SLAC NATIONAL ACCELERATOR LABORATORY

SLAC Management Plan

Document Approval (signature/date)

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Management Plan

SLAC National Accelerator Laboratory is one of 10 Department of Energy (DOE) Office of Science laboratories and is operated by Stanford University on behalf of the DOE. This document serves to explain the structures and processes by which the Laboratory governs itself and through which Stanford and the DOE can ensure that contractual requirements are met. The SLAC Management Plan is a companion document to the SLAC Strategic Plan, which can be found at:

https://www6.slac.stanford.edu/files/Strategic_Plan_2014.pdf.

This Management Plan describes the Laboratory's governance framework established to ensure that SLAC management has:

- Clearly defined responsibilities and accountability;
- A clearly defined process for setting priorities for the laboratory;
- An effective management structure; and
- A clearly defined assurance process to evaluate laboratory performance.

The SLAC Management Plan is issued under the authority of the Laboratory Director to direct the management and operation of the Laboratory. The Laboratory Director may delegate maintenance of the SLAC Management Plan at their discretion.

Governance

Governance Model

SLAC's governance model reflects its status as a national laboratory, integral to an academic institution, Stanford University.

Three organizations work together to enable the success of SLAC, with the following roles:

1) DOE Office of Science is responsible for setting strategic direction and overseeing that work is performed in accordance with the Management and Operation ("M&O") contract.
2) SLAC is responsible for identifying, performing and enabling scientific research consistent with the priorities of the DOE Office of Science.
3) Stanford University is responsible for overseeing SLAC and assuring to DOE that SLAC performs its work satisfactorily.

Executive Team

Ultimate responsibility and authority for all Laboratory performance and functions rests with the Laboratory Director. The Laboratory Director derives authority from the University President and Provost, and concurrently from the Department of Energy, by virtue of the Management and Operating contract. The Laboratory Director articulates the Laboratory's vision and provides leadership for the overall strategic direction, management and administration of the Laboratory. The Director also represents SLAC faculty in matters before the Provost, and is a member of the Stanford University Executive Cabinet.

The Laboratory Director appoints a Deputy Director (DD) and a Deputy Director for Operations (DDO).

The DD assists the Laboratory Director on matters concerning Laboratory management and integration of cross-organizational initiatives, and is also responsible for overseeing major projects. The DD acts for the Laboratory Director in his or her absence.

The DDO serves as the chief operating officer of the Laboratory, overseeing mission support organizations, and is responsible for effective integration and performance of operations supporting the laboratory's mission.

The Acting Director when the Director and Deputy Director are unavailable is defined by a delegation list maintained by the Director's Office.

Organizational Structure

SLAC's organizational structure reflects a partnership between its "mission" organizations – responsible for operating scientific facilities and exploring frontier scientific questions in specific fields relevant to the nation and the DOE – and its "mission support" or "operations" organizations, which provide the support needed to ensure the scientific work is performed consistent with applicable requirements. Additionally, the mission support organizations develop and implement the business processes for the Laboratory (Figure 1). The success of SLAC programs, both current and future, relies on maintaining a close partnership between the mission and operations organizations and excelling at both functions.

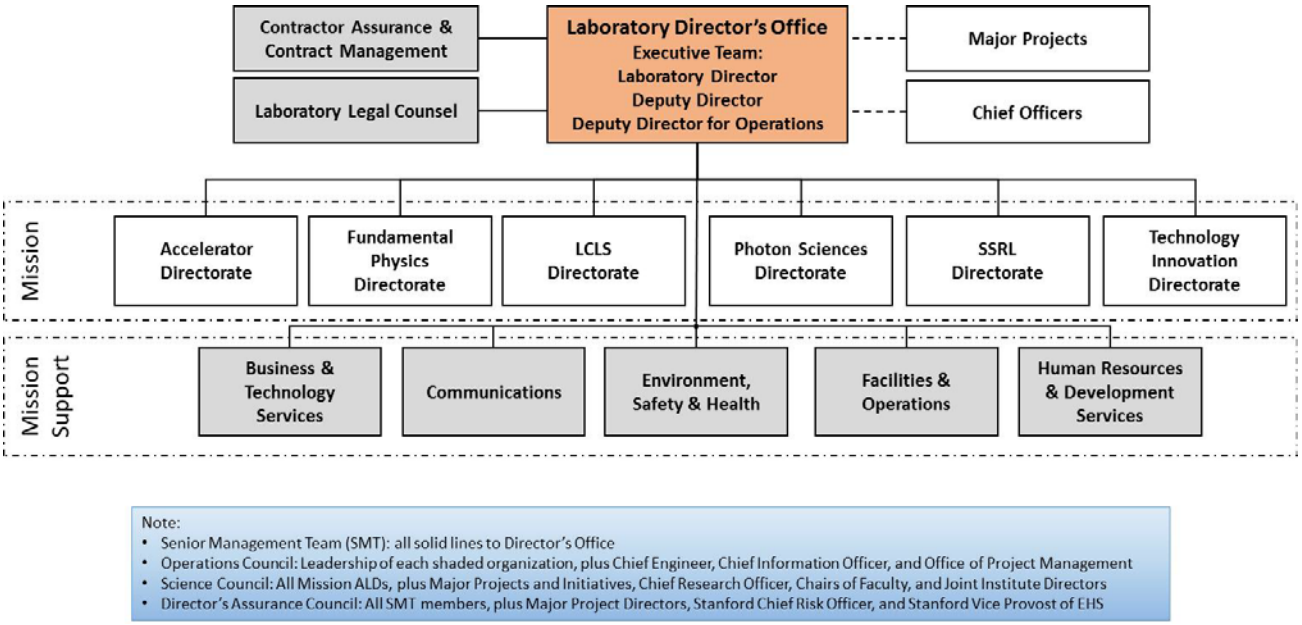

Figure 1: High level organizational management structure

The mission organizations at SLAC are led by Associate Laboratory Directors ("ALDs") appointed by and reporting to the Laboratory Director. The mission support organizations are led by Directors reporting to the Laboratory Director. These organizations have specific expertise necessary to meet SLAC's mission and specifically defined goals set by the Laboratory Director.

SLAC has the following governance or coordination bodies to manage the Laboratory, each with its own scope described more fully below:

- The Senior Management Team ("SMT") is chaired by the Laboratory Director and is comprised of:
  - the Executive Team,
  - the ALDs,
  - the Mission Support Directors,
  - Laboratory Counsel, and
  - The Director of Contractor Assurance and Contract Management (CACM).
- The Operations Council is chaired by the DDO, and is comprised of:
  - Business & Technology Services Director (and Chief Financial Officer),
  - Communications Director,
  - Environment, Safety & Health Director,
  - Facilities & Operations Director,
  - Human Resources & Development Services Director,
  - Director of the Office of Project Management,
  - Chief Engineer,
  - Chief Information Officer,
  - Laboratory Counsel, and
  - The Director of CACM.
- The Science Council is chaired by the Chief Research Officer (CRO), and is comprised of:
  - The LD,
  - The DD,
  - Mission ALDs,
  - Joint Institute Directors,
  - Chairs of SLAC Faculty, and
  - Initiative and Project Directors.
- The Director's Assurance Council (DAC) is chaired by the Deputy Director, and is comprised of:
  - All SMT members,
  - Major Project Directors,
  - Stanford University Chief Risk Officer, and
  - Stanford University Vice Provost of Environmental Health and Safety.

From time-to-time, the Laboratory Director may establish new governance bodies as needs arise.

Senior Management Team

SLAC's Senior Management Team (SMT) is the most comprehensive management body within the Laboratory's organizational framework. The SMT brings together the Mission and Mission Support organizations for a holistic and thorough evaluation of significant or strategic Laboratory-wide issues. It is also the body responsible for assuring to the Laboratory Director that SLAC is making progress toward achieving the vision set by the Laboratory Director.

The SMT reviews and discusses institutionally important matters and provides recommendations to the Laboratory Director. The SMT makes consensus based decisions in the following areas, if so delegated by the Laboratory Director:

- Laboratory scientific direction, investments and strategies;
- The Laboratory's reputation, outlook, or standing with sponsors and amongst its peers;
- Addressing operational or environmental, health and safety, and security issues with laboratory-wide implications including reviewing institutional policies;
- Laboratory's financial planning;

- Key human resources strategies, talent development, and decisions with laboratory-wide impacts; and
- Laboratory infrastructure.

If consensus cannot be reached on a delegated issue, the Laboratory Director makes the decision.

Furthermore, the SMT advises the Laboratory Director in setting the Laboratory's strategic direction by assisting in the development of the Laboratory's planning and goal documents (Strategic Plan, Annual Lab Plan, Lab Agenda, etc.) and assessing progress against them.

The Laboratory Director receives input from members of the SMT through a variety of sources, including through regular SMT meetings, budget proposals, and business plans. This input is required or institutional planning, which is discussed below in greater detail.

Each member of the SMT is accountable to the Laboratory Director for achieving their respective goals laid out in the above documents. Members of the SMT are expected to work across organizational lines to achieve integration of programs and projects, and ensure effective and efficient use of resources. All members of the SMT have line management responsibilities in addition to their SMT responsibilities.

Coordination Councils

SLAC Coordination Councils are advisory in nature and assist the Laboratory Director in managing the Laboratory. These Councils are venues for coordination, and for risk management, execution, assurance, scientific exchange discussions. The Councils have the following general responsibilities:

- Coordination amongst members;
- Determining when appropriate matters should be raised to the SMT or Executive team;
- Raising or discussing cross-cutting issues and risks;
- Supporting the assurance function of the laboratory;
- Disseminating information.

Science Council

The Science Council is chaired by the CRO and provides a forum to review strategic program issues and discuss new areas of scientific discovery. More specifically, the Science Council:

- is the primary forum for discussing the science strategy for SLAC, including identification and exploration of new science and core technology growth opportunities and providing advice during their early, formative development;
- works within the framework provided by the SLAC Strategic Plan, ALP, and Lab Agenda in exploring opportunities within existing or new areas of scientific or core technology research;
- assists the Director in identifying and implementing cross-cutting initiatives that transcend individual science research areas or directorates; and
- provides input to the SMT on strategic investments essential to realize the future scientific objectives, and integrates and proposes investments for LDRD program.

Operations Council

The Operations Council is chaired by the Deputy Director for Operations and provides a forum for the Operations Directors to review cross-cutting operational needs and initiatives and provide advice to the SMT on significant operations matters. More specifically, the Operations Council:

- serves as a forum for exchanging information and coordinating cross-functional responsibilities among the participants;
- reviews key actions in the associated operational areas to determine whether they should be raised to the Executive Team or the Senior Management Team;
- provides strategic counsel to the Deputy Director for Operations on operational issues with lab-wide impact; and
- integrates indirect budgets and plans for presentation to and consideration by the Laboratory Director.

Director's Assurance Council

The Director's Assurance Council (DAC) is chaired by the DD and provides oversight of the SLAC Enterprise Risk Management Program (ERMP). The DAC ensures all institutional risks have a "champion" and that appropriate actions and initiatives are being implemented to effectively mitigate risks. The SLAC ERMP uses a systematic approach to identify, evaluate and characterize, mitigate, and monitor and communicate mission and operational risks. This includes especially those risks shared between and or affecting Stanford University, SLAC, and the DOE, as represented by the DOE Site Office (SSO).

The DAC manages the SLAC Executive Risk Register (ERR) and, as such, executes the following primary functions:

- Determines when new risk items should be added to the ERR
- Ensures each risk on the ERR has a "champion" who is responsible for overall management of the risk and update to the DAC on risk status
- Reviews the specific risk items on the ERR, with emphasis on higher-level risk
- Determines when specific risk items on the ERR should be removed
- Advises the laboratory director on the adequacy of risk treatment
- Reviews SLAC's processes for identifying, characterizing, prioritizing and managing risks
- Requires additional review or action for risks as necessary

The DAC executes three other related functions:

- Reviews performance assessment and assurance information to identify institutional risks
- Concurs with the annual Integrated Assessment Schedule
- Concurs with corrective actions that involve response to risks and P1 issues (per the Issues and Improvements Management Program)

The full charter for the DAC can be found at:

https://docs.slac.stanford.edu/sites/pub/Publications/701-O03-004- 00_DAC_Charter_Process.pdf.

Chief Officers

SLAC's Chief Officers play a role in coordinating with the Laboratory Director, other laboratories, and with the Department of Energy in their assigned roles, in addition to their line management responsibilities. SLAC's Chief Officers are: the Chief Communication Officer, the Chief Engineer, the Chief Financial Officer, the Chief Information Officer, the Chief Research Officer, the Chief Technology Officer, the Chief Human Resources Officer, and the Chief Safety Officer.

Institutional Planning

Institutional planning ensures that the Laboratory's mission and long-term strategic intent are achieved through a framework to prioritize, implement, and evaluate (and re-direct where necessary) the Laboratory's major efforts and resources against critical outcomes in research and operations. At SLAC, institutional planning is implemented through an annual planning cycle consisting of three phases. These phases are:

1) Strategy (December-April): in this phase, the Laboratory Director, with input from the SMT, sets the Laboratory's strategic intent, critical outcomes for success, and near and long-term priorities, while taking into consideration important outcomes of the prior Assessment phase (see below). Setting these goals involves evaluating and prioritizing initiatives based on their future outlook at SLAC, their current readiness, resources required to achieve the targeted end-state (talent, infrastructure, investment), as well as key success criteria (leadership, sponsor relationships, competitive position). This work results in two key planning products: the FY Annual Lab Plan and the next FY SLAC Agenda, described below.
2) Business Planning (May-September): during this phase, the execution of the Laboratory's strategy is reflected into organizational-level plans developed by line management. These plans specify milestones and implementation actions needed to carry out the SLAC Agenda in the near and long-term. This includes, for example, identifying business volume, workforce, infrastructure and investment needs, and

new sponsor opportunities. The deliverable of this phase is the Lab-level budget and resource "programming" for the following fiscal year, as well as an updated long-term funding, investment, workforce and infrastructure profile in support of the SLAC Agenda.

3) Assessment (August -November): although there is ongoing assessment against the Laboratory's priorities throughout the year, there is a greater focus on assessment during this period given it coincides with the culmination of the DOE Lab appraisal process and SLAC internal evaluation processes. Such processes review the outcomes of the prior FY's efforts spanning from Lab-level major initiatives and deliverables highlighted in the SLAC Agenda. The primary goal of this evaluation period is to synthesize important "lessons-learned" from the Laboratory's execution to-date across the mission and operations organizations, and to translate them into appropriate input, actions, or updates for SLAC's Strategy and Business planning phases respectively.

As discussed above and further defined below, the key institutional processes and products of strategic planning are the SLAC Strategic Plan, the Annual Laboratory Plan, the SLAC Agenda, and Directorate Business Plans. These planning documents form the basis for line management's assignment of SLAC employees' goals and responsibilities.

SLAC Strategic Plan

SLAC's strategic plan represents the Laboratory Director's long-term vision for SLAC and its role in addressing critical challenges faced by the Department of Energy, the nation and the scientific community. It describes SLAC's values and commitment to resolving these challenges through scientific discovery, developing breakthrough technology, and leveraging the lab's core competencies and partnerships.

The SLAC Strategic Plan can be found at:

https://www6.slac.stanford.edu/files/Strategic_Plan_2014.pdf.

SLAC Agenda

The SLAC Agenda provides a single comprehensive framework tying the Laboratory's long-term strategic intent to actionable, near-term milestones with institutional or cross-organizational impacts. The SLAC Agenda prioritizes and aligns SLAC's most important efforts, resources, and investments. It is a cornerstone document against which all institutional planning processes are baselined, and resources and investments are allocated.

The SLAC Agenda identifies:

- SLAC's strategic intent in the ten-year timeframe.
- Critical outcomes needed in the five-to-ten year timeframe to achieve SLAC's strategic intent.
- Major initiatives and deliverables, and implementation actions in the one-to-three year timeframe.

The SLAC Agenda is revised annually and progress against the Agenda is assessed by the Laboratory Director and the SMT on an ongoing basis.

Annual Laboratory Plan

The ALP is a key requirement of the DOE Office of Science Laboratory planning process to ensure SLAC's effective stewardship of its mission. The ALP is informed by the SLAC Agenda, and focuses on significant ongoing activities and necessary initiatives to maintain and achieve needed capabilities and competencies.

The Director reviews the ALP with the DOE Office of Science to ensure alignment with Office of Science priorities. Office of Science feedback from this review guides SLAC's current and future programs and submissions of proposals for funding to the DOE. It also ensures that SLAC investigates and identifies improvements in operations necessary to support SLAC's future mission needs.

Directorate Business Plans

SMT members develop business plans that are consistent with the long-term priorities of the laboratory and that establish annual performance goals. The annual goals are set at a level necessary to support effective financial and technical resource planning. These are translated into divisional, departmental, and individual goals.

Contractor Assurance

A core component of governance is assurance—the ability to know how the Laboratory is performing against intended mission objectives and performance expectations, and to use that knowledge to improve. Stanford University and SLAC carry out assurance through the Contractor Assurance System (CAS). CAS demonstrates that Stanford and SLAC have a set of systems and processes capable of providing reasonable assurance to address the requirements of the DOE contract with Stanford to manage and operate the Laboratory. Key elements of CAS include the establishment of goals to meet mission and operational objectives, understanding and mitigating risk, conducting rigorous, risk-based self-assessments, identifying and correcting negative performance/compliance trends, using metrics to monitor performance, and incorporating performance feedback.

Stanford Board of Overseers

Stanford, SLAC and the DOE have an integrated CAS that provides defense in depth and enables the laboratory mission. Stanford's portion of CAS is implemented via the Stanford Board of Overseers (the board), which is chartered by the Stanford University president and approved by the Stanford Board of Trustees. Stanford's vice president for SLAC serves as chair of the board. The board, which meets twice annually, has established the following four committees to assist in ongoing oversight of SLAC's policies, processes, and systems:

- **Finance and Audit**: focus on business and financial operations and control systems, as well as the supporting computing infrastructure and cybersecurity program
- **Human Resources and Communications**: focus on human resources, compensation systems, and succession planning, and internal and external communication plans and strategies
- **Operations**: focus on ES&H, facility operations, safeguards and security, and strategic and operational planning
- **Scientific Policy:** focus on the development, implementation and direction of SLAC's scientific policy as it is aligned with DOE's mission needs, as well as Stanford's educational and research goals

Additionally, the Stanford University Internal Audit organization conducts internal audits of SLAC and reports their findings independently to the Stanford Board of Trustees. The Director's Assurance Council (DAC), which has senior level Stanford membership, also facilitates contractor assurance and risk-based oversight.

Finally, CAS and Quality Assurance (QA) are joined at SLAC, and together they comprise an integrated suite of management and assurance systems, processes, and tools that monitor and improve all aspects of laboratory performance and enable the anticipation and mitigation of issues.

SLAC's Quality Assurance Program description can be found at:

https://docs.slac.stanford.edu/sites/pub/Publications/701-O03-007-00_Quality_Assurance_Program.pdf

Performance Assurance Planning and Integrated Assessment Schedule

SLAC management uses an annual, performance assurance planning process to analyze trends and review and update mission and operational risks to identify mission, program, or operational areas that could benefit from review, assessment or other improvement methods. Potential self-assessments and reviews that are proposed during this planning process are balanced against required assessments and the Laboratory develops an Integrated Assessment Schedule (IAS). External assessments that are scheduled to be performed by DOE and other outside agencies are added to the IAS to provide the Laboratory,

Stanford, and the DOE SSO with an overall annual assessment plan and profile. The annual IAS is approved by the Laboratory and Stanford, with concurrence from the DOE SSO.

Project Management Assurance Group

The Project Management Assurance Group (PMAG) consists of a mix of SLAC internal and external experts on all aspects of construction projects. The PMAG meets monthly, or as needed, and provides a project assessment of all construction projects at SLAC, regardless of whether they are also reviewed under DOE requirements. PMAG assesses scope, schedule, cost and risks and makes recommendations for improvement to the project team as well as to SLAC senior management. In addition the PMAG, typically supplemented by other outside or inside experts dependent on the complexity of the project, executes Directors reviews after being charged by the lab director.

Other Advisory Committees

Each organization, with the concurrence of the Director, may establish advisory committees to assist in their management oversight.

Revision History

Revision	Date Released	Description of Change
R000	October 31, 2015	Initial Release
R001	April 30, 2018	Document update with revised org chart and governance descriptions