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ACQUISITION INNOVATION
RESEARCH CENTER

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A UNIQUE COLLABORATIVE DOD UARC
(UNIVERSITY AFFILIATED RESEARCH CENTER)

Briefing to INCOSE, 30 January 2022

Tom McDermott, Deputy Director and CTO

Enterprises and Innovation

- *Comprehensive Enterprise/ SoS Modeling and Analysis*
- *Mission/SoS Engineering*
- *Digital Enterprise Transformation*

Models and Data

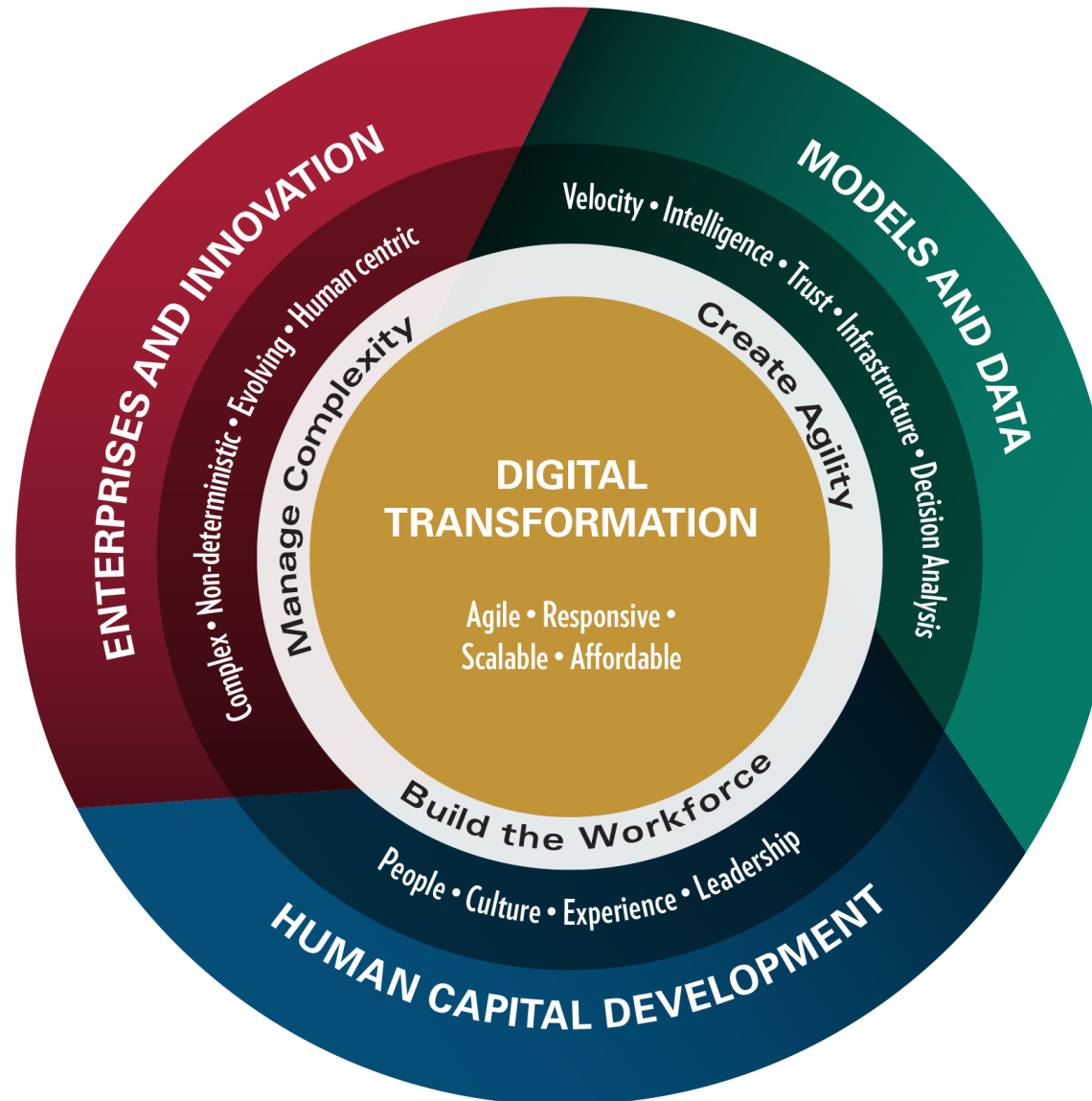
- *Security & Resilience*
- *Reference Architectures*

Human Capital Development

- *SE Body of Knowledge*
- *Digital Literacy/Experience*
- *SE and Technical Leadership*
- *Cyber Resilience*

Digital Transformation

- *Velocity and Agility*
- *Digital Engineering*
- *SE Methods for AI and Autonomous Systems*



Enterprises and Innovation

- *Innovation Culture*
- *Intellectual Property*
- *Portfolio-based Acquisition*
- *Digital Enterprise Transformation*

Models and Data

- *Data Infrastructure*
- *Analytic Platform*

Human Capital Development

- *Digital Competencies*
- *Leadership & Innovation Culture*
- *Cognitive Assistants*

Digital Transformation

- *Data Management & Sharing*
- *End-to-end Lifecycles*
- *Policy Analytics*
- *Agile Program Management*

Acquisition Innovation

Timely Delivery of Effective Capabilities for Our Warfighters



INFORMATION

Data and Knowledge Sharing Across DoD, Industry, and Academia

Enable and align secure information flows to inform, improve, and accelerate acquisition functions and decisions



ACQUISITION TOOLS AND FUNCTIONS

Enable and Improve Our Tradecraft

Leverage information, models, and commercial innovation to improve functions and outcomes



POLICY TEST RANGES AND DECISION TOOLS

Assess Ideas and Inform Decisions to Improve Policies and Processes

Models and analytics for evidence-based decision making



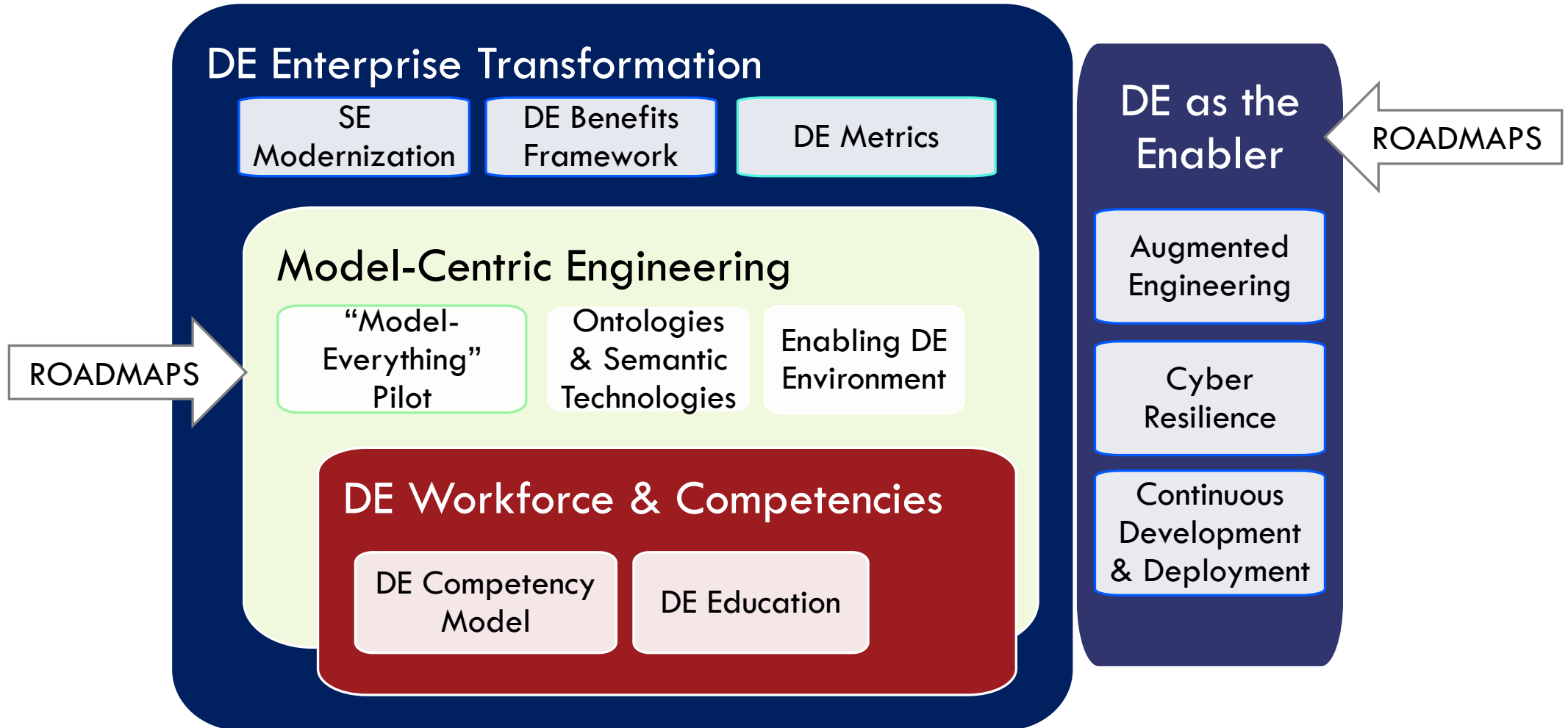
PEOPLE AND CULTURE

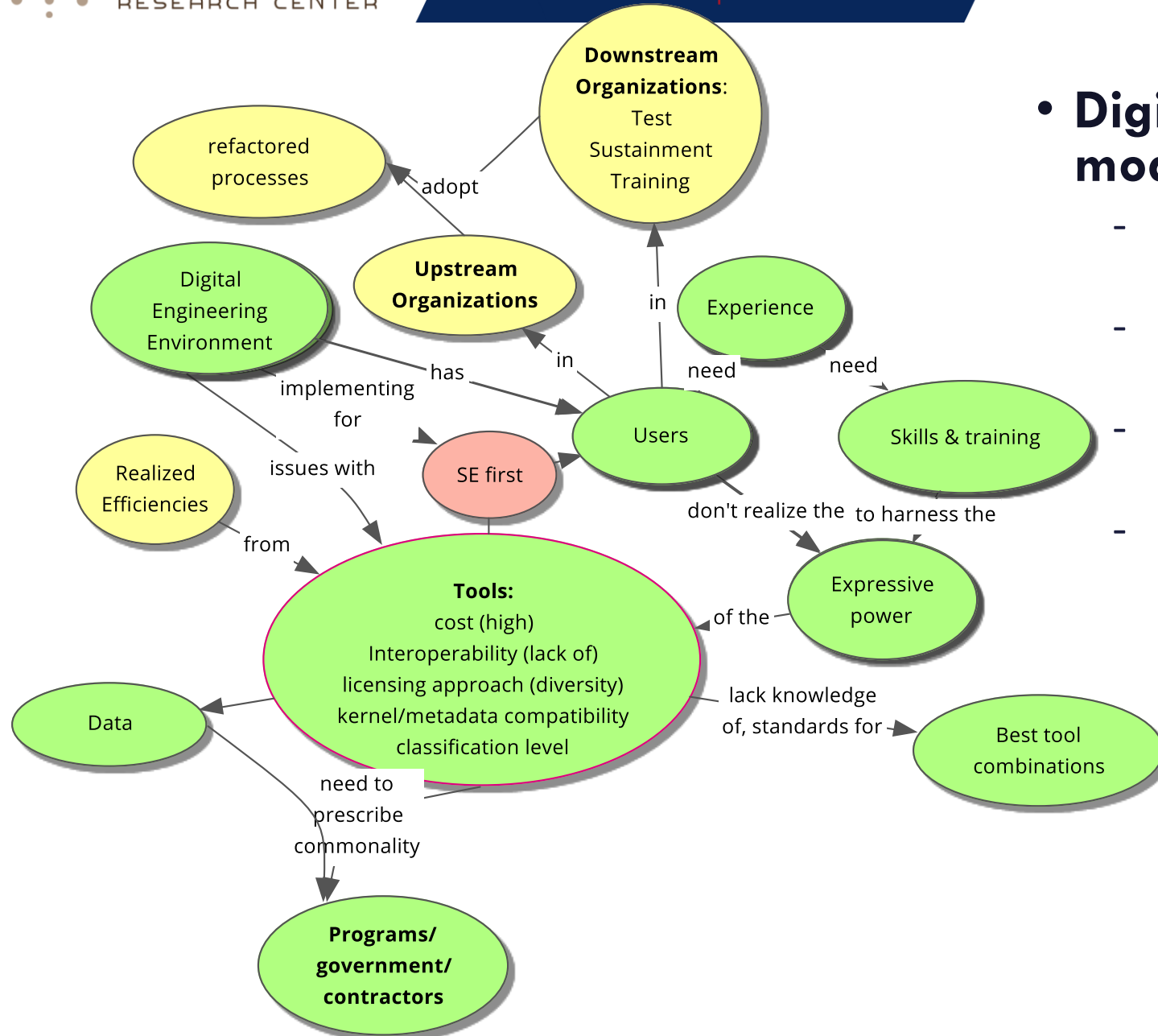
Agile Workforce, Leadership, and Organizations

Enable & incentivize agile, innovative, and outcome-focused communities. Modern education & training

DATA SCIENCE; ENGINEERING; MANAGEMENT; BUSINESS; LAW; PUBLIC POLICY; PSYCHOLOGY; EDUCATION

Digital Acquisition Digital Data/Analytic Strategy

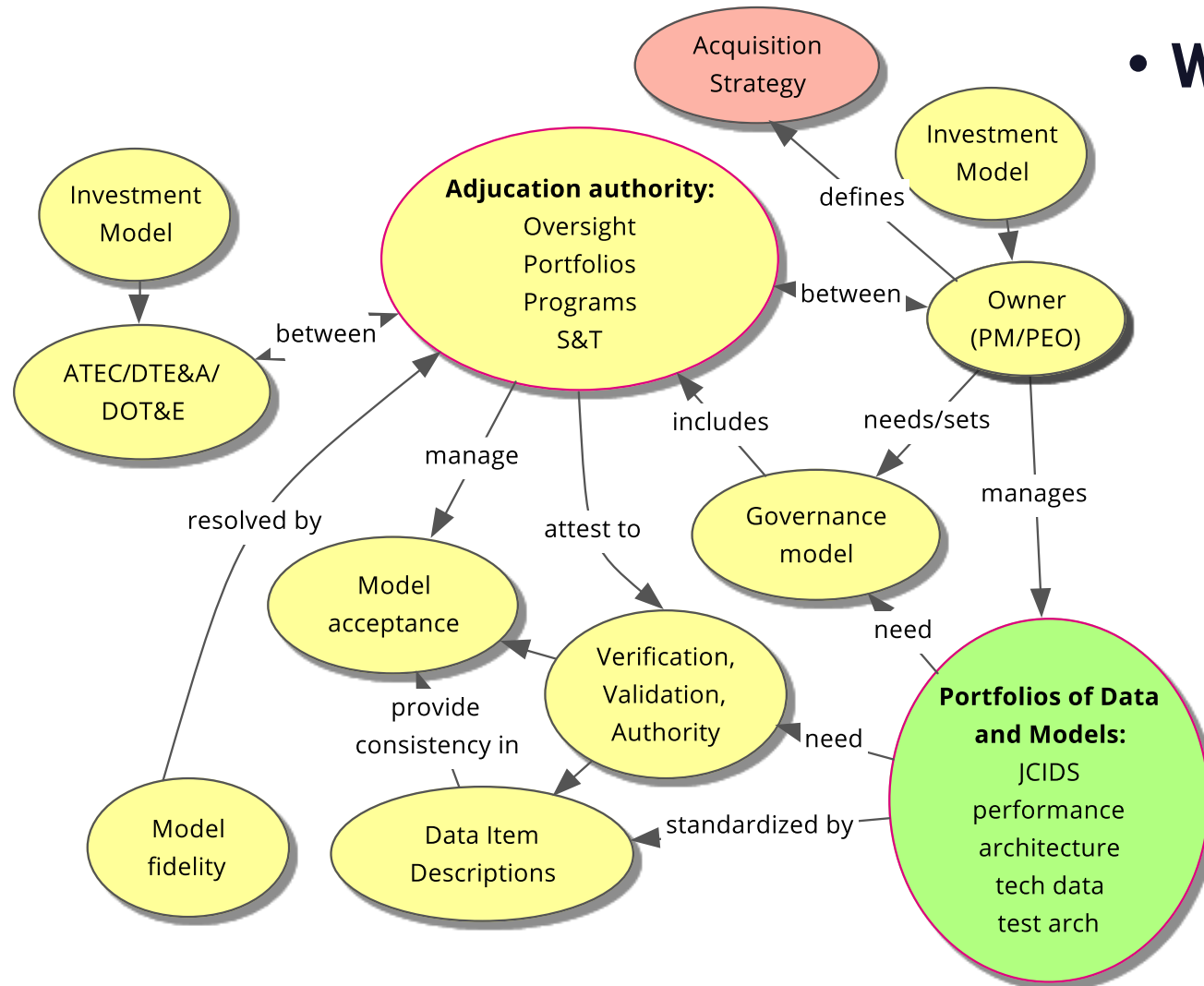




• **Digital Tools will drive SE modernization**

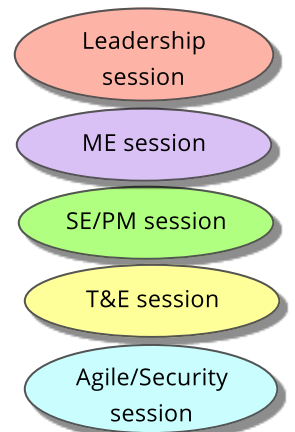
- **But are evolving** and still not mature enough
- Still learning how to best use them
- Need to settle on best tool combinations
- Need metrics for realized efficiencies

- Leadership session
- ME session
- SE/PM session
- T&E session
- Agile/Security session

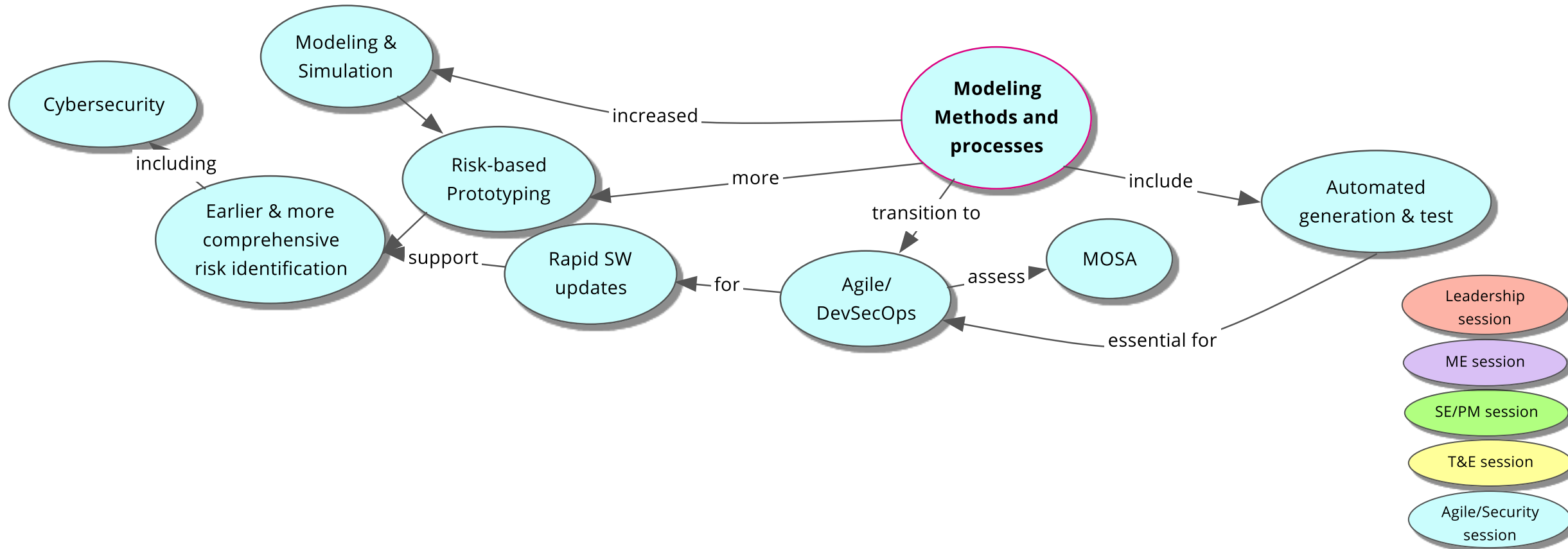


• Who owns the models and data?

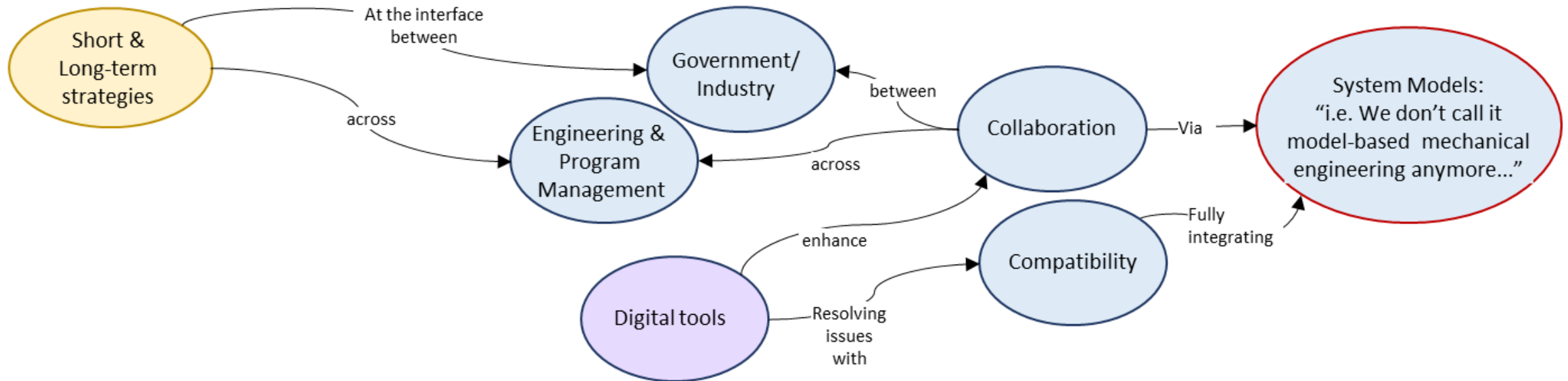
- Reqs and Test will need to converge around models
- Need governance model, V&V authority
- Clarity on authority designation: portfolio manager, PM/PMO, Test

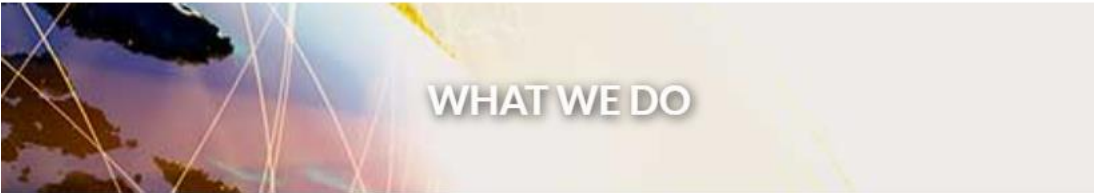


- Overcoming stovepipes in modeling methods and processes
Agile mindset needed

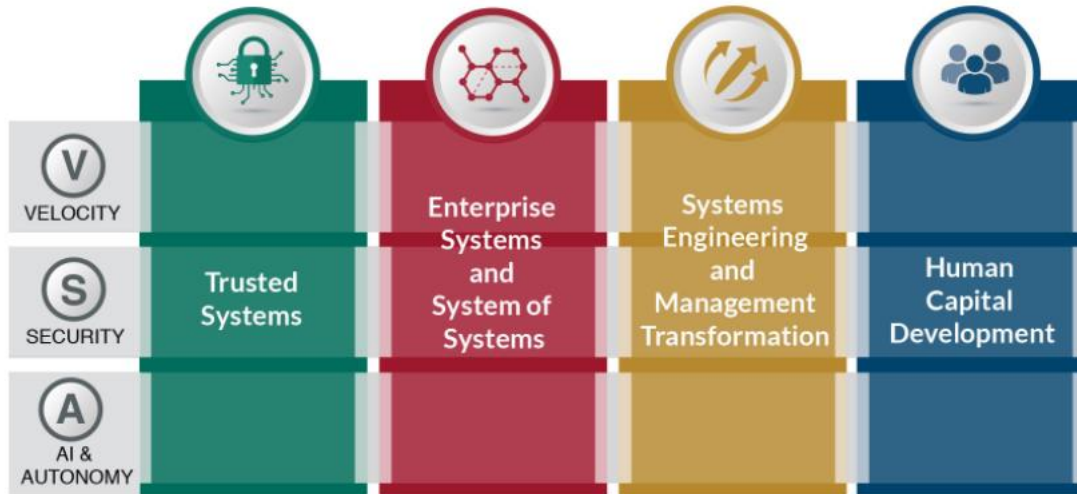


- Perhaps the guiding vision requires developing a long & short term strategy

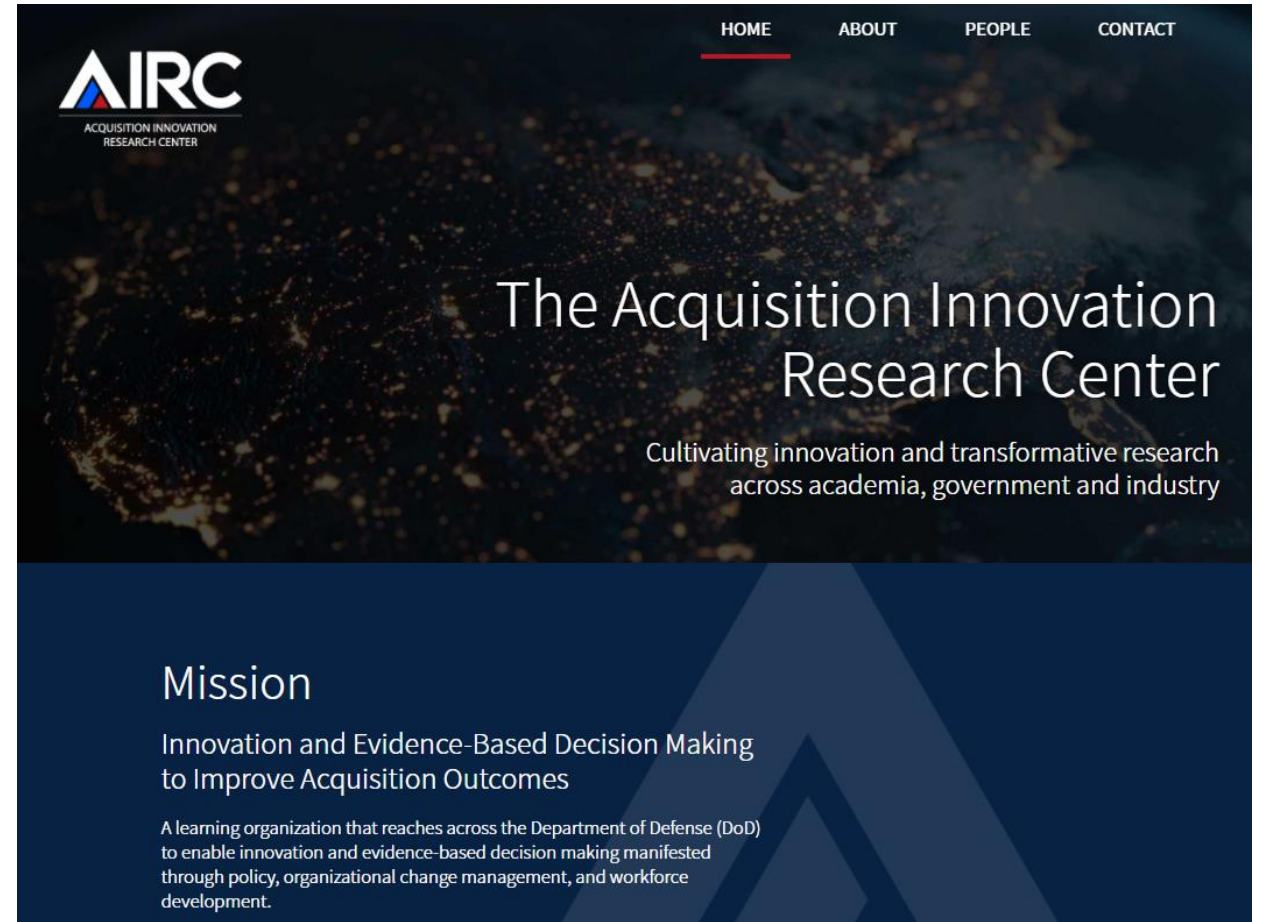




TECHNICAL PLAN | RESEARCH ROADMAPS | RESEARCH TRANSITION REPORT | ANNUAL REPORTS



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The Acquisition Innovation Research Center

Cultivating innovation and transformative research across academia, government and industry

Mission

Innovation and Evidence-Based Decision Making to Improve Acquisition Outcomes

A learning organization that reaches across the Department of Defense (DoD) to enable innovation and evidence-based decision making manifested through policy, organizational change management, and workforce development.

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