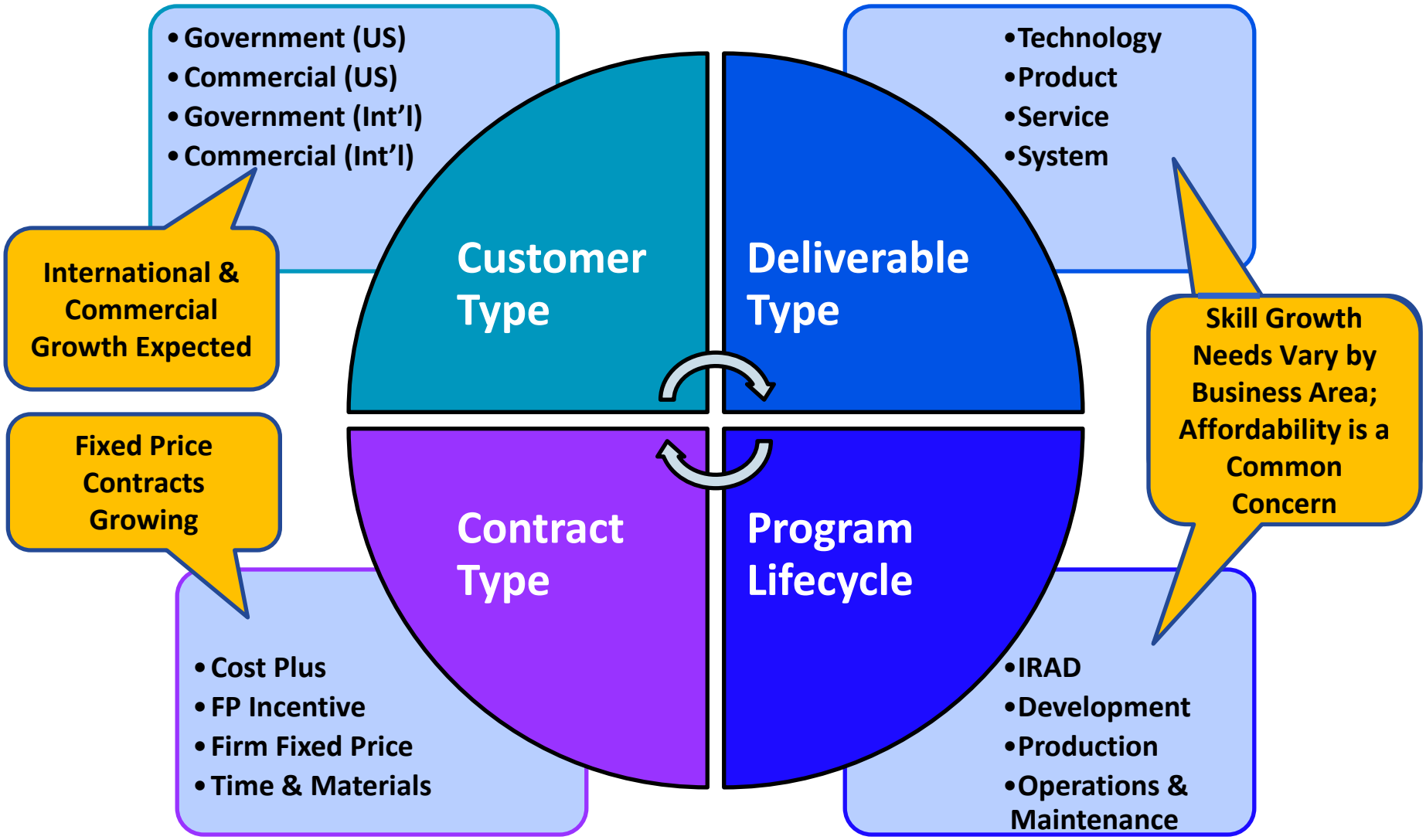
CHIL (Collaborative Human Immersive Laboratory)



"Printing a satellite"

Technology & Process Innovation for Program Agility

Changing PM Demands



Playing to Win:
Prudent Risks Carefully Managed

Playing to Win	Playing Not to Lose
• Proactive	• Reactive
• Risks balanced	• Risk averse
• Strategic focus	• Tactical focus
• Outcomes oriented	• Process oriented

Challenge:

- More emphasis on things not going wrong than on assuring most things go right
- Risk-averse culture, where penalties for failure far outweigh rewards for success
- Process that is "agonizingly ponderous to manage and slow to produce"

Solution:

- Flexible processes, tailored strategies and above all, professional judgment
- ***Culture Change!***

Source: S. V. Reeves, "What the Acquisition Workforce Knows." Defense AT&L, September-October 2014.

Customer–Industry Collaboration: Playing to Win vs. Playing "Not to Lose"

A Quest for Excellence:

The 1986 Packard Commission Report

“ There are certain common characteristics of successful commercial and governmental projects

- **Short, unambiguous lines of communication among levels of management,**
- **Small staffs of highly competent professional personnel,**
- **An emphasis on innovation and productivity,**
- **Smart buying practices, and**
- **Most importantly, a stable environment of planning and funding**

— all are characteristic of efficient and successful management.”