

# US DoD Obsolescence Successes & Challenges

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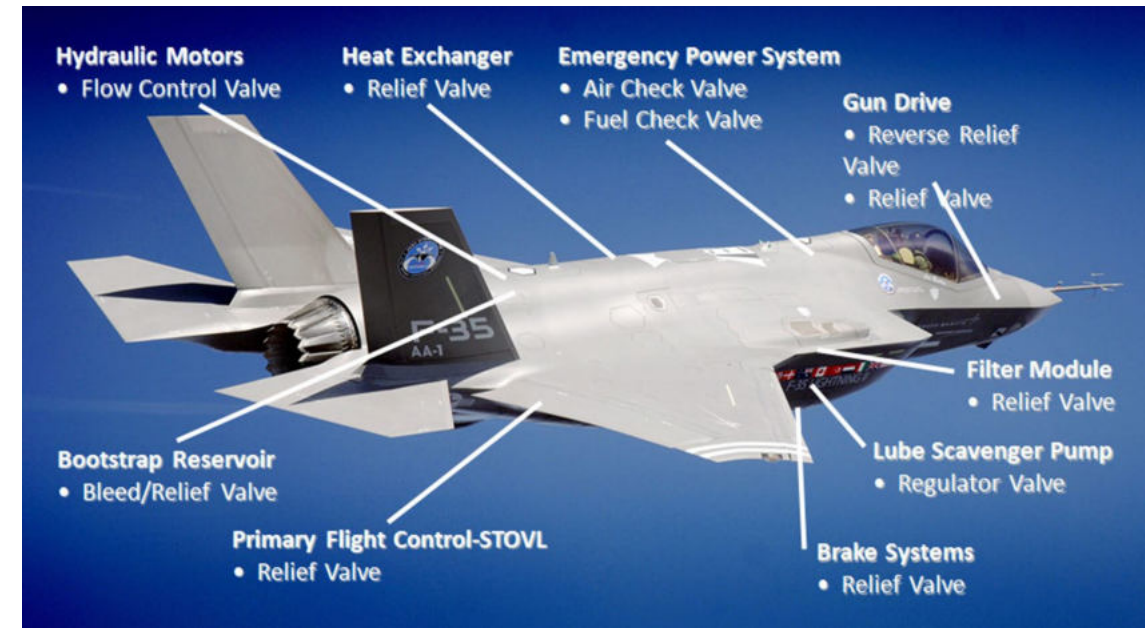
# Agenda

- What is Obsolescence Management
  
- Successes
  - Benefits
  - Policy & Guidance
  
- Challenges
  - Policy Implementation Assessment
  - Parts Management Paradigm
  - Other Strategic Objective Projects



# Obsolescence Is Inevitable – So, Plan for It!

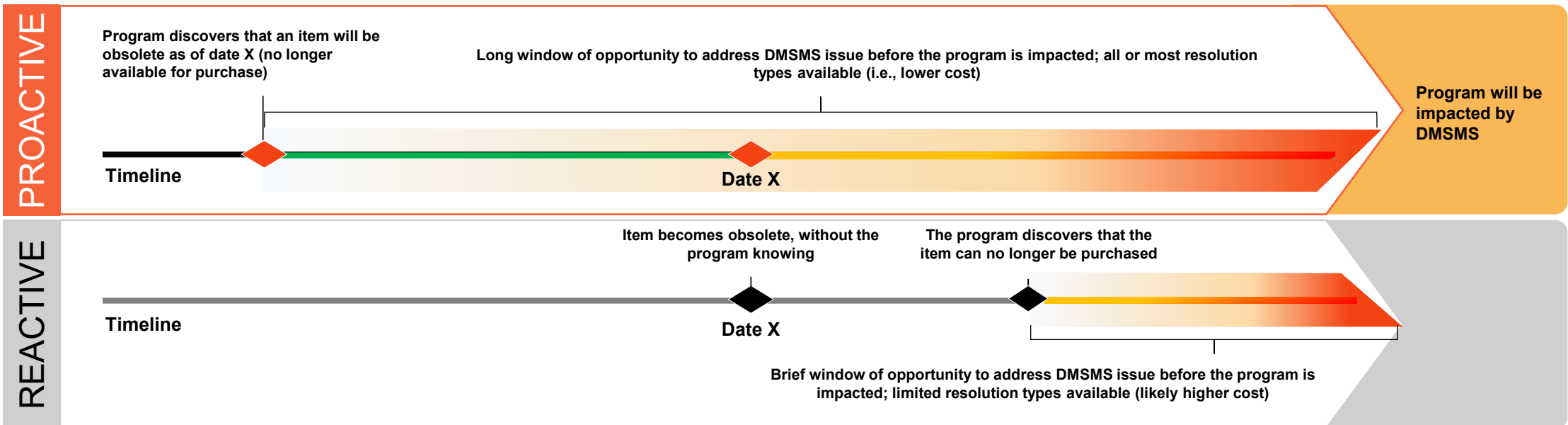
- DOD systems can require a decade or more to develop and then have a fielded life that spans decades
- Yet the life cycles of many items that make up a DOD system's design are brief by comparison:
  - ~18 months for COTS\* electronic items
  - ~5 years for COTS software
- Environmental or regulatory updates and restrictions provide additional opportunities
- Obsolescence issues can impact the availability of systems and their hardware, software, and chemical components





# Buys You Time to Make More Cost-Effective Decisions

- **Obsolescence Forecasting and Resolution -**
  - Increases the likelihood of implementing a lower cost resolution / More time to consider all options
  - Eliminate obsolescence-related schedule impacts and readiness degradations
  - Increases operational availability
  - Reduces or controls total ownership cost

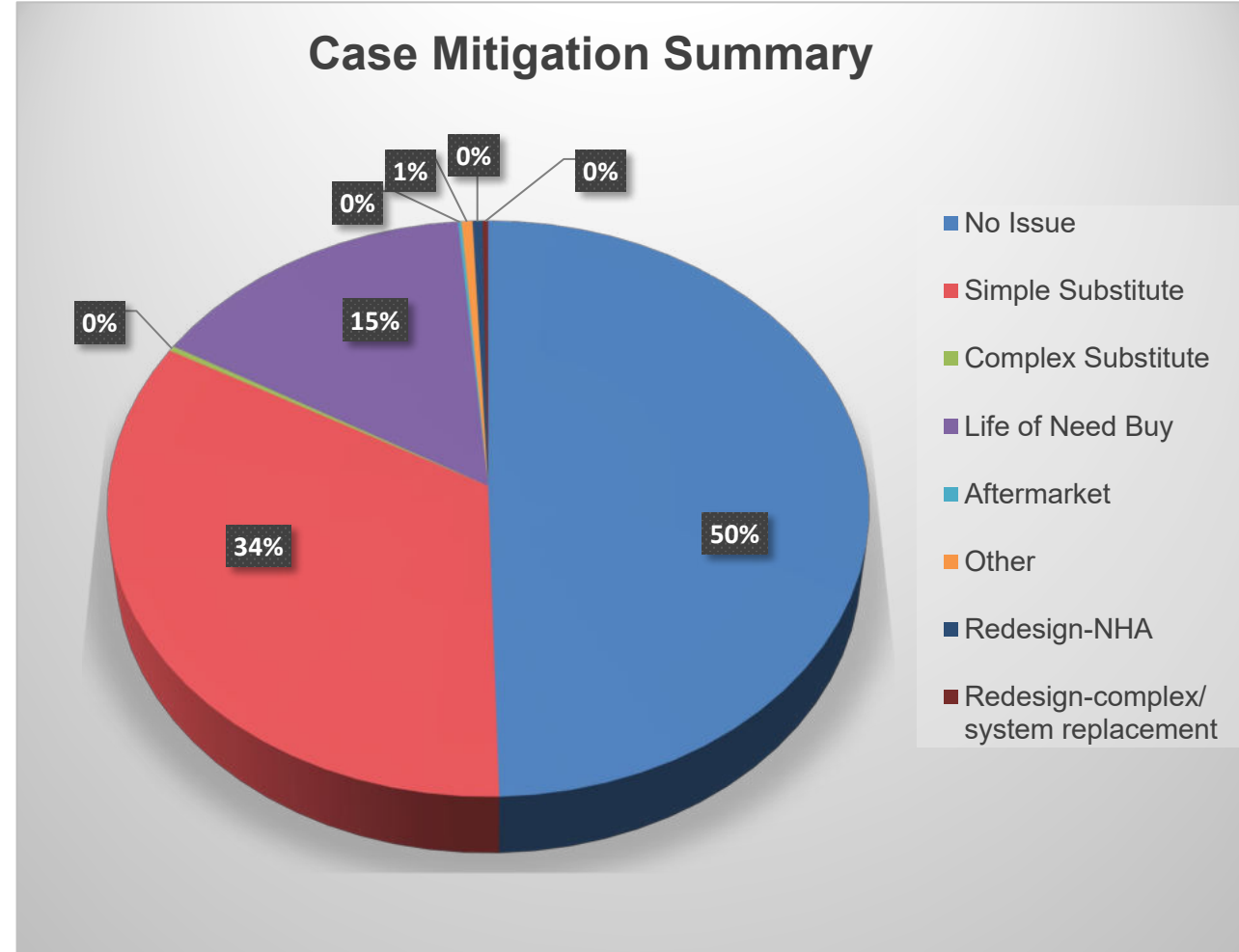


**Robust Obsolescence Management minimizes the impact to Cost, Schedule, and Performance**



# More Likely to Avoid Out of Cycle Redesigns

Case Solution	Quantity
No Issue	4143
Simple Substitute	2809
Complex Substitute	24
Life of Need Buy	1268
Aftermarket	13
Other	42
Redesign-NHA	38
Redesign-complex/ system replacement	21
<b>TOTAL</b>	<b>8,358</b>



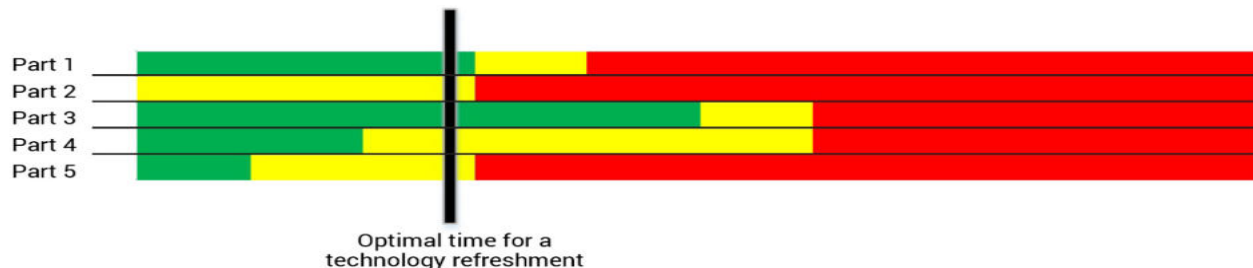
**99.3% Cases Resolved without Redesign!**



# Helps You Prepare & Justify Obsolescence Budget Requests

Level	Display Name	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
1	APL12345::PN54321 Network System, Ship Class 1	0.43	0.43	0.44	0.46	1.35	1.49	3.52	3.76	3.82	3.89	3.95
2	APL23456::PN43210, SERVER ASSY U1	0	0	0	0	0	0	2.09	2.12	2.14	2.16	2.19
2	APL34567::PN32109, SERVER ASSY U2	0	0	0	0	0	0	1.81	1.83	1.85	1.87	1.89
2	APL45678::PN21098, SERVER ASSY U3	0	0	0	0	0	0	1.81	1.83	1.85	1.87	1.89
2	APL56789::PN10987, SERVER ASSY U4	0	0	0	0	0	0	1.81	1.83	1.85	1.87	1.89
2	APL67890::PN09876, SERVER	0	0	0	0	0	0	0	0	0	0	0
2	APL78901::POWER DIST UNIT (PDU)	0	0	0	0	0	2.3	2.31	2.32	2.34	2.35	2.36
2	APL189012::PN198765, SW NETWK	0	0	0	0	1.41	1.44	4.01	4.08	4.15	4.22	4.29
2	APL289012::PN298765, SW NETWK	0	0	0	0	1.39	1.42	3.97	4.03	4.1	4.18	4.25
2	APL389012::PN398765, SW NETWK	2.01	2.05	2.08	2.3	4.91	5.21	10.98	11.34	11.55	11.77	11.98
2	APL489012::PN498765, SW NETWK	1.88	1.92	1.95	2.16	6.02	6.32	11.77	12.14	12.37	12.6	12.83
2	APL589012::PN598765, SW NETWK	1.33	1.35	1.38	1.4	2.64	2.69	5.89	6	6.11	6.22	6.33
2	APL689012::PN698765, SW NETWK	1.33	1.35	1.38	1.4	2.64	2.69	5.89	6	6.11	6.22	6.33
2	APL789012::PN798765, SW NETWK	1.4	1.42	1.45	1.47	2.75	2.8	6.43	6.54	6.65	6.77	6.88
2	APL889012::PN898765, SW NETWK	1.4	1.42	1.45	1.47	2.75	2.8	6.43	6.54	6.65	6.77	6.88
2	APL989012::PN998765, SW NETWK	0	0	0	0	1.52	1.54	3.47	3.52	3.56	3.61	3.66
2	APL089012::PN098765, SW NETWK	0	0	0	0	1.46	1.48	3.31	3.36	3.41	3.46	3.51
2	APL555667::Switch, U22	0	0	0	0	0	0	0	0	0	0	0
2	APL555666::Switch, U22	0	0	0	0	0	0	0	0	0	0	0
2	APL998866::PN556677, SERVER ASSEMBLY	0	0	0	0	1.3	1.31	1.32	1.34	1.35	1.37	1.38
2	APL445588::PN668899 Fiber Optic Cable	0	0	0	0	0	0	0	1.1	1.11	1.12	1.13
2	APL228855::PN663399, GIG-E Switch	0	0	0	0	0.9	0.91	4.2	4.27	4.34	4.41	4.48
2	APL117744::PN771144, NETWORK SECURITY PROTECTION SYSTEM	0	0	0	0	0	0	0	2.64	2.66	2.68	2.7

- Proactive DMSMS Management:
  - ✓ Allows you to calculate when issues within a subsystem will affect readiness
  - ✓ Helps you determine optimal time for technology refresh
  - ✓ Informs you of what date to buy “end of need buys” up to
  - ✓ Helps you justify budget requests with information to back you up
- You will more likely be successful in obtaining a budget line item that is funded across FYDP for DMSMS Management Operations and Resolutions





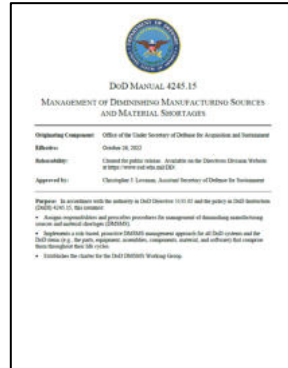
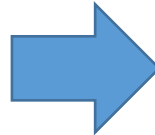
# Policy and Guidance



**DoDI 4245.15  
DMSMS Management  
November 2020**

- Establishes policy
- Assigns responsibilities
- Prescribes overarching procedures

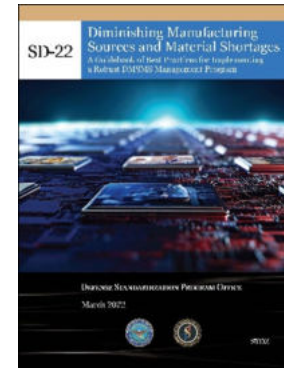
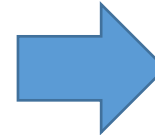
**13-page strategic document**



**DoDM 4245.15  
Management of DMSMS  
October 2022**

- Reinforce policy
- Assigns responsibilities
- Prescribes detailed procedures

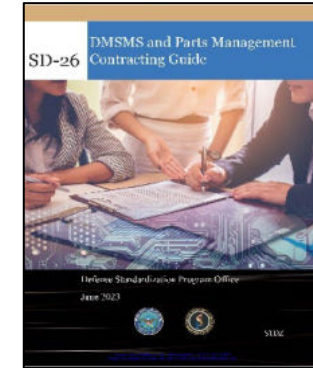
**41-page strategic document**



**SD-22, DMSMS  
Management Guidance,  
May 2022**

- Best practices for implementing a robust DMSMS Management Program

**316-page guidance document**



**SD-26, DMSMS and Parts  
Management Contracting  
Guidance June 2023**

- DMSMS Contracting best practices

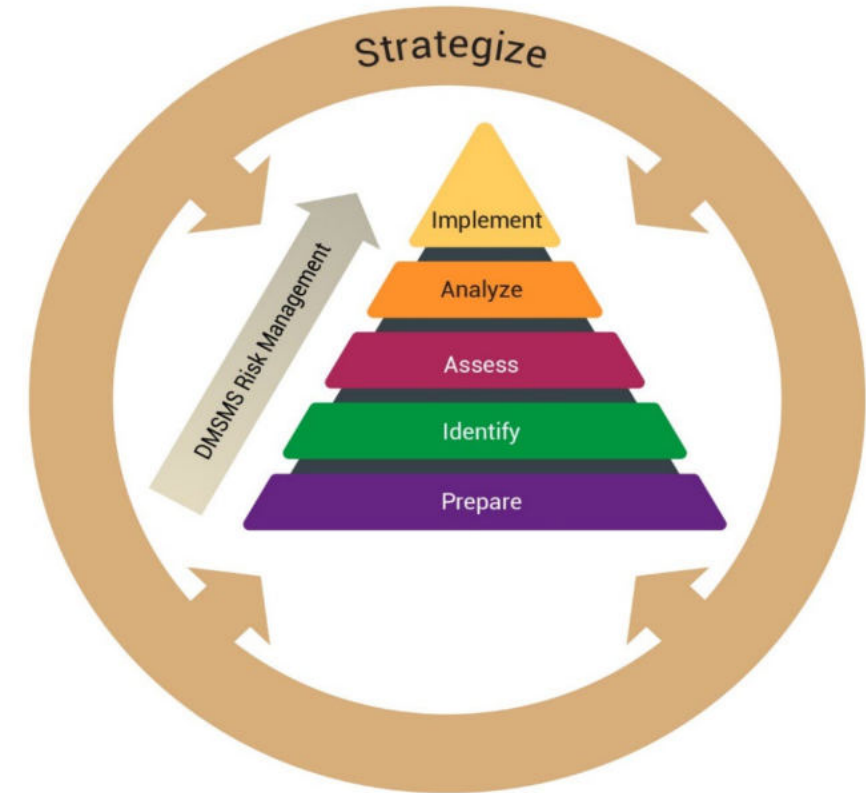
**38-page guidance document**



# What is ... Obsolescence Management?

*Strategic processes weave throughout these steps, to delay or prevent the occurrence of obsolescence issues and increase the likelihood of low-cost resolutions available for implementation.*

- Obsolescence Management is a multidisciplinary process to:
  - **Prepare** Obsolescence Management Program infrastructure
  - **Identify** issues resulting from obsolescence, loss of manufacturing sources, or material shortages
  - **Assess** the potential for negative impacts to schedule and/or readiness
  - **Analyze** potential mitigation strategies
  - **Implement** the most cost-effective resolution strategy



*Obsolescence Management is a dynamic process and it never ends!*

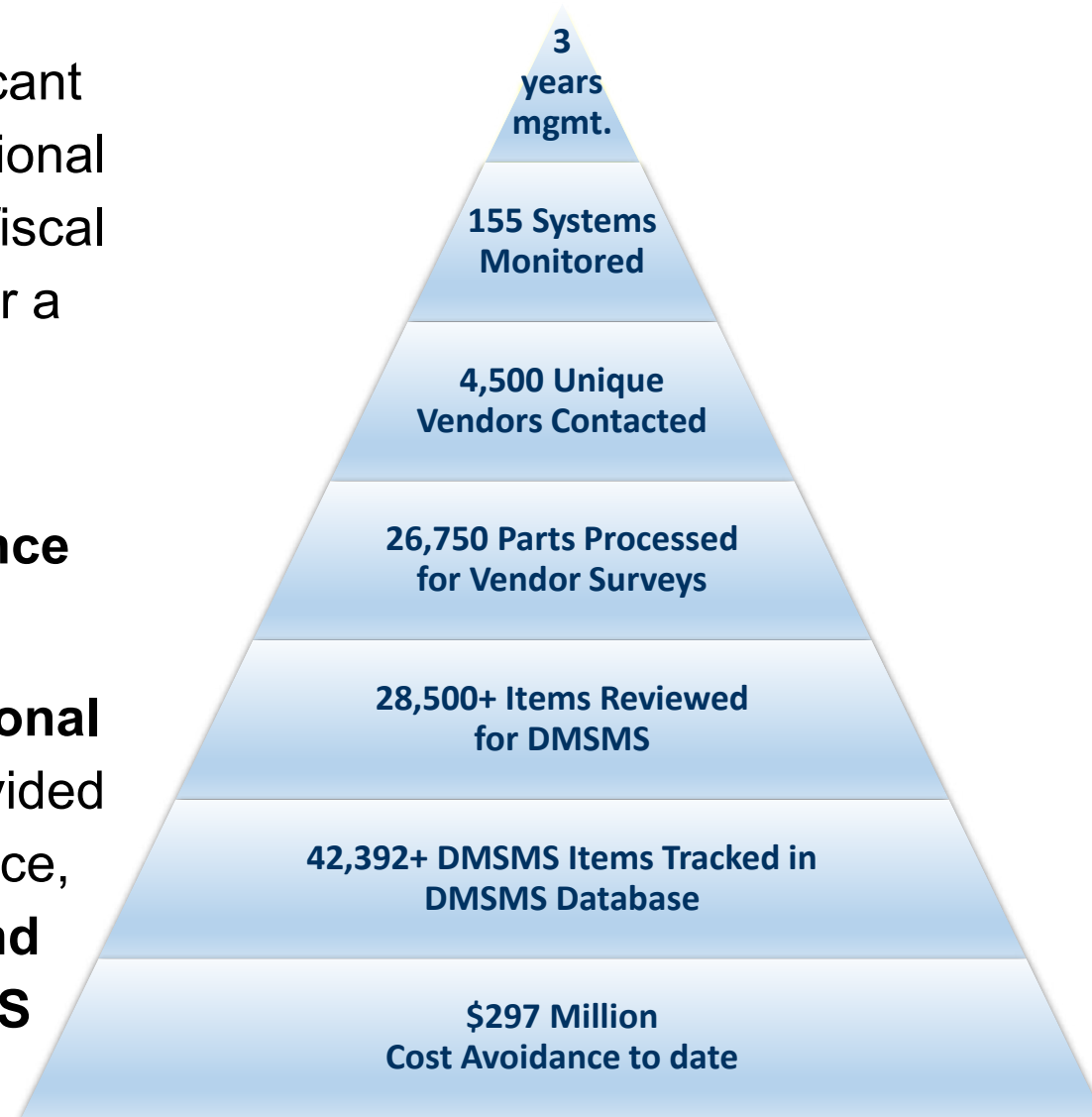




# Proving Your Worth

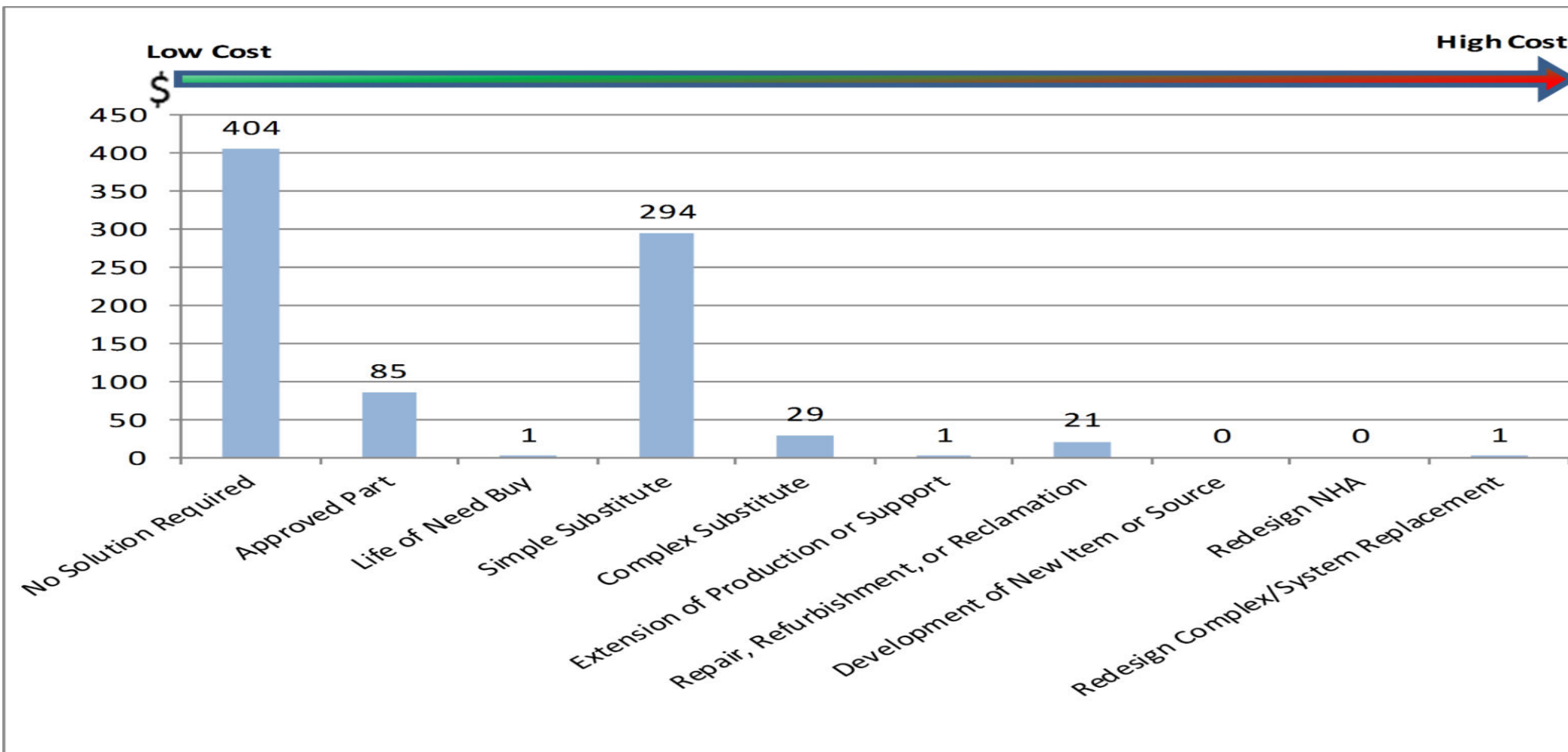
$$ROI = \frac{\text{Obsolescence Cost Avoidance} - \text{Obsolescence Investment}}{\text{Obsolescence Investment}}$$

- Obsolescence Management Team (OMT) led a significant **reduction of costs-per-flight hour** across the operational Fleet; **less than 15 percent** than that of the previous fiscal year. The OMT performed research on **1,895 cases** for a **cost avoidance of \$661M**.
- OMT has **resolved more than 1,775 obsolescence issues** and reaped more than **\$188M of cost avoidance** by being proactive since inception.
- OMT efforts have resulted in **higher levels of operational readiness, lowered the cost of ownership**, and provided a substantial return on investment due to cost avoidance, which **minimized casualty reports, fleet impacts, and supply support issues**. OMT resolved **1,566 DMSMS cases** with a total **cost avoidance of \$164M**.

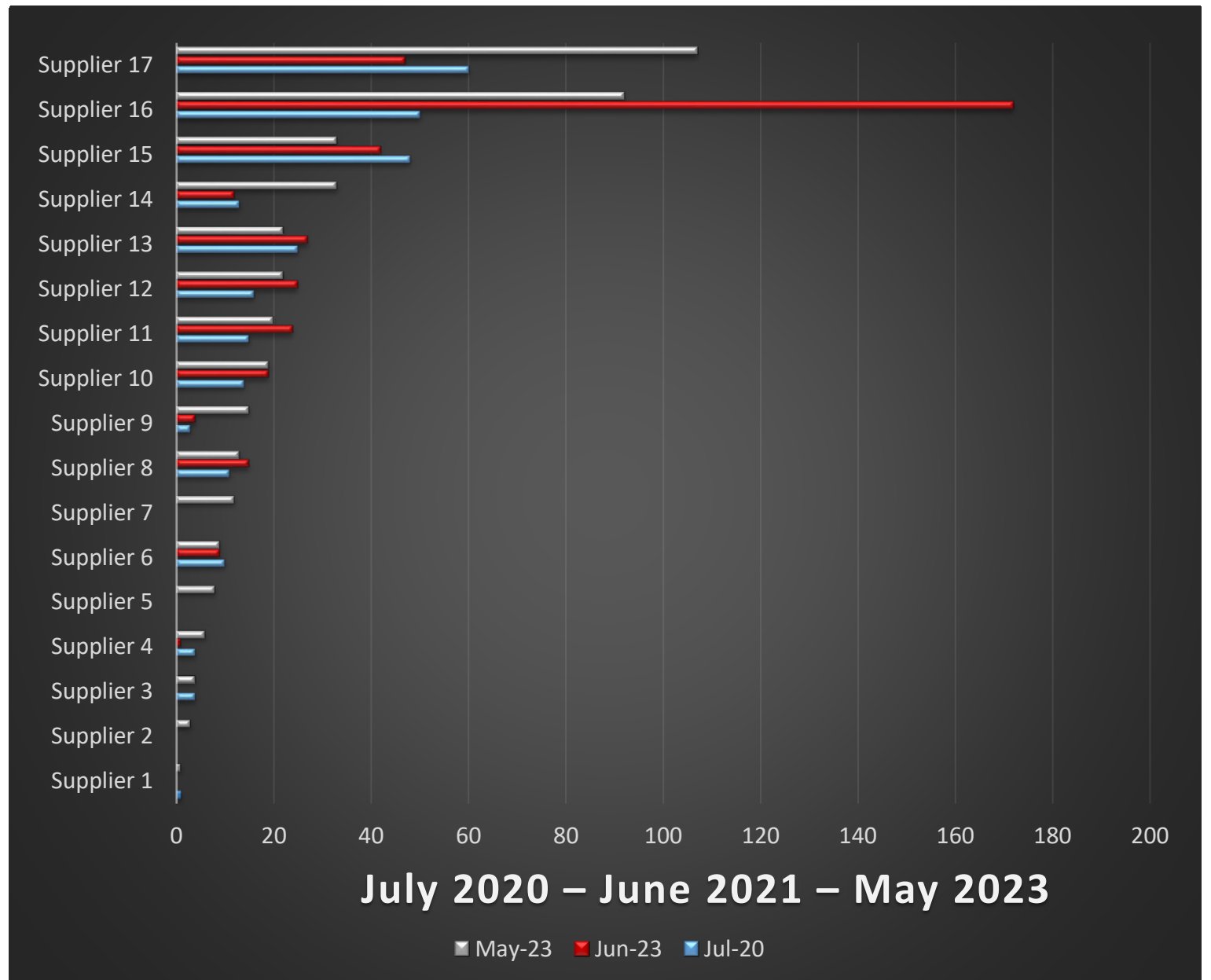




# Track Resolution Trends Data



# Track Open Cases by Supplier





# Policy Implementation Assessment



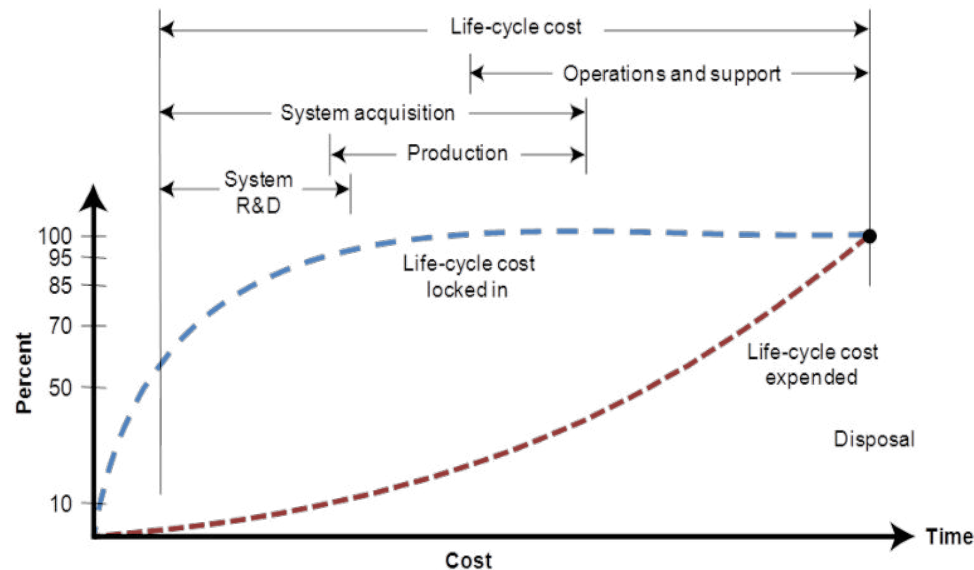
Obsolescence content in management reviews?

1. Determine the extent to which the Military Departments are following Obsolescence policy
2. Identify and rank challenges and obstacles to implementing and benefitting from Obsolescence policy
3. Establish a baseline against which to measure the effect of Obsolescence policy



# Resilient Designs through Better Parts Selection

- Early design decisions substantially impact operations and sustainment costs
- DMSMS is one of many design considerations to be balanced during part selection



Source: W.J. Larson and L.K. Pranke, *Human Spaceflight: Mission Analysis and Design* (McGraw-Hill, 1999).

**DMSMS Resilient Designs, disciplined Part Selection, and Tech Refresh Planning will not only delay Obsolescence but also reduce system security and supply chain risks**

## Better Parts Selection:

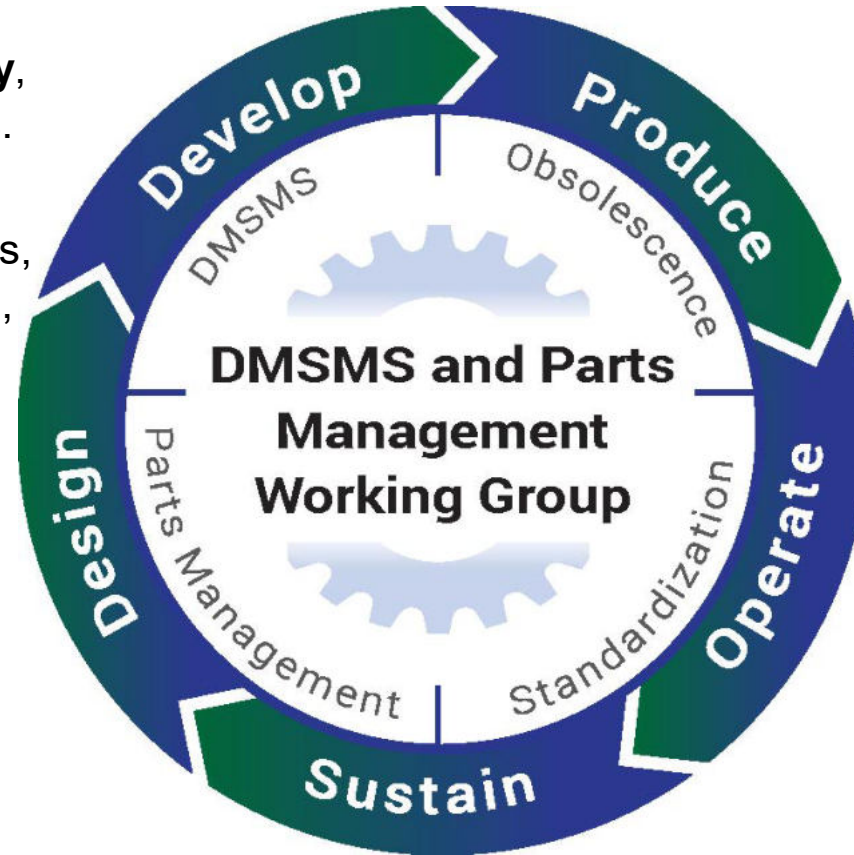
- ✓ Assures parts meet requirements
- ✓ Improves part and supplier quality
- ✓ Reduces risk of system compromise
- ✓ Assures systems function as intended
- ✓ Enhances system readiness and interoperability
- ✓ Provides system resilience
- ✓ Reduces acquisition lead-time
- ✓ Increases supportability
- ✓ Enhances reliability, availability, and maintainability
- ✓ Reduces logistics footprint
- ✓ Reduces total ownership costs



# Meeting of the Minds!

## DMSMS Management

- Create and revise DoD **DMSMS** policy, guidance, and management strategies.
- Champion **proactive DMSMS management** best practices, synergies, and standardization through education, training, and outreach in DoD and industry.
- Define and assess **DMSMS management effectiveness** across DoD.
- Establish and pursue DoD-wide **strategic DMSMS objectives**.
- Prepare and publish **guidance** documents.
- Facilitate common, **collaborative resolutions** to crosscutting DMSMS issues.



## Parts Management

- Review and revise DoD **Parts Management** policy and guidance;
- Research, find, and promote **Parts Management best practices** across DoD and industry;
- Assess the **effectiveness of DoD Parts Management** activities;
- Establish and pursue DoD-wide parts management **strategic objectives**.
- Prepare and publish **SD-19**, “Parts Management Guide;”
- Prepare and publish Military Standard (**MIL-STD**) **11991**, “General Standard for Parts, Materials, and Processes”
- Promote Parts Management **education and engagement**



# Candidate Strategic Objective Projects

- Lack of supply chain visibility
- Lack of forecasting tools for parts other than electronic components
- Need metrics tied to readiness, operational availability, etc.
- Enhance communication - Get more leadership buy-in
- How to better incentive Industry



# How Can We Work Together to Overcome Challenges?

**Best  
Team  
EVER!**



**Merci pour votre temps et votre attention!**