

# DHS SCIENCE AND TECHNOLOGY

## Test and Evaluation

The Key to Successful Acquisition Outcomes



**Homeland  
Security**

Science and Technology


**20 April 2017**

**Steve Hutchison**

Director

Office of Test and Evaluation

# Agile in Government - a brief look back



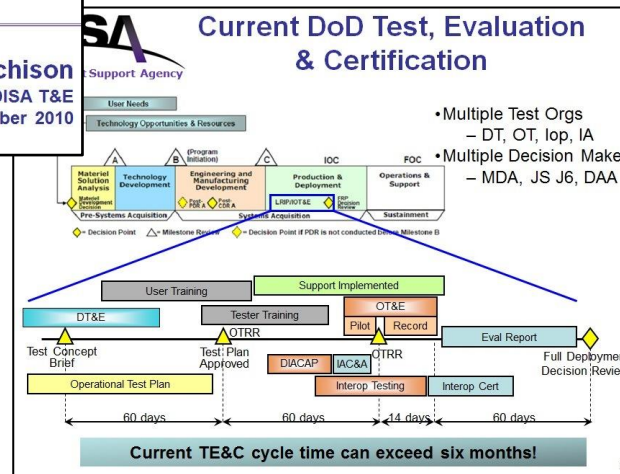

Defense Information Systems Agency  
Department of Defense

Test and Evaluation  
for Agile Information Technologies

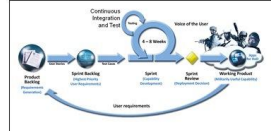
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Steve Hutchison  
DISA T&E  
14 December 2010

## First AFEI Agile Conference DoD Agile Development December 14 2010

### Challenges



Agile Development

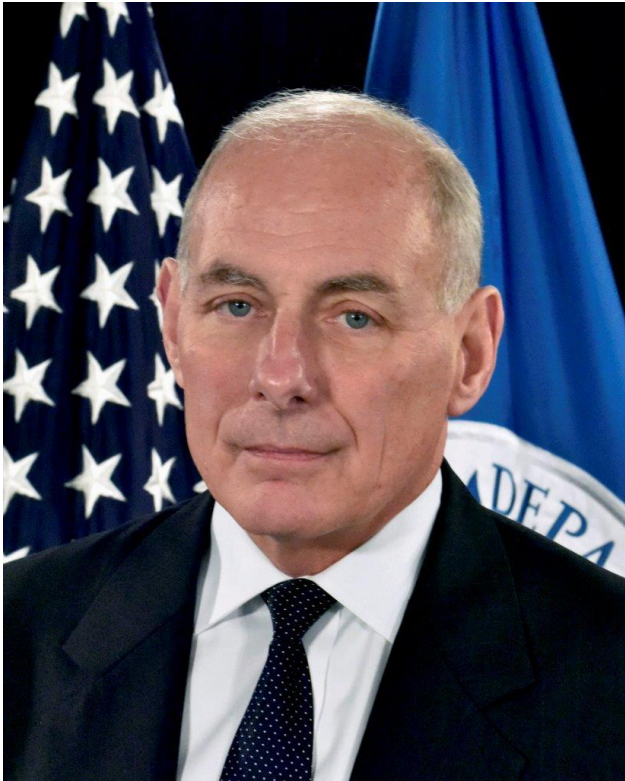
Test as a Service

- On demand
- Persistent environment
  - Find it, connect it, collect it, release it
- Education and training
  - PMs and Testers
- Agile DIACAP, Interoperability, oversight
- Community of Interest User base

Set the conditions for successful agile development and test

“The March 2009 DSB Task Force report and the 2010 NDAA Section 804 both recognized that information technology can and must be acquired in a different manner than we currently use.”

# Department of Homeland Security



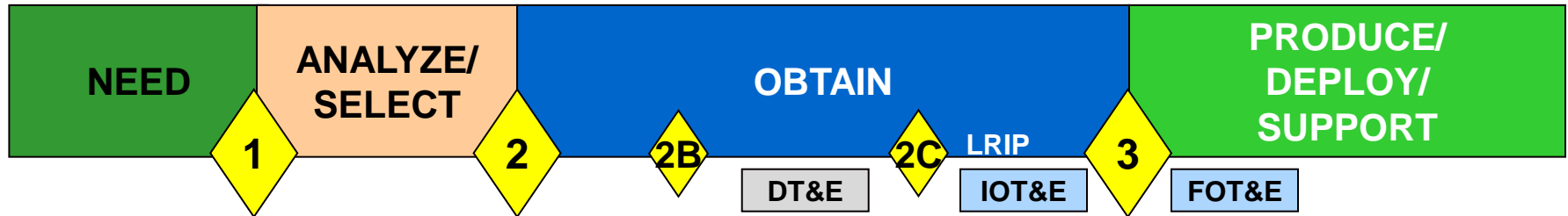
John F. Kelly  
Secretary of Homeland Security

***With honor and integrity, we will safeguard the American people, our homeland, and our values.***

- Prevent Terrorism and Enhance Security
- Secure and Manage Our Borders
- Enforce and Administer Our Immigration Laws
- Safeguard and Secure Cyberspace
- Strengthen National Preparedness and Resilience

# DHS Acquisition

## DHS Acquisition Lifecycle Framework (DHSD 102-01)

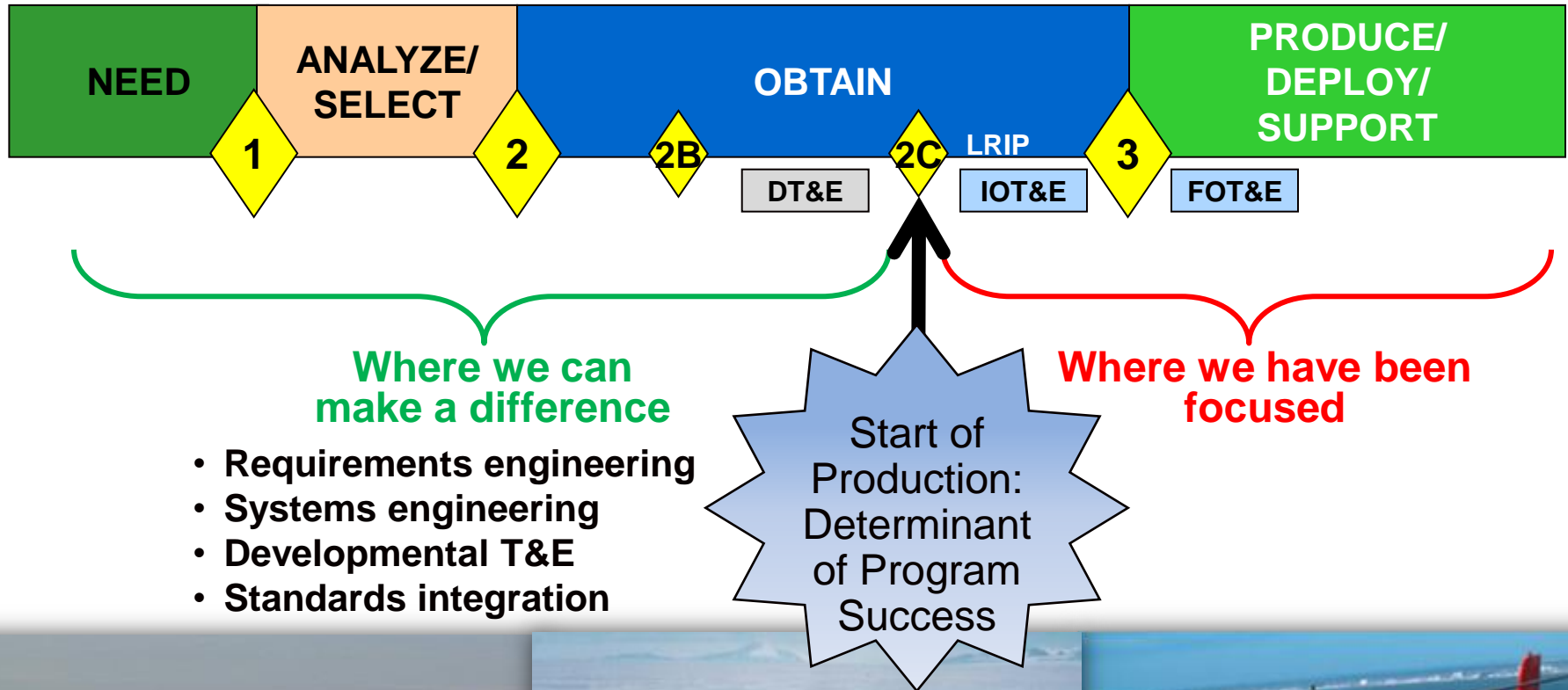


- 4 Phase; 3 Acquisition Decision Events (ADEs)
- 3 Program Levels
  - Level 1: > \$1B
  - Level 2: \$300M - \$1B
  - Level 3: <\$300M
- Master Acquisition Oversight List
  - > 100 programs
  - Approximately 2/3 Information Technology



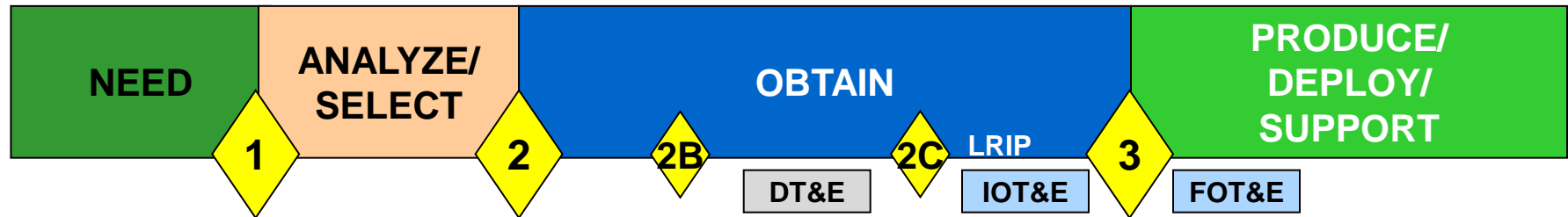
# Shift Left!

## DHS Acquisition Lifecycle Framework (DHS Directive 102-01)



# Cybersecurity Test and Evaluation

## DHS Acquisition Lifecycle Framework (DHS Directive 102-01)



- ORD, MNS, etc
- System Characterization
- Threat

- Local
- Adjacent
- Network

- Deny
- Disrupt
- Modification
- Exfiltration

- Red Team



# Policy Change

- DHS Delegation 10003, Rev 01, Delegation to the Director of Test and Evaluation, June 17, 2016
- Highlighted changes:
  - Title Change to Director, Test and Evaluation
  - Authority **extends to developmental testing and evaluation to appropriately inform ADE 2C/3** as negotiated and documented during development of the TEMP
  - Does not extend to contractor test and evaluation activities

Department of Homeland Security  
DHS Delegation Number: 10003  
Revision Number: 01  
Issue Date: 6/17/2016

**DELEGATION TO THE  
DIRECTOR OF TEST AND  
EVALUATION**

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**I. Purpose**

This Delegation vests the authorities outlined herein to the Department of Homeland Security Director of Test and Evaluation, except for those authorities delegated to the Director of the Domestic Nuclear Detection Office.

**II. Delegation**

A. Subject to my oversight, direction, and guidance, and subject to the oversight, direction and guidance of the Under Secretary for Science and Technology, I hereby delegate to the Director of Test and Evaluation the authority to:

1. Prescribe policies and procedures for conducting, monitoring, and reviewing the operational test and evaluation activities of the Department's major acquisition programs, including reviewing and commenting upon operational requirements documents, except where such duties are otherwise assigned by statute or by another Secretarial delegation.
2. Access any records or data related to acquisition programs within the Department of Homeland Security that the Director considers necessary to review in order to carry out his or her duties.
3. Act as the principal adviser on test and evaluation to the Office of the Secretary and the Component heads. The Director of Test and Evaluation is the primary liaison with outside parties (other Federal agencies, foreign, tribal, state and local governments, the private sector, and individuals, with regard to test and evaluation matters.

B. The Director of Test and Evaluation serves as a member of the Department's Acquisition Review Board.

1  
Delegation # 10003  
Revision # 01

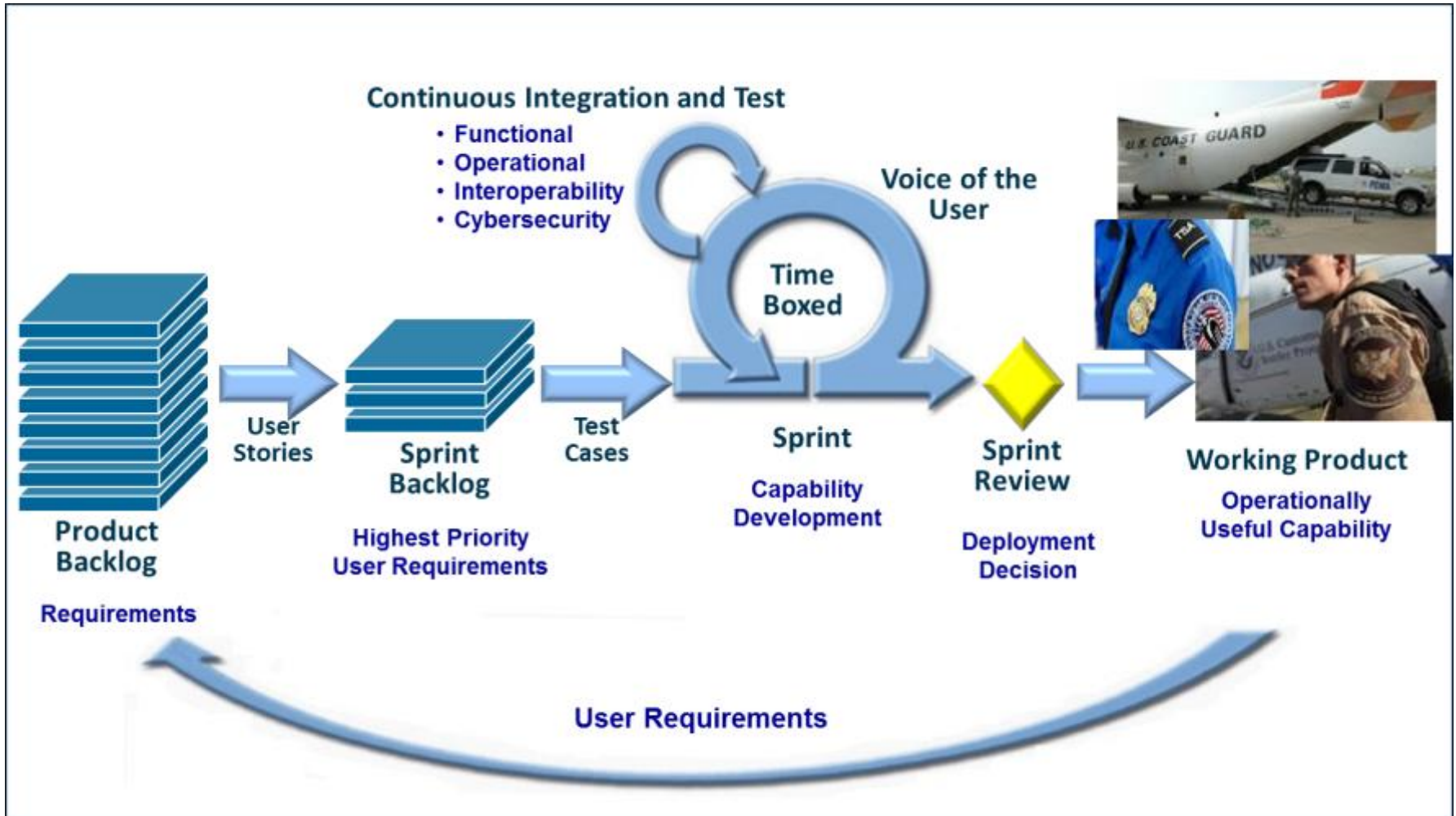
# Agile in DHS

## The Agile Pilot Programs

- Designated by Acquisition Decision Memorandum Feb 2016
  - ICE Student and Exchange Visitor Information System (SEVIS)
  - FEMA Grants Management Modernization (GMM)
  - FEMA National Flood Insurance Program (NFIP)
  - TSA Technology Infrastructure Modernization (TIM)
  - USCIS Verification Modernization (VER Mod)
- Agile program IPT established
- Agile T&E IPT to support
- DOT&E Requirement: Operational Test Agent must be trained in Agile development prior to commencing the independent test activities described in the program's TEMP.

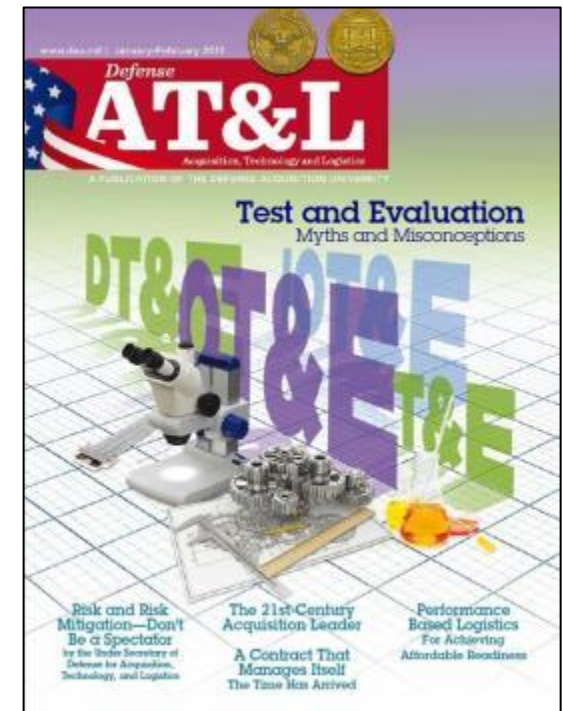


# T&E for Agile IT



# T&E Role in Improving Acquisition Outcomes

- Our job as testers is to *help programs succeed*.
- *Independent* T&E must be a *lifecycle* activity.
  - Initial production decision should not be made based solely on vendor data.
- Challenge the *status quo*; don't bring “old-T&E” to a new program.
  - Myth: Only OT&E matters
    - DT&E is “technical testing”
    - Users aren't involved in DT&E
  - Myth: OTAs can't do DT&E
  - Myth: The purpose of DT&E is “to determine readiness for OT&E”
  - Myth: Cybersecurity is some other tester's responsibility
  - Myth: Effectiveness and Suitability adequately evaluate today's systems
- Fix this in the schoolhouse; practice it in program engagement.



AT&L Magazine  
Jan-Feb 2015

# Summary

**If you want to know your system works, *you have to test it.*  
If you want to know *with confidence*, you have to plan,  
resource, and conduct T&E accordingly.**

**Homeland Security Operators  
are counting on us to get it right.**

