

Contractor Assurance: The Science Approach

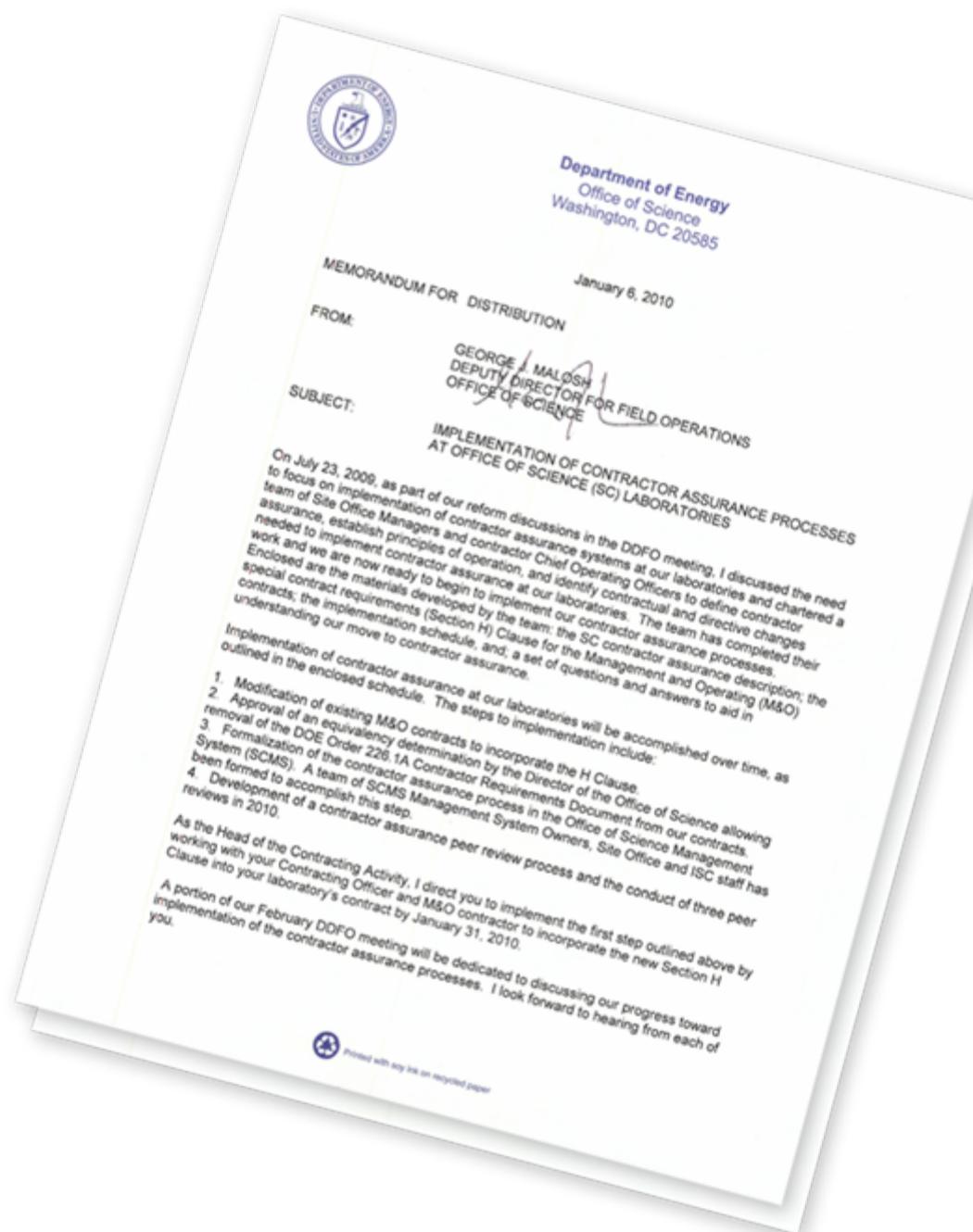


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Augusta, Georgia
September 15, 2010

Background

- The DOE-SC Deputy Director for Field Operations (DDFO) chartered a federal/contractor team to focus on improving the execution of Contractor Assurance at National Labs considering reform initiatives (July to December, 2009)
- The team established expectations:
 - Try to work within existing approaches as much as possible
 - Eliminate redundancy
 - Apply Contractor Assurance to all operating areas
 - Remove DOE O 226.1 to reduce confusion
 - Connect to the SC Performance Management process
 - Laboratory systems and processes should be transparent to SOM
 - Oversight can be modified as Assurance Systems mature



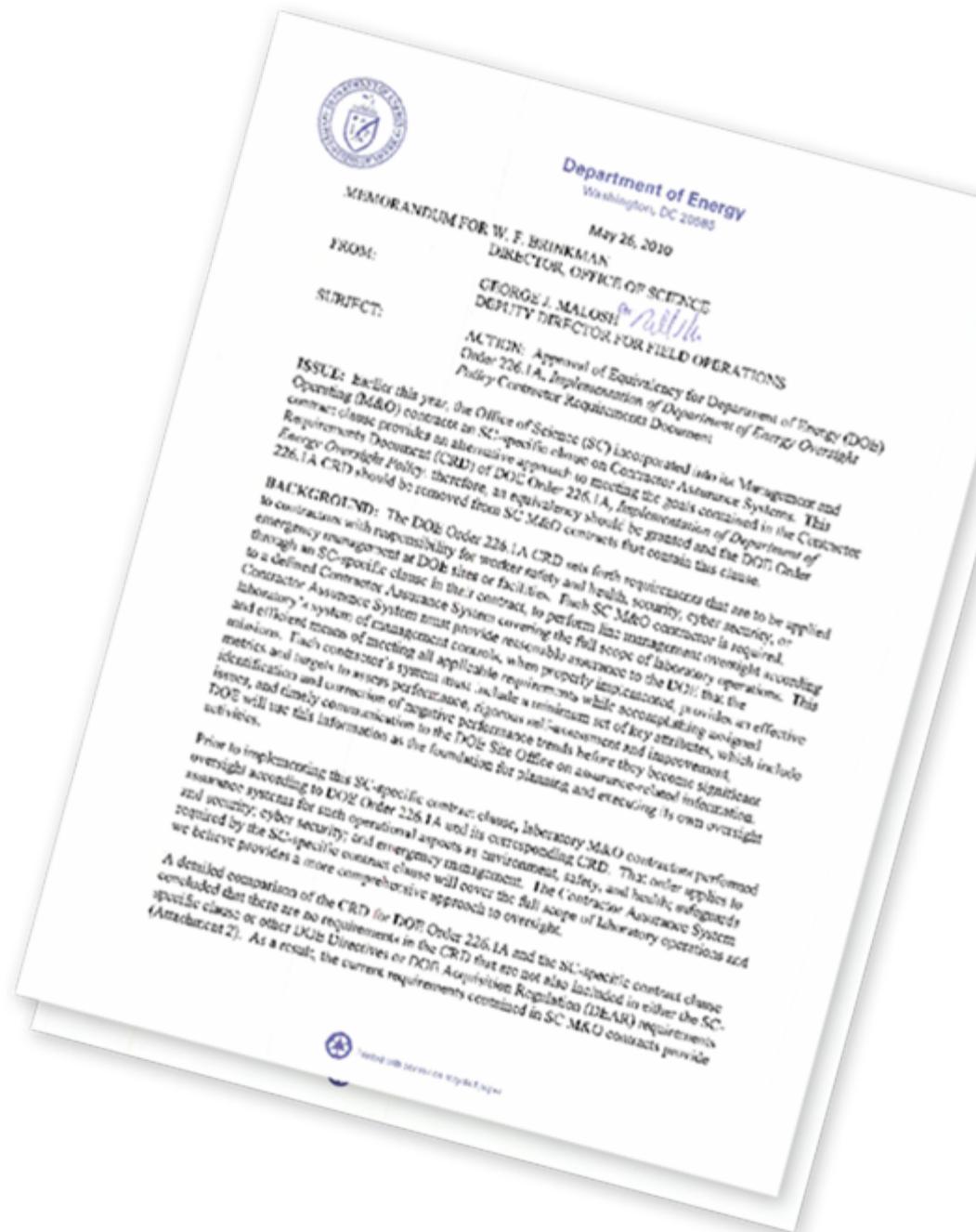
Products

- H Clause
- Assurance descriptions (illustrate the SC process)
 - Goals
 - Principles
 - Definitions
 - Process (performance management and governance)
 - Roles
 - Responsibilities and accountabilities
 - Outcomes
- Documentation of the federal approach in SC Management System

Elements in contractual documents	
H clause	DOE O 226.1A
Comprehensive description	Comprehensive description
Validation method (ISO, etc.)	Program effectiveness certification process
Rigorous self-assessment	Self assessments (MA, OA, MWT, QAA, IIA)
Feedback and improvement processes	Worker feedback/lessons learned
ID and correction of performance/trends	Issues management
Integration with ISM/MS	Can integrated with existing MS/processes
Metrics and targets	Performance measures
No scope limitations	ES&H, S&S, CS,EM only
Can modify oversight	No provision to modify oversight

DOE O 226.1 equivalency

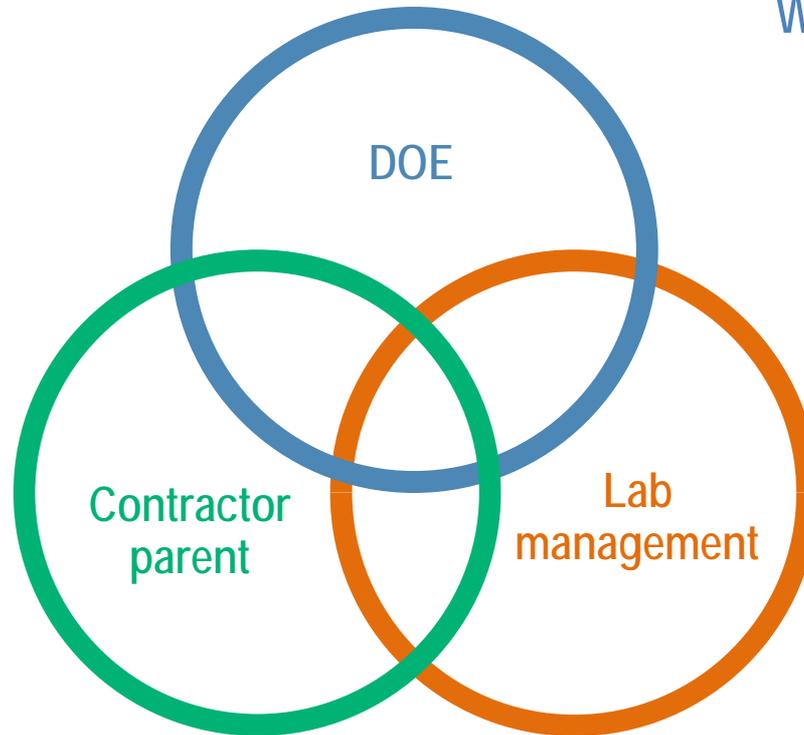
- Identified specific Contractor Assurance H Clause language
- Reviewed DOE O 226.1A CRD versus H Clause contents
- Finalized H Clause and incorporated into all SC Laboratory contracts
- SC HQ coordinated equivalency approach with HSS
- Requested and received approval for alternative approach to CRD
- DOE O 226.1A remains applicable to federal staff



Assurance system: Success depends on the engagement of 3 parties

Key elements

- Assurance description
- SCMS revisions
- H-Clause
- Equivalency determination
- Peer Review Scope



What should be excluded?

- Inherently governmental accountabilities
- Regulatory mandated functions
- Sensitive proprietary information
- Strategic competitive information

Outcomes

Process drives improvements

Emphasis on self-identification, correction and prevention

Sustainable performance

More efficient allocation of resources

A climate of mutual trust

Non-contractual Guidance Provides Framework for Peer Reviews

Peer Review Guide identifies roles and structure

LOI's focus on H-Clause attributes

Steering Committee provides consistency of approach

Teams evaluate assurance system development, deployment and maturity

**CONTRACTOR ASSURANCE
AT OFFICE OF SCIENCE LABORATORIES**

**CONTRACTOR ASSURANCE SYSTEM PEER REVIEW GUIDE
AND LINES OF INQUIRY**
Rev.1

April 15, 2010

how

Appendix B: Lines of Inquiry
April 15, 2010

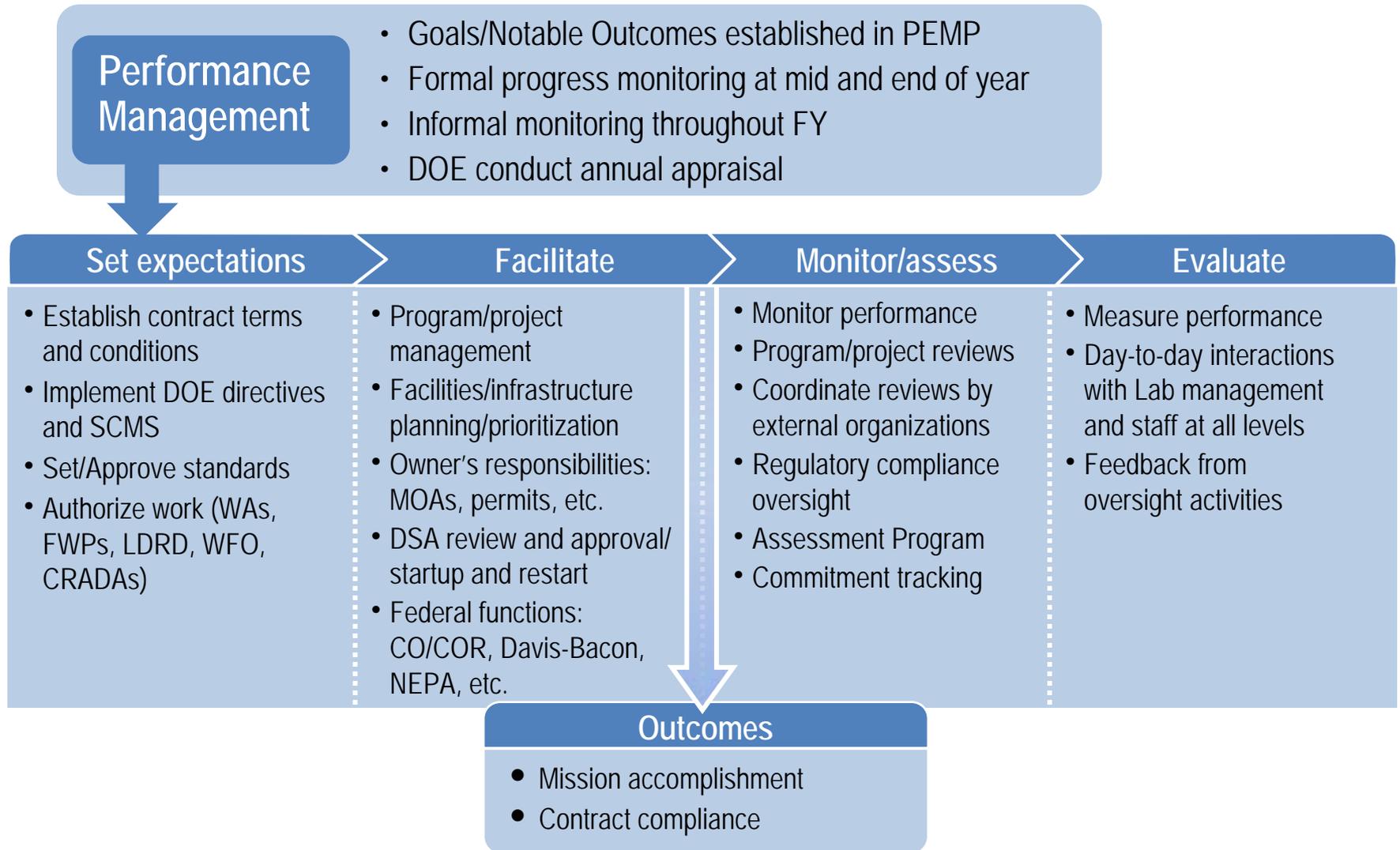
Part One: Laboratory Management

CAS Attribute and/or Expected Outcome	General Question	Detailed Questions
A. A comprehensive description of the CAS with processes, key activities, and accountabilities are clearly identified.	A.1 Is there a written description of the CAS?	A.1.1 What CAS processes, procedures, tools, and systems are in place?
		A.1.2 Are roles, responsibilities and accountabilities clearly identified?
		A.1.3 Are resources for the CAS processes allocated using a risk-based approach (i.e., allocated to highest risk activities, functions, processes first)?
A.2 Does the CAS description encompass applicable processes and key activities?	A.2.1 What areas need to be added, enhanced, or removed?	
B. Methods for verifying/ensuring CAS processes.	B.1 Does the CAS include a method for verification?	B.1.1 Is there a method, approach or plan to verify the CAS?
C. The method for notifying the Site Office of significant assurance system changes allow for input by the Site	How does the method for notifying the Site Office of significant assurance system changes allow for input by the Site	C.1.1 Does the laboratory process require notification of the Site Office prior to making significant assurance system changes?

what

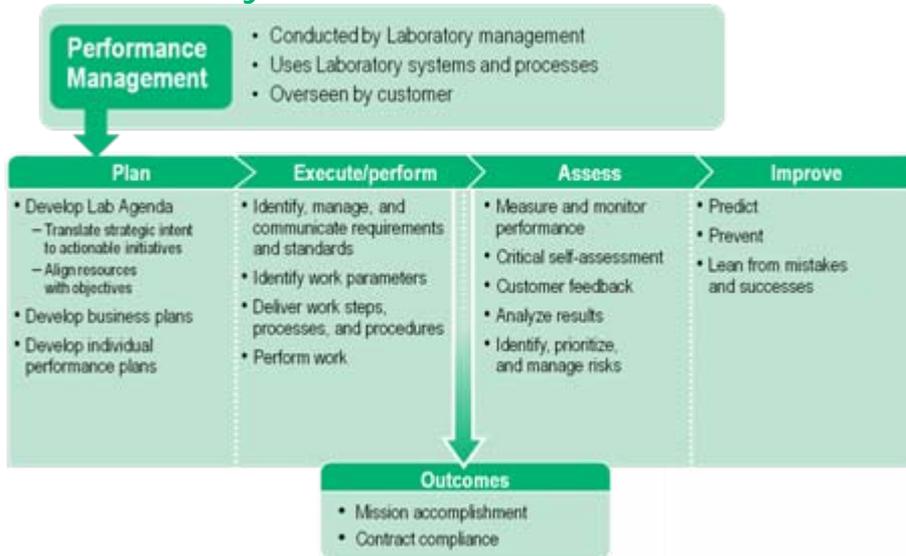
Site Office:

Accountable for mission accomplishment and contractor performance

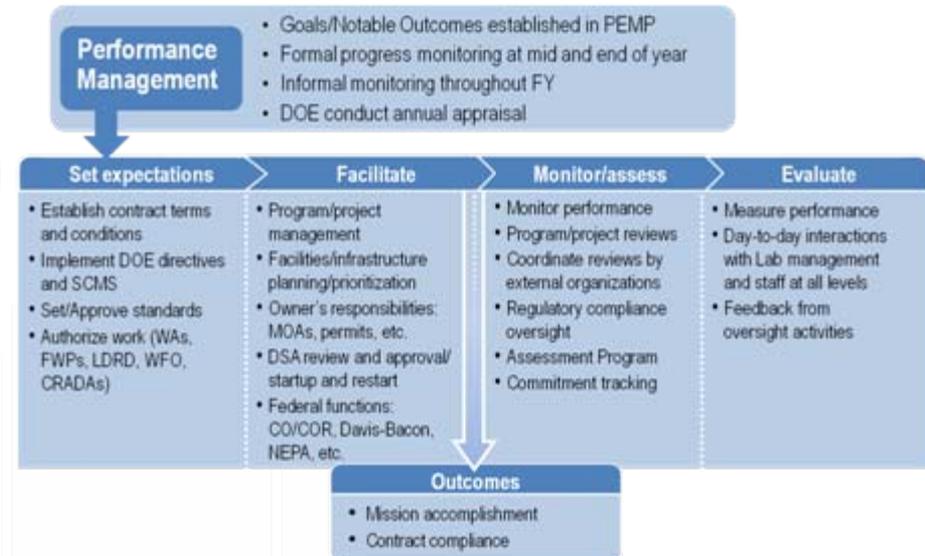


Relationship

Laboratory



Site Office



Growth

Trust

Partnership

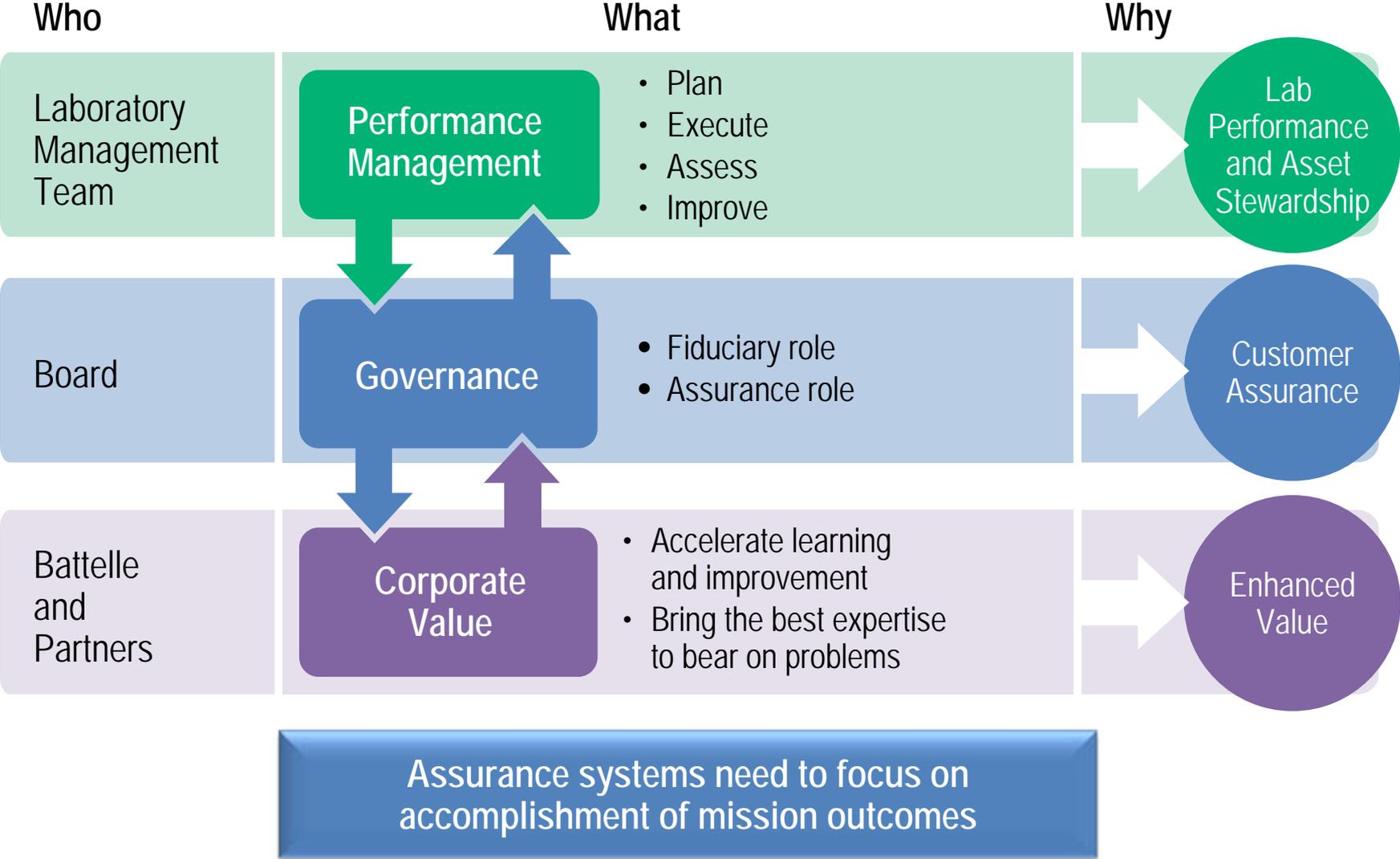
Respect

Focused on mission accomplishment

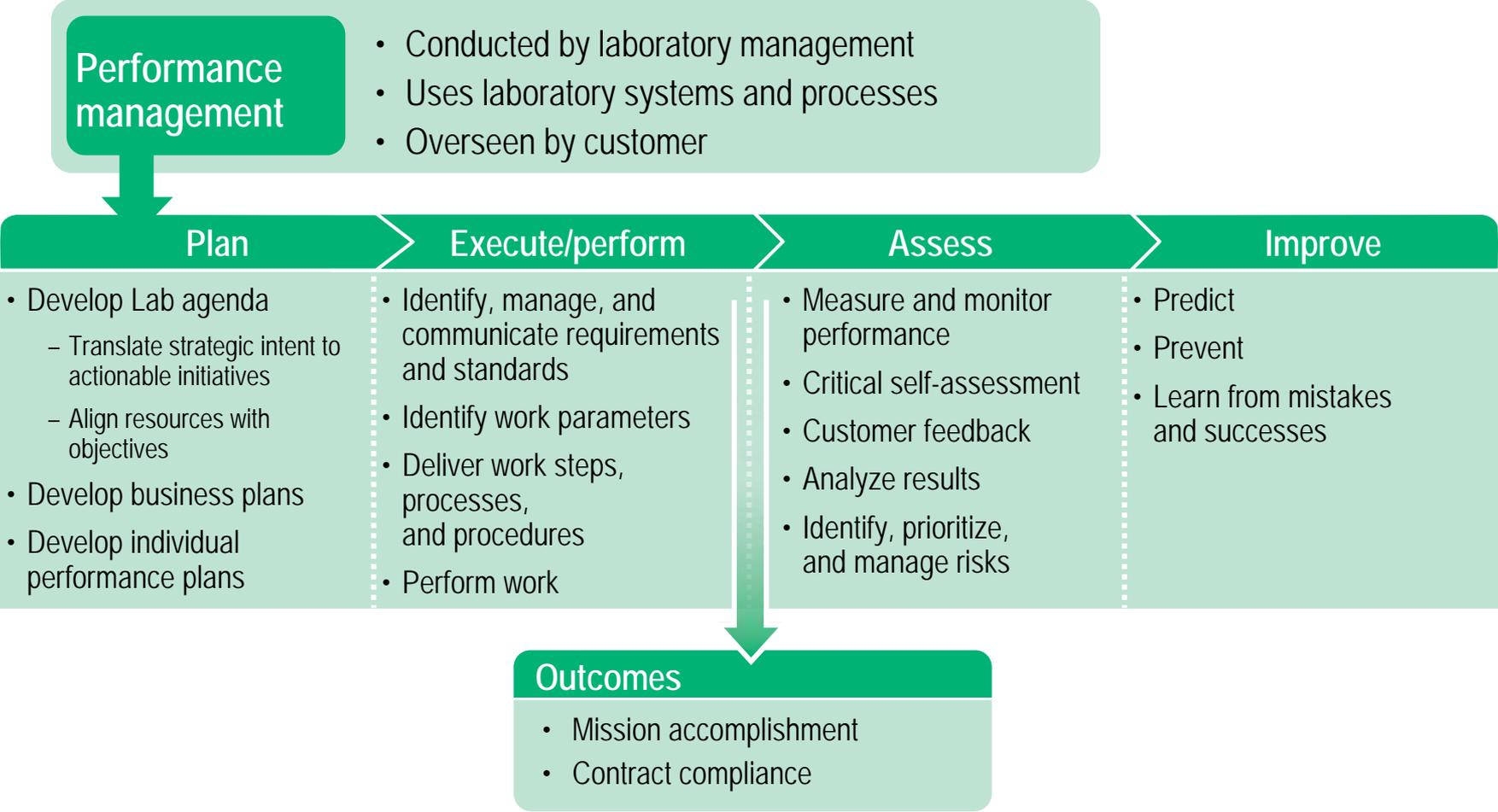
Assurance System Peer Review

- Performed on May 4-6, 2010
 - Six team members (University of California, DOE-SC, PNNL, LBNL, BNL, TJNAF)
 - Eight observers (SC Labs, SC Site Offices, NNSA)
- Assessment focused on:
 - Systems, processes, tools and practices
 - Engagement of the reviewed parties (Laboratory, Corporate Parent, and Site Office) in these processes
 - Evidence presented of process effectiveness

ORNL's approach to assurance has three critical functions



Laboratory management is accountable for performance and stewardship



Business planning embodies CAS elements



National R&D priorities

DOE Business Plan for ORNL

FY10 laboratory agenda			
Strategic Objectives	Excellence in Science and Technology	Excellence in Laboratory Operations and E&SH	Excellence in Community Service
Critical Outcomes	Deliver scientific advances and technological innovations that support DOE missions, apply expertise and capabilities to the needs of other customers, and sustain and enhance ORNL's distinctive capabilities	Sustain and improve ORNL's ability to serve the needs of DOE and the nation through responsible stewardship	Be viewed by our neighbors as a highly valued partner in the region
Laboratory Initiatives	Advanced Materials and Interfaces Processes Energy Security S&T National Security S&T Neutron and Nuclear Sciences Climate Change Science, Systems Biology, and Environmental Sustainability Ultrascale Computing and Computational Science Graduate Education and University Partnerships	Build Our Future Workforce Enhance Operational Discipline and Safety Culture Maintain Secure Campus and Information Technology Assets Maximize Operational Efficiency Revitalize Research and Nuclear Facilities Sustainable Campus	Communications and Community Involvement Commercialization and Economic Development

Strategy and planning

- Align the business to deliver on strategy
 - Business plan
 - Performance plan
 - Other plans

Execution

- Perform the work and business functions
 - Execute work
 - Management systems

Communication, feedback, and improvement

- Identify improvement opportunities and inform business decisions
 - Communicate results
 - Feedback
 - Improvement opportunities

Performance monitoring and analysis

- Monitor, measure, and evaluate performance
 - Performance indicators
 - Assessment, metrics
 - Performance analysis

Mission outcomes, risks, and measurement are expressed in business plans

**NScD Directorate
FY 2010
Business Plan**
September 21, 2009

c. FY 3+ goal: Lead the world in neutron scattering and irradiation capabilities through development of instrumentation, and innovative accelerator and neutron techniques

i. FY 2010 Milestone: Complete one instrument at SNS and one instrument at HEIR

Risk Perspective						
FY+3 Goal	Threats	Risk Priority (H, M, L)*			Mitigation Actions	Owner
		M	O	C		
Advance scientific knowledge at the frontiers of chemistry and physics	SNS and HEIR	M	L	L	See 2.3	Dean Miles

1.4 Facilities and Infrastructure Requirements

Key Buildings and Utility Systems including support buildings/systems needed to enable research: ORNL Guest House to support Users; SNS cafeteria operations that support User; User Labs developed to support sample preparation

3.2 Directorate Assessment Plan

Directorate-directed Assessments performed on the directorate

Area to be assessed	Type of assessment	Schedule	Assessment Title	Assessment Scope/Description	Assessor
Safety Performance	Management Observations	All	Work Management Observations	Random and planned work observations	Level 1, 2, and 3 Managers
Accelerator Safety	Independent	April, 2010	SNS Accelerator Safety	Evaluation of SNS compliance with the Accelerator Safety Order	SNS Accelerator Safety Review Committee
SNS waste shipment readiness	Self	Q1	Readiness to ship SNS Low-Level Waste	Low-level waste will be shipped from SNS to Energy Solutions for disposal.	SNS, ORNL Lab Waste Services
Directorate Performance	Self	Monthly	Monthly metrics	Division, Finance, Human Resources, Facilities	Level 1 and 2 managers
SNS - After Outage Assessment	Self	After each	Readiness Assessment	All Technical Systems	Level 2 and 3 managers

The Board fulfills fiduciary and assurance roles

Governance

- Conducted by Board
- Oversees laboratory performance
- Provides for succession of key personnel
- Provides assurance to customer

Fiduciary Role

- Execute defined fiduciary responsibilities on behalf of the LLC
- Approve performance goals, targets, and expectations
- Approve tolerances
- Hold laboratory leaders accountable for performance
- Approve laboratory strategy

Assurance Role

- Oversee laboratory performance
 - Subject matter specific committees to analyze performance
 - Determine risks are adequately managed
 - Drive corrective action if management isn't taking needed action

Board Committees

Operations

Personnel and Compensation

Finance and Audit

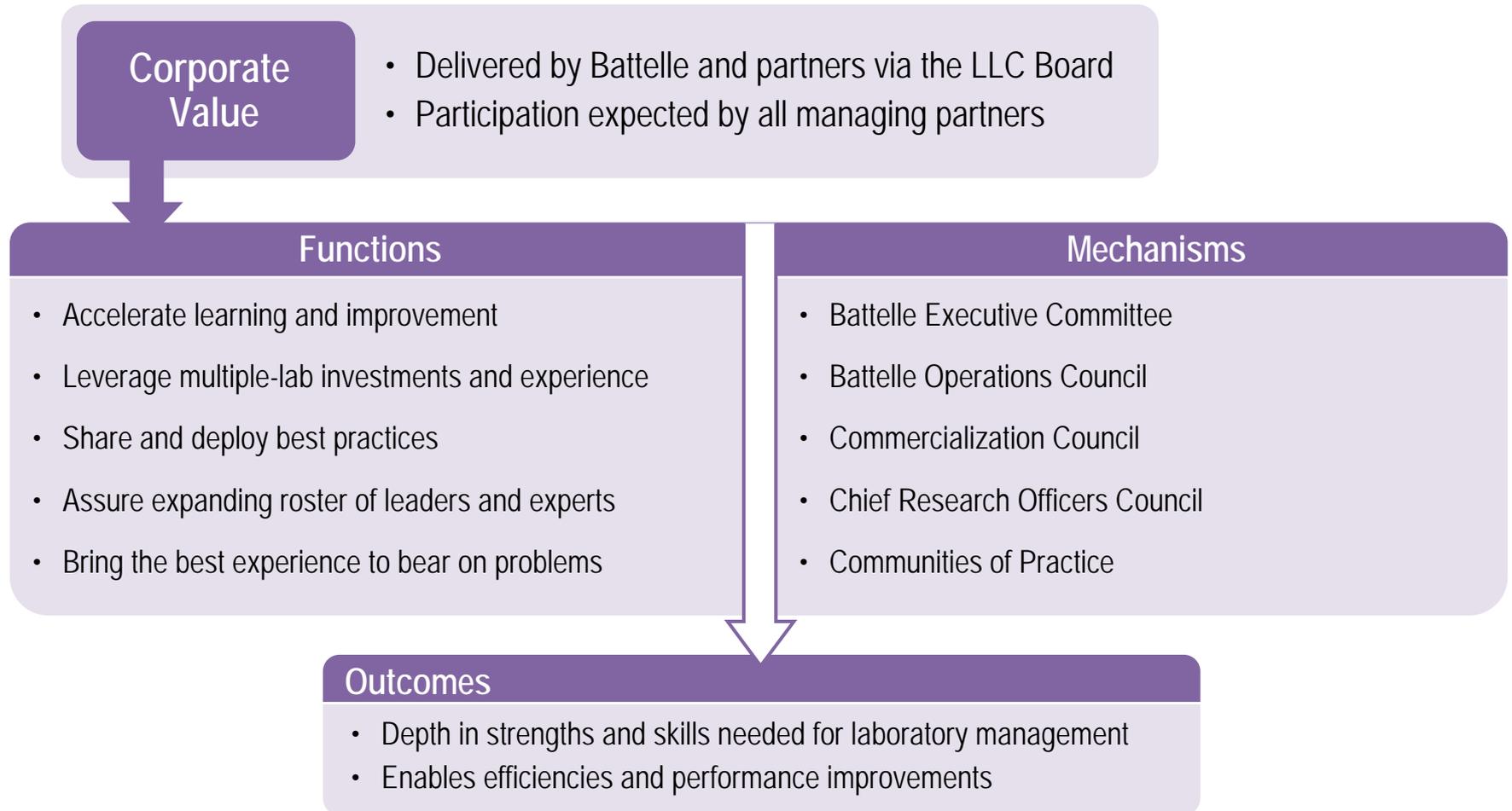
Science and Technology

Outcomes

- Business and operating constraints
- Performance feedback

Board and Committees meet at least 3 times/year

The Corporate Parent provides value-added



Peer review results

Notable practices	Opportunities for improvement
<ul style="list-style-type: none">• Relationships: Mutual respect and trust• Oversight: Focus on performance and results• Governance: Active and substantive engagement• Improvement: Emphasis on continuous improvement and learning• Feedback: Widespread use of customer feedback• Alignment: Translating strategy throughout the organization• Maturity: CAS principles accepted within organizations	<ul style="list-style-type: none">• Documentation: Reframe the Assurance Program description• Assessments: Rationalize the assessment portfolio• Maturity: Different levels of maturity among organizations in CAS application

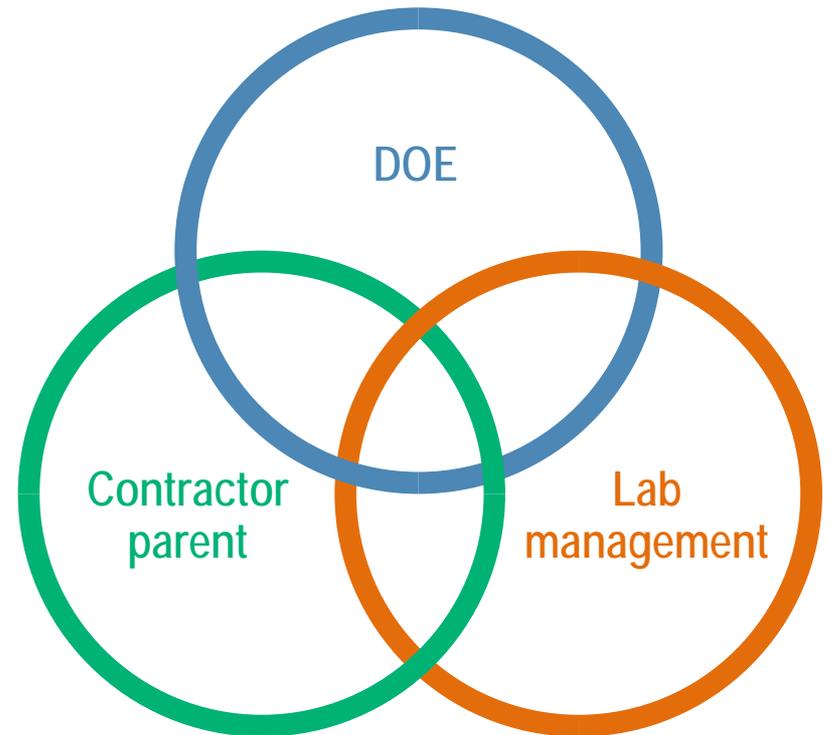
Overall conclusion

“...the ORNL CAS has a solid, comprehensive structure which includes all required CAS attributes. While opportunities for ongoing improvement were noted, the team found that the CAS is effectively implemented, robust, and has enabled mission execution...”

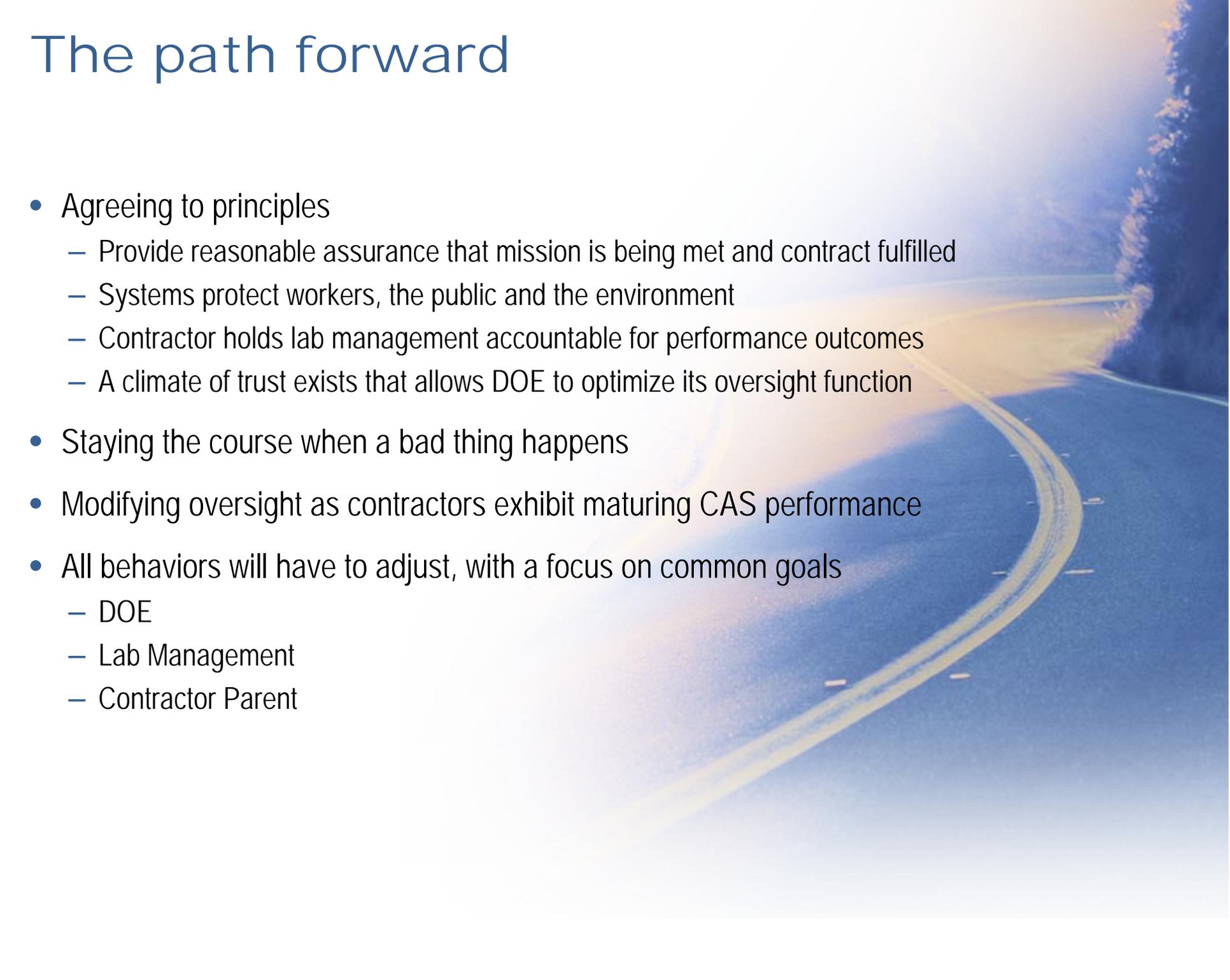
An interdependent view of Assurance

- What does success look like?
 - We are focused on mission outcomes
 - Our processes drive improvements that affect outcomes
 - There is an emphasis on self-identification, correction and prevention
 - We can demonstrate sustainable performance
 - Collectively, we become more effective through improved allocation of resources
 - A climate of mutual trust defines our relationships and actions

Assurance system:
Success depends
on the engagement of 3 parties



The path forward



- Agreeing to principles
 - Provide reasonable assurance that mission is being met and contract fulfilled
 - Systems protect workers, the public and the environment
 - Contractor holds lab management accountable for performance outcomes
 - A climate of trust exists that allows DOE to optimize its oversight function
- Staying the course when a bad thing happens
- Modifying oversight as contractors exhibit maturing CAS performance
- All behaviors will have to adjust, with a focus on common goals
 - DOE
 - Lab Management
 - Contractor Parent