

# Speed and Agility

---

**Pete Modigliani**

[pmodigliani@mitre.org](mailto:pmodigliani@mitre.org)

**5 May 16**

**NPS Acquisition Research Symposium 2016**

**MITRE**

# Purpose / Outline

## How Defense Acquisition Can Enable Innovation and Rapid Technology Insertion

- Strategic Imperative
- Challenges
- Five Enablers



# DoD Challenges and Vision

## Current State



- **Bureaucracy**
- **Heavily Regulated**
- **Slow**
- **Technology Parity?**

## Desired State



- **Agile**
- **Innovative**
- **Rapid**
- **Technology Superiority**

# Strategic Imperative



**Congress  
FY16 NDAA**

- Rapid innovation, acquisition
- Rapid prototyping and fielding

**SECDEF**



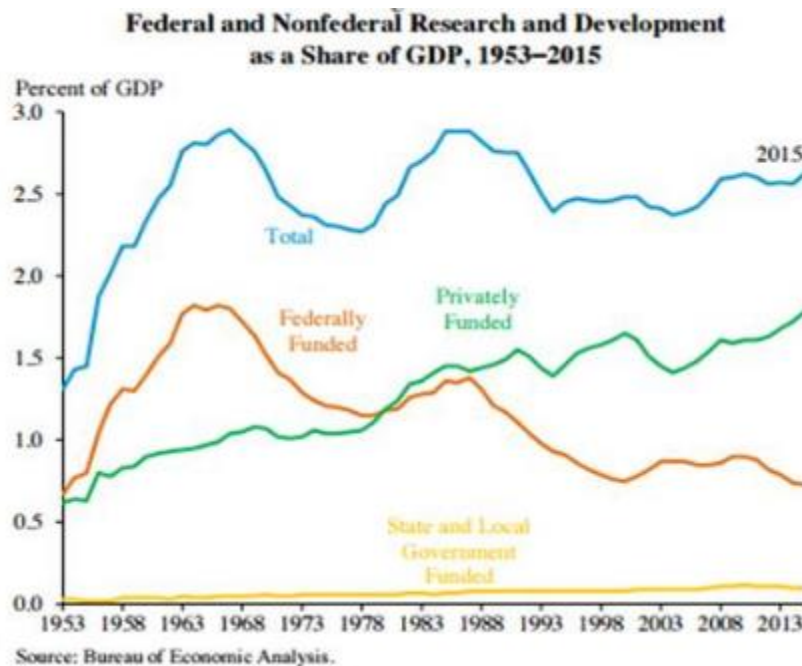
- Partner with innovative tech industry
- Rapid fielding, not 10-15 years

**BBP 3.0**

- Innovation and Technical Excellence
- More Productivity, Less Bureaucracy

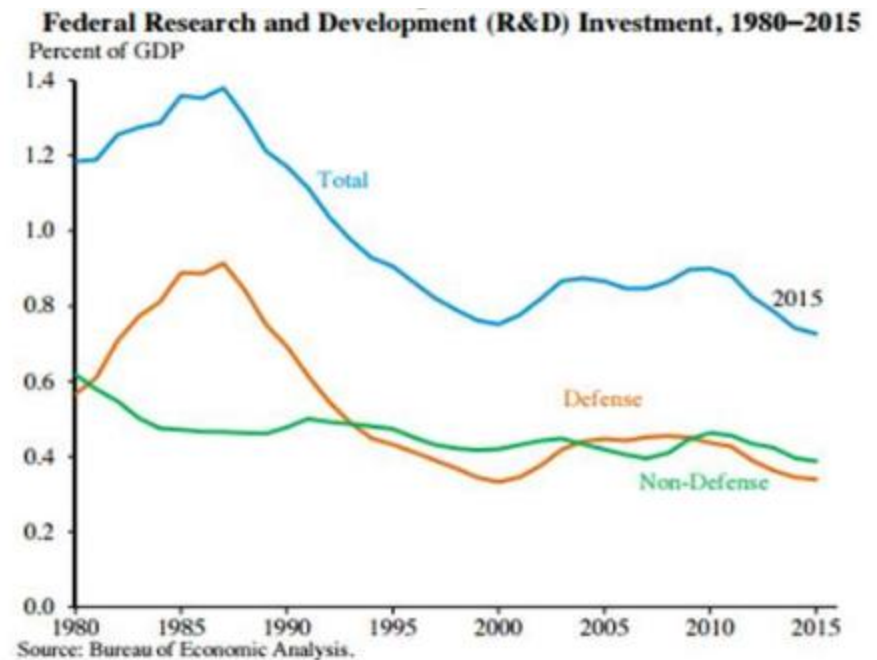
# DoD Is No Longer the Global R&D Leader

## Federal vs Private R&D



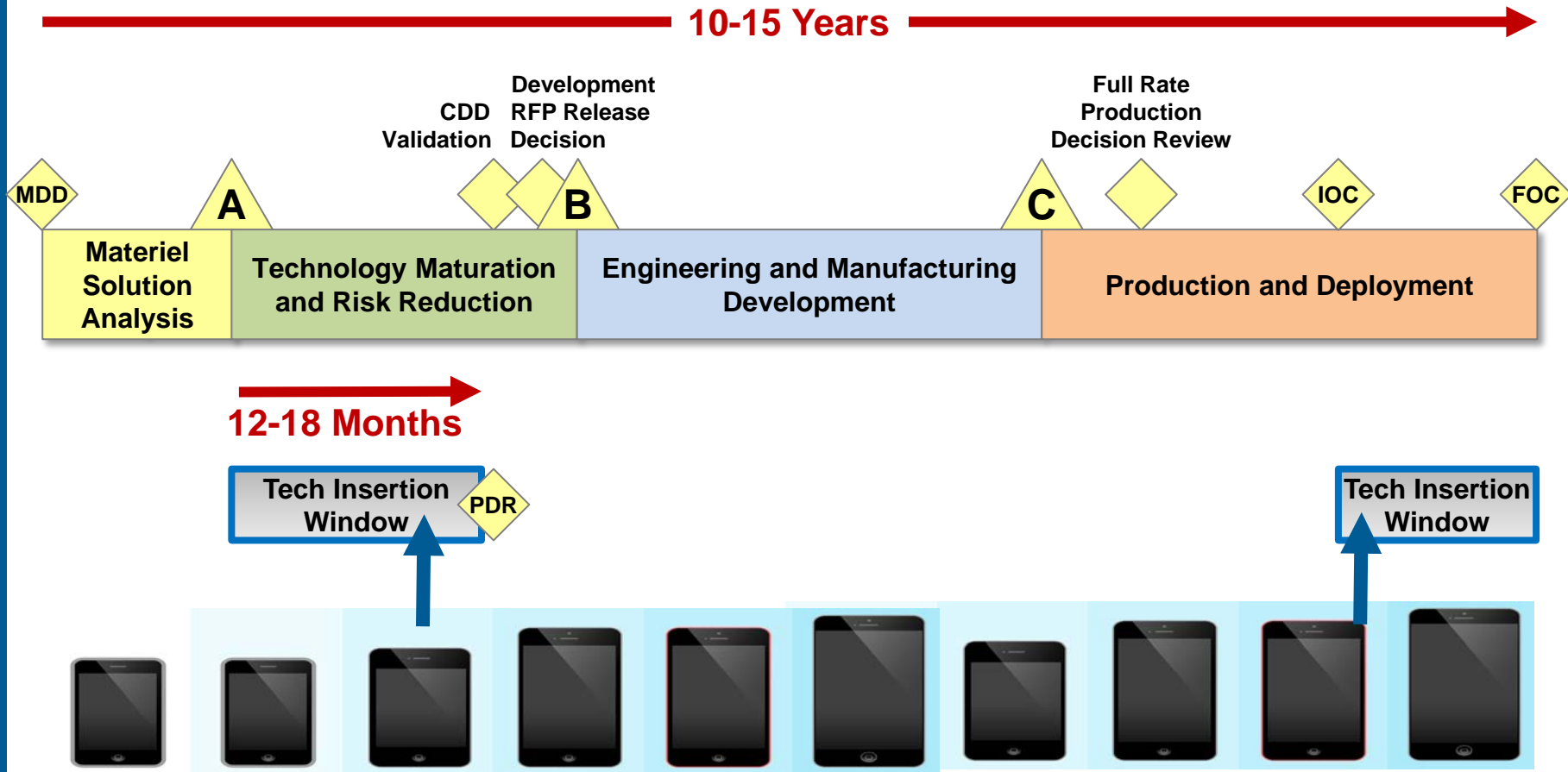
**Industry Drives R&D**

## Defense vs Non-Defense R&D



**Defense R&D Declining**

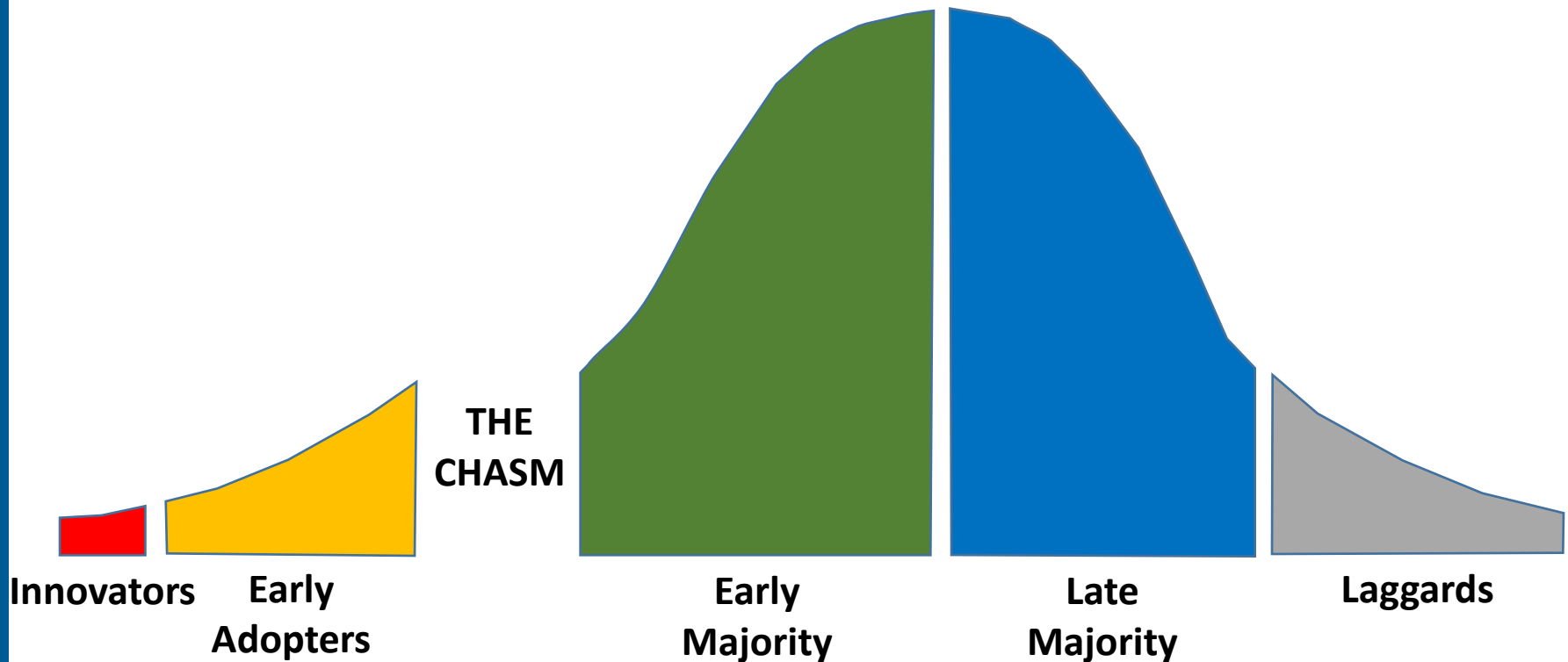
# Technology Insertion Window



**Small Window to Insert Technology Across Long Program Life**

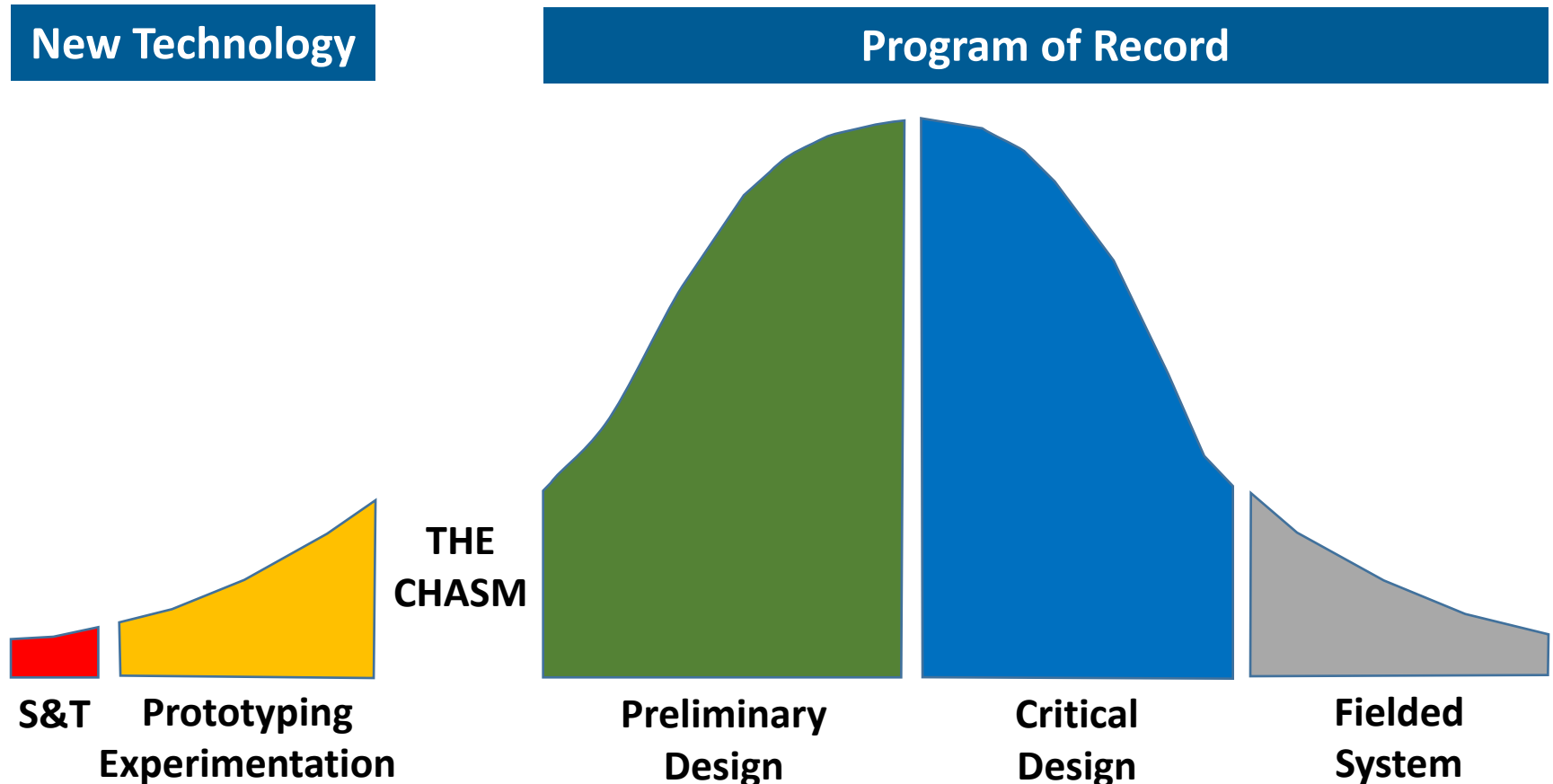
# Crossing the Chasm

Geoffrey A. Moore



**Technology Marketing – Bringing Products to the Mainstream**

# DoD's Technology Adoption Chasm



**Very Difficult for DoD Acquisitions to Leverage New Technologies**

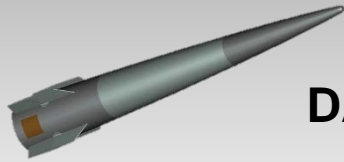


# How DoD Can Cross the Chasm



# Rapid Acquisition Organizations

## OSD



**Strategic Capabilities Office**  
**Defense Innovation Advisory Board**  
**DASD/EC&P Rapid Reaction Technology Office**  
**Digital Defense Office**



## Air Force

**Rapid  
Capabilities  
Office**



**Big Safari**

## Navy

**CNO Rapid  
Innovation Cell**

**Maritime  
Accelerated  
Capabilities  
Office**

## Army

**Rapid  
Equipping  
Force**

**Network  
Integration  
Evaluations**

## Agencies

**USSOCOM  
SOFTWERX**

**DARPA**

**JIDA**

**JICSpOC**

**Rapidly Acquire Priority, Game-Changing Capabilities**

# Leadership and Culture

## Leadership



- Bold vision, concrete goals
- Incentivize speed
- Flat structure, ↓ decisions
- Professionals who partner
- Right leaders for the phase

## Culture



- Small, empowered teams
- Competition & collaboration
- Shared norms for success
- Invest in people
- Radically simple processes

**Replicate elements of high-performing organizations**

# Program Structure

## Portfolio

- Budget
- Requirements
- Contracts
- Program Docs

## Minimum Viable Product (MVP)

- Deliver capability to users **QUICKLY**
- Accelerate learning
- Iterate based on user feedback

## Own The Tech Baseline

- Enable Open Sys Architecture
- Understand tradespace, risks
- Drive competition, innovation

## Agile

- Small, frequent releases
- Review working software
- Responsive to changes
- Active user involvement

**Build Platforms, Not Programs**

# Partnership with Industry

## Shape Personnel Reforms



## Defense Innovation Advisory Board



## Communicate with Startups



## Understand Tech Landscape



**Identify State-of-the-Art Commercial Technologies**  
**Incentivize Technology Innovators To Tackle DOD Challenges**

# Delivery Focus

***“I created the SCO for rapidity of fielding, not 10- and 15-year programs. Getting stuff in the field quickly”***  
***-Secretary Carter***



- Acquisition Executives should publish list of IOC dates for all major systems
- PMOs should post IOC date prominently around office as constant reminder
- Bring Warfighters into PMO to establish personal connections to drive purpose

**Incentivize Delivery Schedule Comparable To Cost Control**



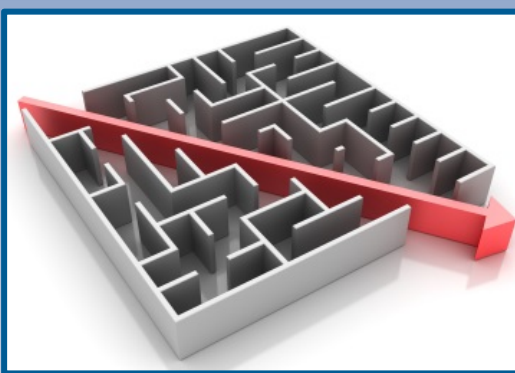
# Recommendations

## Innovation Ecosystem



- Assemble leading technologists, acquirers, users
- Provide them an environment to model, demo, test

## Bust Bureaucracy



- ID clear goals
- Empower staff to explore, take risks
- Teams to ID and destroy barriers

## Structure for Speed



- Portfolios address schedule drivers
- MVP + incremental, Agile development
- Own Tech Baseline

**Build on Initiatives to Enable a Rapid, Innovative Enterprise**