



Open Architecture Complexity Technical Authority Perspective

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NAVAIR's Technical Authority Duties

□ Establish a consistent and repeatable process with PEOs/PMA's & Industry

- Develop a balanced custom OA strategy
- Identify what "not" to open
- Custom OA language into SOO, SOW, RFP
- Identify open & secure requirements (new)
- Support proposal evaluations
- Guidance to industry and other Aviation COIs



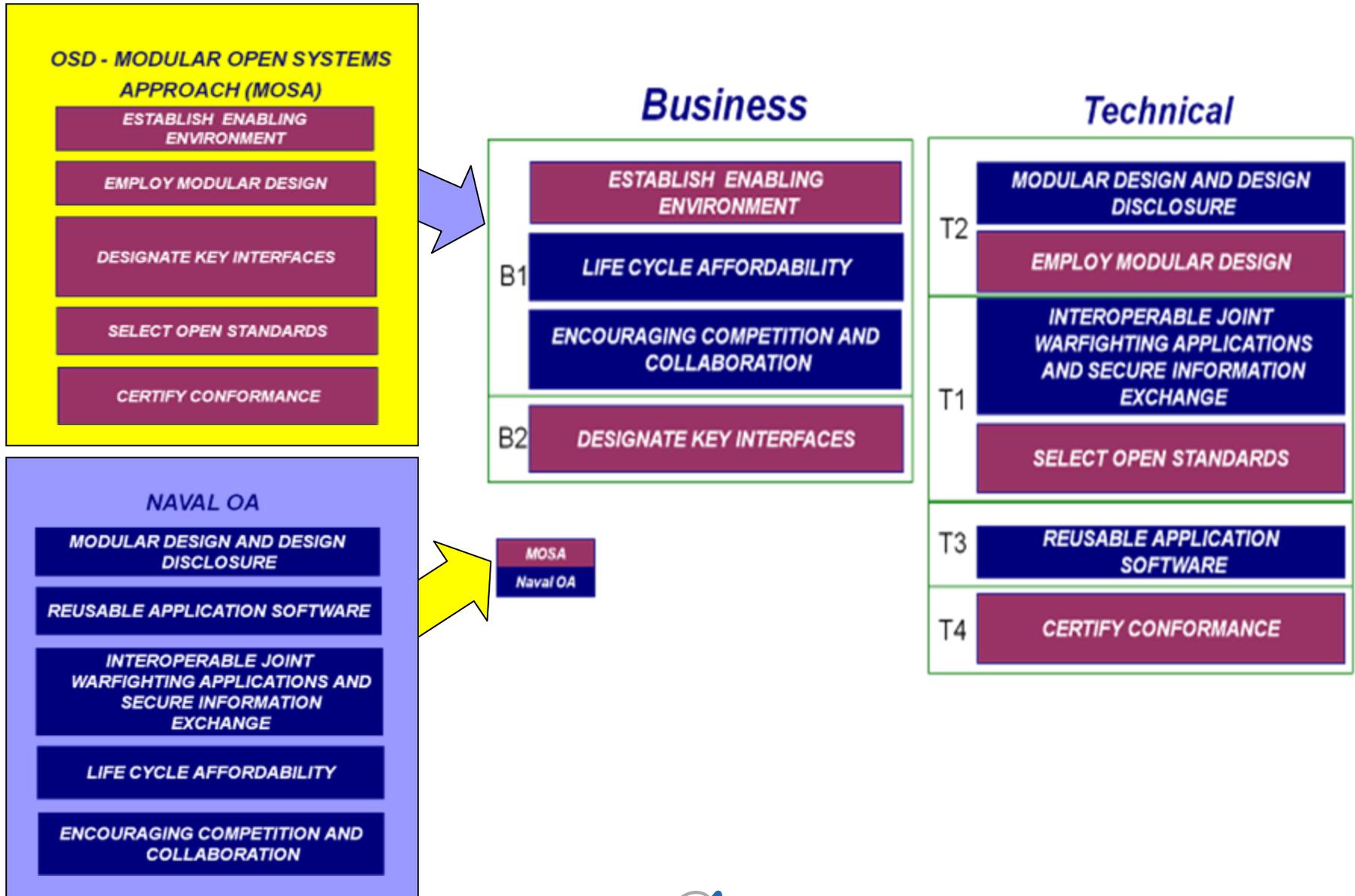
□ Independent Assessments

- Trust but verify via deep dives

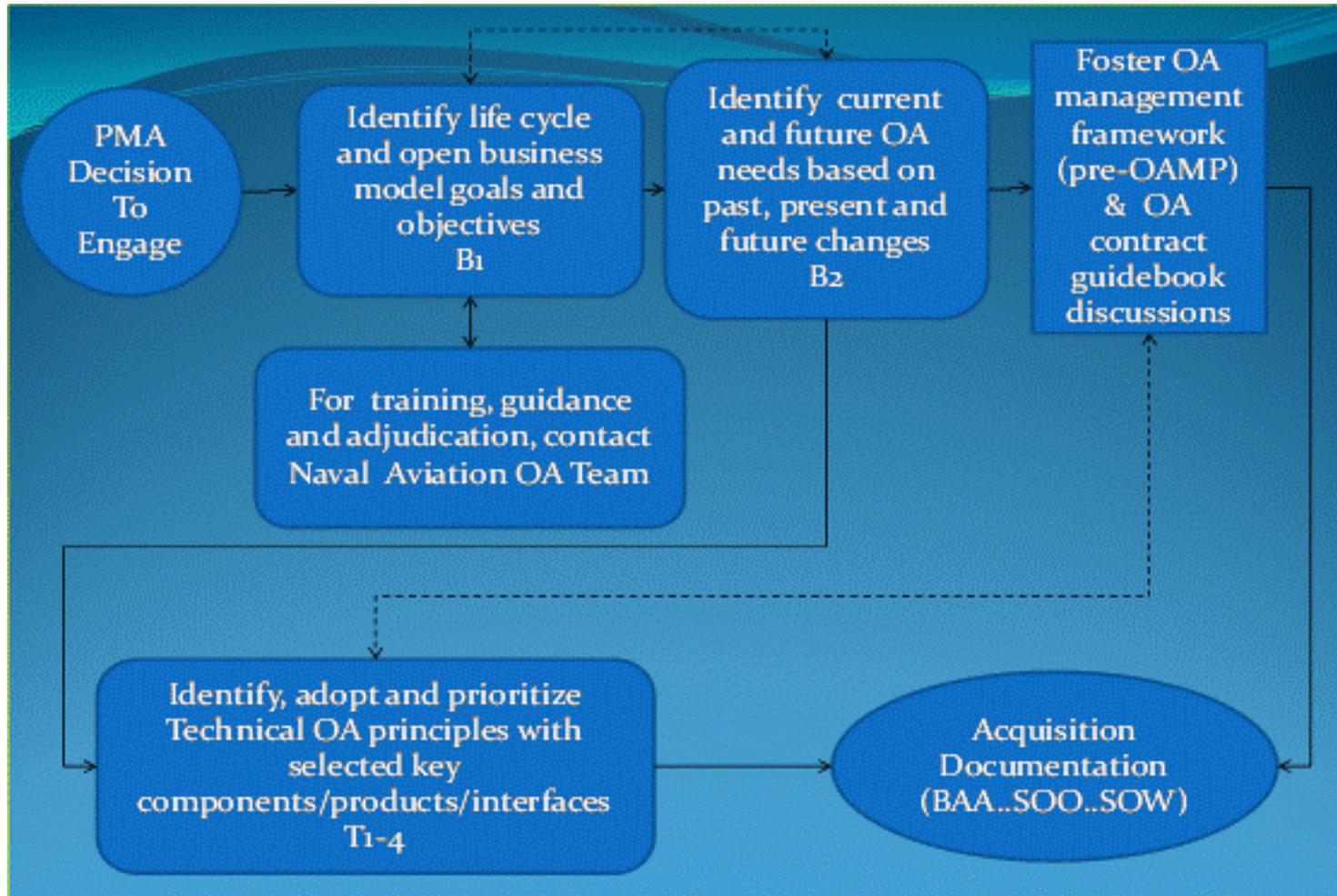


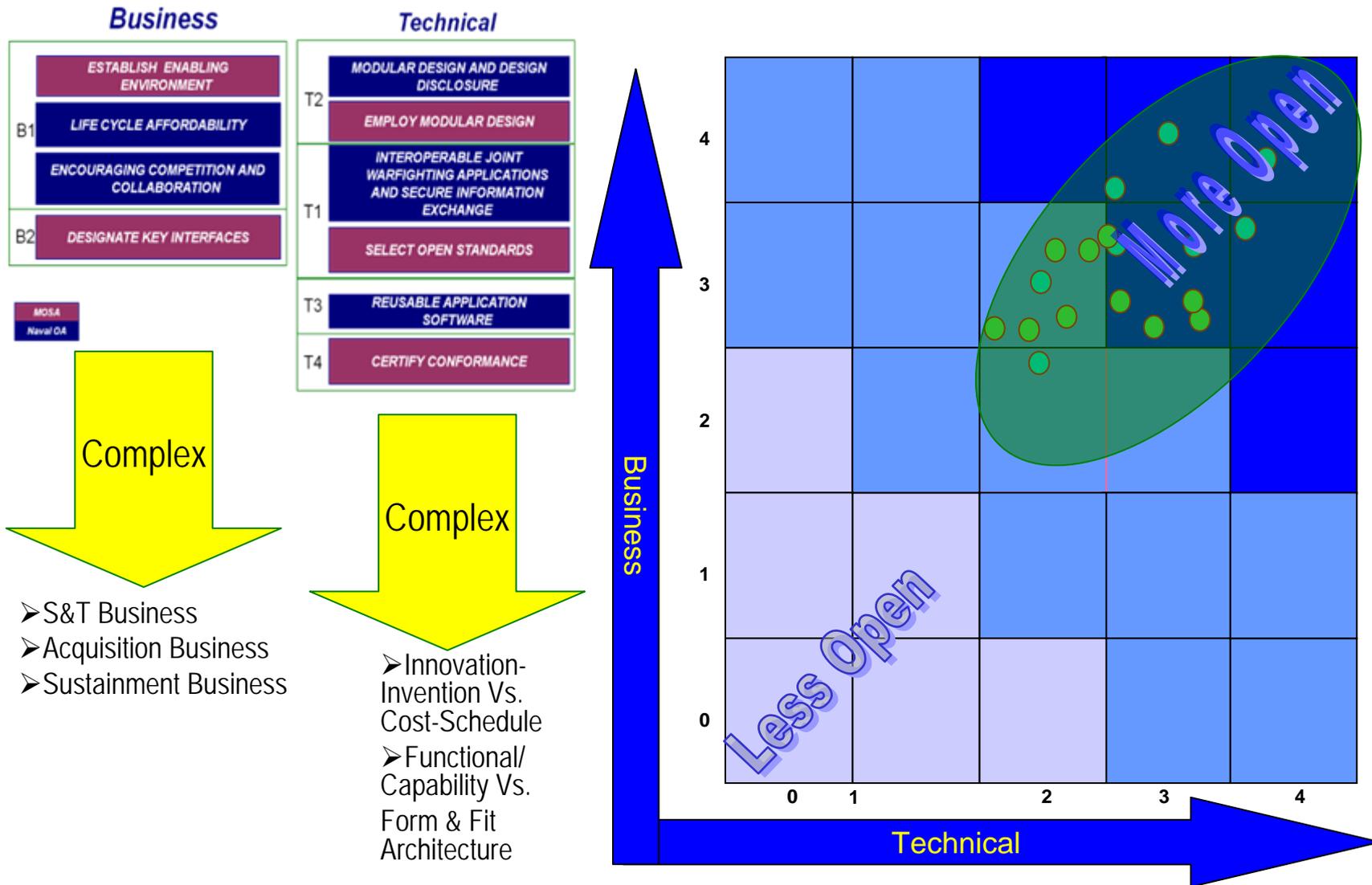
Critical Mass

Complexity Thru Fundamentals – MOSA & NOA



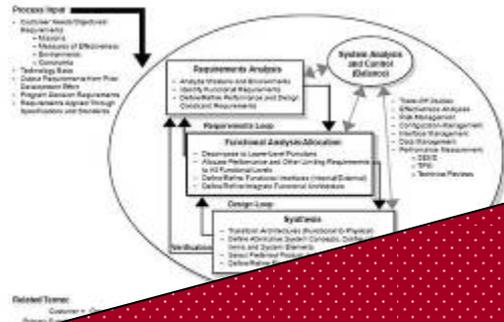
Custom Strategy: Consistent and Repeatable Process





How Can S&T And Acquisition Better Align To Strengthen Open Technology/Acquisition Principles?

Today's Systems Engineering



Today's DoD Systems

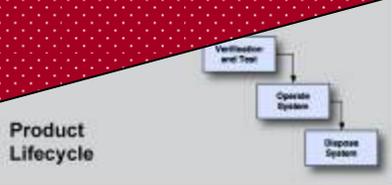


LOCK-IN (LIMITED COMPETITION)

COST PLUS=HIGH DEVELOPMENT AND O&S COSTS

COTS/GOTS

TECHNOLOGY

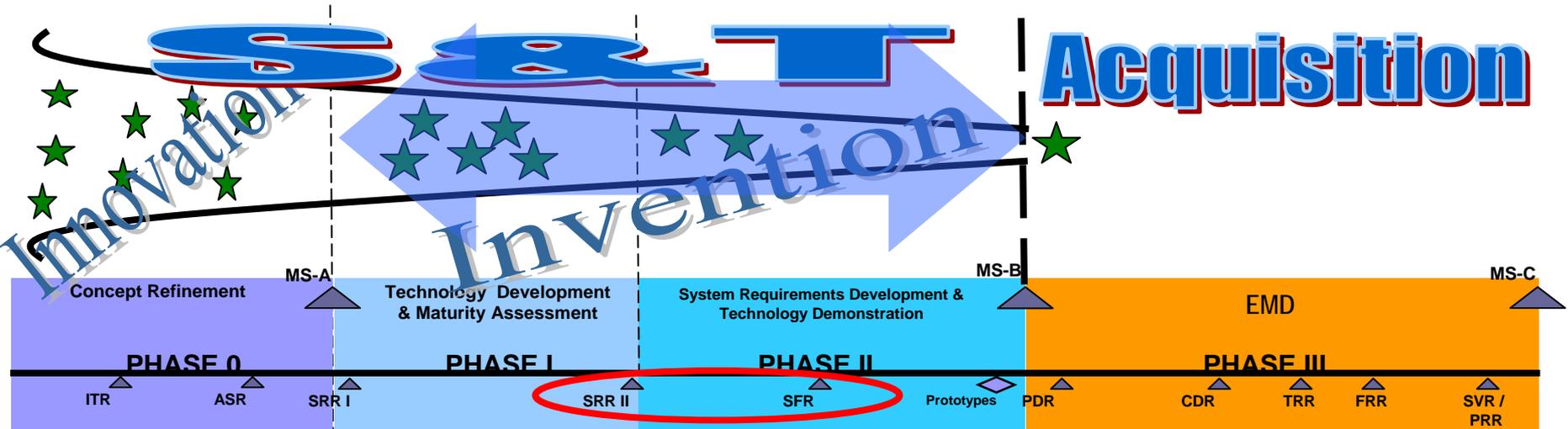


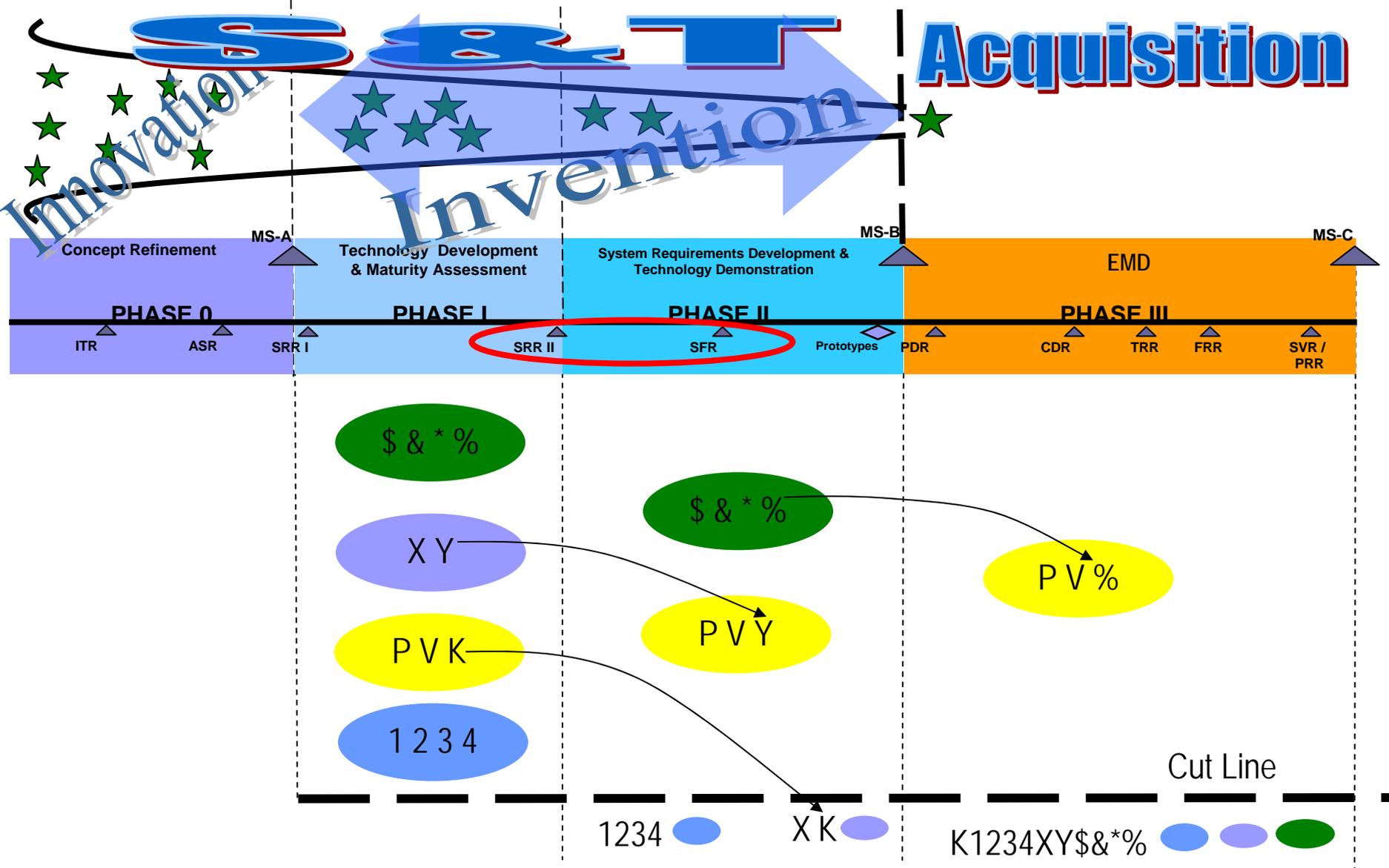
Weapon Systems Acquisition Reform Act of 2009 (Public Law 111-23, 22 May 2009)



Sec. 202. Ensuring Competition...

- Requires acquisition strategies to ensure competition, or the option for competition, at both prime and subcontract level
- Adequate documentation is required for rationale for selection of subcontract tier or tiers
- Provides measures to ensure competition “if such measures are cost-effective”
- Requires fair and objective “make-buy” decisions by primes
- Contracts for maintenance and sustainment awarded on competitive basis to maximum extent practicable





What Should We Open?

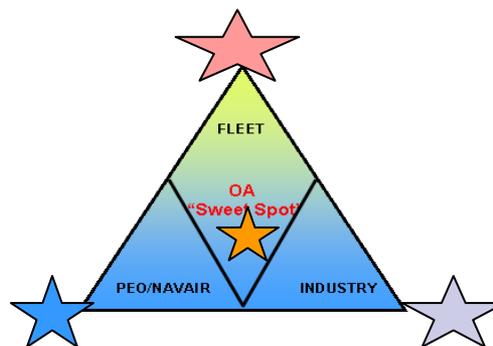


Key Open Sub-Systems (KOSS)

OA Applicability Tool output provides the Government and Industry the means to develop a joint plan to protect for "openness" at both the Key Open Sub-System (KOSS) and/or internal WRA Key Interface level under a bilateral agreement

Score OA Applicability = Based on 3 key parameters

- Relative Rate of Change
- Relative Cost of Change
- Relative to War Fighter Value



		Capability Roadmap Rev. & Date					(Note 3, 5)	★	★	★	DATE:	★	
Period		2008-2010	2010-2015	2015-2018	2018-2020	2020-2023					Participants (Name, SME Area)	(note 1):	
Category	Component Decomposition	Capability 1	Capability 2	Capability 3	Capability 4	Capability 5	Obsolescence	Relative Rate of Change	Relative Cost of Change (Note 7)	Relative Weapon System Capability Improvement	OA Applicability Total Score (Note 6)	Warfighting ROI of OA	Key Rationale (Note 4)
	Component 1	N	N	N	N	N	L	0	L	H	0	0	
Hardware	Component 5	N	N	N	Y	N	L	1	L	L	1	1	
Software	Component 5	N	Y	Y	Y	N	L	3	M	L	9	9	
Middleware	Component 8	N	Y	Y	Y	N	L	3	L	L	3	3	
OS	Component 9	N	N	N	Y	N	M	2	L	L	2	2	

Summary

- For critical mass, demand a consistent and repeatable process
- Pay attention to the integration of OA within SE process
 - Technical Volumes vs. SOW-Integrated Master Schedule
- Weapon Systems Acquisition Reform Act of 2009
(Public Law 111-23, 22 May 2009)
 - Pay attention to competition and collaboration