



ACQUISITION INNOVATION  
RESEARCH CENTER



# Acquisition with Digital Engineering (WRT-1057.18g)

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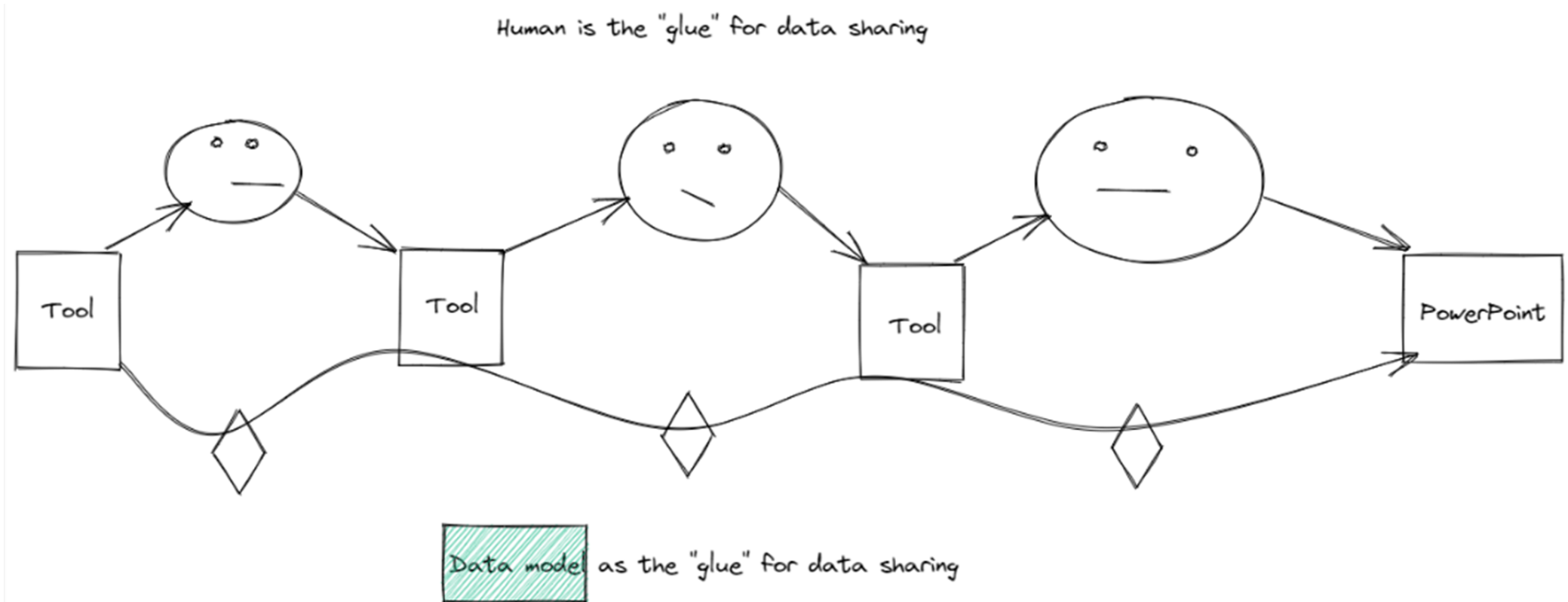
Digital engineering is as fundamental a paradigm shift as the pathways in the Adaptive Acquisition Framework (AAF); affecting all pathways and supporting functions and enabling broad benefits in the transformation to Digital Acquisition.

“Digital engineering will require new methods, processes, and tools, which will change the way the engineering community operates; however, this shift extends beyond the engineering community with an impact on the research, requirements, acquisition, test, cost, sustainment and intelligence communities” Digital Engineering Strategy, 2018

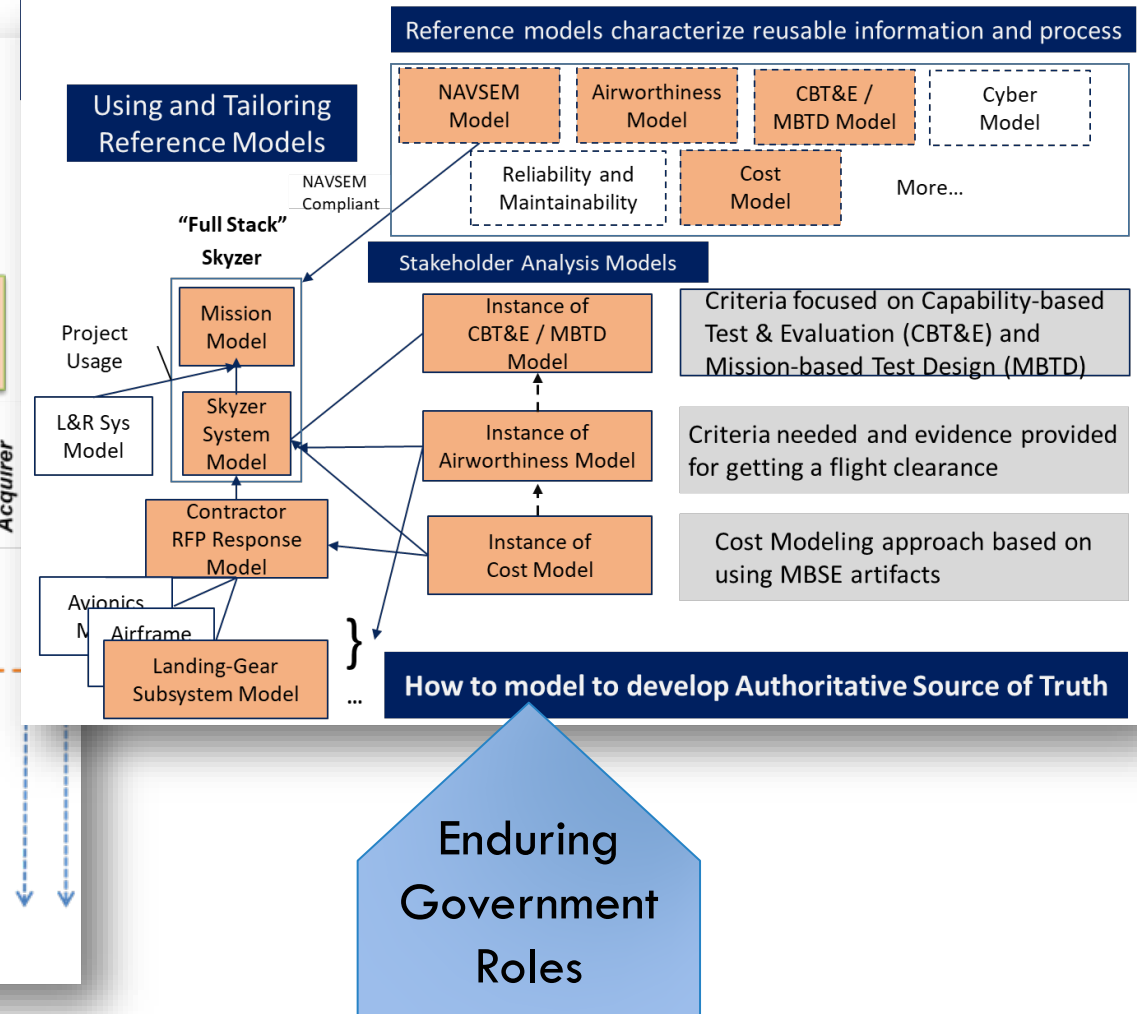
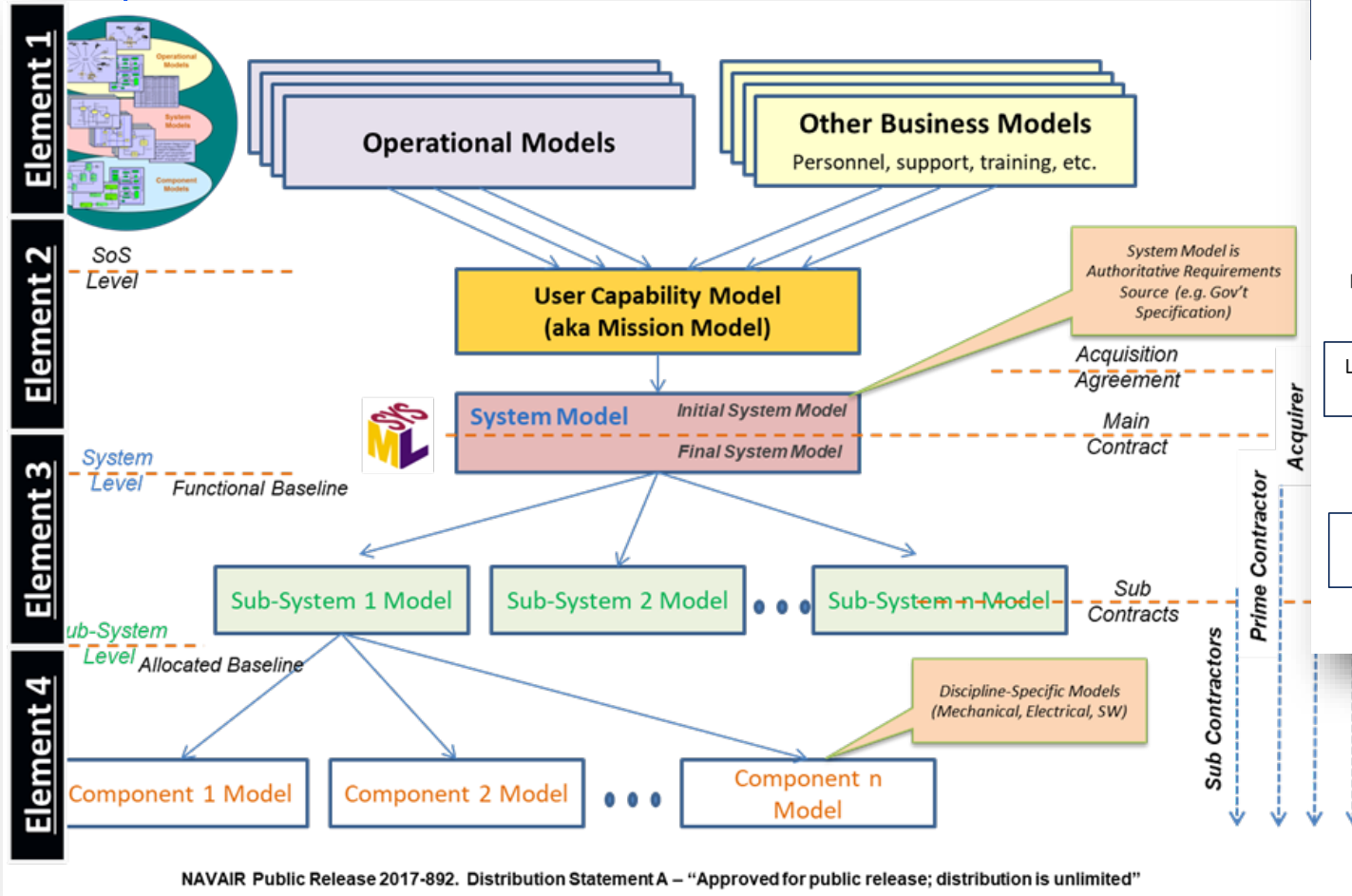
## Must be from User Point of View

- Defense Acquisition System (DAS) is evolving for different reasons from Engineering
- DAS practitioners must pull for practices that use modernized, digitalized data and models INTO their activities
  - Users know what they need from modernized systems engineering - they have the background and rationale for what is necessary
  - Users know when they need modernized, digital systems engineering methods – they understand the priorities in the context of their activities
- DAS practitioners must be supported by statute, policy, and guidance containing a complete continuum to realize benefits of modernized, digitalized practice

Attitude toward technology or new process adoption becomes significant any time we are introduced to products that require us to change our current mode of behavior or to modify other products or services we rely on



**Digital Artifact** - An artifact produced within, or generated from, the engineering ecosystem. These artifacts are generated through transformation of data and models into views in order to visualize, communicate, and deliver data, information, and knowledge to stakeholders.





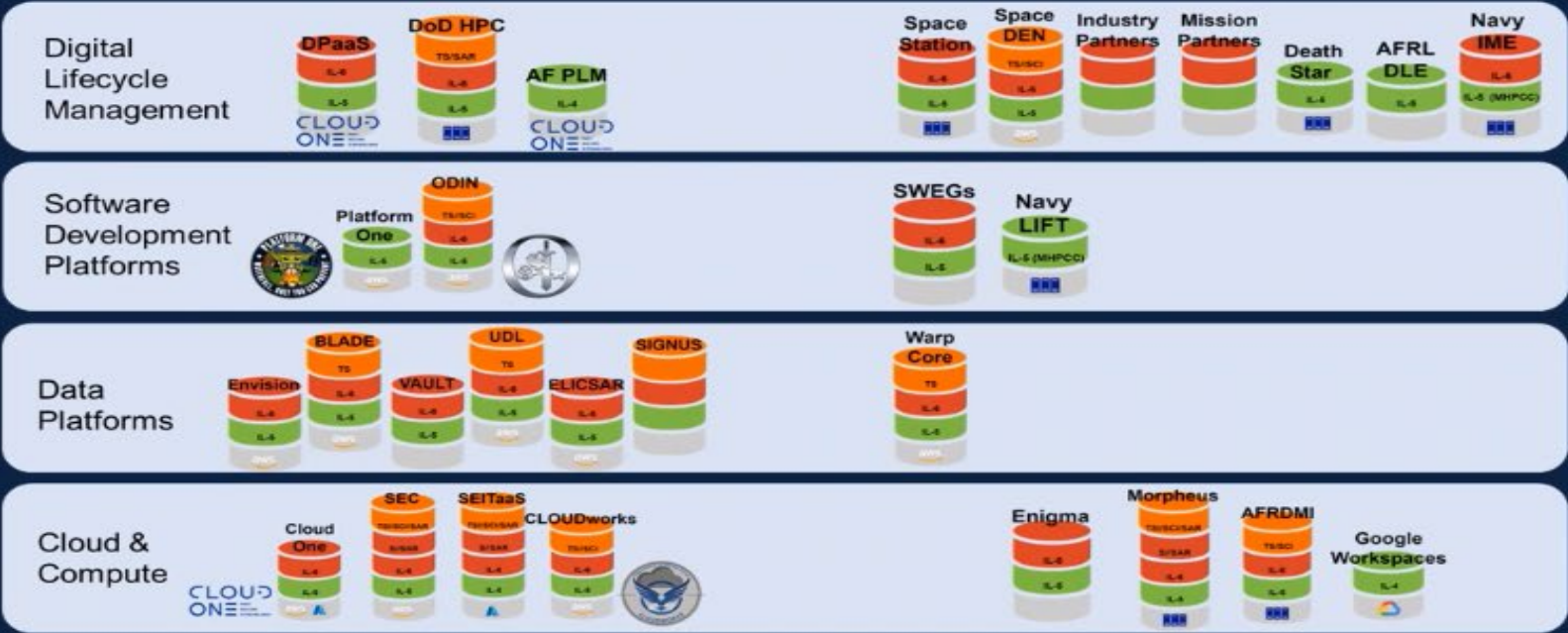


# Current Development Environments

## DAF Enterprise IDE

### Enterprise Platforms

### Non-Enterprise Platforms



Problem Statement: Current capabilities are stove piped and do not meet the requirements of critical programs like C3BM

Solution: Converge duplicative efforts to create an Enterprise Integrated Digital Environment (IDE) across all classification levels





# ***The Need for the Right Data (At the Right Time)***

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- **What Data do you need to do your job and to manage your tech baseline?**
  - **Who does it need to go to for decision making and when?**
- **Access to data can be less about ownership of IP and data rights, and more about who needs to have stewardship over the authoritative source of truth (ASOT) in various phases of the lifecycle**
  - **Data access requirements should change throughout the lifecycle (e.g., as we move from invention to development, test, and sustainment)**
- **How do you plan to have your industry partners share data with government and with others in industry**



1. **Life Cycle Logistics:** ensuring that authoritative data and models and their use are included in the product support strategy and made available to the logistics and supply domain
2. **Engineering and Technical Management:** developing and acquiring the engineering and programmatic ASOT and associated enterprise IDE
3. **Program Management:** planning and budgeting for data and models, selecting acquisition pathways and defining appropriate DE model-based review processes, staffing the program office with sufficient digitally skilled program office personnel
4. **Test & Evaluation:** V&V requirements and operational assessment with and of models, capturing appropriate digital test artifacts
5. **Business Financial Management/Cost Estimating:** reflecting costs of and potential savings of DE in the complete, executed lifecycle of a system
6. **Contracting:** incorporating data and model exchanges, and digital review processes into the Statement of Work (SOW), defining data and model exchange and delivery requirements
7. **Audit:** ensuring appropriate management of program digital artifacts so curation is possible





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