Headquarters U.S. Air Force

Integrity - Service - Excellence

PERFORMANCE-BASED ENVIRONMENTAL RESTORATION MANAGEMENT ASSESSMENT (PERMA)

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Overview

- PERMA Definition
- PERMA Benefits
- PERMA Implementation
- PERMA Conclusions

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WHAT IS PERMA?

- **Performance-Based Environmental Restoration Management Assessment is:**
  - **a results-based strategy that**
    - **uses improving knowledge to**
    - **iteratively check and refine remedial decisions to**
    - **expedite cleanup and protect human health and the environment**

(PERMA – Developed by AFCEE for the Defense Logistics Agency)

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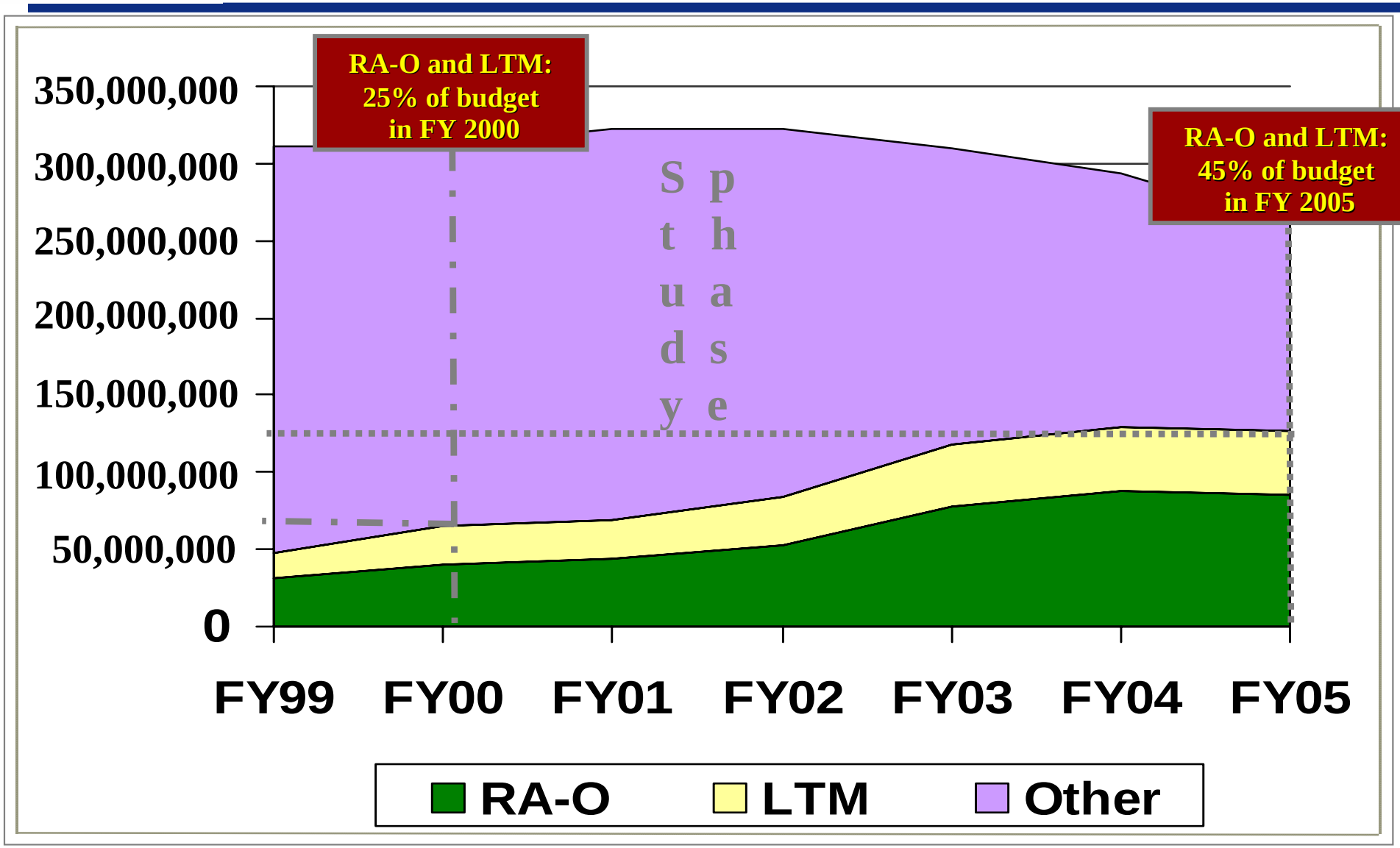
WHY PERMA NOW ?



FY 2001 President's Budget IRP Program AF ERA Restoration Budget w/o Mgmt & Support Costs

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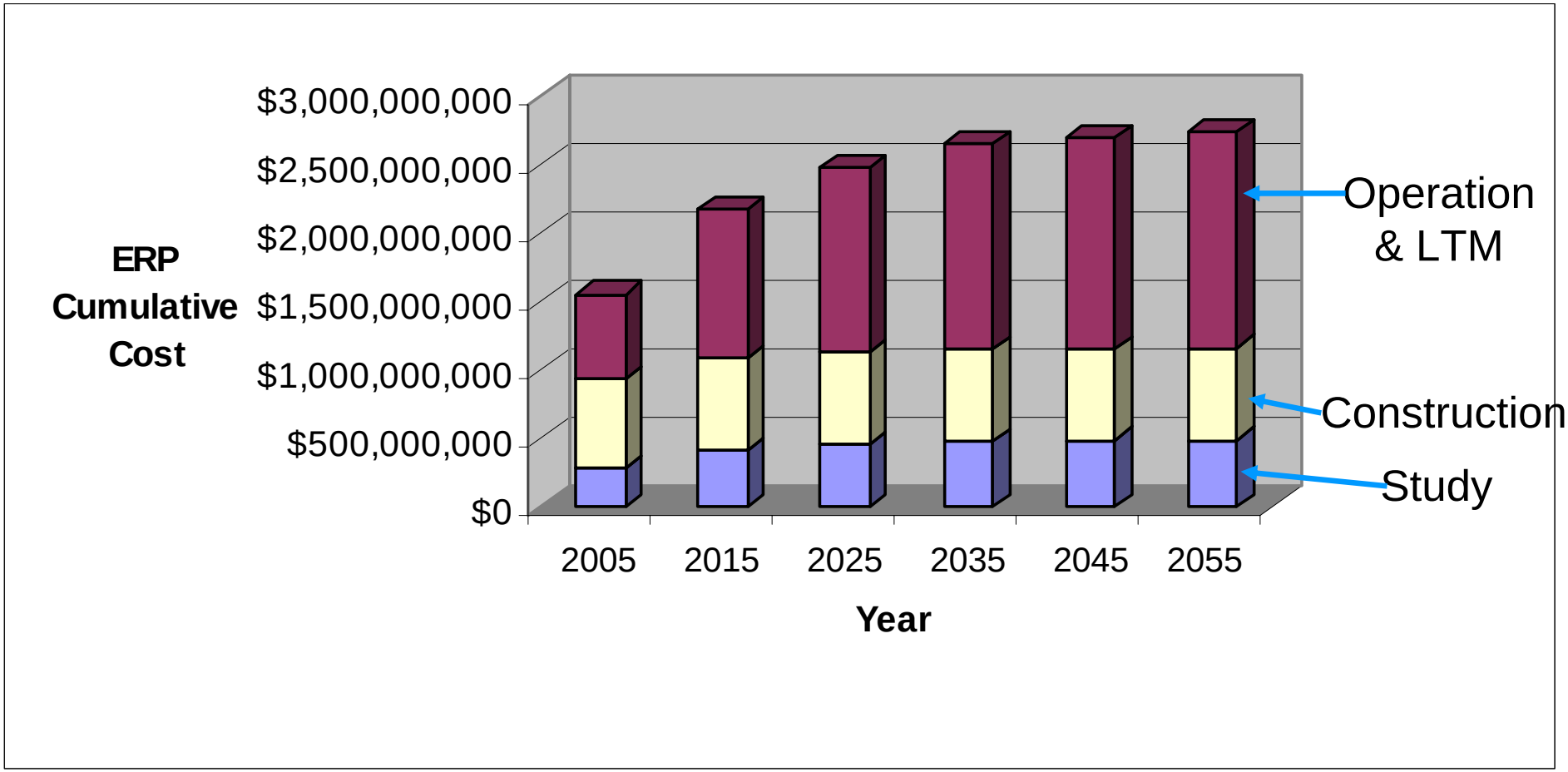
WHY PERMA NOW ?



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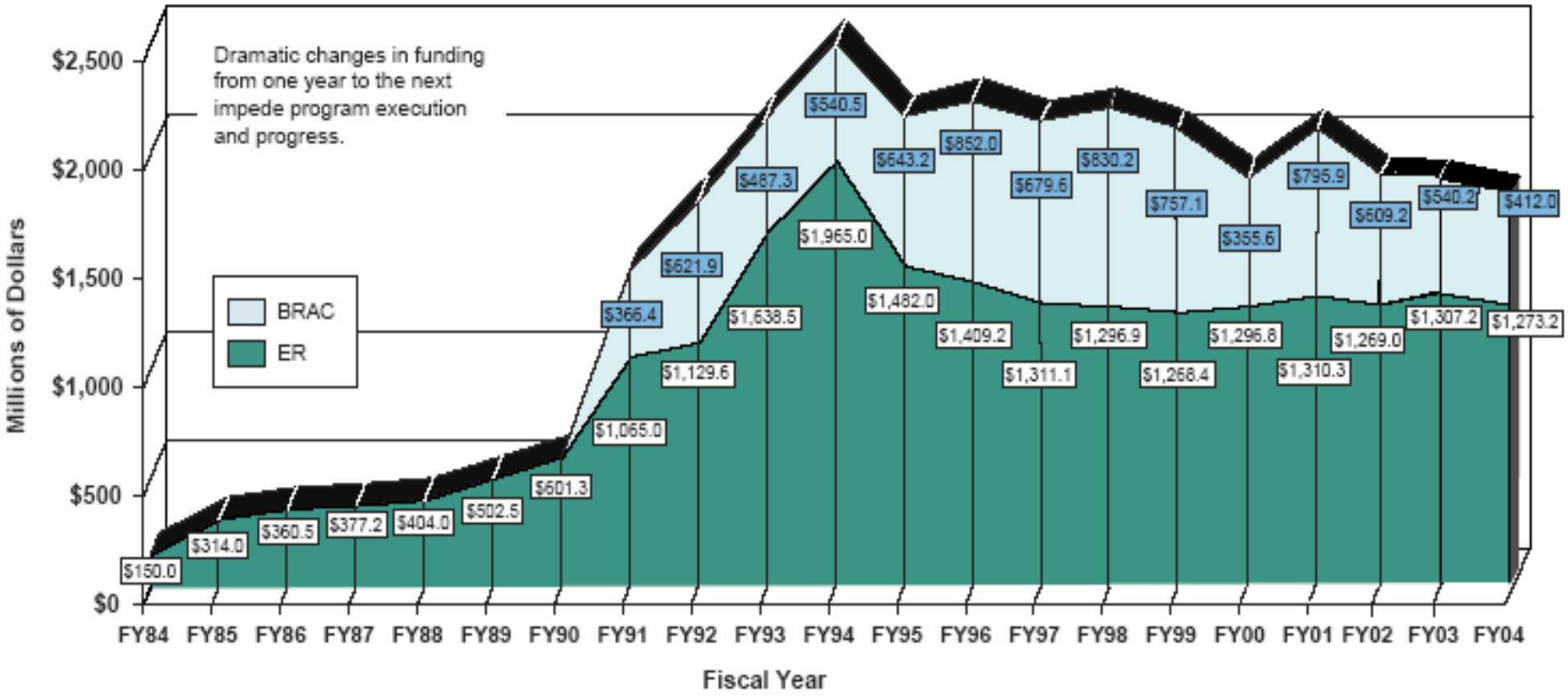
DoD Active and BRAC Funding Trends



DoD's challenge is to maintain the program's momentum while sustaining stable funding levels.

WHY PERMA NOW?
Re-Focus on Intended Outcome

- **Fact: O&M from Last Remedy In Place (LRIP) to Response Complete (RC) for all current BRAC bases will cost an estimated $1.6B and require more than 80 years to execute**
- **Fact: LRIP is a short-term goal**
- **Fact: DoD must achieve RC status to terminate liabilities (long-term and ultimate goal)**
- **Challenge: Providing the means to insert "smarter/faster/cheaper" ways to get to RC**

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BENEFITS OF PERMA

- Helps articulate the basis of decisions and clarify the consequences of those decisions
- Helps stakeholders understand trade-offs among choices because
  - Cleanup resources are limited
  - Engineered response actions may adversely impact the environment
  - Risk is associated with implementation of remedial actions

BENEFITS OF PERMA (continued)

- **PERMA Optimizes Effectiveness of the Remedial Decision**
  - **Validates the necessity, feasibility, and reasonableness of the remedy**
  - **Shifts focus to outcomes (results) instead of steps completed (administrative milestones)**

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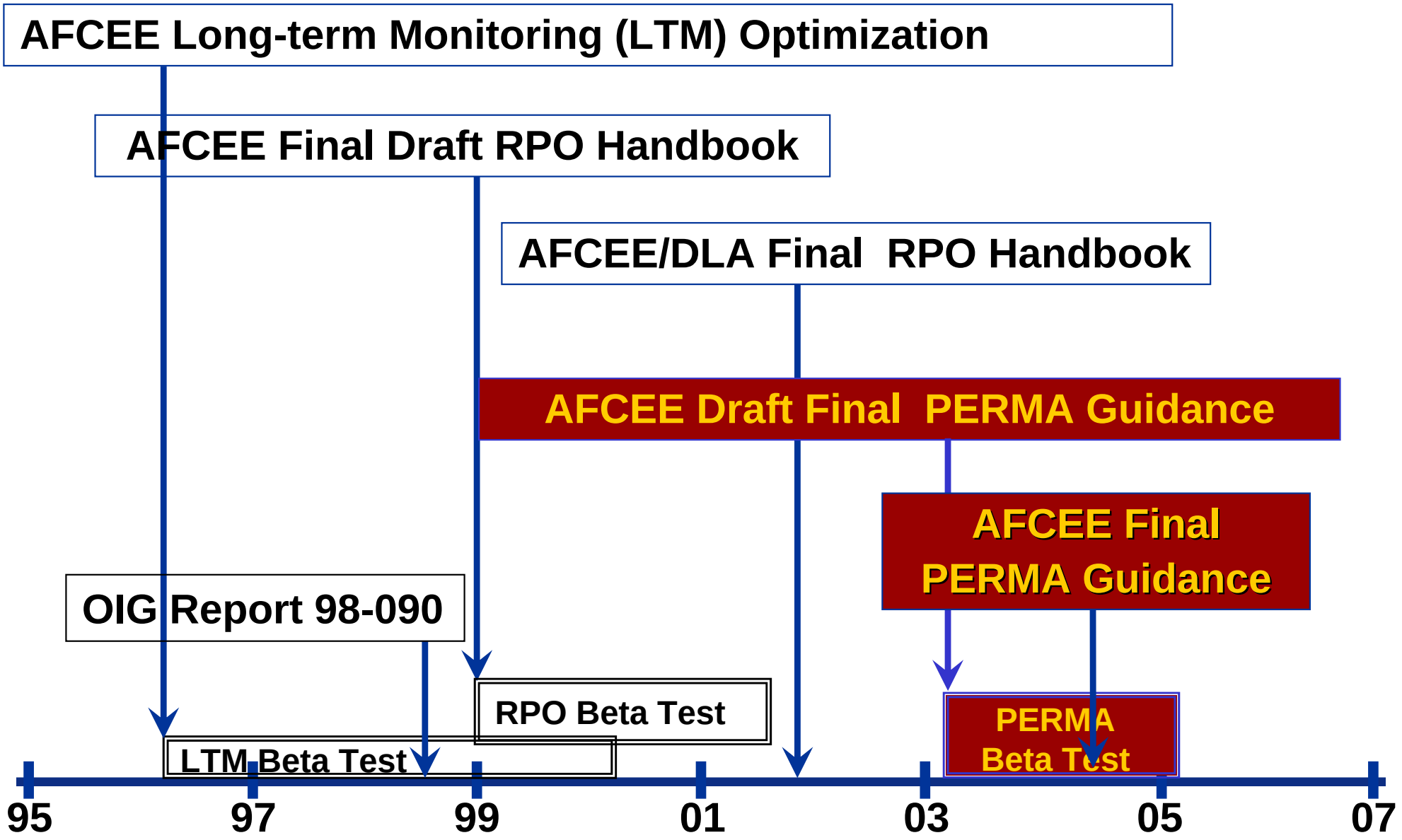
BENEFITS OF PERMA *(continued)*

- PERMA promotes establishing a realistic completion strategy
- PERMA promotes accelerated site closure
- PERMA helps stakeholders understand that cleanup resources are limited
- PERMA helps stakeholders to weigh the risks of implementing a remedial action on human health and the environment

PERMA Chronology (95-07)



Policy ⬌ Implementation ⬌ Results!

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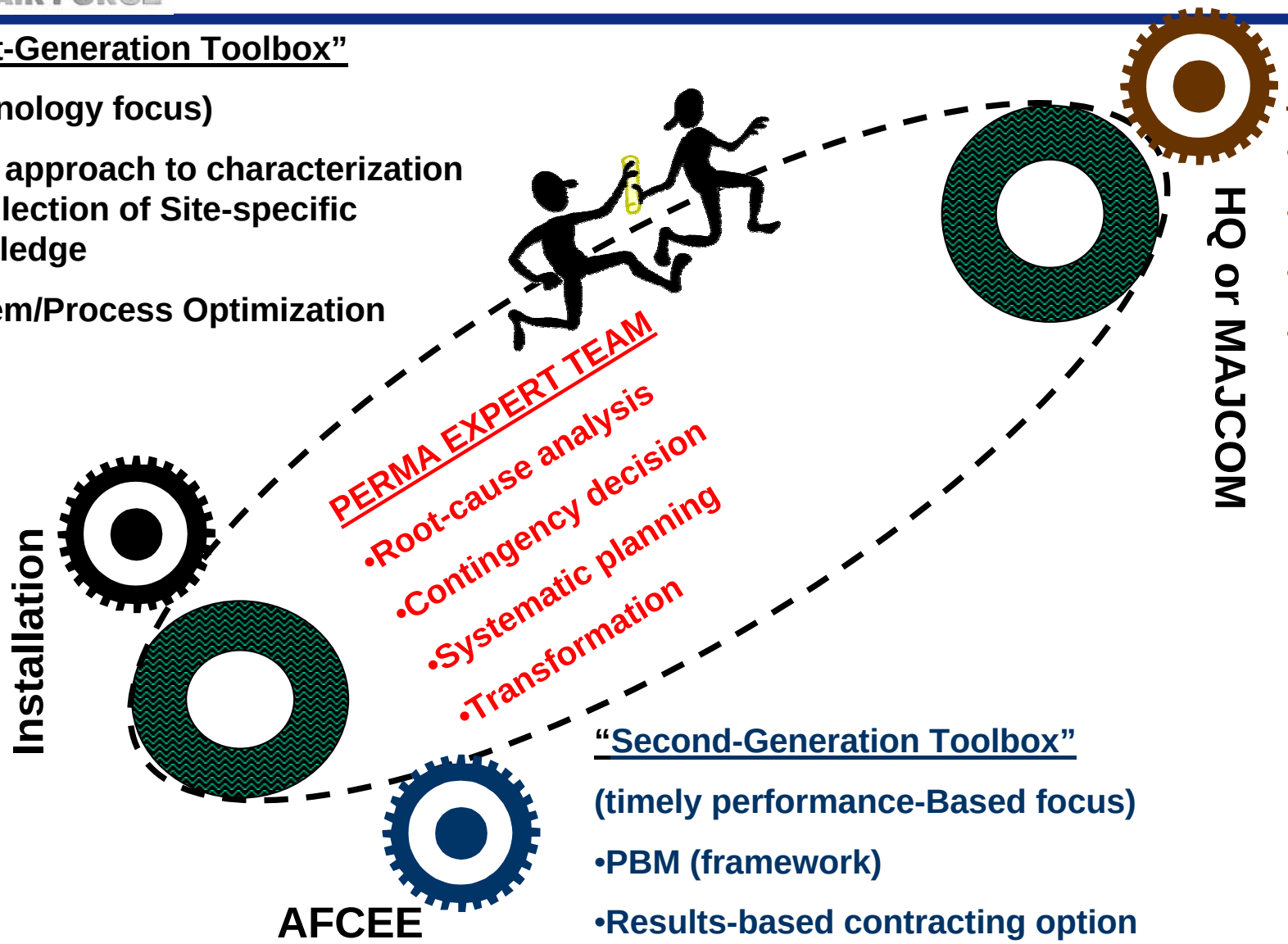
"First-Generation Toolbox"

(technology focus)

Triad approach to characterization & Collection of Site-specific knowledge

System/Process Optimization



Program Team

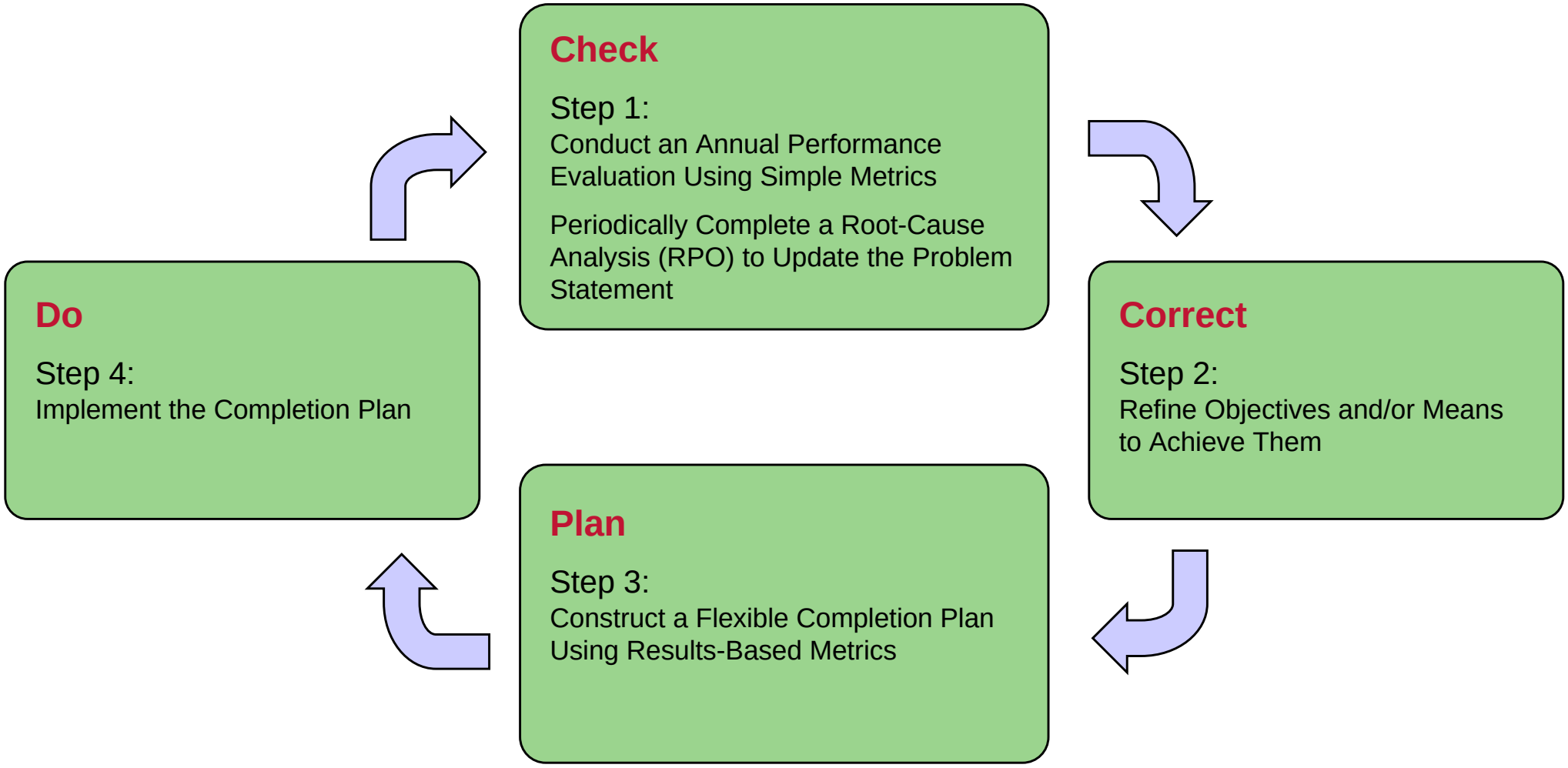
- **Eagle Look**
- **Program Vision**
- **Policy & Guidance**
- **Budget ⬌ Goals**

"Second-Generation Toolbox"

(timely performance-Based focus)

- **PBM (framework)**
- **Results-based contracting option**

THE PERMA PROCESS



THE PERMA PROCESS (continued)

Section 2

Annual Response Action Performance Evaluations

- Clarifies objective and intended outcome
- Identifies performance metrics and assessment techniques

Section 3

- Required as part of CTC estimates

Root-Cause Analysis

- Technical due diligence to restore effective and efficient progress toward RC
- Basis of updated "closeout" strategy

Section 4

Contingency Alternatives Decision Consequence Analysis

- Clarifies problem statement
- Updates performance metrics
- Creates decision logic for future tracking

Section 5

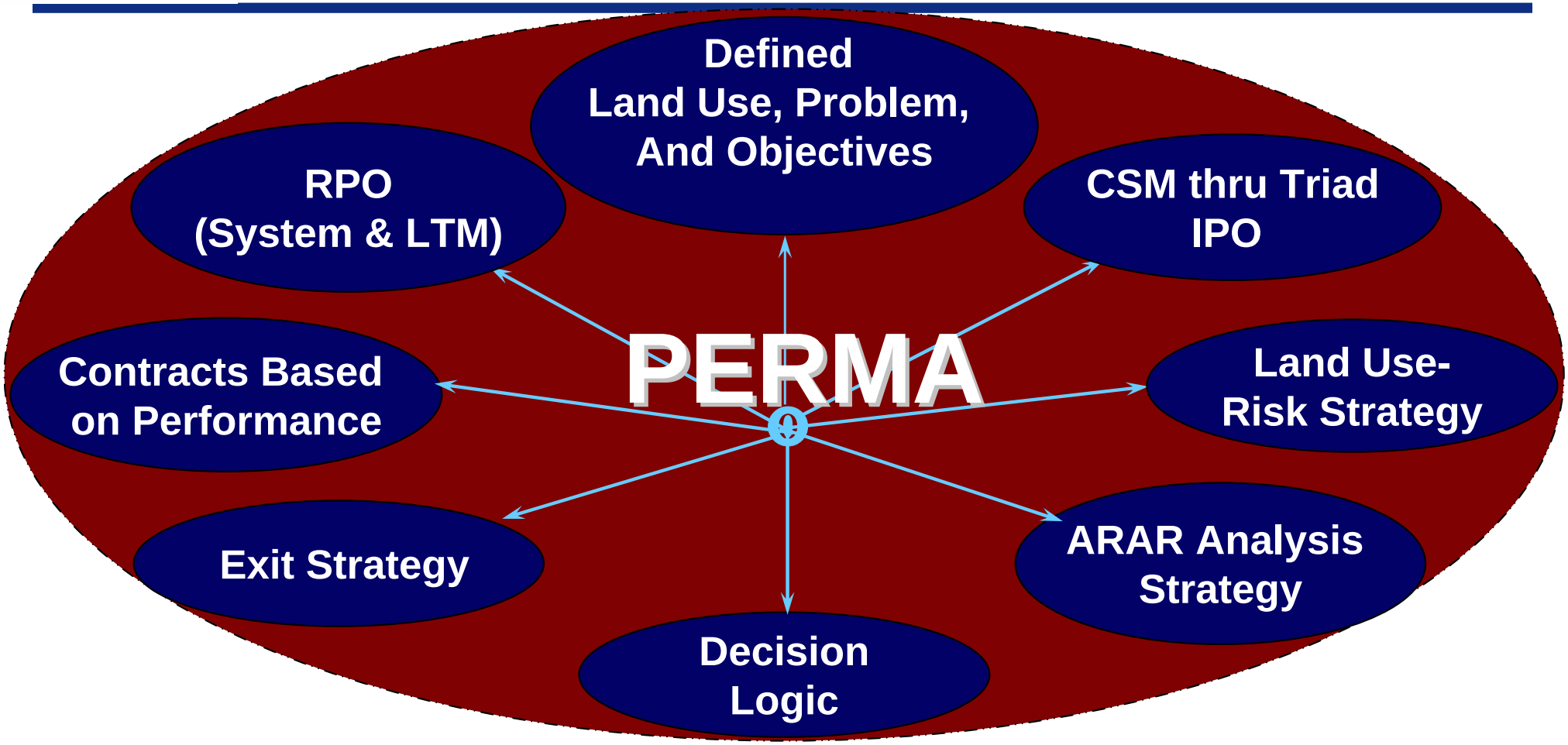
Results-Focused Statement of Objectives and Options

Section 6

Policy/Program Needs

- Supports creative, market-based solution set
- Inspires innovation and performance (timely RC)!

PERMA Strategies used to Manage Uncertainties



ARAR - Applicable or relevant and appropriate requirements
CSM - Conceptual Site Model
LTM - Long-Term Monitoring
RPO - Remedial Process Optimization
IPO - Investigation Process Optimization
0 - Communication Hub

USING PERMA to COMPLETE CLEANUP

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Step 1

Define the Problem (Test of Necessity)

- Characterize current nature and extent of contamination
- Predict future nature and extent of contamination if nature runs its course
- Estimate current/future risk of exposure using sound science

Step 2

Develop Feasible and Reasonable Response Approaches (Tests of Feasibility and Reasonableness)

- Assess effectiveness of different response options
- Assess efficiency and sustainability of different response options

Step 3

Build an Achievable Protection Strategy

- Tailor cleanup objectives to specific site conditions
- Optimize strategies used to achieve those objectives

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CONCLUSION

- **PERMA provides opportunities to optimize environmental restoration program to expedite cleanup while maintaining protectiveness by**
  - **Promoting a realistic completion strategy**
  - **Promoting accelerated site closure**
  - **Helping stakeholders understand tradeoffs in remediation decisions**