

Joint Federated Assurance Center Overview

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Office of the Under Secretary of Defense for Research and Engineering
National Defense Industrial Association Systems and Mission Engineering Conference
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Joint Federated Assurance Center

Director: Mr. Brian Nowotny

Mission: The Joint Federated Assurance Center (JFAC) provides a federation of software and hardware assurance capabilities across the Department of Defense (DoD).

Vision: Building Trust through Holistic Assurance

Origin: Fiscal Year (FY) 2013 National Defense Authorization Act (NDAA) Section 933 (Software Assurance), FY 2014 NDAA Section 937 (JFAC), 2015 Deputy Secretary of Defense JFAC Policy Memo

System Application: DoD weapon systems, DoD information systems, and national security systems

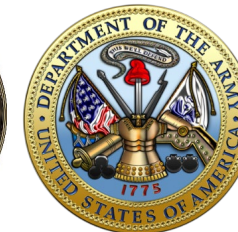
JFAC Strategic Goals

- Stay ahead of the threat landscape
- Migrate towards holistic assurance across the lifecycle
- Maximize discovery and utilization of federated assurance resources
- Mature assurance technologies and deliver capabilities at the speed of mission
- Provide affordable and scalable assurance solutions

Joint



Air Force



Army



Navy



OSD

Federated



People / Organizations



Digital Infrastructure




JFAC Strategic Goal 1: Stay Ahead of the Threat Landscape

Hardware Supply Chain

Security Clearance News & Career Advice

Chinese Magnets in F-35s Make Pentagon Hit Pause

At issue is material in the aircraft's engine that was made with ... Force was forced to temporarily ground their F-35 fleets after an issue...




Software Supply Chain

Security Intelligence

How Log4j Vulnerability Could Impact You

If you hadn't heard of Apache Log4j, chances are it's on your radar now. In fact, you may have been using it for years. Log4j is a logging...



Pirated Software

Department of Justice

CEO of Dozens of Companies and Entities Charged in ...


As alleged, the Chinese counterfeiters often added pirated Cisco software and unauthorized, low-quality, or unreliable components – including...

Counterfeit Parts

Yahoo

An F-16 pilot died when his ejection seat failed. Was it counterfeit?

While the Air Force suspected parts of the seat were counterfeit, it buried the information in a nonpublic section of its accident...




Foreign Investments

Reuters

Biden tells foreign investment panel to screen deals for data, cyber risks

U.S. President Joe Biden on Thursday directed the committee that reviews foreign investment for national security risks to sharpen its focus...




Trade Secret Theft

Bloomberg.com

Ex-Apple Engineer Pleads Guilty in Trade Secrets Theft Case

"Xpeng strictly abides by the related laws and highly values the protection of intellectual property." In January 2019, federal prosecutors...




Nation-State Actors

Washington Times

China and the theft, weaponization of intellectual property

China and the theft, weaponization of intellectual property ... Pilot National Laboratory for Marine Science and Technology in China.



Individual Threats

PC Gamer

Uber's been hacked by an 18 year old, go figure

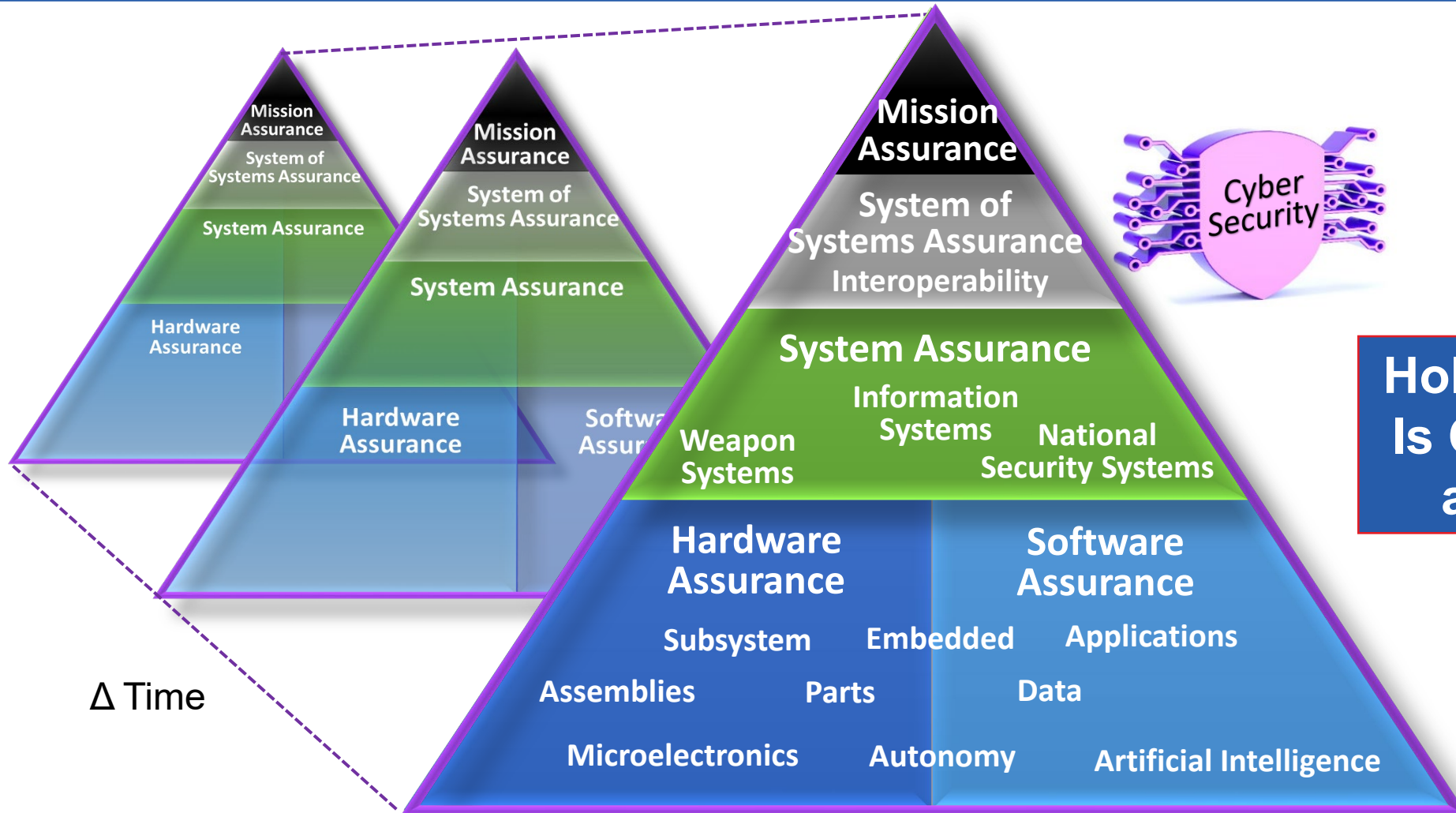
It appears Uber has been hacked by an 18-year-old. ... having spoken to the apparent hacker, who claims to be just 18 years old.



Threat landscape is complex and risks are significant



JFAC Strategic Goal 2: Holistic Assurance Across the Lifecycle



**Holistic Assurance
Is Comprehensive
and Traceable**

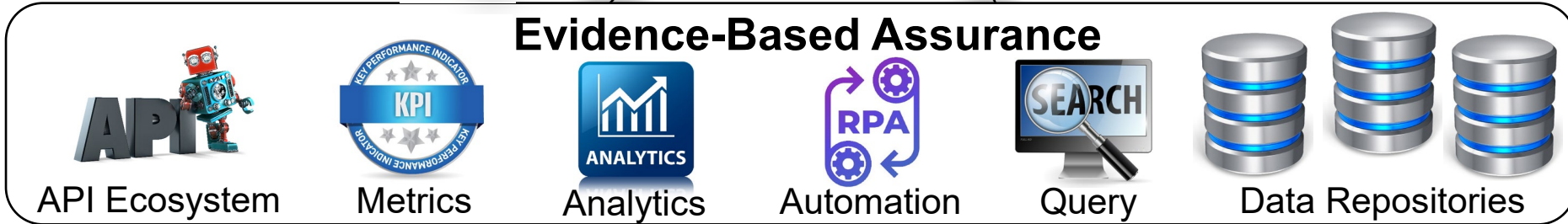


JFAC Strategic Goal 3: Maximum Discovery and Utilization of Federated Assurance Resources

Assurance Knowledge Management

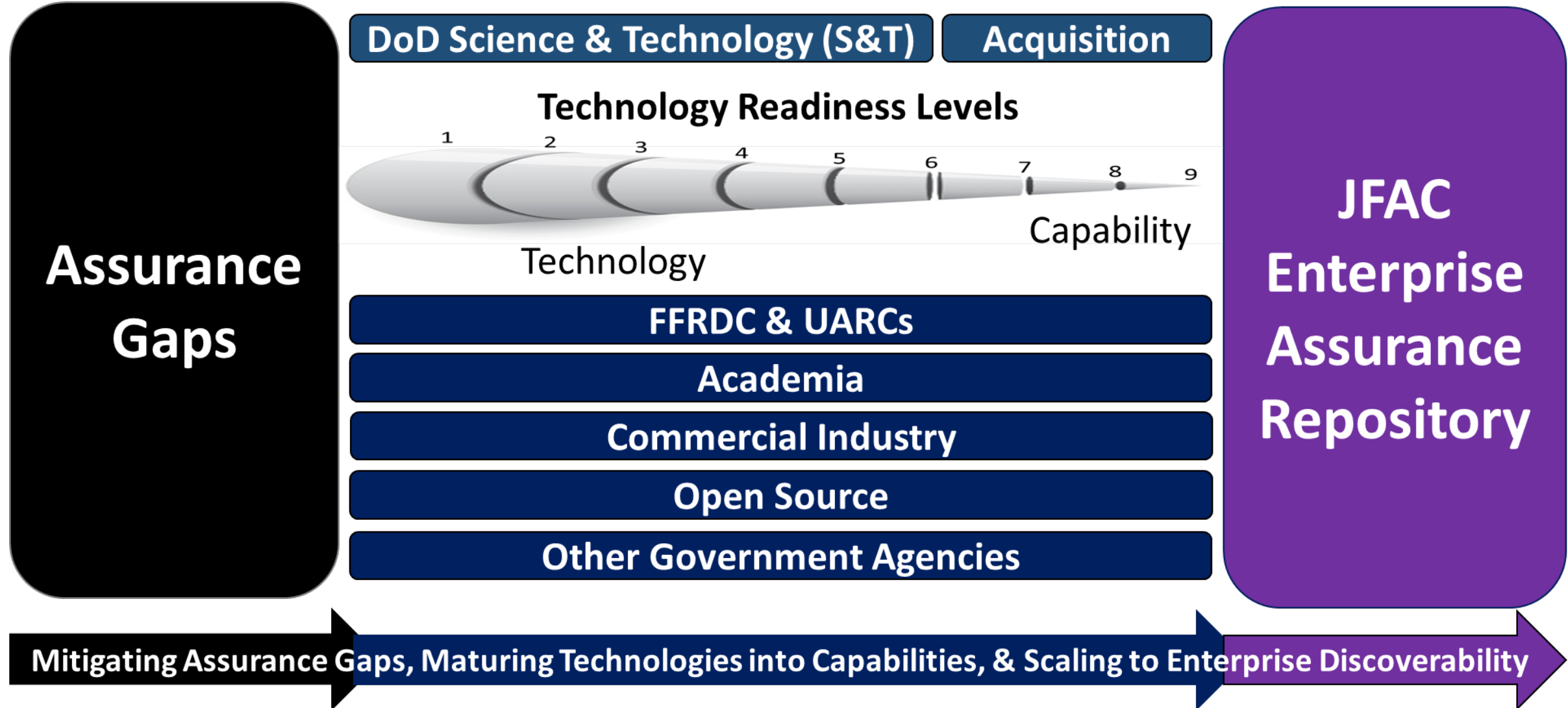


Evidence-Based Assurance





JFAC Strategic Goal 4: Mature Assurance Technologies and Deliver Capabilities at the Speed of Mission



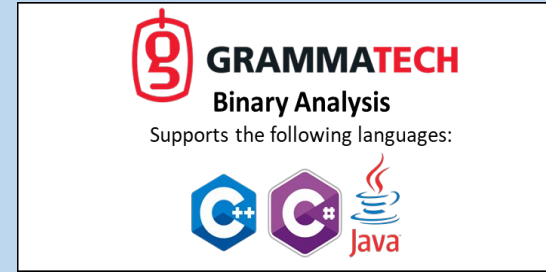
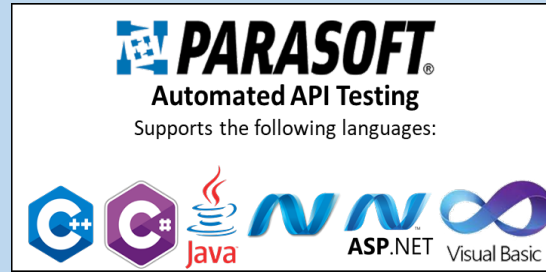
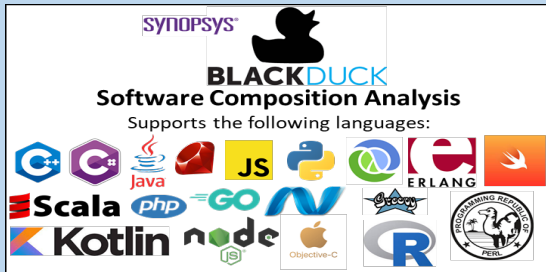


JFAC Strategic Goal 5: Providing Affordable and Scalable Assurance Solutions

Affordable Assurance Solutions

1) Leverage open-source assurance tools*

2) Develop government assurance tools



3) Sponsor commercial licenses for joint enterprise

Scalable Assurance Solutions

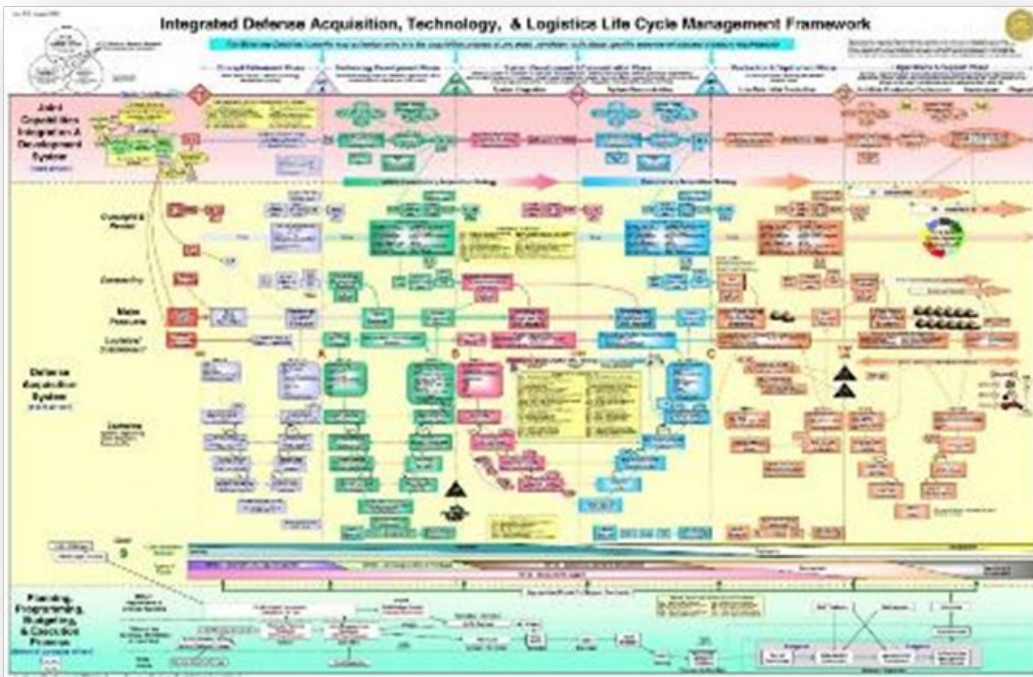
- Establish joint federated assurance marketplace
- Assurance technology development repository
- Federated enterprise assurance data discovery and exchange
- Deployment of assurance capabilities at the edge

*Restrictions based upon open-source license terms and conditions



Competition-Driven Transformation

Acquisition Approach



Series, Discrete, Document, and Segmented
Competition Drives Need to Reduce Concept to Fielding Time

Visionary Approach



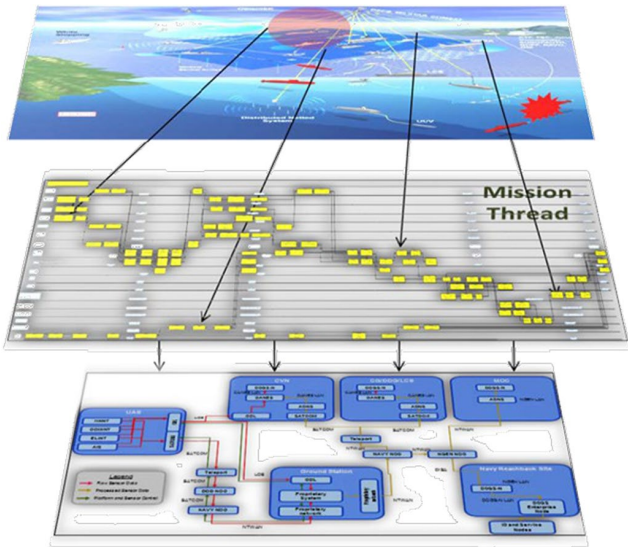
Parallel, Continuous, Digital, and Interconnected
Prioritize Speed, Agility, and Resilience



Mission and Systems Engineering

Current Digital Engineering Constructs

Mission Engineering (ME) Environment

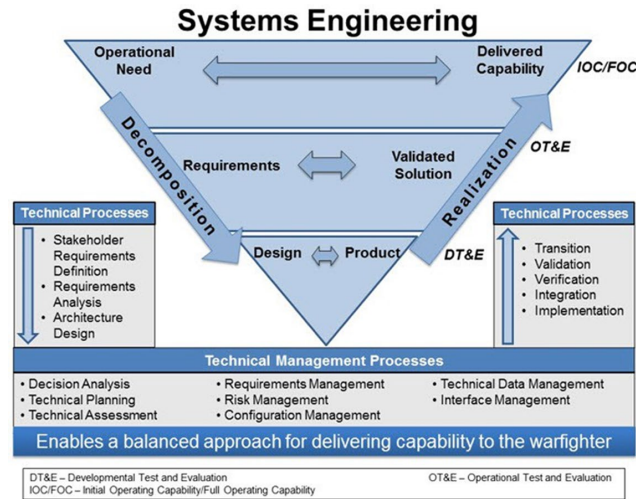


ME Workflow

ME Tools

ME Data

Systems Engineering (SE) Environment

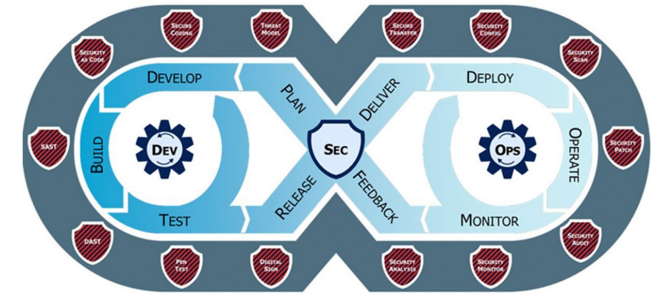


SE Workflow

SE Tools

SE Data

Software Development, Security, and Operations (DevSecOps) Environment



DevSecOps Workflow

DSO Tools

DSO Data

Segregated Digital Infrastructures



Mission and Systems Engineering

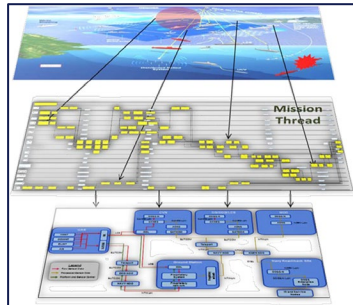
Visionary End-to-End Digital Engineering Construct

End-to-End Digital Engineering Environment (SAP/SAR)

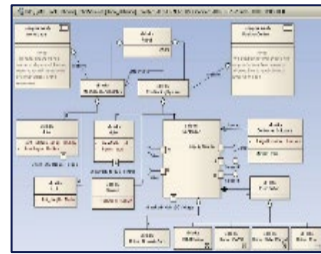
End-to-End Digital Engineering Environment (IL 7 / Top Secret / JWICS)

End-to-End Digital Engineering Environment (IL 6 / Secret / SIPR)

End-to-End Digital Engineering Environment (IL 5 / CUI / NIPR)



Mission Engineering



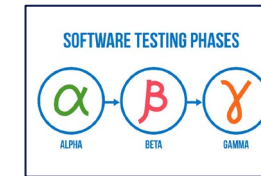
Systems Engineering



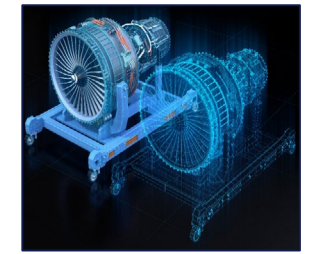
Development



Security

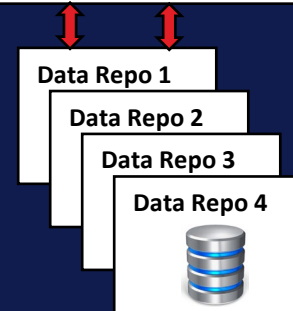
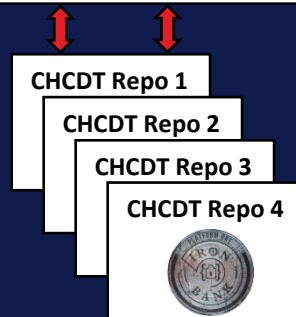


Testing



Simulation

Cyber-Hardened
Containerized Digital Tools
(CHCDT)



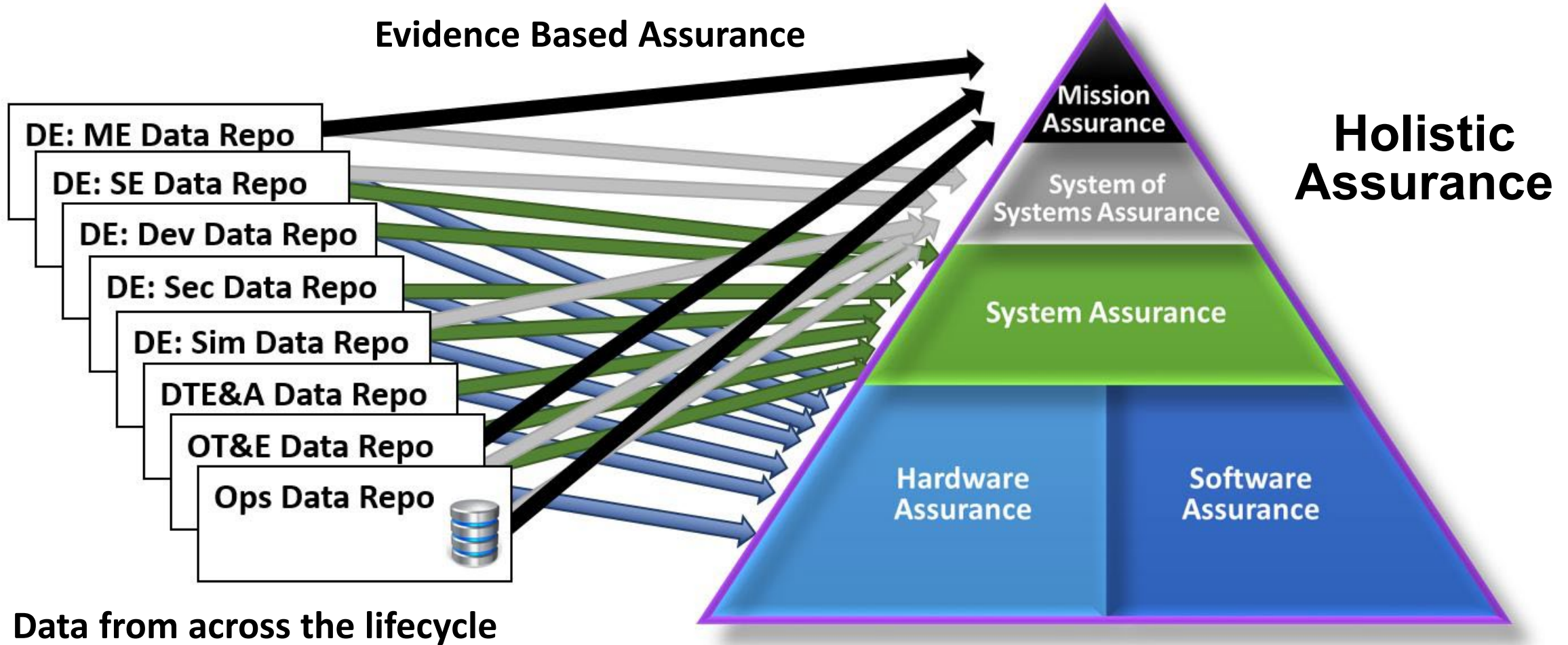
Federated Data
Repositories

Accredited Infrastructures, Federated Digital Tools and Data, Streamlined Workflows



Mission and Systems Engineering

Federated Data Enabling Holistic Assurance





Current JFAC Assurance Federation



Research and Engineering

Joint Federated Assurance Center, Microelectronics, Integrated Sensing and Cyber, Development Test and Evaluation, Defense Advanced Research Project Agency (DARPA), Missile Defense Agency (MDA)



Acquisition and Sustainment

Defense Logistics Agency, Defense Microelectronics Activity (DMEA)



Chief Information Officer

Cyber Security, Information Enterprise, Defense Information Systems Agency



Chief Digital and Artificial Intelligence Office



National Reconnaissance Office



Department of the Air Force



Department of the Army



Department of the Navy



Director of National Intelligence Intelligence Advanced Research Projects Agency (IARPA)



National Security Agency



Industry Engagement Opportunities

- **Respond to the JFAC request for information to support building a JFAC digital assurance tool catalog**
 - <https://www.tradewindai.com/post/jfac-digital-assurance-catalog-cots-products>
- **Future FY23 announcements expected via CDAO's Tradewind**
 - <https://www.tradewindai.com/opportunities>

A screenshot of the Tradewind website. The top navigation bar includes "TRADEWIND", "Home", "Opportunities", "Events", "Resources", and "About". Below the navigation bar, there are tabs for "All Posts", "Opportunities", "Blog", and "Other Opportunities". The main content area displays a post by Jerry McQuoid, dated 4 days ago, with a 1-minute read time. The post title is "JFAC Digital Assurance Catalog – COTS Products". The text of the post discusses the JFAC's recognition of the need for an assurance tool catalog and the establishment of a marketplace to identify and manage various assurance tools across different enterprise repositories and catalogs. At the bottom of the post, there is a link for more information: <https://go.ratio.exchange/opps/challenge.cfm?i=FA4884AE-8BF4-4F74-B210-E9484D23FFA9>. Social media sharing icons for Facebook, Twitter, LinkedIn, and Email are visible at the bottom left, and the word "Opportunities" is at the bottom right.



Q&A

Questions