



# How will AV SOA “actually” work?

## Governance, Data Entity Package Tool, and Data Integration Issues

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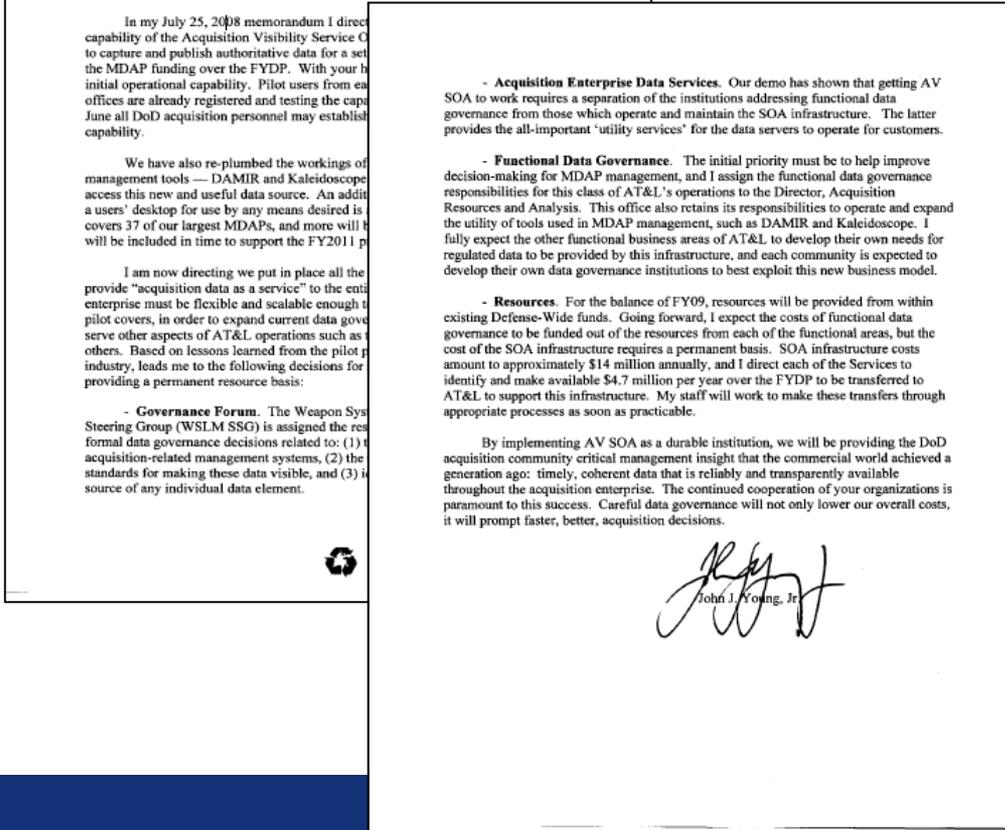
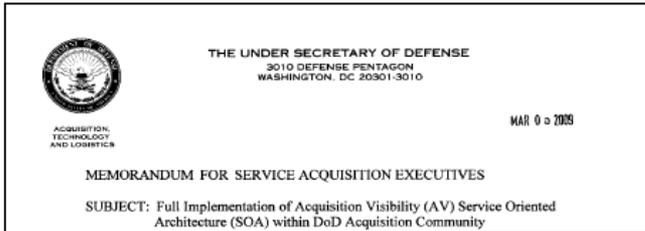


# Agenda

- ▶ Overview – Top Level Structure
- ▶ Statement of Practical Problem that DEP solves
- ▶ DEP's role now and in future



# AT&L AV SOA – Full Implementation



- ▶ USD AT&L issued AT&L AV SOA full implementation memo on March 5, 2009
- ▶ Directs AT&L to put in place all the elements of a durable solution to provide “acquisition data as a service” to the entire acquisition community.
  - Full Acquisition community access by June 09
  - All Major Defense Acquisition Programs (MDAPs) in time to support the FY 2011 program/budget review
- ▶ Separates data governance and SOA infrastructure responsibilities
- ▶ Weapon System Lifecycle Management Senior Steering Group to make all formal governance decisions
  - Director of Acquisition Resources and Analysis responsible for functional data governance for MDAP management
  - Other functional business areas to develop functional data governance to meet their decision-making information needs



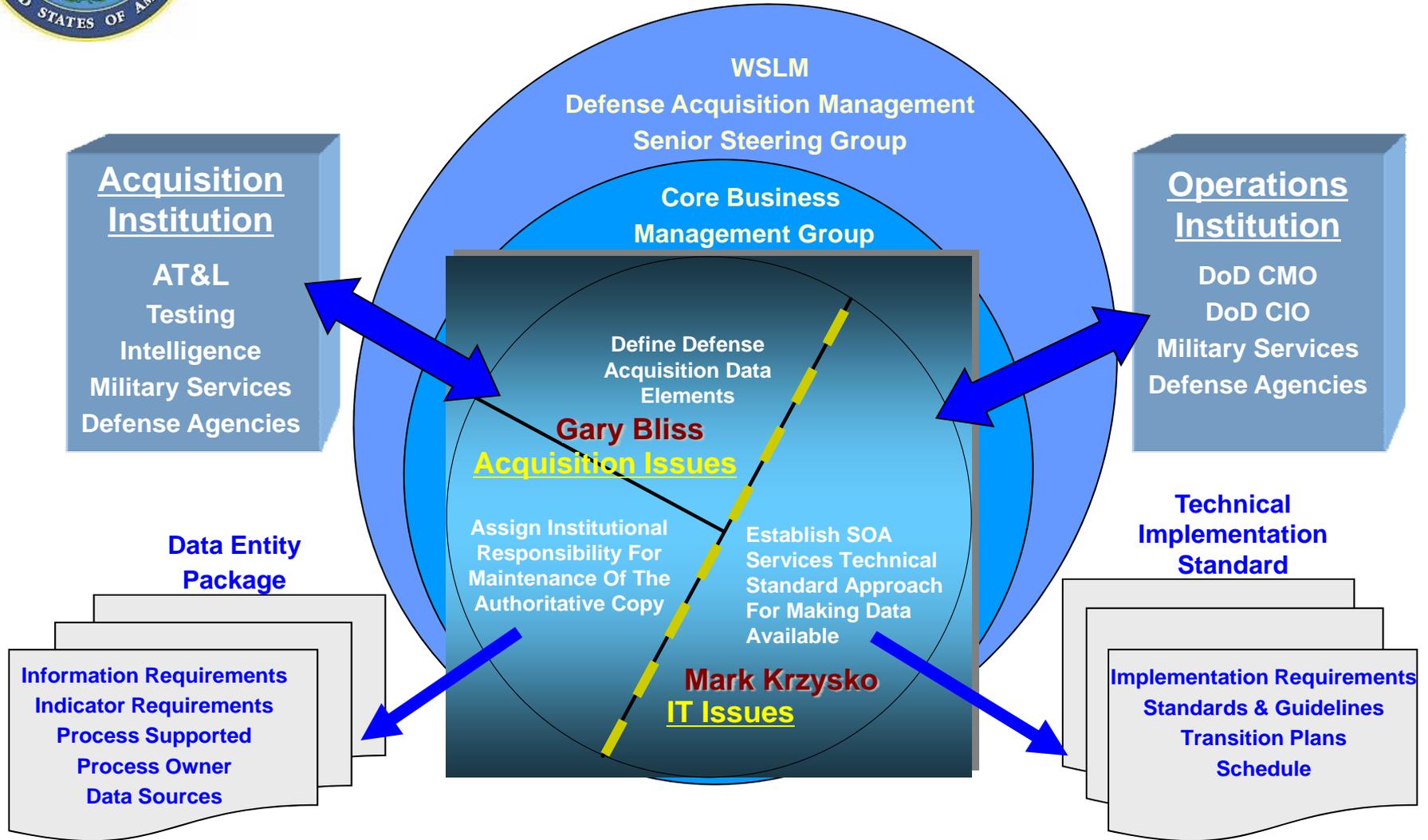
## What is WSLM Data Governance?

- ▶ A set of information that will assist the decision makers in understanding :
  - Data relationships
  - Coordination required to instantiate policy or process changes
  - Required Acquisition Visibility reporting/metrics
  - Authoritative Sources within the WSLM
  - Technical definitions including schemas and security models



# Balancing Functional and Technical

## Acquisition Technology & Logistics



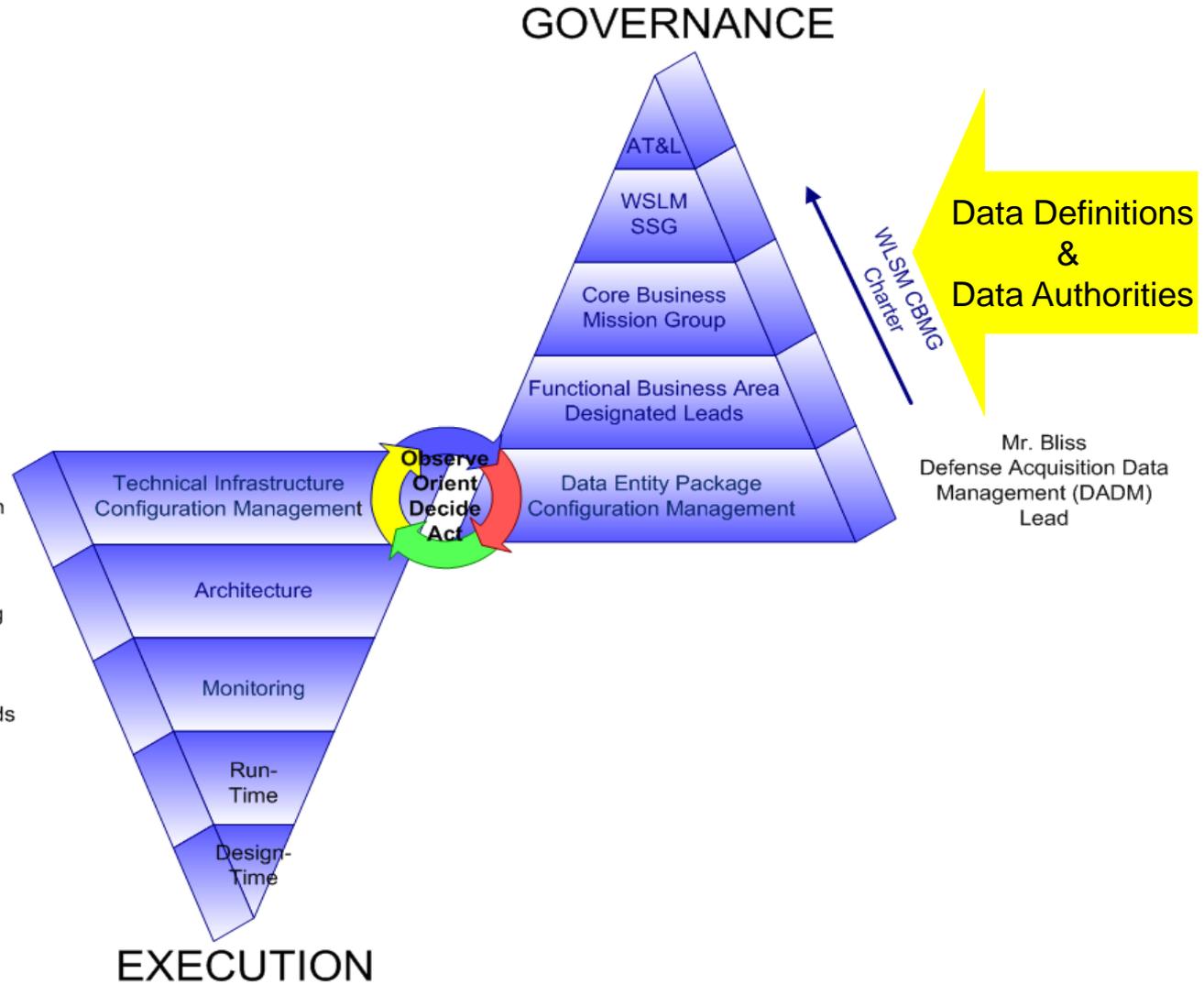


# AT&L AV SOA Governance Model

Technical & Transitional Management

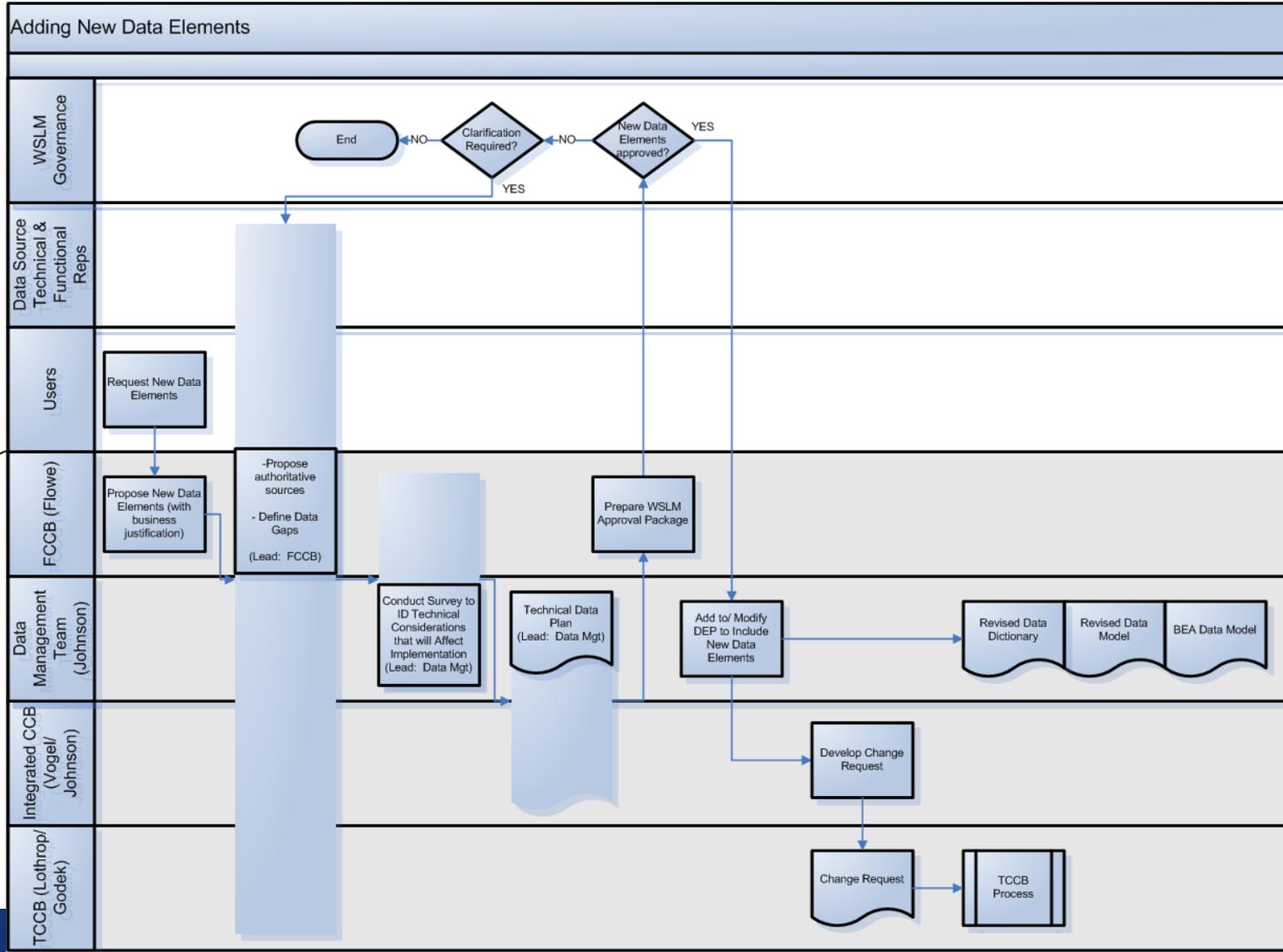
Mr. Krzysko  
AV Transformation Lead

Technical Working Group/COI  
NII Rep  
ARA Rep  
OSD AV Tech Leads  
Army  
Navy  
Air Force  
DAMIR  
CR  
& New Comers





# Example: Adding New AV Data Elements





## Data Entity Package (DEP) Tool



## What is the Purpose of the DEP Tool?

- ▶ Organizational Tool for Data Governance
  - Reflects the organizational functions of governance
  - Provides a robust, scaleable (across COIs), extensible capability
  - Facilitates ‘outsourcing’ of governance beyond MDAP function
    - ***“TurboTax for data governance”***
- ▶ Be an authoritative source for governance data
  - DEP ***is*** just another SOA data source available to users
  - Insofar as we can tell, this feature is unavailable elsewhere in an integrated manner
- ▶ Make governance transparent to all
  - Visible to all SOA users



## First DEP Function: Governance Tool

- ▶ Governance Adjudication
  - WSLM Decisions/Approvals posted to SOA
  - Review Function by appropriate parties of proposals
  
- ▶ Governance Proposal Preparation
  - Actions required to generate proposals for consideration
  - These proposals routinely would take three forms:
    - New data elements/definitions or addition of new programs
    - Assignment of data sources for specific programs (DEP as seen by program)
    - Technical standard maintenance/updating
  
- ▶ Governance Maintenance
  - Routine set of actions that make SOA work smoothly
  - User account functions



## DEP Requirements

- ▶ Identify and Track Major Defense Acquisition Programs Points Responsible POCs
  - Generate and Manage Service Level Agreements (SLA) with the Service Acquisition Executive
  - Trace Data Sources and pertinent AV SOA data
  - Provide linkages from the Acquisition Data to the WSLM process
- ▶ Provide a mechanism to resolve cross-functional data sharing issues
  - Maintain a dynamic decision making tool
- ▶ Manage Visibility and Reporting
  - Generate senior level snapshots
  - Link the Acquisition Visibility Data to a Program's Lifecycle
- ▶ Produce "Quality" Metrics
- ▶ Facilitate Data Transition Planning

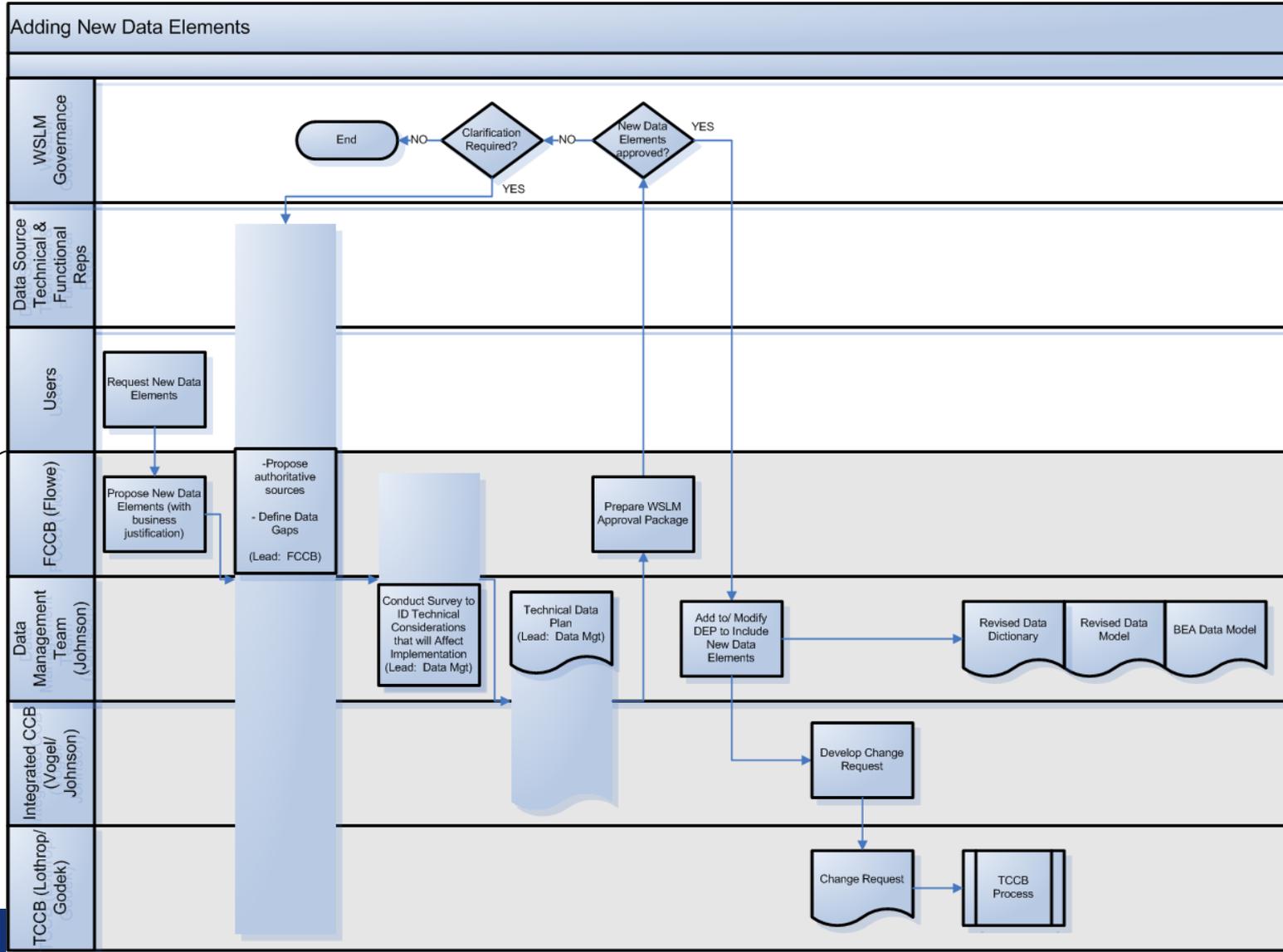


## Data Elements

- ▶ Every AV SOA Data Element tracked to:
  - Data Category – What is the behavior of the data (State, Extrapolated, etc.)?
  - Policy Stewards – Who do we coordinate with?
  - Content Owners – Who fixes data quality/integrity issues?
  - Data Producers – Where are we currently pulling from? Where SHOULD we be pulling from?
  - Business Rules for integration of data sources – What do we do with the data?
  - IA roles – Who can access the data?
  - Expected Update Frequency-Insight into data timeliness
  - Dependencies- Insight into AV SOA dependencies, data sources, Services, etc.



# Example: Adding New AV Data Elements



DEP Tool and AV SOA Team



## Governance/DEP Tangible Benefits

- ▶ Consistent data provided to the Analyst for assessments
- ▶ Visibility into Data Sources dependencies.
  - Linkages to the WSLM process
  - Data Source dependencies on external sources
- ▶ Assess Acquisition Data quality and data timeliness
- ▶ Manage visibility and reporting
- ▶ Communicate acquisition business rules and data schema changes to the BEA
- ▶ Provide a forum to resolve cross-functional data sharing issues
- ▶ Derive an integrated master data transition plan



## DEP Tool Demo



## DEP and AV SOA's Six Core Processes

- ▶ Six core processes currently implemented with DEP:
  1. Resolving data integrity and flow issues through the SOA servers as seen by the customer (our current “punch list” system)
  2. Adding new data sources for existing element/ programs
  3. Adding new programs
  4. Adding new data elements
  5. Adding new users
  6. Adding new data-consuming applications interfaced to the SOA servers
  
- ▶ Additional processes will be instituted as needed
  
- ▶ DEP is designed to be used by any Functional business area
  - It is the core technology that makes the business model scalable



**Questions?**



## Backup Slides



## Governance Forum

- ▶ The Weapon Systems Lifecycle Management Senior Steering Group (WSLM SSG) provides overall Governance of AV SOA, to include final decisions on Functional Governance issues and on Technical Governance issues



# Supporting Meetings

## ▶ Supporting Meetings:

- Enterprise Meeting (Monthly)
  - Focus on Policy on Acquisition Reporting
  - MILDEPs, DAMIR, AV SOA
- Consolidated Services Meeting (Monthly)
  - DAMIR issues
  - MILDEPs, DAMIR, AV SOA
- Technical Working Group (Weekly)
  - Focus on AV SOA Technical and Data issues
  - MILDEPs, DAMIR, AV SOA
- Program Management Review
  - Focus on AV SOA PM issues
  - DAMIR, AV SOA



# Acquisition Visibility

In order to further evolve Acquisition Visibility

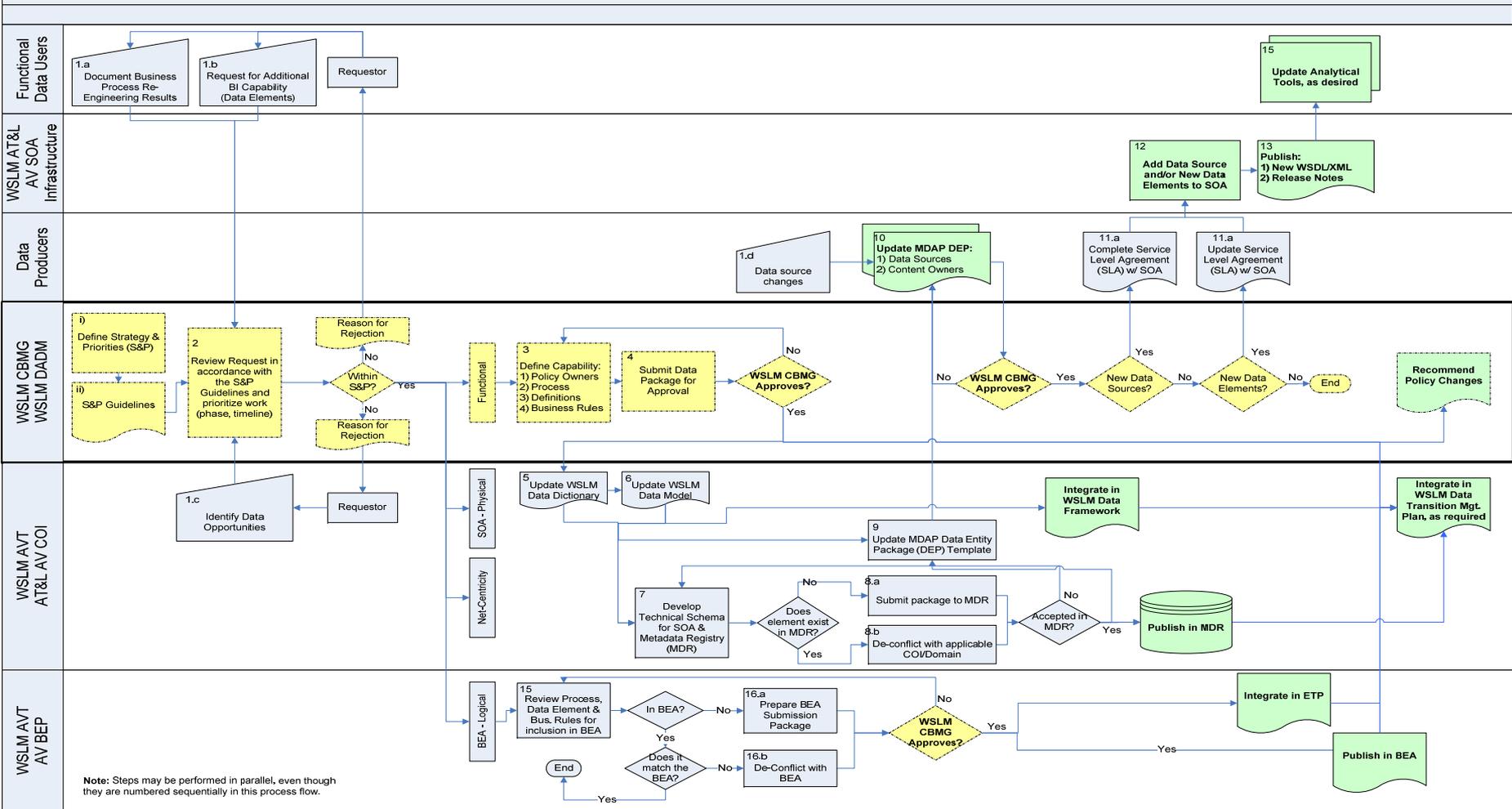
AT&L AV SOA has established :

- Data Management processes
- Data Management Roles and Responsibilities
- Linkages to the WSLM Enterprise
- AV SOA Tech WG



# WSLM Acquisition Data Management Process

WSLM Acquisition Data Management Work Flow (v7, August 15, 2008)





## Landscape

Today : *Management of both the Data Process and Data DEP is a manual cumbersome mode.*

Tomorrow: *Establish a strategy and repeatable process for the data and tools that provides the underpinnings for acquisition visibility oversight.*



# (Proposed) Key Performance Indicators

## Metrics/Key Performance Indicators

- ▶ Data Cohesion:
  - # of data elements
  - % of WSLM validated data elements
  - % of data elements that have identified data sources
  - % of data elements reused in a service
  - % of data elements registered with the NII Metadata Registry
  - % of data elements mapped to the BEA
  - Potential WSLM coordination items
- ▶ Functional Cooperation Metrics
  - # of data elements with multiple functional stakeholders
  - % of data elements with multiple functional stakeholders that are WSLM validated
  - % of integrated data sources
- ▶ MDAP Acq Visibility SOA Quality reports
- ▶ Forecast policy impact to Data Sources/Producers
- ▶ Others?



## Next Steps

- ▶ Refine the DEP process and toolset by exercising the process.
  - Data Team will use to capture updates to Data Dictionary, Sources, Model
  - Functional Users will use to capture proposed updates, additions to the AV SOA vocabulary
  
- ▶ Add DEP (Meta Data) web services to the AV SOA capability



# Data Dictionary Data Products

- ▶ Data Dictionary produces 16 data elements:
  - Data Element Name
  - Data Element Definition
  - Data Element Parent
  - Policy Steward
  - Policy Steward Full Name
  - Type Code
  - Type Description
  - LRP
  - Last Updated
  - Last Updated by Name
  - Status
  - Null able
  - Source Reference
  - BEA Version Reference
  - BEA Entity Name
  - Data Type Name