



Installation Geospatial Information and Services (IGI&S) New Developments and Hot Topics

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**CLEARED
For Open Publication**

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Overall Agenda

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Times (Approx.)	Component & Subjects
1330-1420	DISDI Update, including some emerging challenges (e.g. CUI, CATCODEs)
1420-1445	Army brief: Update on Army Installation Atlas
1445-1510	USMC brief: BIM/GIS integration, Adapting SDSFIE for warfighting
1510-1535	Air Force brief: GeoBase evolution, Logistics GI&S
1535-1600	Navy GeoReadiness brief



DISDI Update Topics

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- DISDI Update
 - IGI&S Use for High Priority National Defense Missions
 - Recent Successes
 - Five Year Plan Review
 - Quality Update
 - Metadata
 - Authoritative Data Source Guidance
- Hot Topics
 - Sensitivity of IGI&S Data and Maps (Controlled Unclassified Information (CUI))
 - Thinking Beyond SDSFIE-V 4.0
- Questions



*"Amateurs discuss tactics.
Professionals discuss logistics."*

***How does IGI&S support DoD readiness and
national security priorities?***

*"Everyone is entitled to their
own opinion, but not to their
own **facts.**"*



OSD Level Requirements for IGI&S

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- Current Requirements
 - Business mission planning, Impact analysis of current events
 - Financial Improvement and Audit Readiness (FIAR)
 - Audit Response (addressing findings using IGI&S)
 - GEOINT Visualization Services (GVS) and Map of the World (high side data sources)
 - Mass Warning and Notification
 - WebEOC, etc. (common operating picture)
 - Expanded encroachment management capacity **(an ASD(S) priority)**
 - DoD personnel data improvements (Defense Manpower Data Center)
 - Open Skies Treaty Compliance
- Emerging Requirements
 - Explosives Safety Siting (ESS) – web-based system
 - Mission Assurance Risk Management System (MARMS)
 - Global Force Management Data Initiative (GFM DI)
 - Cybersecurity (location tagging)
 - Improve Real Property data quality **(an ASD(S) priority)**
 - Committee on Foreign Investment in the United States



Recent Successes

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DISDI Program

- Four successful CIP data calls (FY15-18)
- Regular public releases of installation location data (Military Installations, Ranges, and Training Areas)
- Regular updates of DoD Airspace data (processed from raw data)
- Maps and data produced for SECDEF, DEPSECDEF, COCOMs, Joint Staff, NGA

IGI&S Governance Group

- SDSFIE Governance Plan mandated Jun 2014, currently R3
- SDSFIE-V 4.0 mandated Feb 2017
 - Army, USACE, WHS implementing (v 4.0.2)
 - Navy, Air Force, Marines are modeling
- SDSFIE-Q completed Jan 2017
 - Rev 1 completed Sep 2018
- SDSFIE-R completed May 2017
- SDSFIE-M v 1.0.2 completed Aug 2014
 - SDSFIE-M 2.0 in development
 - ArcGIS Metadata tools in development

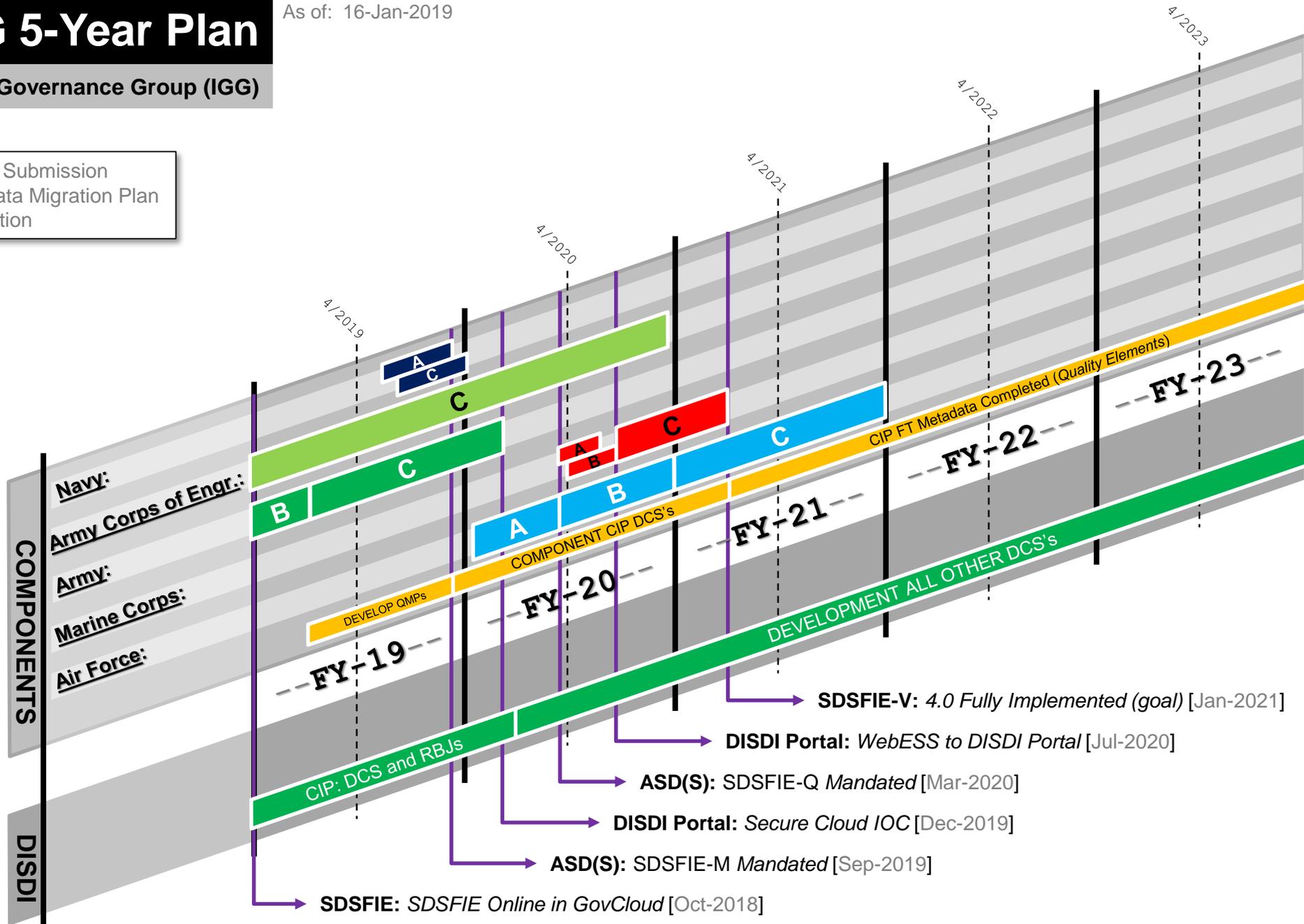


IGG 5-Year Plan

As of: 16-Jan-2019

IGI&S Governance Group (IGG)

- A = Adaptation Submission
- B = Develop Data Migration Plan
- C = Data Migration





FY17-FY18 CIP Quality Trends

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Component	% Duplicate Features	% Features Outside Site Boundaries (Using Component Site/Installation Data)	% Features with Invalid or Null RPSUID	% Features with Invalid or Null RPUID (excludes RP placeholders)	% Features with Invalid Geometry
USAF/ANG	5.14% ↓	0.00% ↑	2.77% ↑	33.93% ↑	0.15% ▬
USA/ARNG	7.95% ↓	0.01% ↑	5.06% ↑	43.14% ↑	0.08% ▬
USMC	0.35% ▬	3.75% ↓	35.20% ↑	51.33% ↑	0.10% ▬
USN	0.25% ▬	13.80% ↑	0.43% ↑	21.78% ↑	0.07% ▬
WHS	0.00% ▬	0.00% ↑	0.00% ▬	0.78% ▬	0.62% ↑

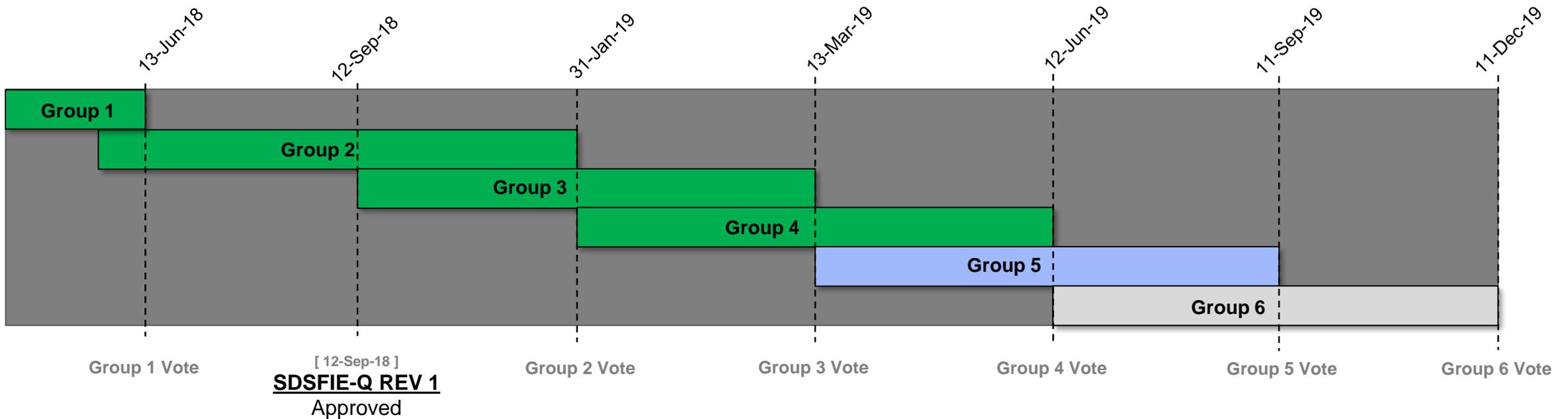
- Significant Quality improvement in FY18:
 - Major improvement in real property attribute population
 - o USA: RPSUID attribution improved from 66.75% error to 5.06% error
 - o USA, USAF, USMC and USN: Double digit improvement in RPUID attribution
 - o Overall, better consistency with real property placeholder values
 - USA: “Features outside sites” errors improved from 81.39% error to 0.01% error
- Nagging data quality issues
 - Conformance with SDSFIE
 - Incomplete and inconsistent attribution



Update: SDSFIE Quality Standard

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- **Data Content Specification (DCS) Group 1 and 2:** *Approved*
- **DCS Group 3:** *Approved* (IGG Vote 13 Mar 2019)
- **DCS Group 4:** *Approved* (IGG Vote 12 Jun 2019)
- **DCS Group 5:** In WG Review
- **DCS Group 6:** Not yet started

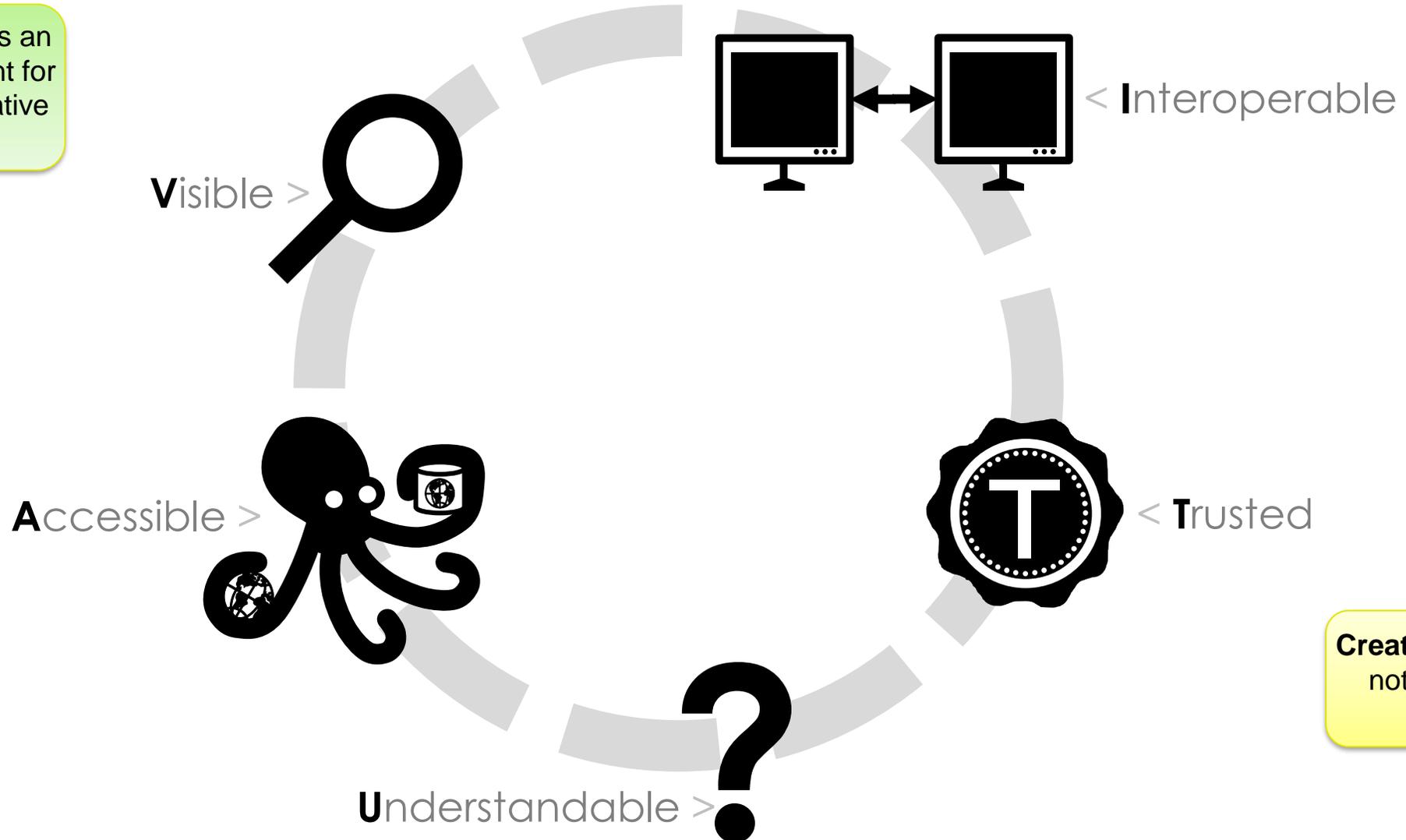




Metadata – the Foundation of VAUTI

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Good metadata is an **essential** element for trusted, authoritative IGI&S

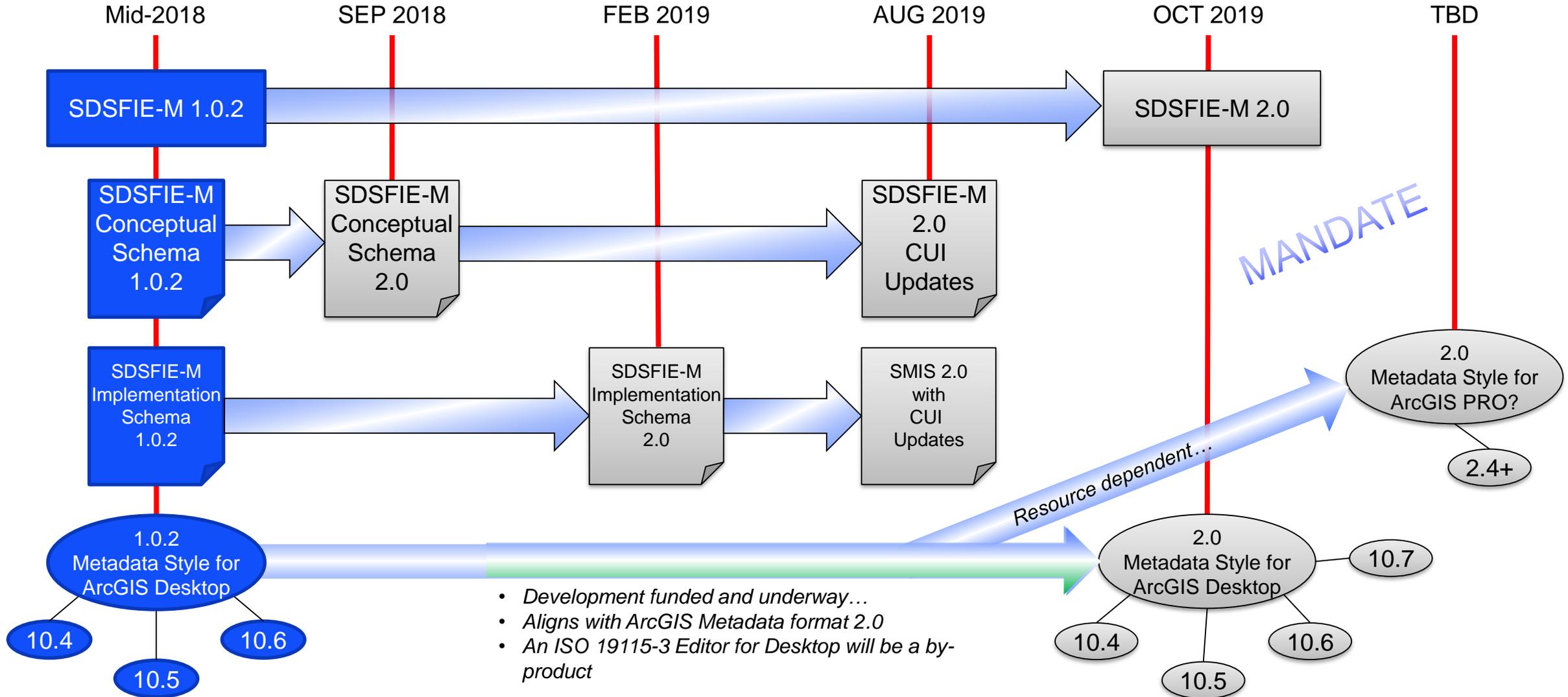


Creating metadata is not as easy as it should be!



Update: SDSFIE Metadata Standard

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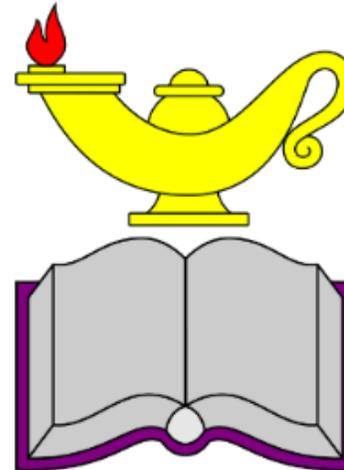
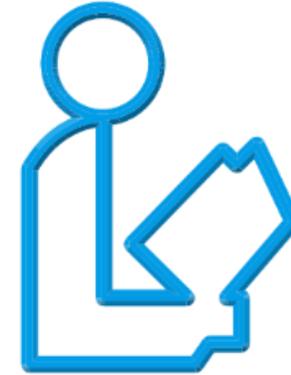


Authoritative Data Source (ADS): The Geospatial Library for Each Installation

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- Brings all trusted IGI&S data together in one place (per installation)
- Contents of the library are curated
- Contents of the library are cataloged
- The Librarian is the ADS Manager
 - A gatekeeper for contents
 - Performs curation
 - Maintains catalog
- Just as libraries contain English language materials, so too is SDSFIE the language for IGI&S ADSs

An Official
Resource



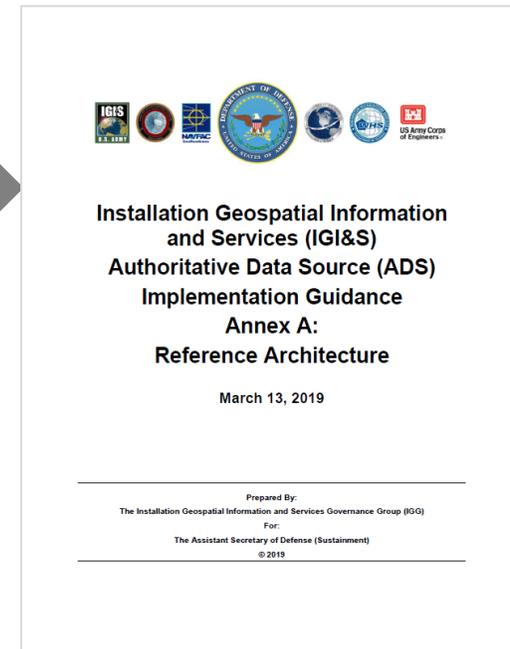
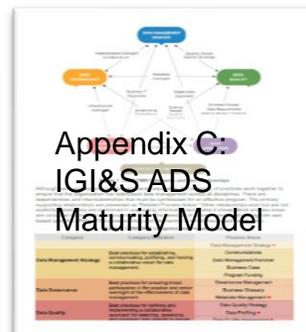
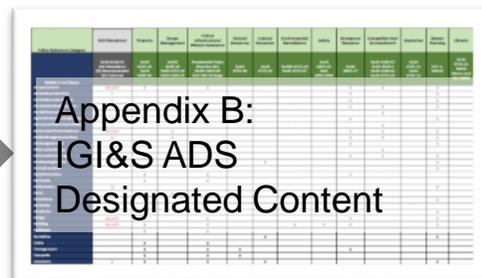
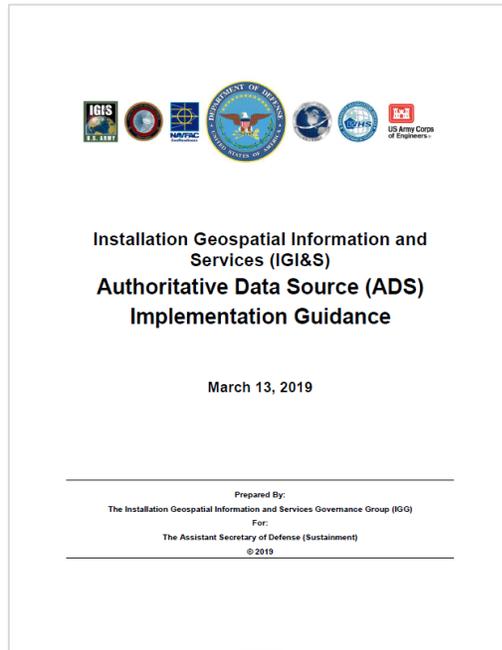
Content Curation is the act of discovering, gathering, and presenting digital *content* that surrounds specific subject matter.

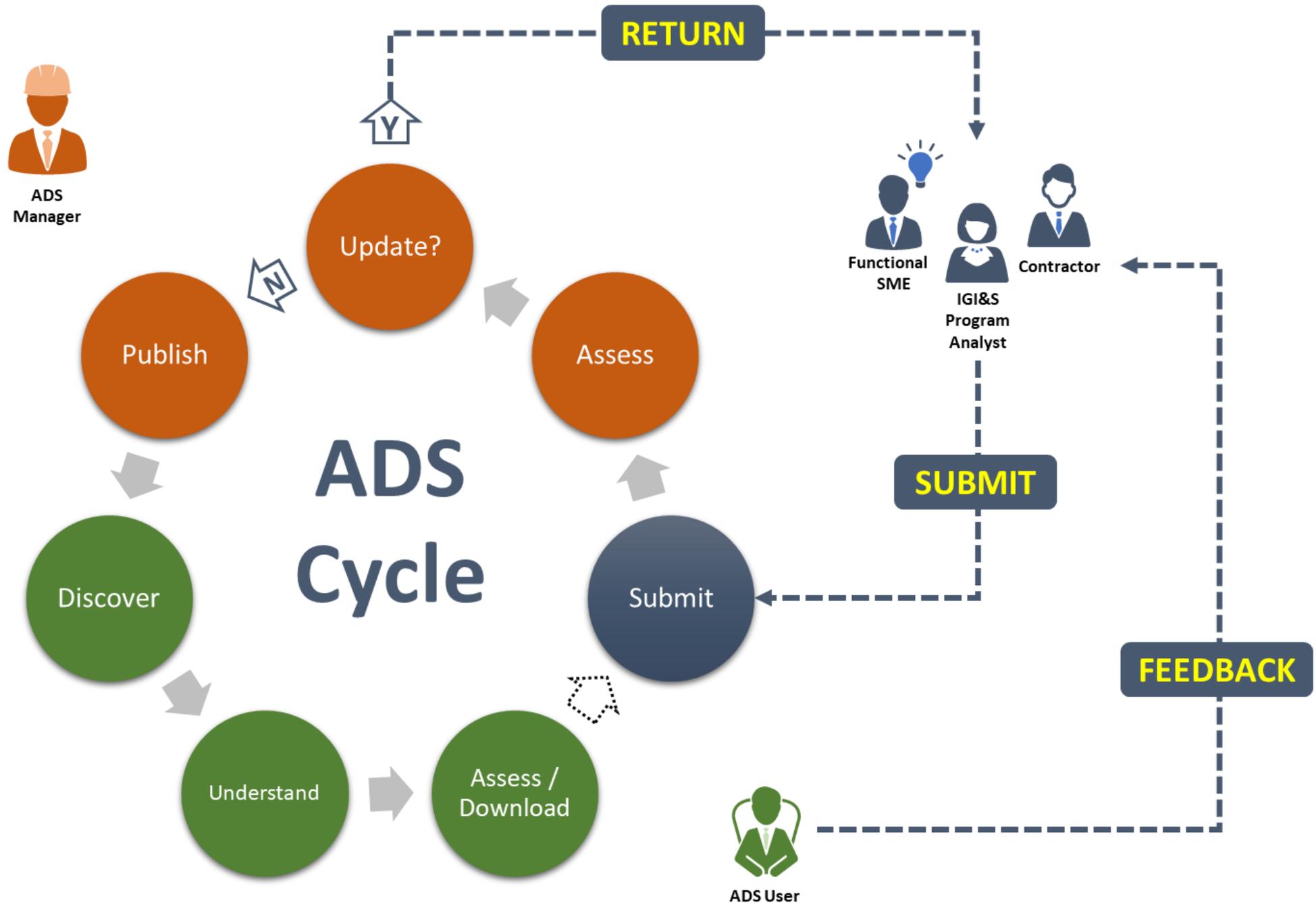


Implementation Guidance for IGI&S ADS

Main document, plus three key sub-parts:

1. List of Designated ADS content (Appendix B)
2. Maturity Model (Appendix C)
3. Reference Architecture (Annex A)







Challenge: Sensitivity of IGI&S Data and Maps

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- Increasing precision of IGI&S data has increased its sensitivity in this high threat environment
 - Raw, highly detailed IGI&S data poses greatest sensitivity and risk
 - Releasing large GIS datasets (aggregating multiple installations or large geographic regions) also poses higher security risks
- Some sensitive IGI&S data is shared for official uses, but protected
 - US Census Bureau for decennial census
 - Homeland security community for emergency response
- Basic IGI&S data (only) and information maps publicly released after security review
- DISDI is now drafting a security classification guide (SCG) for IGI&S
 - ASD(S) is an original classification authority
 - NGA is providing assistance

Don't Share Data Without Proper Authority, or Permission!



Controlled Unclassified Information (CUI) – Draft DoDI 5200.FG

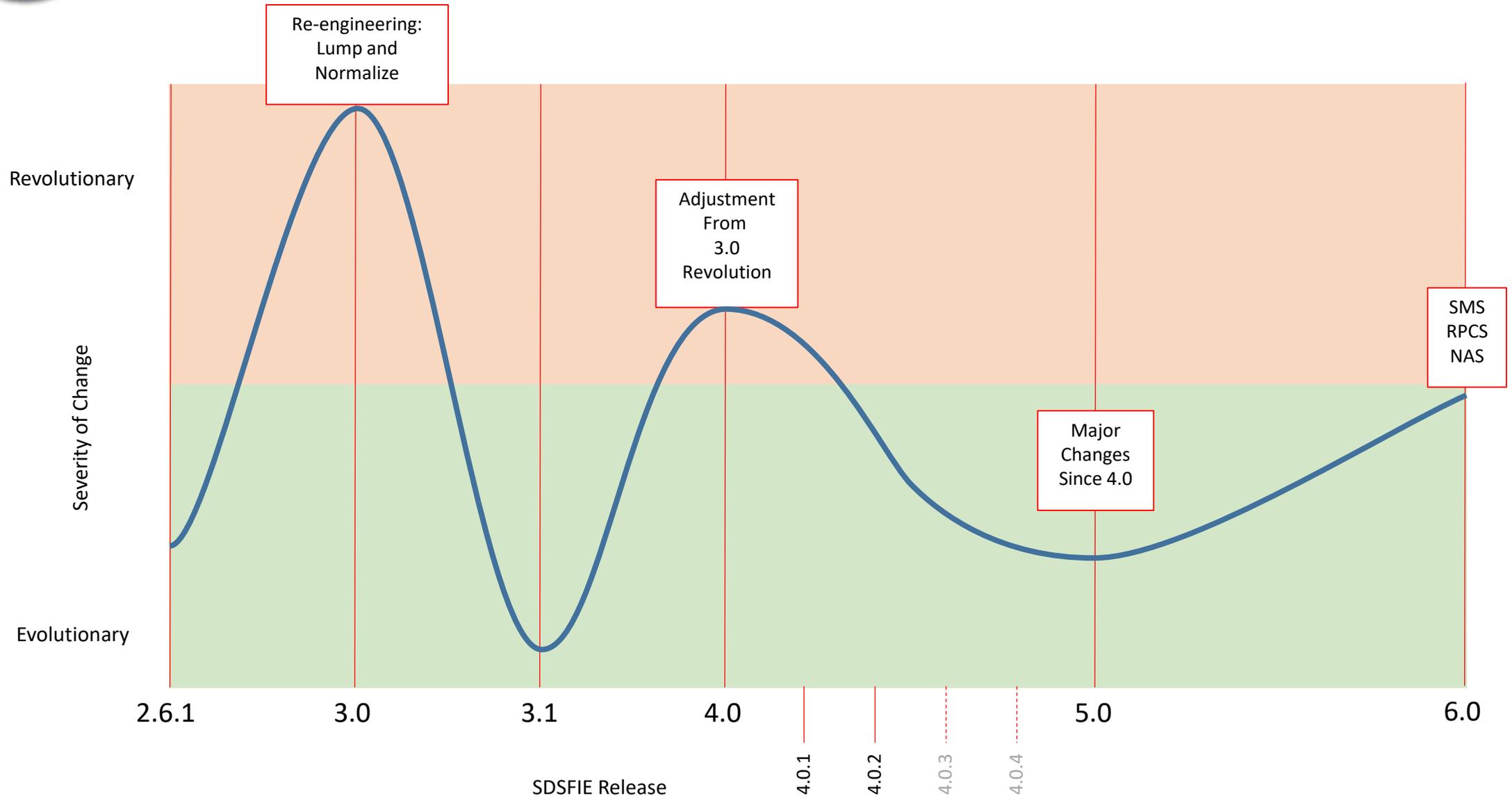
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- The movement to change the management of “controlled unclassified information” has been underway since 7 MAY 2008
- President Obama issued Executive Order 13556 "Controlled Unclassified Information" on 4 NOV 2010
- Information Security Oversight Office (ISOO) at National Archives and Records Administration (NARA) published proposed rule 32 CFR Part 2002
- 32 CFR Part 2002 became effective 14 NOV 2016
- DoD has drafted a replacement for DoD Manual 5200.01, volume 4: DoD Information Security Program: Controlled Unclassified Information (CUI), February 24, 2012 titled DoD Instruction 5200.FG, Controlled Unclassified Information (CUI), issuance date TBD
- The DoDI essentially follows the CUI guidance from NARA



SDSFIE-V “Severity of Change”

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Thinking Strategically - Beyond SDSFIE-V 4.0

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- The IGG has already approved a number of Major and Minor model changes... but their impact is minimal
- Army and USACE HQ Adaptations already include applicable Major and Minor changes
- Components generally favor adopting a “continuous” implementation approach
 - 4.0.x Adaptations could be 5.0 compliant even before 5.0 is mandated
- SDSFIE-V 5.0 will be an evolutionary change
- SDSFIE-V 6.0 should, on balance, be evolutionary also
 - Sustainment Management System alignment
 - Real Property Classification System (CATCODE) updates
 - NSG Application Schema alignment

SDSFIE-V 5.0 and 6.0 are not as scary as you might think



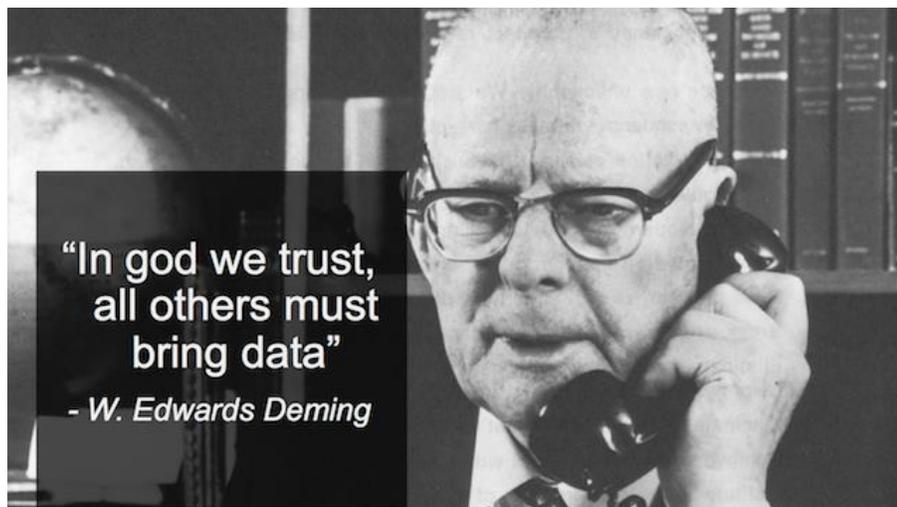
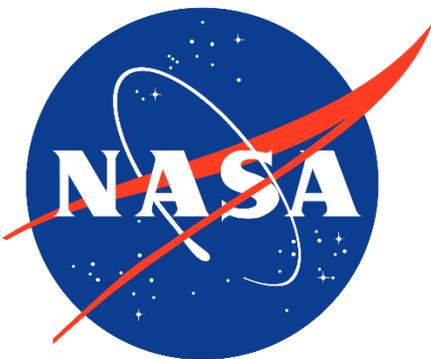


Our Vision – Evidence-Based Decision Making

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“To provide authoritative, cost-effective defense installation geospatial information and services for fact-based decision making across the DoD spectrum of operations.”



QUESTIONS?

