



Systems Engineering Modernization Initiative

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OUSD(RE)

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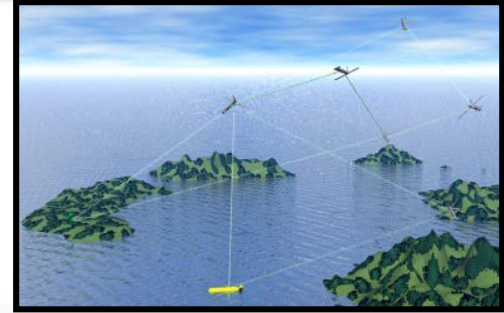


USD(R&E) Mission



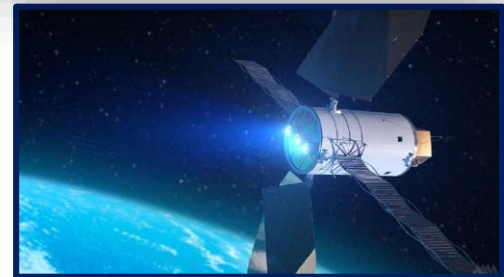
■ Ensure Technological Superiority for the U.S. Military

- Set the technical direction for the Department of Defense
- Champion and pursue new capabilities, concepts, and prototyping activities throughout the DoD research and development enterprise



■ Bolster Modernization

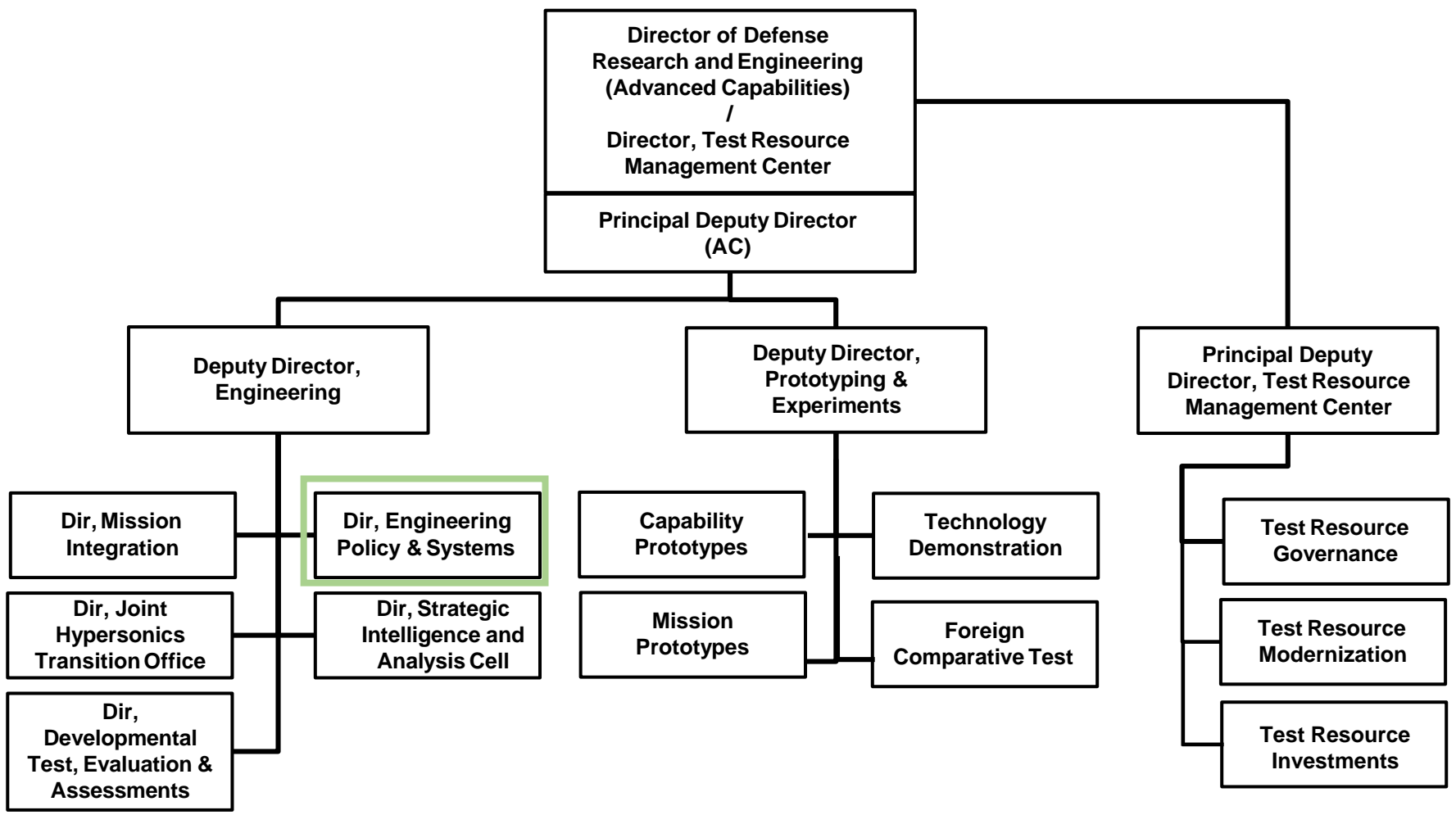
- Pilot new acquisition pathways and concepts of operation
- Accelerate capabilities to the warfighter



“Our mission is to ensure that we, if necessary, reestablish and then maintain our technical advantage.” – Under Secretary Griffin, April 2018



DDR&E(AC) Organization





Introduction



OBJECTIVE: Modernize Systems Engineering to support the delivery of capability to meet mission needs

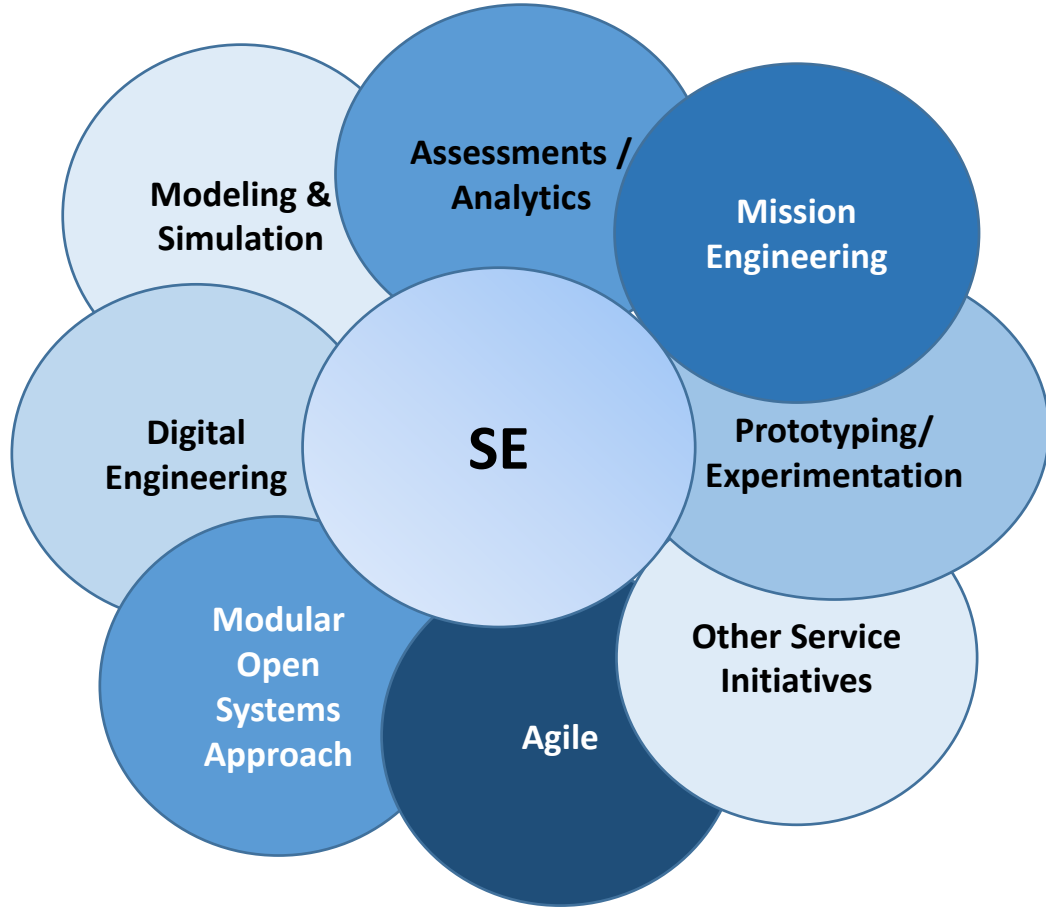
OUTCOME: Today's modern practices are outpacing current SE guidance. *SE Modernization will establish, maintain, and propagate state-of-the-art System Engineering practice, policy/guidance, and workforce development for the DoD.*

Well-crafted updates to SE will:

- Maintain and add the essential rigor that is a result of SE application
- Enable DoD to field the newest technology with more confidence and accuracy

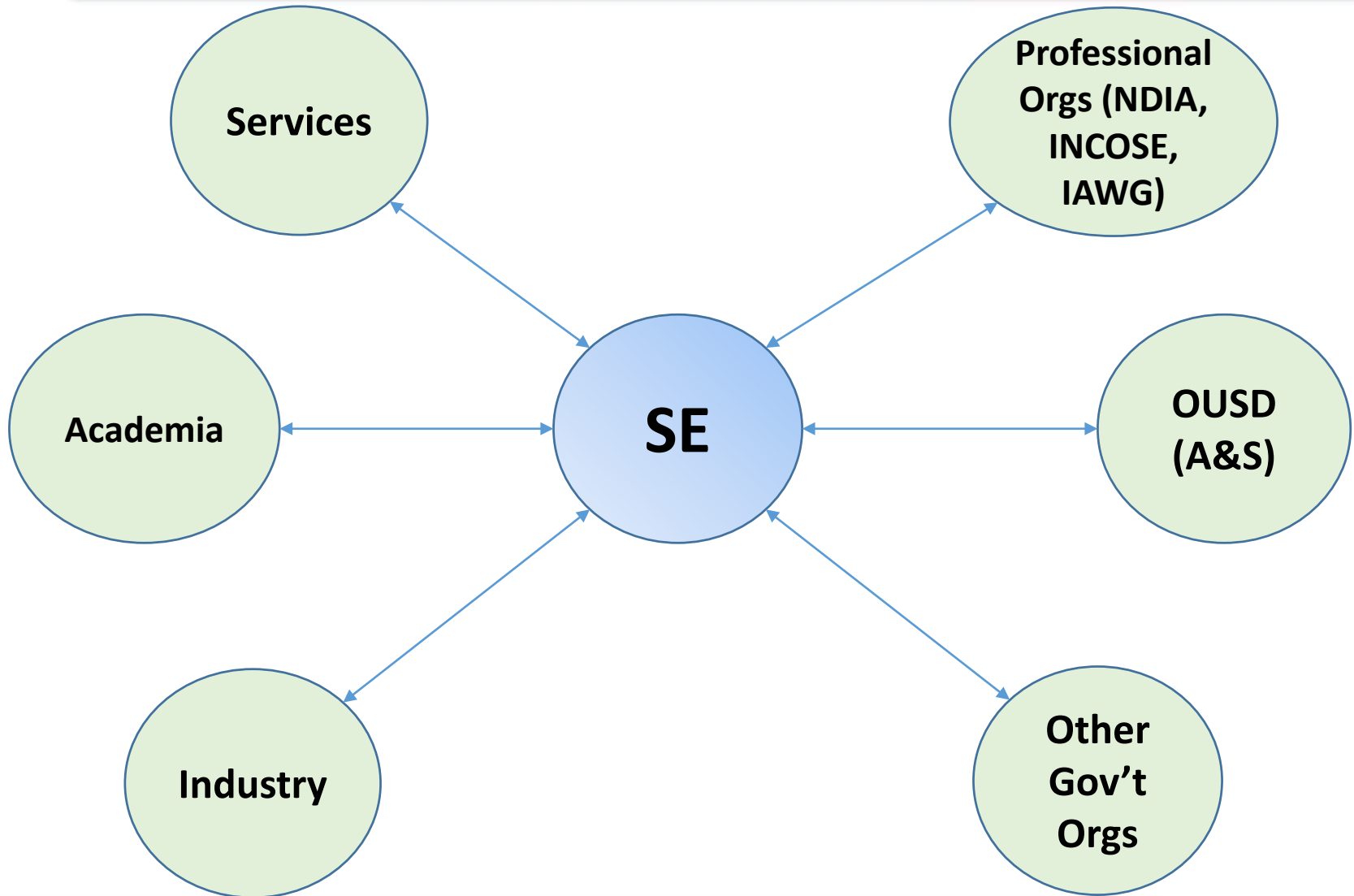


Integrating Modern Practices





Stakeholders





Approach

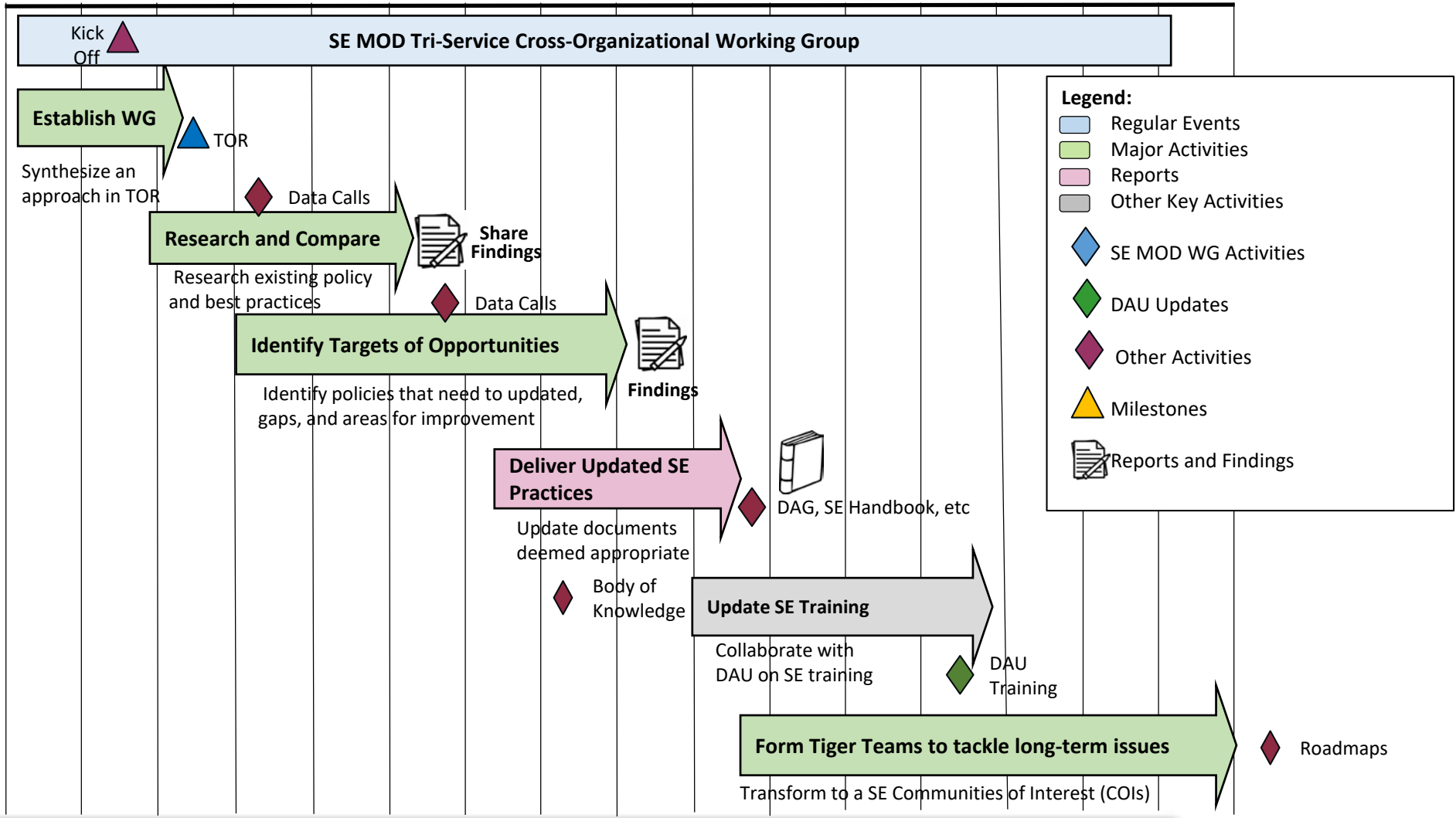


- **Update policy and guidance** by capturing industry and government best SE practices associated with digital engineering, modern software development processes, modular open systems approach (MOSA), mission integration, and other on-going DoD initiatives
- **Evolve DoD engineering culture** to emphasize critical thinking and embrace flexible processes while maintaining technical rigor



Systems Engineering Modernization POAM

FY21 Q2 FY21 Q3 FY21 Q4 FY22 Q1 FY22 Q2 FY22 Q3 FY22 Q4 FY23 Q1 FY23 Q2 FY23 Q3 FY23 Q4 FY24 Q1





Important Considerations



- Leverage existing OSD initiatives (ex: DE, MOSA, Agile SW, etc.) and other initiatives (Army, Navy, Air Force, NASA, etc.) for information and best practices
- Collaborate with industry associations (NDIA, INCOSE, IAWG, etc)
- Define the problems into manageable chunks and set external boundaries
- Update training/documentation updates and new training/documentation as a result of this effort
- Establish and maintain communities of practice that connect the engineering community to solve cross-cutting engineering challenges
- Address social challenges as well as the technical challenge
- Prepare to support this long term effort

Modernizing SE is a journey of evolving mindsets & integrating initiatives – not a sprint to a destination



For Additional Information

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