

Digital Engineering (DE)

The Next Chapter of MBSE

Paul White

April 13, 2021

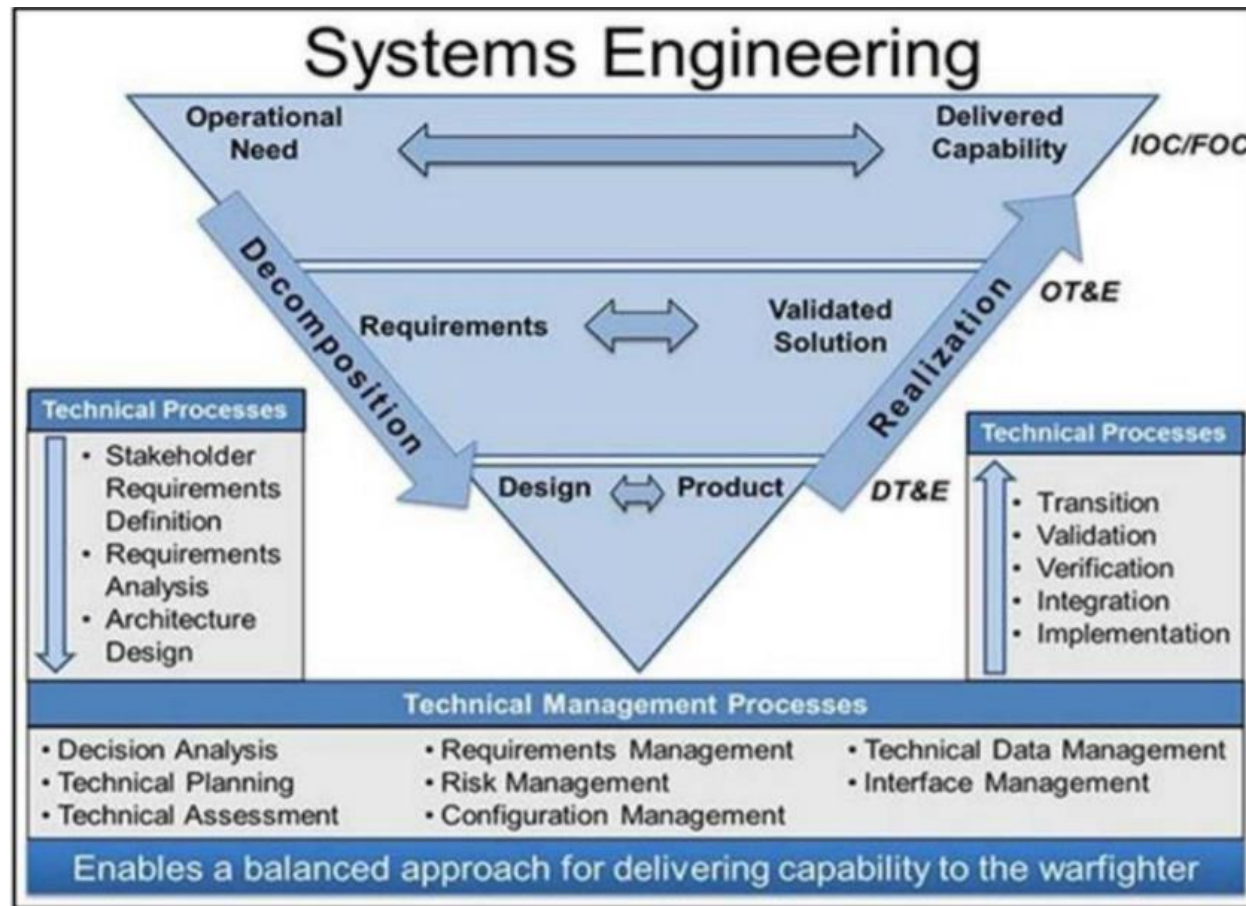


Introduction

- What is Systems Engineering?
- Model Based Systems Engineering (MBSE)
- Digital Engineering vs. MBSE
- Digital Engineering Strategy & Goals
- Next Steps



What is Systems Engineering?

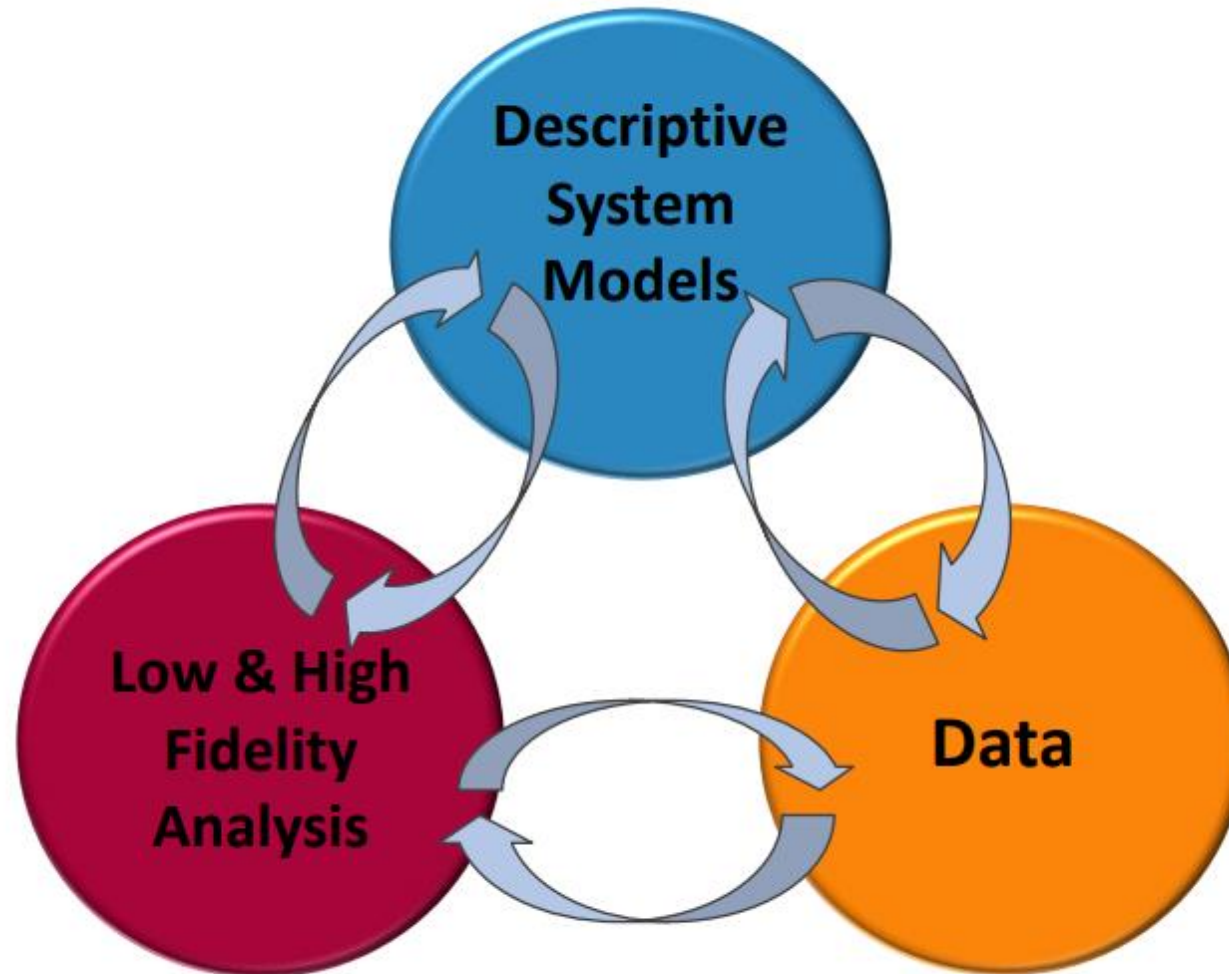


But I Am Not a Systems Engineer ...

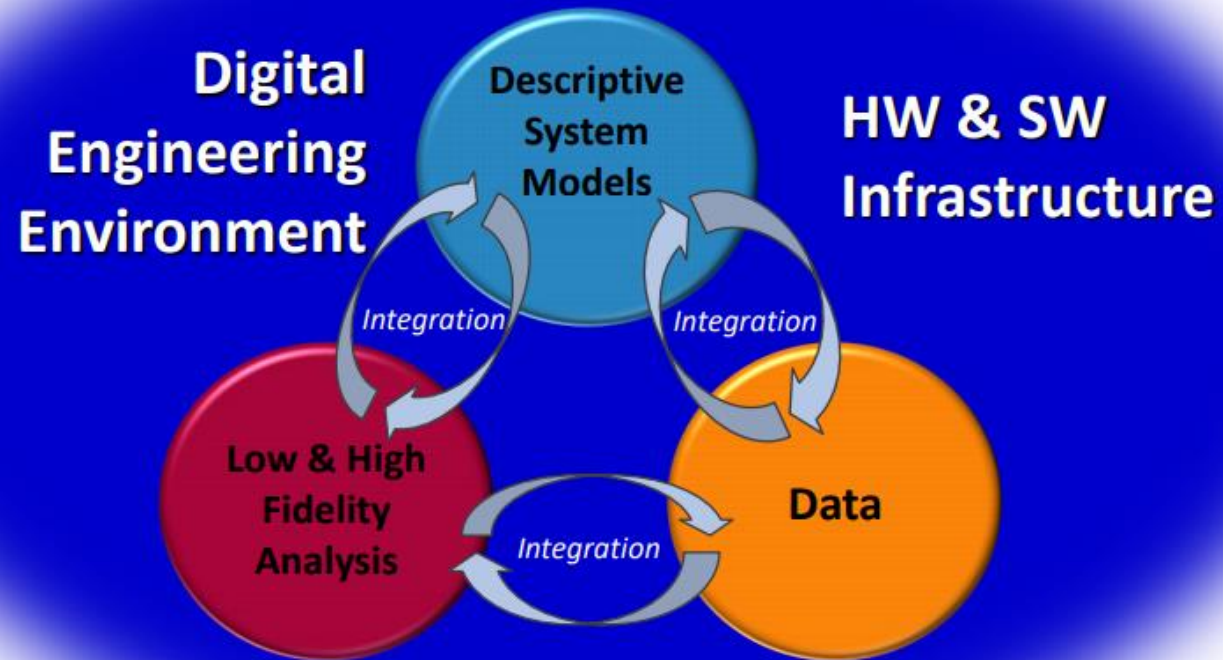


The 68th United Nations Civil Society Conference
BUILDING INCLUSIVE AND SUSTAINABLE CITIES AND COMMUNITIES
26 - 28 August 2019
Salt Lake City, Utah, USA

Model Based Systems Engineering (MBSE)



Digital Engineering vs. MBSE



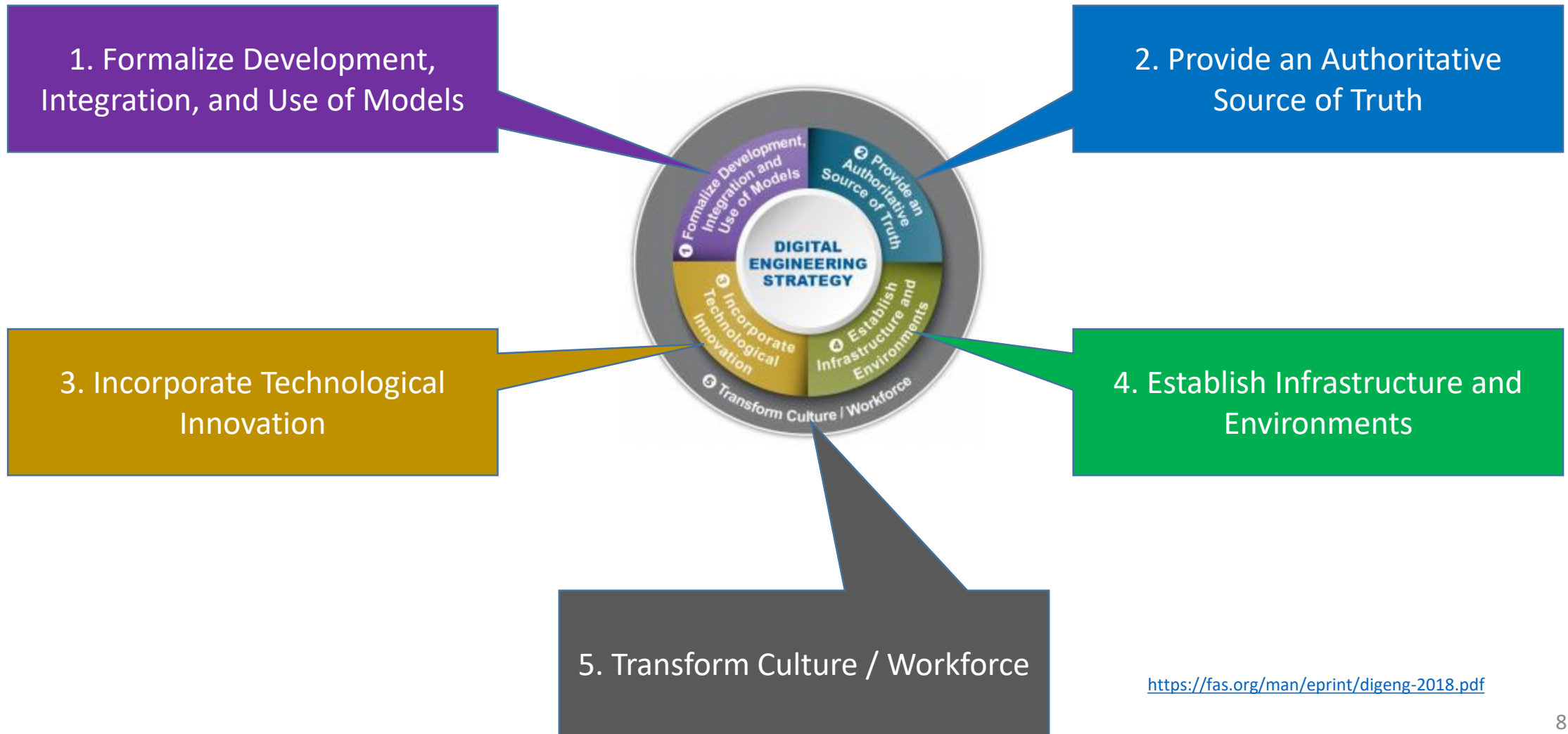
Office of Secretary of Defense (OSD) – Digital Engineering Strategy (DES)



- June 2018
- Purpose & Vision
- Goals & Focus Areas
- Next Steps

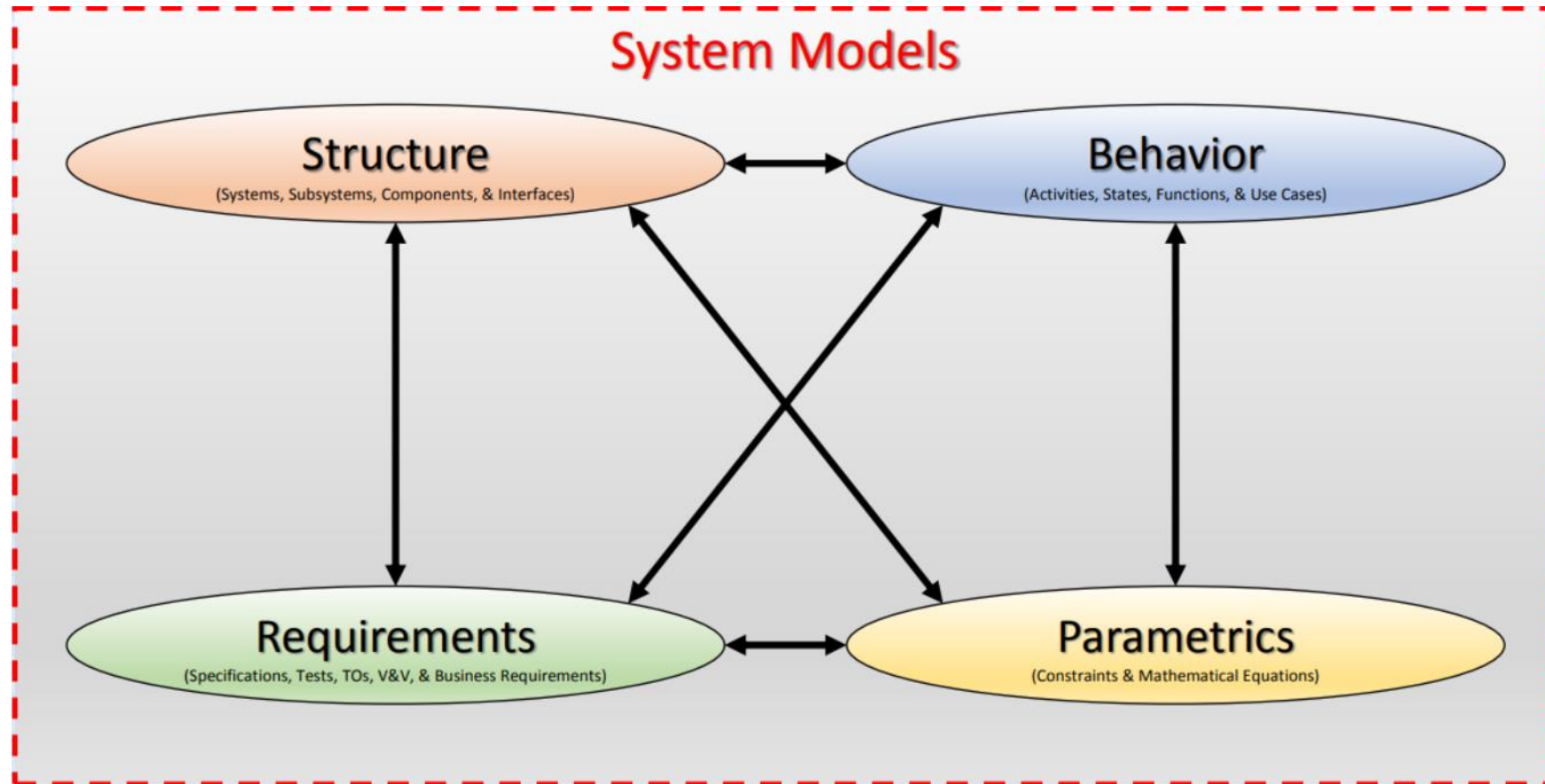
<https://fas.org/man/eprint/digeng-2018.pdf>

DES – Goals & Focus Areas

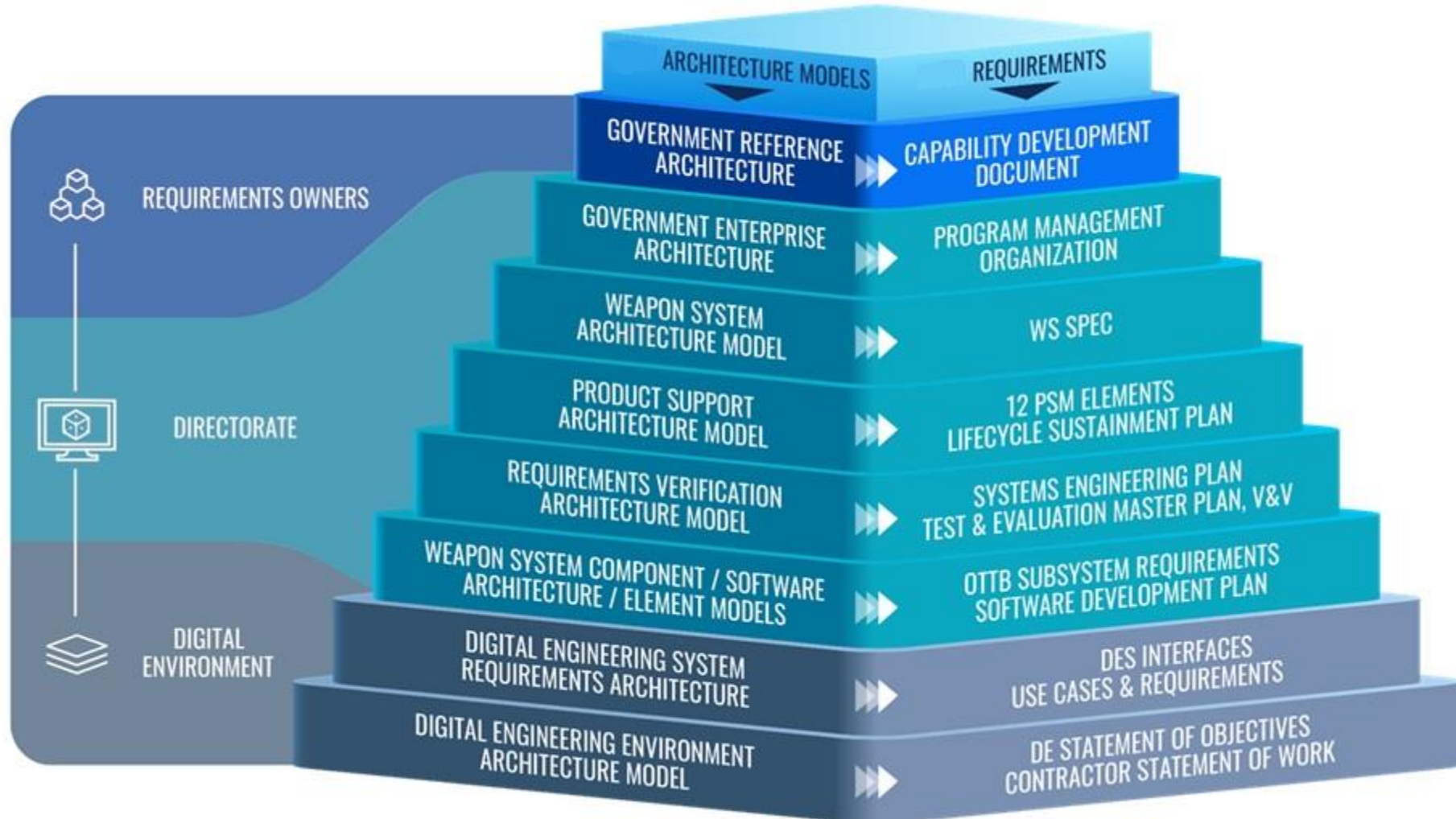


Goal #1:

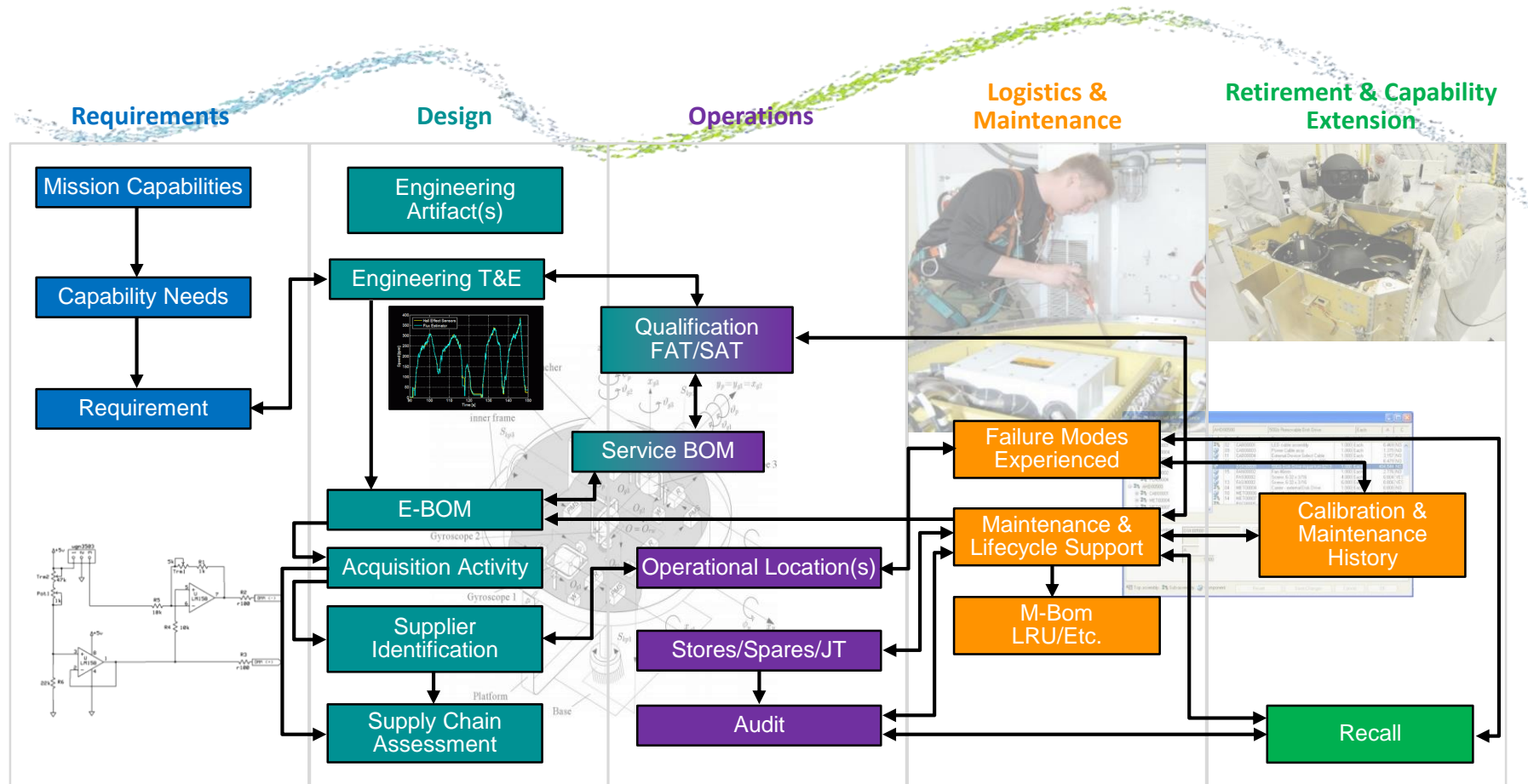
Formalize Development, Integration, and Use of Models



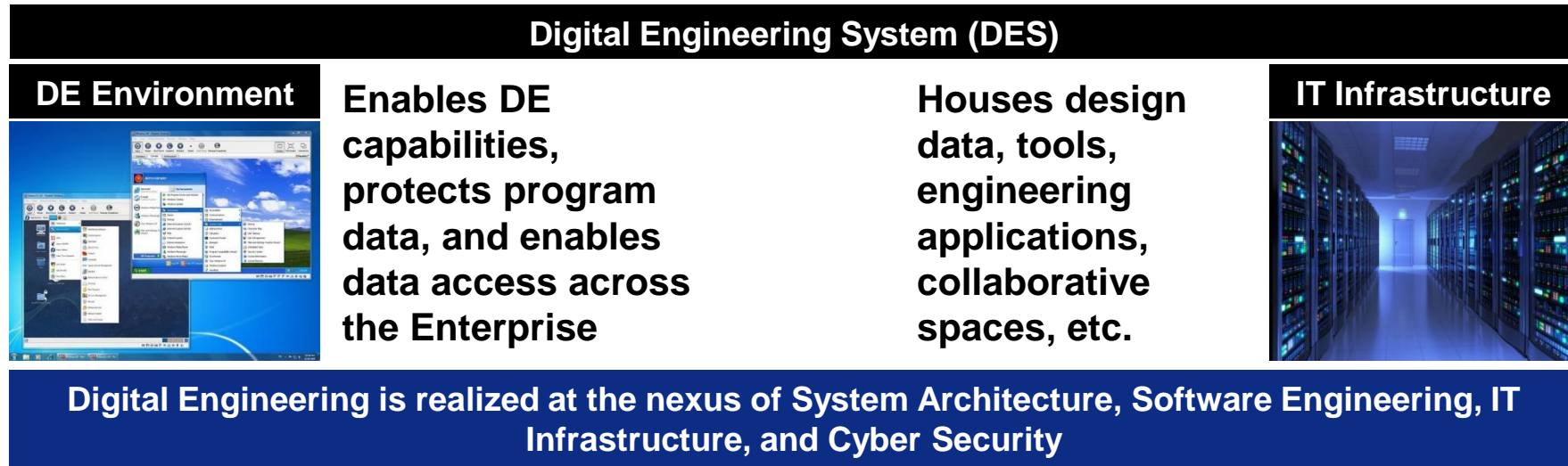
Goal #2: Provide an Authoritative Source of Truth



Goal #3: Incorporate Technological Innovation

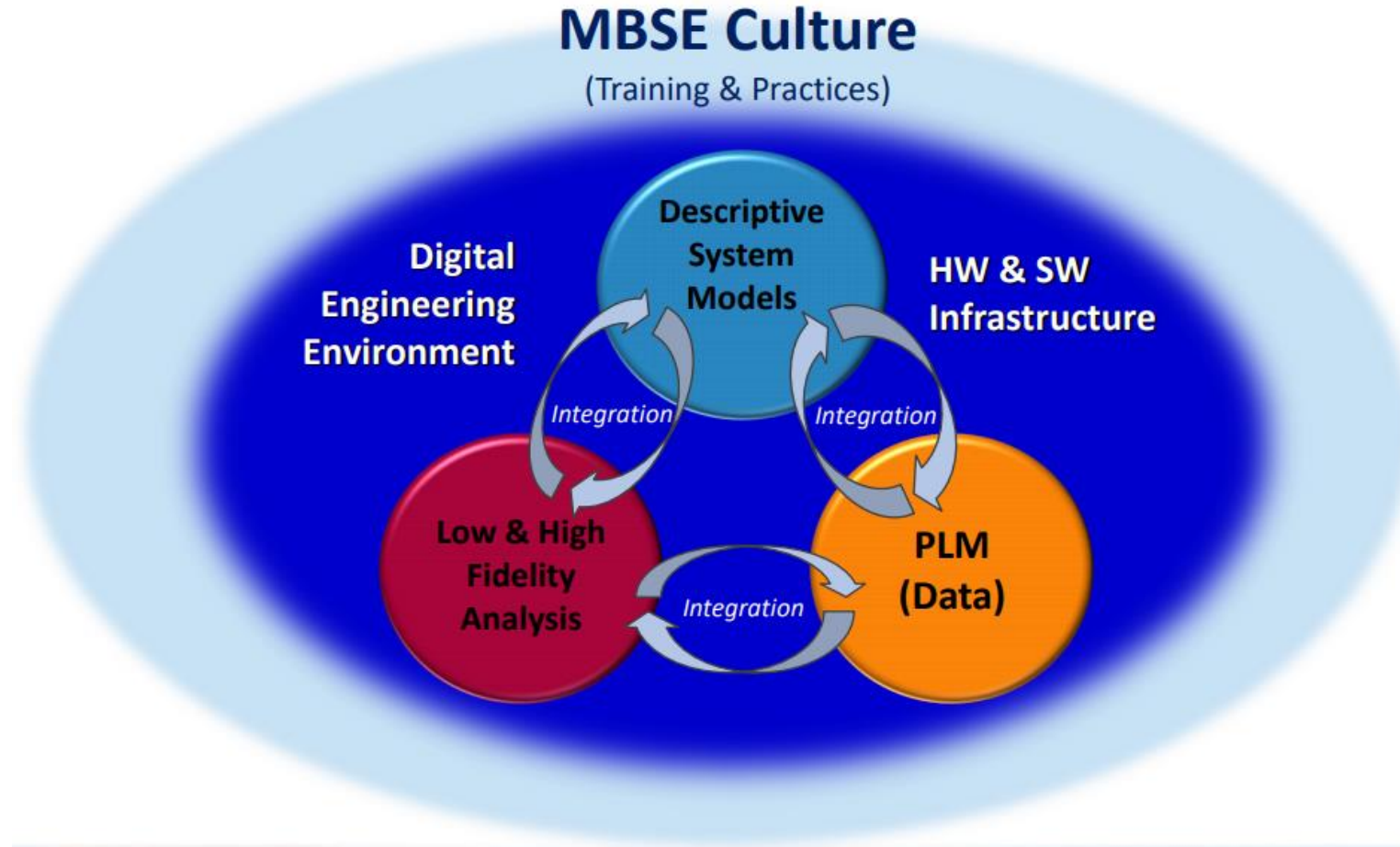


Goal #4: Establish Infrastructure and Environments

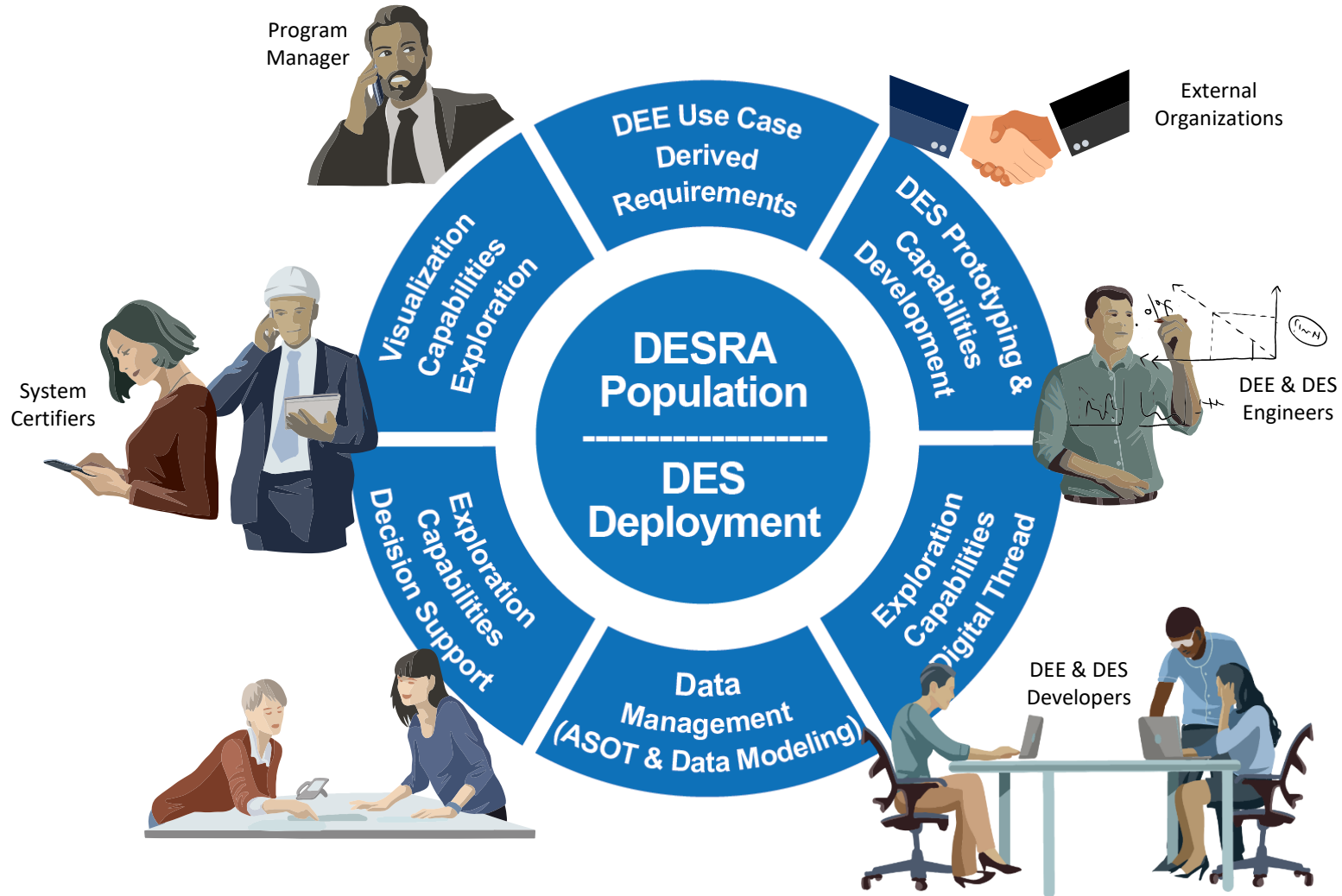


Goal #5: Transform Culture / Workforce

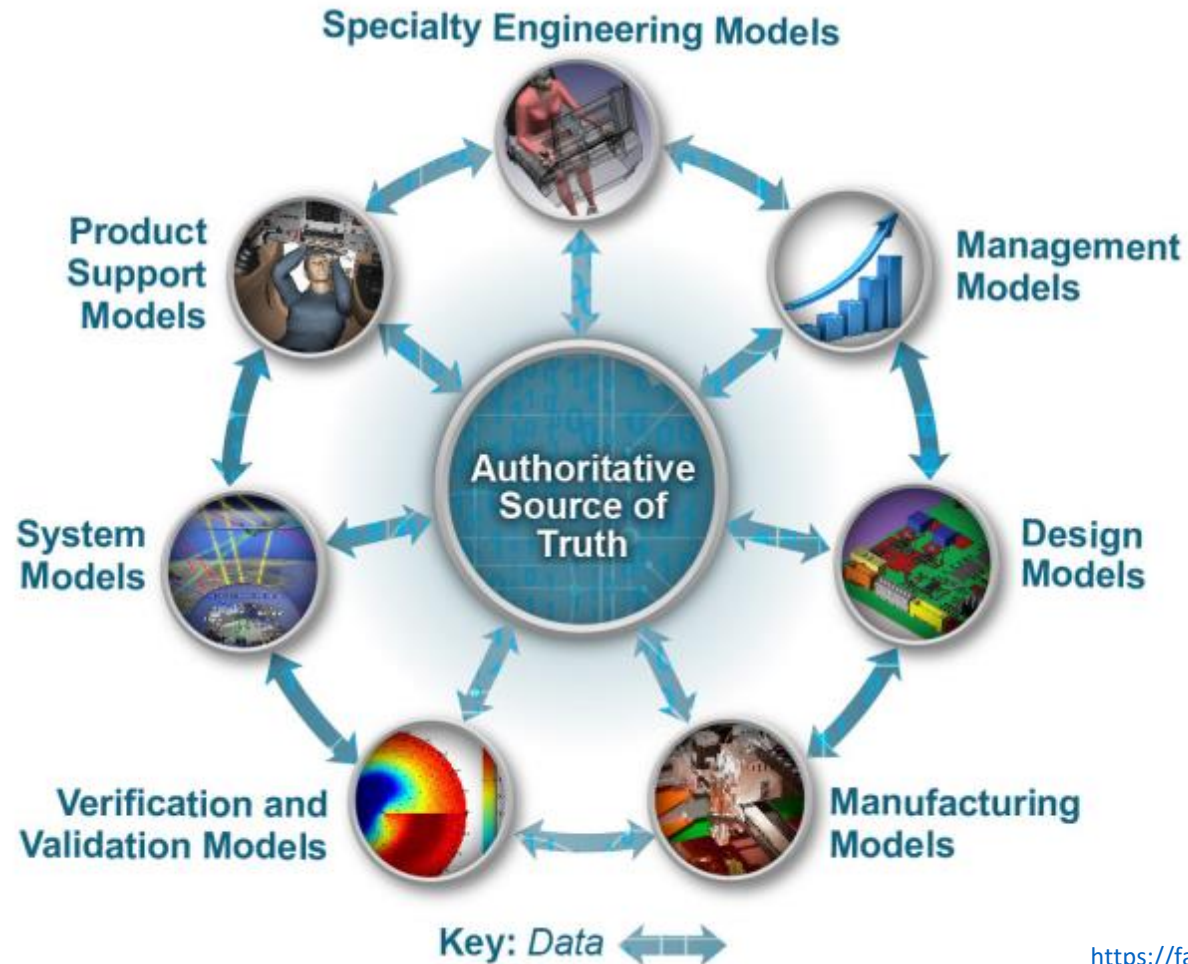
MBSE Culture (Training & Practices)



Next Steps: What Are Your Stakeholders & Needs?

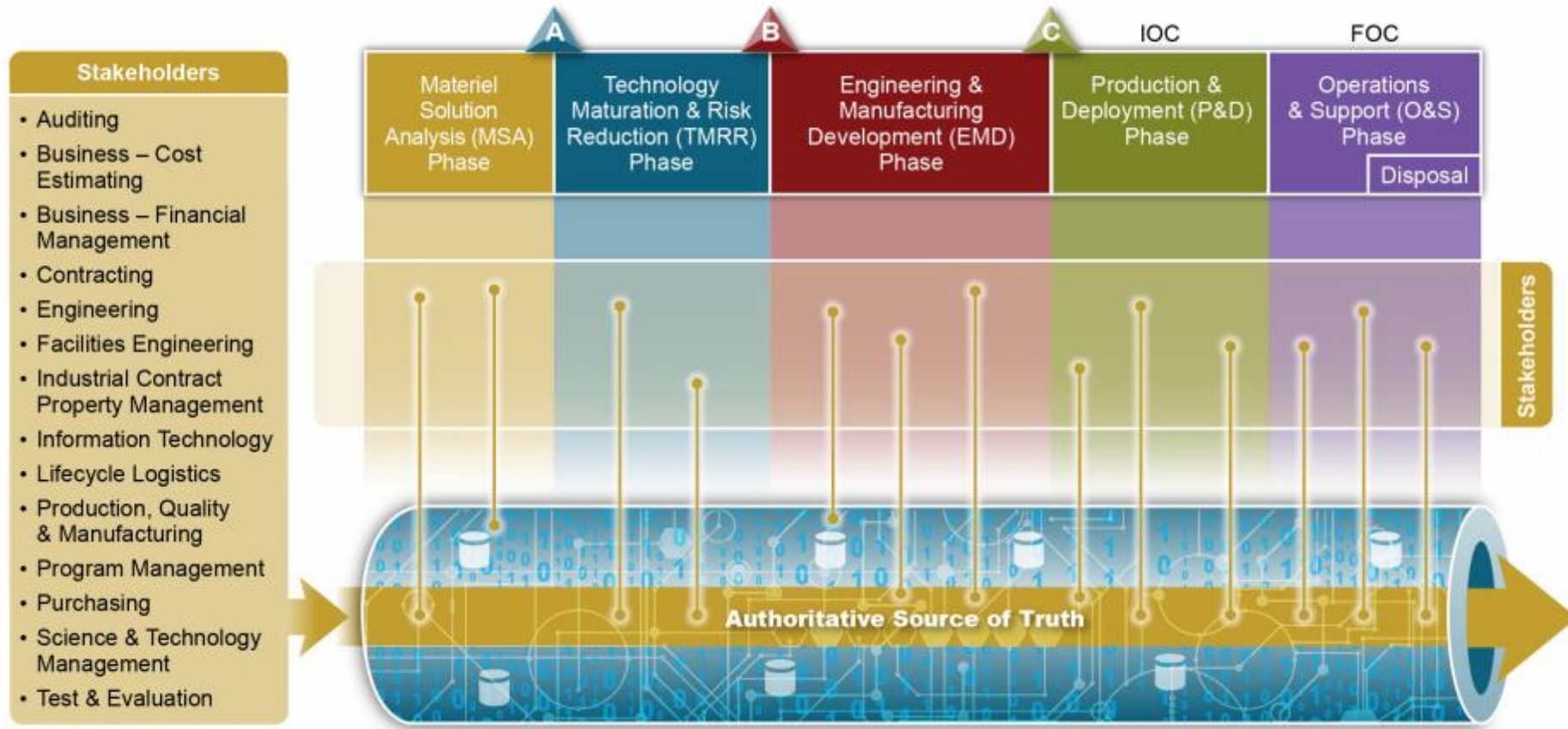


Next Steps: How Will You Formalize Models?

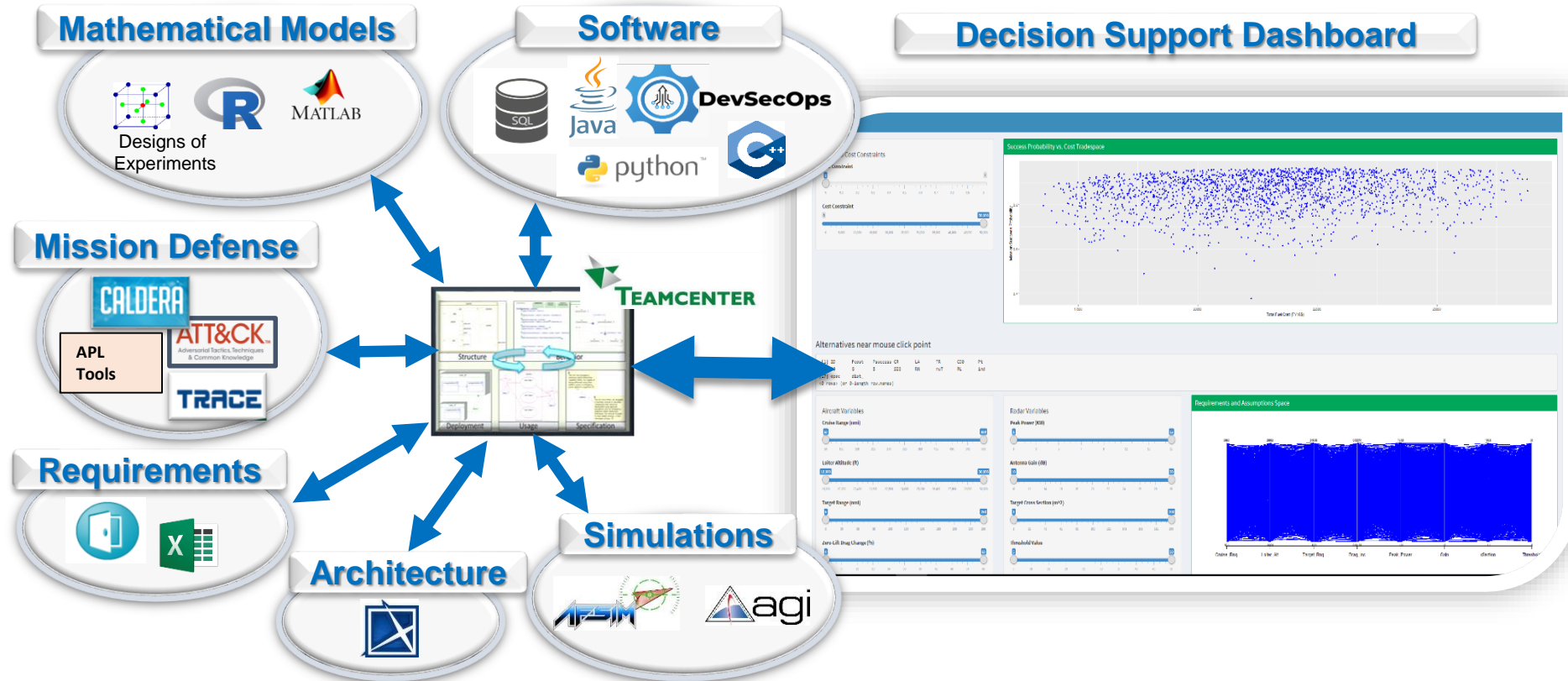


<https://fas.org/man/eprint/digeng-2018.pdf>

Next Steps: How Will You Establish ASOTs?



Next Steps: How Incorporate Technological Innovation?



Pursuing automation wherever possible as supported by technology (ex. CALDERA, TRACE, APL Tools)

Next Steps: How Will You Set Up the DEE?



<https://fas.org/man/eprint/digeng-2018.pdf>

Next Steps: How Will You Transform Your Culture?



<https://fas.org/man/eprint/digeng-2018.pdf>

Conclusion

- We all do systems engineering.
- Digital Engineering is the next generation of Model Based Systems Engineering
- Come as you are!
- Take next steps into the future!



Questions?

Paul White

- paulwhite849@gmail.com
- 385-393-2137

