



CDAO

Data Quality

Priorities & Needs

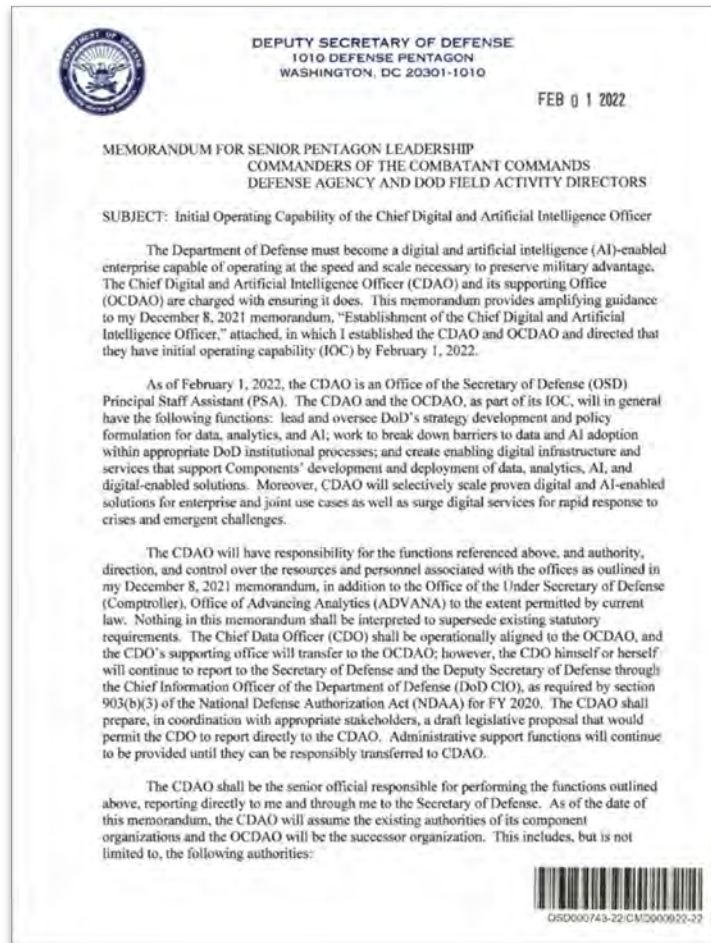
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SLIDES ONLY

NO SCRIPT PROVIDED



“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 digital-enabled solutions.”

-Deputy Secretary of Defense Kathleen Hicks, 1 Feb 2022

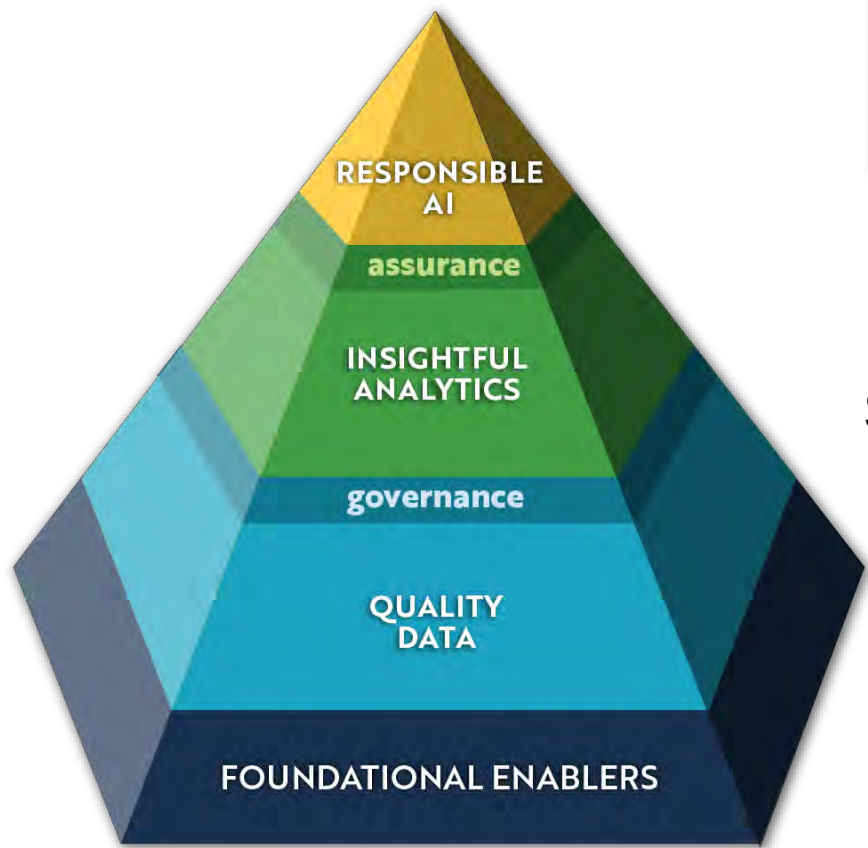
- Democratizing **data access** and maturing **feedback loops** between producers and consumers is central to unlocking the potential of DoD's data to deliver decision advantage
- We are building the framework for DoD's data ecosystem – including **people, process and technology**
- **Quality data is the foundation** for trusted analytics and AI
- DoD cannot address all data challenges at once – **priorities:**
 - Foundational enterprise data: personnel, logistics, and finance
 - End-user facing capability for marquee customers: OSD & CCMDs



Employing an Agile Approach to Adoption at Scale



FY23 CDAO BIG PLAYS



AI HIERARCHY OF NEEDS

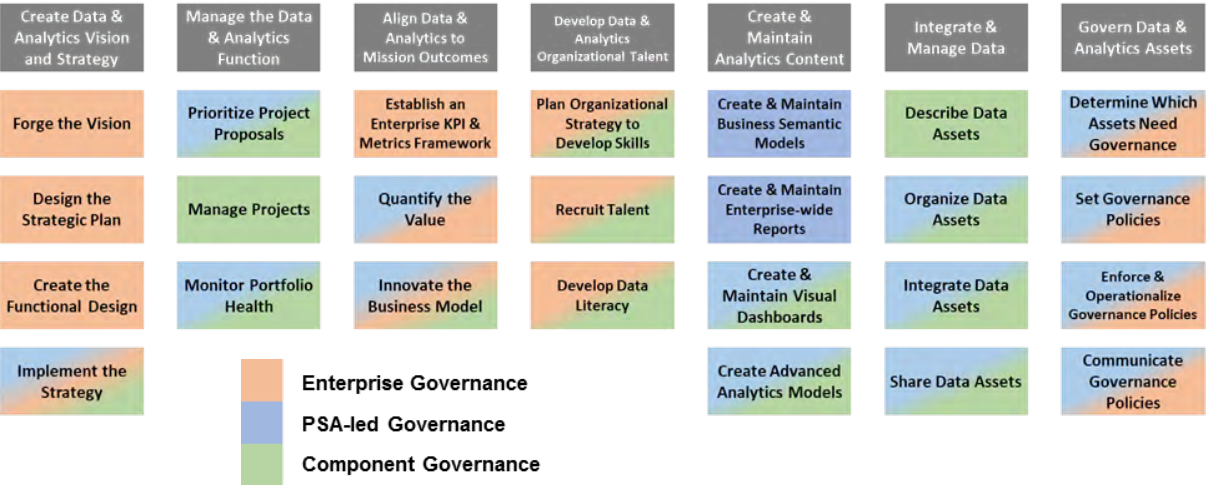
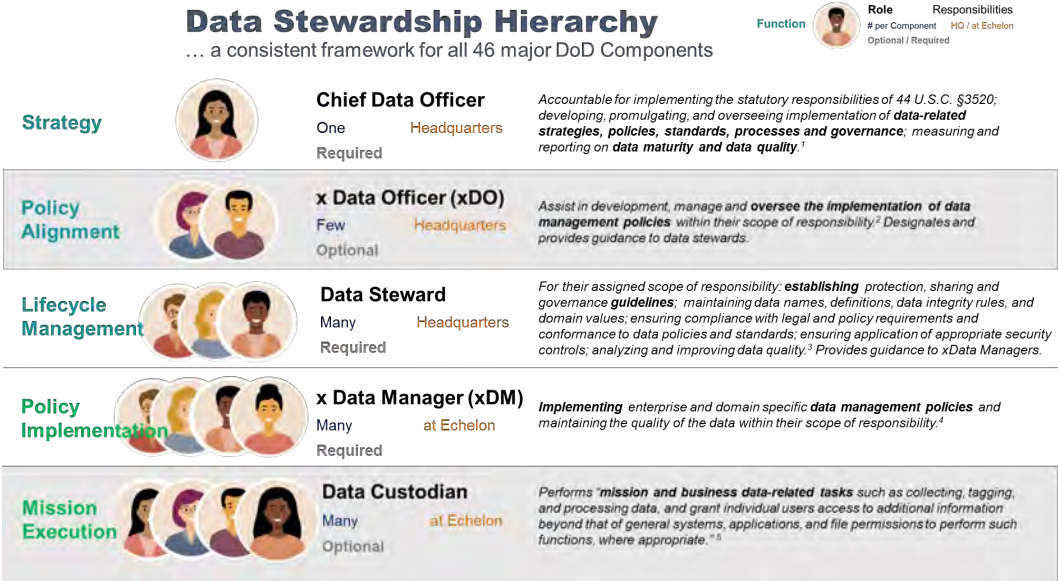
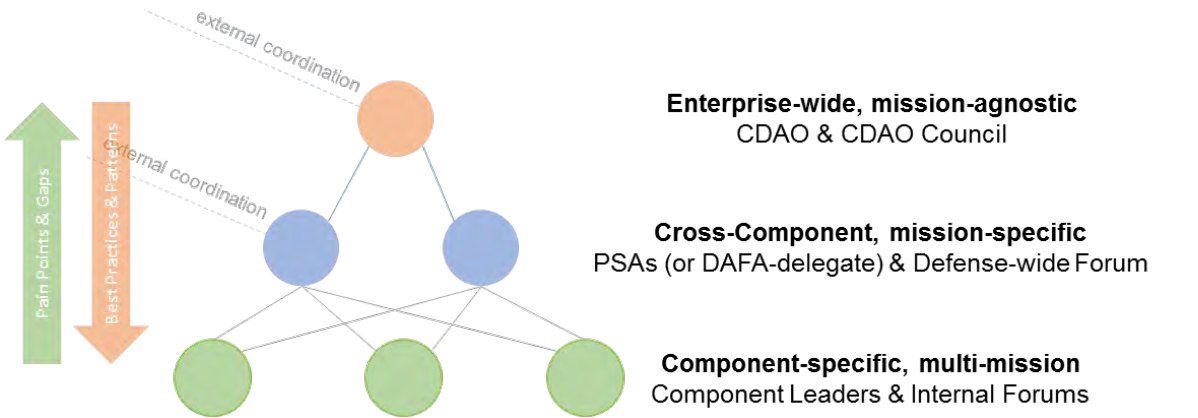


Data Leadership



Quality Data is dependent on *Empowered Leaders*

- Organized for governance ‘at cascading levels’
 - Making the right decisions at the right level
 - Accelerating internal processes for responsible data sharing
- Maintaining alignment as data stewardship ranks are filled
- Empowered with authorities, resources, and organizational alignment necessary to drive internal reforms



Federated governance is sustainable and scalable governance

Quality Data depends on **policy** – ensuring tools and processes embody our culture as per *Data Decrees*

- Policy safeguards against new dark data sources - "no new bad"
- Technical approaches to implement Data Strategy - (VAULTIS)
- Guidance after experimentation, shaped by enterprise data architects

DEPARTMENT OF DEFENSE DATA DECREES

1. MAXIMIZE DATA SHARING AND RIGHTS FOR DATA USE: ALL DoD DATA IS AN ENTERPRISE RESOURCE.
2. PUBLISH DATA ASSETS IN THE DoD FEDERATED DATA CATALOG ALONG WITH COMMON INTERFACE SPECIFICATIONS.
3. USE AUTOMATED DATA INTERFACES THAT ARE EXTERNALLY ACCESSIBLE AND MACHINE-READABLE; ENSURE INTERFACES USE INDUSTRY-STANDARD, NON-PROPRIETARY, PREFERABLY OPEN-SOURCE, TECHNOLOGIES, PROTOCOLS, AND PAYLOADS.
4. STORE DATA IN A MANNER THAT IS PLATFORM AND ENVIRONMENT-AGNOSTIC, UNCOUPLED FROM HARDWARE OR SOFTWARE DEPENDENCIES.
5. IMPLEMENT INDUSTRY BEST PRACTICES FOR SECURE AUTHENTICATION, ACCESS MANAGEMENT, ENCRYPTION, MONITORING, AND PROTECTION OF DATA AT REST, IN TRANSIT, AND IN USE.

Guidance in CDAO development

Visible – Cataloging sensitive data

Accessible – Strategic approaches for access control and digital policy administration

Understandable – Strategic approach to building the canonical controlled vocabulary

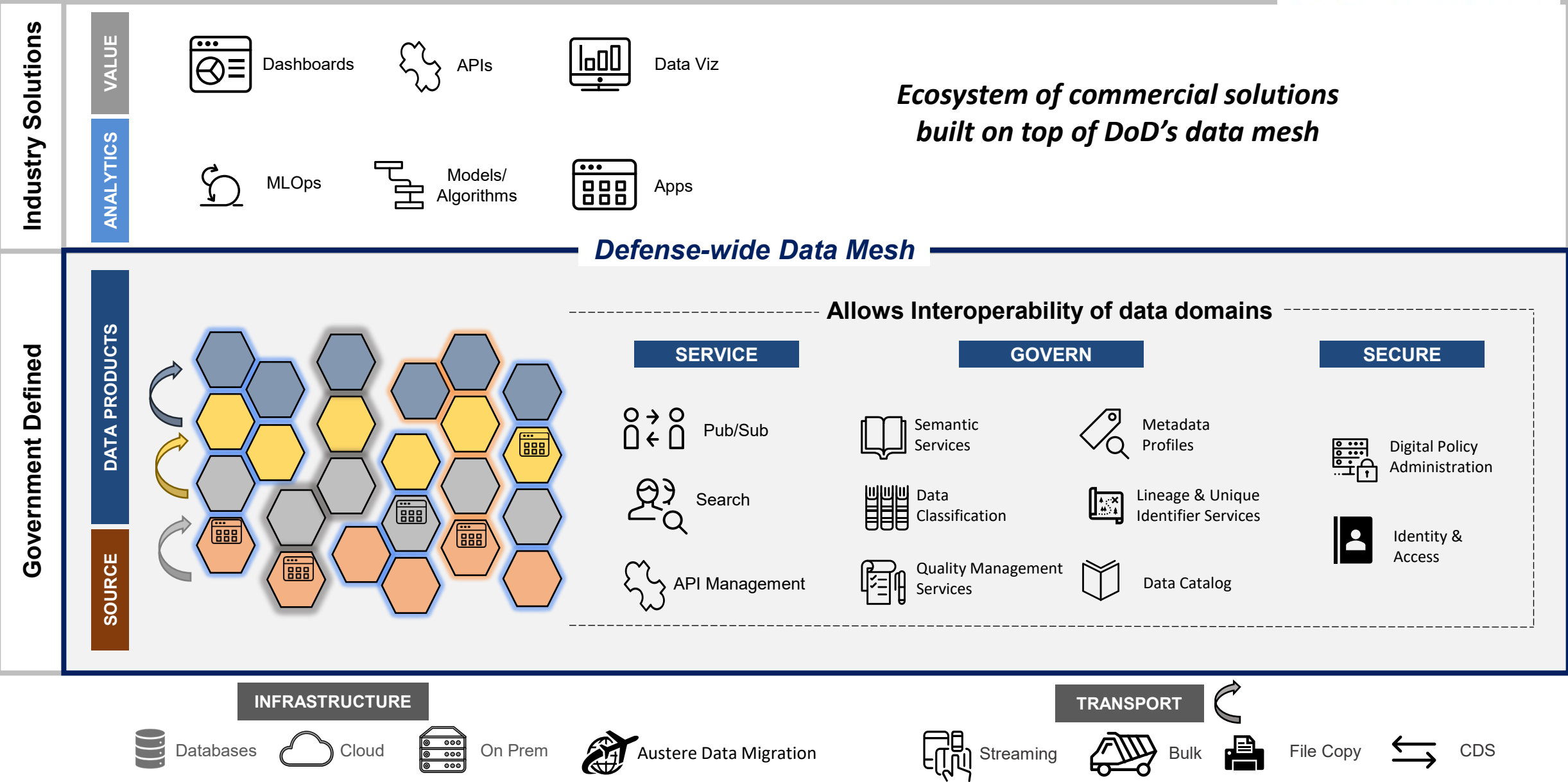
Linked – Generation and use of globally unique identifiers

Trustworthy – Metadata profiles (bills of material), including data provenance and lineage

Interoperable – Metadata standards supporting primary exchange patterns

Secure – Data standards required for Zero Trust

Data Mesh Architecture for Quality Data



- Readiness and openness to integrate with enterprise data management services, as they emerge:
 - Publishing to the federated ***data catalog***
 - Registering well-documented ***data interfaces***
 - Aligning to common ***vocabulary*** and ***ontology*** via semantic services
 - Leveraging globally ***unique identifiers***
 - Publishing measurements of ***data quality*** (e.g. timeliness, completeness, etc.)
 - Exchanging data via ***common formats***
 - Incorporating enterprise ICAM – including ***policy-based access control***
- Feedback on systemic pain points and bright spots across the enterprise
- Partnership in our campaign of learning

Governance: CDAO Council structure; Data Quality Big Play: Data Product Management, Data Mesh Services, and Enterprise Collaboration Tools – “Digital Commons”; JADC2 CFT Engagement; Data, Algorithm, & Model Protection

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Strategy: Data, Analytics, & AI Strategy; Policy development; Process reform (e.g. DoD Issuances)

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International Engagements: Bilateral, multilateral and coalition engagement, international acquisition policy, engagement in demonstrations & experiments

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