



CDAO

Chief Digital & Artificial
Intelligence Office

AI, Innovation, and Acquisition: Emerging Trends and How to Work with DoD

January 2025



Introductions



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Chief Digital and AI Office

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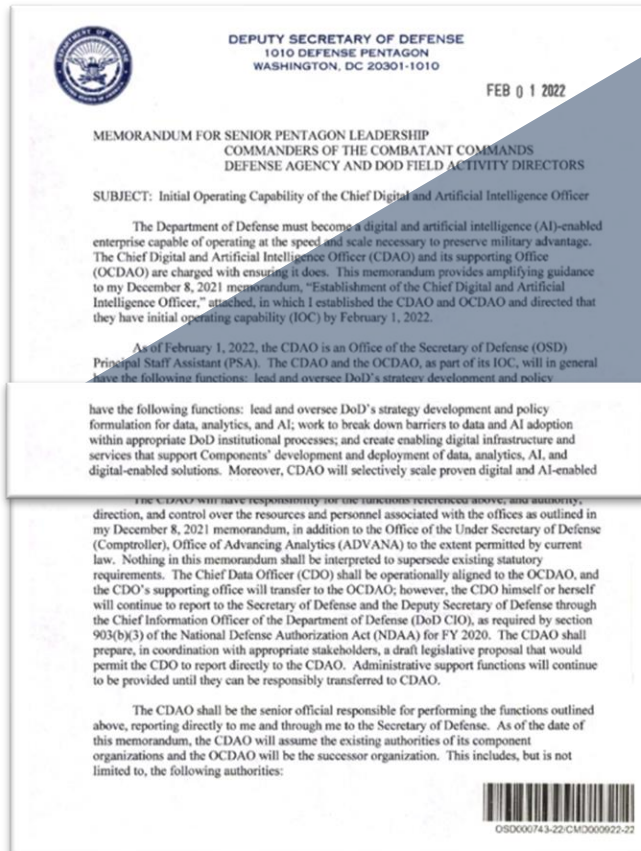
Ryan Connell

Chief Digital and AI Office

Chief of Acquisition Experiments



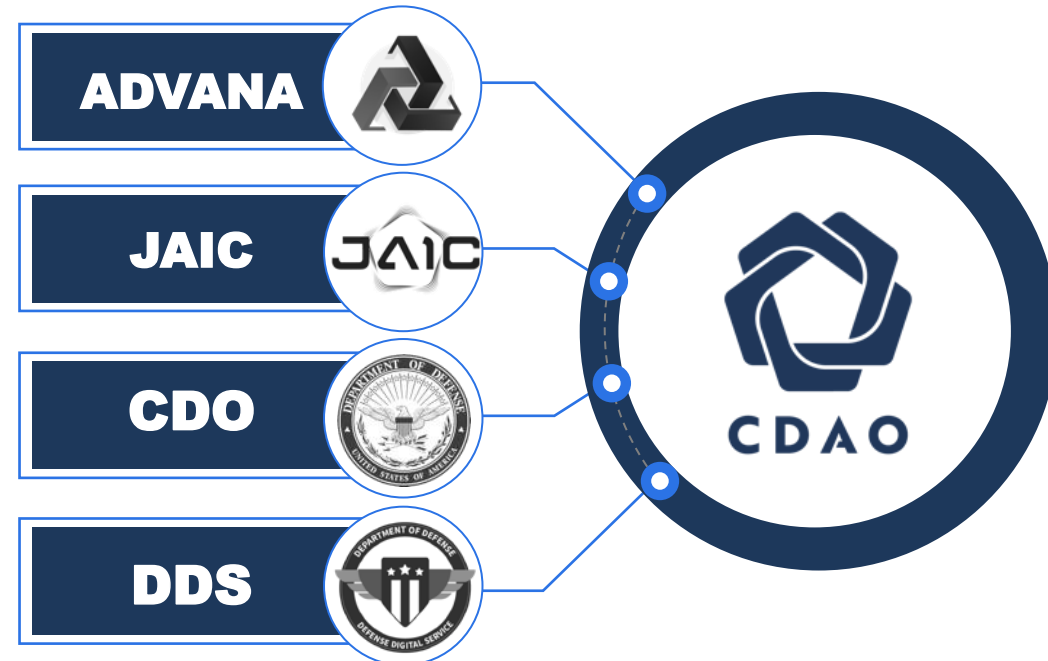
The CDAO: Origins



Initial Operating Capability of the Chief Digital and Artificial Intelligence Officer

"The CDAO... will lead and oversee DoD's strategy development and policy formulation for data, analytics, and AI; work to break down barriers to data and AI adoption within appropriate DoD institutional processes; and create enabling digital infrastructure and services that support Components' development and deployment of data, analytics, AI, and digitally-enabled solutions."

- Deputy Secretary of Defense Kathleen Hicks, 1 Feb 2022





CDAO – a PSA that Executes

Speed & Scale for CDAO Marquee Customers

SUPPORTS PSAs & Combatant Commands (CCMDs)

End User, End
Facing Capability



*CJADC2 Data Integration, Data Mesh,
Analytics Capabilities*

AT
SPEED

EMPOWERS RAPID LEARNING

Drives Change



*At enterprise foundation in areas of
strategy, assurance, governance,
acquisition, & talent – allowing for
decentralized execution by
foundational enablers
(people/process/technology)*

AT
SCALE

ENABLES DIGITAL INFRASTRUCTURE

Allows people to work
within the system

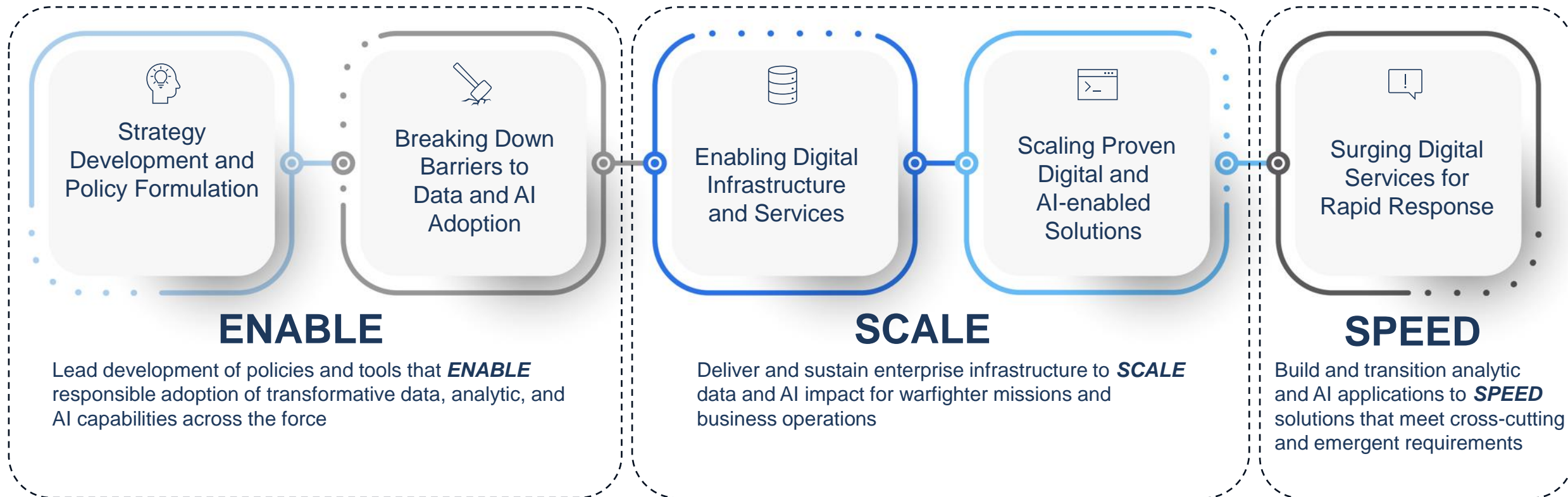


*For digital, AI,
and analytics solutions*



CDAO Mission

Accelerate DoD adoption of data, analytics, and AI to generate decision advantage from the boardroom to the battlefield





Advana

What

Advana – a mash-up of the words “Advancing Analytics” – is a technology platform, which, in addition to housing a collection of enterprise data, is pushing beyond simply being a data warehouse; arming military and business decision makers across the Department with decision support analytics, data management and data science tools, and associated support service

Vision

Change decision-making behavior across the DoD enterprise using data, analytics, and artificial intelligence (AI).

Mission

Make data widely accessible, understandable, and actionable across the DoD enterprise by translating common enterprise data into profound yet actionable insights, decisions, and outcomes.





Advana provides real business value to the Department of Defense



Customer-centric Design

Product design is driven by customer business and mission needs, based on customer input feedback at all organizational levels



Open Architecture with No Vendor Lock-in

Best of breed open source and COTS tools are built on an open architecture, hosted on AWS cloud, with the ability to pull government, public, and commercial data feeds



Government Owned and Secured

DoD accredited system which can serve as a long-term steward of business, mission, and crisis related analytics on NIPR, SIPR, and JWICS



Something for Everyone

Range of ready-built visualizations and self-service options makes Advana relevant and impactful for ALL DoD users – from senior and mid-level decision-makers to analysts, developers, and data scientists



Scaled Agile Flexibility

Program resources leverage Scaled Agile (SAFe) methodology for planning and delivery, which allows for collaboration across our team and our customers as we iterate on solutions together



Single Source of Truth

Thousands of users have access to over 500+ DoD data sources across business domains (e.g., Personnel, Finance, Supply Chain)

Foundation Built Upon Audit

Improved Data Quality for Trusted Insights

The platform began as the Universe of Transactions for purposes of financial statement audit and grew from there. The same audit principles that instill trust in the data for purposes of better decision making are applied to everything as a platform. This foundation leads to better business and mission decisions and outcomes via the ability to improve data quality, ask better questions of our data, and in turn, support decision making that creates value for the warfighter



Advana by the Numbers



Number of Account Holders:
101,000+



Number of DoD Organizations:
55+¹



Number of Applications in Production:
500+



Number of Accredited Networks:
3 (NIPRNet, SIPRNet, JWICS)



Number of Data Sources:
500+ (daily, weekly, monthly feeds)

1.) Consists of all Military Departments and Fourth Estate organizations to include OSD Components, DAFAs, and Combatant Commands.



Open DAGIR Ecosystem

- Scales success to an ecosystem that enables DoD to trust platforms being offered for data stack access for greater competition and innovation
 - Promotes development of safe, secure platforms where DoD can integrate and access data to scale the interoperability required to advance CJADC2 concept
 - Increases data interoperability and access to data and systems while maintaining appropriate access and security protocols
 - Ensures a balance between proprietary application work and Government ownership of data and infrastructure
 - CDAO authorities protect vendor intellectual property
 - Government maintains data rights



Open DAGIR = Open Data and Applications Government-owned Interoperable Repositories



What is Open DAGIR Solving?

Problem Statement: Delivering digital capabilities across defense warfighting and business functions at scale is too slow, hampering our ability to provide cutting edge technology from the boardroom to the battlefield.

KEY CHALLENGES

OPEN DAGIR PRINCIPLE



Cutting edge technology companies **do not have clear acquisition pathways** to go from a one-off pilot to a scaled enterprise capability



Clear and accessible **acquisition pathways** to allow both existing and new vendors to **build prototypes and deliver services** with pathways to production and scale



Lack of **common development environment** to build capabilities; government data is 'locked' in **proprietary** formats or behind **arduous government access processes** that impede further use by vendors; vendor **IP risks** not protected



Government-owned technology infrastructure and services that are interoperable across platforms with clear mechanisms to define, protect and compensate use of commercially available vendor IP



Current ATO policies and security requirements **prioritize compliance over innovation** and speed, causing significant delays in rapid capability delivery requirements



Clear **ATO requirements, policies, and processes** that balance DoD security needs with the need to develop and deploy prototypes



Lack of competitive marketplace to **leverage best solutions** causes the government to buy the same capability multiple times or start similar pilot efforts



Rules and tools to promote a **standardized** data, analytics, and AI **marketplace environment**



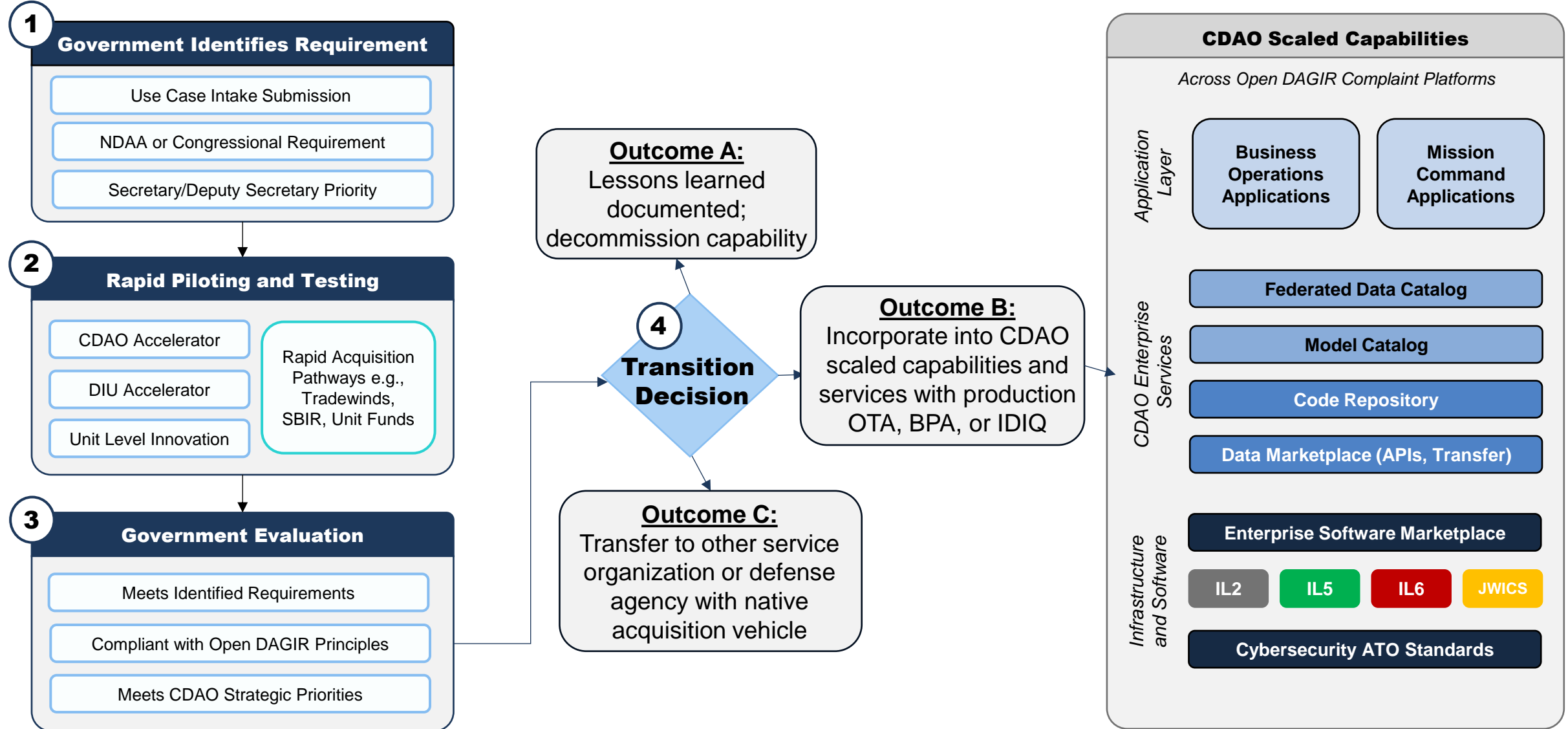
Both vendors and government users **do not know how to effectively work with CDAO teams**; lack of common onboarding, costs, and delivery expectations across platforms and services



A **transparent operating model** that links all principles with CDAO government leads or programs and has a process for vendors and government users to navigate application and service options

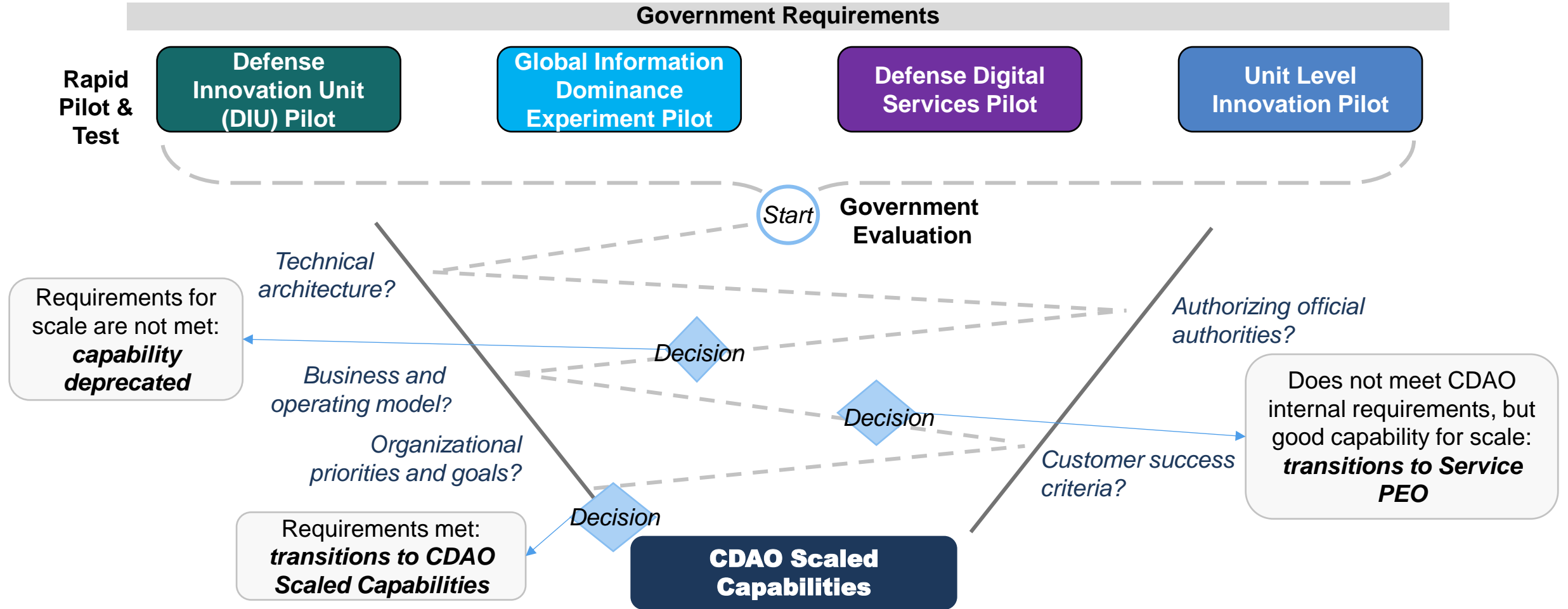


Speed-to-Scale Transition Approach





Speed-to-Scale: Innovation Pipeline



For CDAO to successfully deliver its mission to accelerate adoption of data, analytics and AI, the organization must **rapidly identify new digital capabilities and transition them to widely available enterprise solutions**



Implementing Scaled Capabilities

The Speed-to-Scale transition approach, in alignment with Open DAGIR principles, should drastically expedite our ability to deliver modern software **AT SCALE** from the boardroom to the battlefield.

Established Business Processes

Whether serving as a capability provider to full-service support team, CDAO can meet DoD users where they are in their digital journeys.

Single front-door to CDAO scaled capabilities and enterprise services

Embedded Government customer success managers across DoD

Requirements management and agile development tools and services

Transparent cost models, licensing structures, and consumption monitoring

Technology Architecture and Authorities

A technical ecosystem that sets how users can exchange information more securely, independently, and efficiently through Open DAGIR software stacks.

Federated applications and services, including assurance tools

Government-owned development, CI/CD, and production environments on multiple classification levels

Centralized data stack and DataOps tools, storage and governance services

Computational infrastructure and compute (CPU/GPU)

Scalable Acquisition and Budget Roadmap

Leveraging CDAO's acquisition authority to implement an agile and responsive approach to acquire while balancing responsibility to scope, cost, and validate requirements iteratively.

Tools and services for acquisition PMs, product owners, project managers.

Oversight of rapid acquisition pathways (e.g., Tradewinds, SBIRs)

Contracting capabilities for DoD users to utilize scaled capabilities

Long term budget planning through DoD PBR processes.

Speed-to-Scale Goals

1,000,000 users across entire CDAO Open DAGIR ecosystem by 2027

Large software catalog that **increases competition** and brings right software tools to the mission requirement

Time to add or upgrade software to the ecosystem is **reduced** by ~90%

All CDAO managed software capabilities have equal access to the Department's federated data catalog

CDAO Acquisition and Assurance (A&A)

FY25 Goals

- Execute Acquisition Authority
- Mature Acquisition Management
- Scale Tradewinds
- Small Business Innovation Research (SBIR)

Vendor Engagement

osd.pentagon.cdao.list.acquisitions-and-vendor-engagement@mail.mil



TRADEWINDS

DOD's Chief Digital and Artificial Intelligence's Acquisition Experimentation

Novel Contracting Pathways

- Tradewind Solution Marketplace
 - 1 Click "paperwork"
- Enterprise Wide BOAs/BPAs
- Purchase Card*
- Rapid Experimentation Prime*

AI Powered Acquisition Tools

- AcqBot
- Acquisition Playground

AI Acquisition Education

- Sponsored In-Person training
- Buy-AI, ASI
- Defense Mavericks Podcast
- Tradewind Champions
- Uncynic Society
- AI Literacy Newsletter



The Marketplace



A centralized, video repository:
5 minute pitch videos



An “on-ramp” for industry,
academic partners and new
entrants to the defense
marketplace



Solutions selected for the
Marketplace satisfy competition
requirements for:
FAR, DFARS, OTA

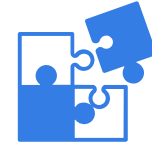
All videos accepted in the Marketplace are **readily-awardable** through
a variety of contracting vehicles & pathways.

The Tradewinds Difference



TRADITIONAL ACQUISITION

- Long procurement lead times
- High barriers to entry
- Burdensome submission requirements & process
- Lack of candid feedback throughout the process
- Antiquated medium & processes (paper-based system, extensive documentation)



TRADEWINDS ACQUISITION

- Increased speed-to-contract
- Very low barrier to entry
- Streamlined submission requirements & process
- Increased transparency & communication throughout the process
- Modern medium & processes (short video submissions, automated assessment workflows, digital platform)



In Numbers

1032

Solution Pitch Videos submitted

47

Awards Completed & In Progress

415

Videos **deemed Awardable** by SME Assessors and posted to the Tradewinds Solutions Marketplace

1349

Queries from vendors and **government** answered by the Tradewinds team

87.5%

Non Traditional awarded companies

\$207M

Dollar value of Awards

*As of October 2024



How does the Marketplace work?



If video is deemed Non-Awardable, **feedback is provided** and vendor can resubmit!



Constructive feedback sessions enable vendors to identify areas for improvement in their video submissions -- and resubmit their video for assessment.

Technology Focus Areas

	Improving situational awareness and decision-making		Assuring cybersecurity		Increasing autonomy and mobility of DoD systems
	Increasing safety of operating equipment		Developing a digital-age workforce		Augmenting Responsible AI Capabilities and Processes
	Implementing predictive maintenance and supply		Application of AI/ML Scaffolding and AI Assurance		Supporting Responsible AI Practices
	Streamlining business processes		Assuring Reliable Data Sources		Assessment and Compliance Solutions
	Research Solutions and Services		Biomedical and Human Performance Solutions		Discovering blue sky/other technology applications

Fast Facts!



Submissions are accepted on a rolling basis

- Videos may be submitted from the 1st to the last day of the month



Didn't get your video in by the last day of the month?

- That's OK! A new submission window opens the next day!



Once the submission window closes, assessments begin immediately



Please submit ONE video per solution

- Multiple solutions?? Submit multiple videos!



There is no limit on how many videos you can submit



NEW SBIR AISLE



CDAO



TRADEWINDS

DOD CDAO TRADEWINDS - VIDEO SUBMISSION OPPORTUNITIES

	TSM	The Aisle	Generative AI Open SBIR Topic
Opportunity Full Title	Tradewinds Solutions Marketplace (TSM)	Tradewinds Solutions Marketplace (TSM) Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Aisle	DOD Chief Digital and Artificial Intelligence Office (CDAO) Small Business Innovation Research (SBIR) Generative AI Open Topic - OSD254-P001
Description	Open Opportunity for Video Pitch Solutions within the DoD CDAO's Strategic Focus Areas	Open Opportunity for Marketing of existing SBIR/STTR Solutions within the DoD CDAO's Strategic Focus Areas via the Tradewinds Solutions Marketplace	SBIR Phase I and II Open Topic Opportunity for Dual Use Generative AI technologies and applications to enhance government operations.
Official Solicitation	Tradewinds Marketplace Announcement Revision 7.0	Tradewinds Marketplace Announcement Revision 7.0	DoD SBIR 25.4 Annual Broad Agency Announcement (Release 1)
Link to Official Solicitation	https://sam.gov/opp/034cbefeadd04741bd88489fd41478eb/view	https://sam.gov/opp/034cbefeadd04741bd88489fd41478eb/view	https://www.dodsbirsttr.mil/topics-app/
Submission Frequency	Submissions are Collected Monthly (Recurring)	Submissions are Collected Daily (Recurring)	Submissions are Collected One-Time (Single Submission Period)
Submission Deadline	Anytime While the Program is Active (Collects Monthly)	Anytime While the Program is Active (Collects Daily)	November 20th, 2024 12:00PM ET



Tradewind – AI Acquisition Playground

An intentionally curated list of AI-powered experimental solutions, targeted at helping streamline acquisition



ProcureSight
AI-powered Semantic
Search for Sam.gov &
USASpending



**AI Acquisition
Assistant**
Experimental chat-bot with
all Federal Acquisition
Regulation knowledge
base



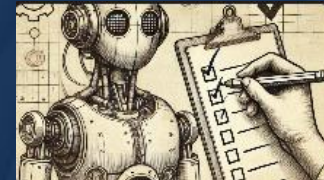
TurboInnovate
AI-powered market research
and LLM report writing



EULA Shredder
End User License
Agreement vs Federal
Regulations



NIPRGPT
AFRL's LLM, authorized
for use at IL5



AcqBot
Contract Workflow and
requirement, Solicitation
development



**Tradewind AI
Market Research**
Symantec Search of
solutions on TSM



CAMO GPT
Army's LLM, authorized
for use at IL6





Useful Resources



Do Your Homework: [Read the Announcement](#) by scanning the QR Code!



Success Stories, how other vendors won awards: "Awardable to Awarded"



How-To Videos & Helpful Tips & Tricks, on the Tradewinds website

Have a question? Reach out at success@tradewindai.com



CDAO



www.ai.mil



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