Speed and Agility

Pete Modigliani
pmodigliani@mitre.org
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Purpose / Outline

How Defense Acquisition Can Enable Innovation and Rapid Technology Insertion

- Strategic Imperative
- Challenges
- Five Enablers
# DoD Challenges and Vision

<table>
<thead>
<tr>
<th>Current State</th>
<th>Desired State</th>
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</thead>
<tbody>
<tr>
<td><img src="image1" alt="Bureaucracy" /></td>
<td><img src="image2" alt="Agile" /></td>
</tr>
<tr>
<td>Bureaucracy</td>
<td>Agile</td>
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<tr>
<td>Heavily Regulated</td>
<td>Innovative</td>
</tr>
<tr>
<td>Slow</td>
<td>Rapid</td>
</tr>
<tr>
<td>Technology Parity?</td>
<td>Technology Superiority</td>
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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

Defense vs Non-Defense R&D

Industry Drives R&D

Defense R&D Declining
Technology Insertion Window

10-15 Years

MDD

A

Material Solution Analysis

Technology Maturation and Risk Reduction

CDD Validation

Development

RFP Release Decision

B

Engineering and Manufacturing Development

C

Production and Deployment

Full Rate Production Decision Review

IOC

FOC

12-18 Months

Tech Insertion Window

MDD

PDR

Tech 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

New Technology

Program of Record

S&T  Prototyping  Experimentation

THE CHASM

Preliminary Design  Critical Design  Fielded System

Very Difficult for DoD Acquisitions to Leverage New Technologies
How DoD Can Cross the Chasm

| Rapid Acq Orgs | Leadership & Culture | Program Structure | Partnership w/Industry | Delivery Focus |

New Technology

Program of Record
### Rapid Acquisition Organizations

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

<table>
<thead>
<tr>
<th>Air Force</th>
<th>Navy</th>
<th>Army</th>
<th>Agencies</th>
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<tbody>
<tr>
<td>Rapid Capabilities Office</td>
<td>CNO Rapid Innovation Cell</td>
<td>Rapid Equipping Force</td>
<td>USSOCOM SOFTWERX</td>
</tr>
<tr>
<td>Big Safari</td>
<td>Maritime Accelerated Capabilities Office</td>
<td>Network Integration Evaluations</td>
<td>DARPA</td>
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<td>JIDA</td>
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<td>JICSpOC</td>
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Rapidly Acquire Priority, Game-Changing Capabilities
<table>
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<tr>
<th>Leadership</th>
<th>Culture</th>
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<tbody>
<tr>
<td><strong>Bold vision, concrete goals</strong></td>
<td><strong>Small, empowered teams</strong></td>
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<tr>
<td><strong>Incentivize speed</strong></td>
<td><strong>Competition &amp; collaboration</strong></td>
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<tr>
<td><strong>Flat structure, ↓ decisions</strong></td>
<td><strong>Shared norms for success</strong></td>
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<td><strong>Professionals who partner</strong></td>
<td><strong>Invest in people</strong></td>
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<td><strong>Right leaders for the phase</strong></td>
<td><strong>Radically simple processes</strong></td>
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Replicate elements of high-performing organizations
Program Structure

Minimum Viable Product (MVP)
- Deliver capability to users \textit{QUICKLY}
- Accelerate learning
- Iterate based on user feedback

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

Portfolio
- Budget
- Requirements
- Contracts
- Program Docs

Own The Tech Baseline
- Enable Open Sys Architecture
- Understand tradespace, risks
- Drive competition, innovation

Build Platforms, Not Programs
Partnership with Industry

Shape Personnel Reforms

Communicate with Startups

Understand Tech Landscape

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

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