



STRATEGIC REVIEW PROCESS

A MECHANISM TO EMPOWER THE AGENCY TO EFFECT CHANGE

DECEMBER, 11, 2014

PAM O'NEIL, PH.D.
DEPUTY PERFORMANCE IMPROVEMENT OFFICER



STRATEGIC REVIEW PROCESS:

A NEW PROCESS REQUIRED BY THE GPRA MODERNIZATION ACT BY WHICH FEDERAL AGENCIES WILL ANNUALLY ASSESS PERFORMANCE ON THE STRATEGIC OBJECTIVES IN THE STRATEGIC PLAN TO IDENTIFY AREAS FOR IMPROVEMENT.



Additional detail:

- A process involving the highest level of leadership at the agency that uses evidence to inform planning, decision making, and improvement.
- The process informs strategy and budget formulation, and identifies opportunities for improvement to be reported to OMB.
- Internal stakeholders are the audience for the process.
- Our Budget Examiner at OMB is the audience for the final summary of findings.

HOW IS THIS
DIFFERENT FROM
OTHER GPRA
REQUIREMENTS?



- Agencies were given the flexibility to design a process that serves their needs.
- Emphasis was placed on conversations among senior leaders that use data and information to inform decision making.
- Part of the process is intentionally opaque. This gives us the opportunity to be honest with ourselves.
- The process is linked to the budget planning process but not specifically to resource allocation. There is no downside to reporting challenges.

STRATEGIC GOALS AND OBJECTIVES

Strategic Goal 1 (G1): Transform the Frontiers of Science and Engineering.

- *Strategic Objective 1 (G1/O1): Invest in fundamental research to ensure a continuing stream of advances across NSF science, engineering, and education.*
- *Strategic Objective 2 (G1/O2): Integrate education and research to produce a diverse STEM workforce with cutting-edge capabilities.*
- *Strategic Objective 3 (G1/O3): Provide world-class research infrastructure to enable major scientific advances.*

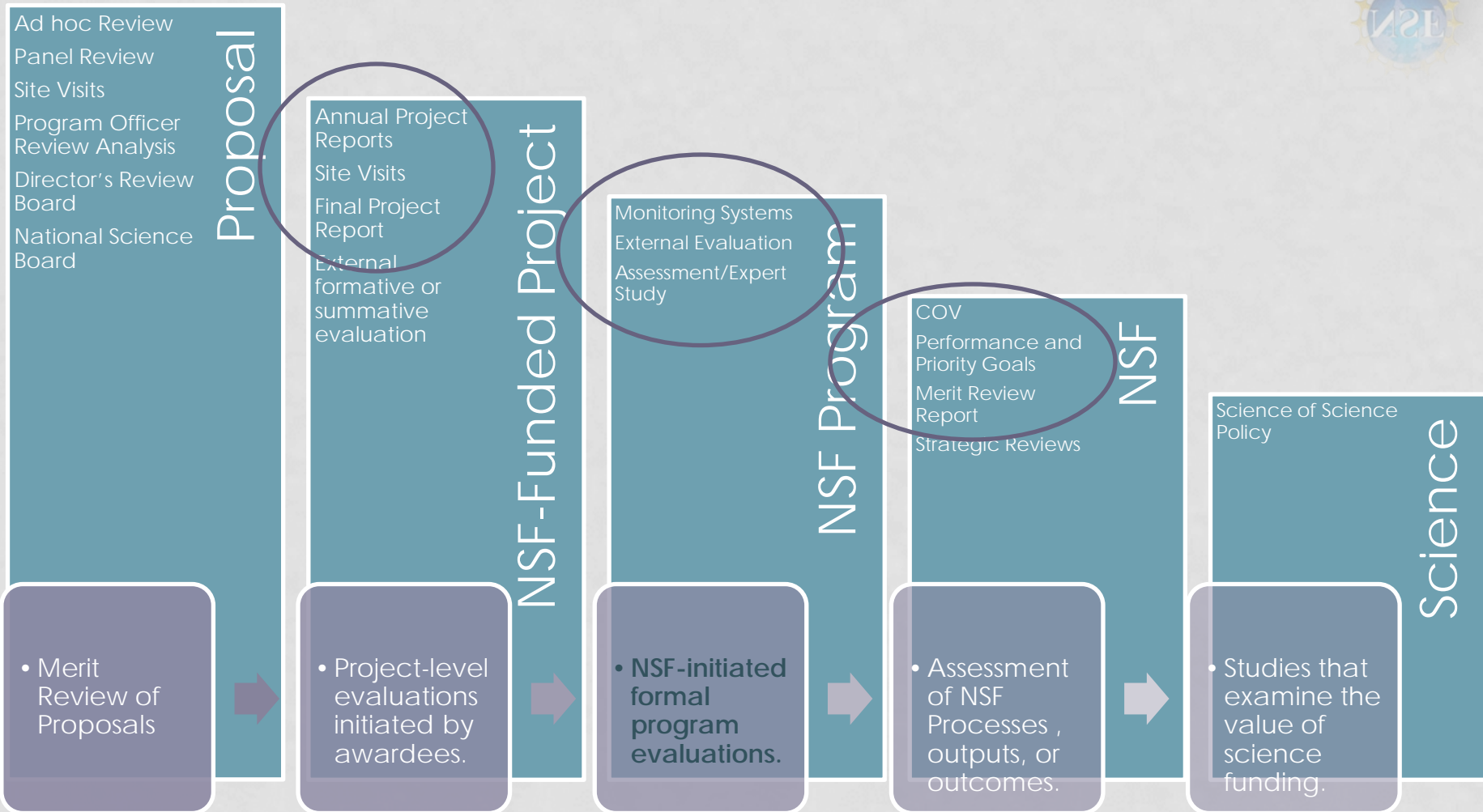
Strategic Goal 2 (G2): Stimulate Innovation and Address Societal Needs through Research and Education.

- *Strategic Objective 1 (G2/O1): Strengthen the links between foundational research and societal needs through investments and partnerships.*
- *Strategic Objective 2 (G2/O2): Build the capacity of the Nation to address societal challenges using a suite of formal, informal, and broadly available STEM educational mechanisms.*

Strategic Goal 3 (G3): Excel as a Scientific Federal Agency.

- *Strategic Objective G3/O1: Build an increasingly diverse, engaged, and high-performing NSF workforce by fostering excellence in recruitment, training, leadership, and management of human capital.*
- *Strategic Objective G3/O2: Use effective business methods and innovative solutions to achieve excellence in accomplishing the agency's mission.*

NSF STRATEGIC REVIEWS ANALYZE THE RESULTS OF NUMEROUS ASSESSMENT MECHANISMS



AD or DAD will lead Strategic Review Team:

- Lieutenant
- Program staff
- Science Assistant or Analyst

Ex-officio Work Team:

- Deputy PIO
- Data experts from BD
- Evaluation expert (OIIA)
- Strategic Review Analyst

Team will formulate a carefully defined set of key analytical questions:

- Is our strategy effective?
- Are we executing efficiently?
- Do we have adequate capabilities, resources, and support?
- Did we achieve our expected outputs?
- Are the projects that we funded on track?
- What do external evaluations that have been conducted tell us about impact?
- What evaluations should be done in the future?

Lieutenant will work with staff to use data to answer key questions.

- Program staff, with the help of Performance Staff in BD, Evaluation Office in OIIA, and expert support contracted through BD.

Team will prepare a brief report to PIO and COO.

A Summary of Findings will be presented at SMART.

Optional: Interesting results can be communicated to NSF staff broadly using a forum such as a debate or a Townhall.



Overview of NSF's Strategic Review Process

STRATEGIC OBJECTIVE: STRENGTHEN THE LINKS BETWEEN FOUNDATIONAL RESEARCH AND SOCIETAL NEEDS THROUGH INVESTMENTS AND PARTNERSHIPS.

KEY ANALYTICAL QUESTIONS:

Focus: Linking knowledge and practice

What is the current conventional wisdom for knowledge transfer? (what are other agencies, universities, the private sector doing?)

What are the various models, tools, and mechanisms available within NSF? How are they tuned to past and current societal needs?

What does NSF need to do to adapt new ways of linking knowledge and practice? What are the gaps in what is needed and what we are currently doing?

*Stimulate innovation
and address societal
needs through research
and education*



STRENGTHEN THE LINKS
BETWEEN FOUNDATIONAL
RESEARCH AND SOCIETAL
NEEDS THROUGH
INVESTMENTS AND
PARTNERSHIPS.

The review investigated the current conventional wisdom for knowledge transfer, various mechanisms available within NSF to support knowledge transfer, and identified gaps between what is needed and what we are currently doing.

Opportunity for Action:

Expand efforts on targeted education to cultivate industry-relevant skills and the mentality for technology commercialization among students. Convene a workshop to brainstorm how to further grow innovative thinking and entrepreneurship (building on NSF I-Corps successes), and what new models of education are emerging or will be appropriate.

Noteworthy
Progress

STRATEGIC OBJECTIVE G3/O2: USE EFFECTIVE BUSINESS METHODS AND INNOVATIVE SOLUTIONS TO ACHIEVE EXCELLENCE IN ACCOMPLISHING THE AGENCY'S MISSION.

What can organizational theory tell us about the strengths and weaknesses of NSF structure and culture?

Is there evidence that our *culture* results in efficiency or inefficiency?

What is the NSF management model and how does it affect our ability to use effective business methods and innovative solutions to achieve excellence in accomplishing the Agency's mission?

What can we learn from similar organizations that achieve organizational excellence?



Excel as a Scientific Federal Agency.



USE EFFECTIVE BUSINESS METHODS AND INNOVATIVE SOLUTIONS TO ACHIEVE EXCELLENCE IN ACCOMPLISHING THE AGENCY'S MISSION.

The strategic review used organizational theory to gain an understanding of the strengths and weaknesses of NSF's structure and culture.

Prioritized
for FY
2015

Conclusions and Opportunities for Action:

- At NSF there are two predominant cultures: one that is academic in nature and one that is business oriented. These two interdependent cultures correlate respectively with the levels of flexibility and control that are manifested in NSF's business model.
- NSF collaborative teams are a predominant organizing mechanism to harness the skills of the two cultures in pursuit of agency goals. Exploring and adopting more structured ways of managing these intra-agency teams and enhancing team skills would improve their efficiency without trading-off effectiveness.
- **Implement a cultural assessment using evidence-based survey tools, with the goal of identifying our organizational strengths and opportunities for improvement.**
- Institutionalize an assessment process with the goal of identifying strategic issues and potential solutions.

WHAT OMB LIKED
ABOUT NSF'S
STRATEGIC
REVIEW PROCESS:



- We asked important questions.
- We involved senior leaders effectively.
- The reviews recommended specific opportunities for improvement.
- Our Summary of Findings was candid.

RESPONSE FROM OMB:

Quotes from our OMB
Examiner JD Kundu at a
Strategic Review Summit
held in July of 2014.



- “The core of NSF’s mission is promotion of basic research where it is –by definition- difficult to see what the outcome will be. I wanted to see if NSF could nonetheless come up with meaningful ways to improve performance.”
- “I always felt like NSF’s strategic goals and objectives were very grand,.. Pam and Marty told me they were going to try and focus on what will move the ball forward. That made sense to me and told me what to expect.”

RESPONSE FROM OMB:

Quotes from our OMB
Examiner JD Kundu at a
Strategic Review Summit
held in July of 2014.



- “The NSF review was candid. Sending a document that makes it look like everything is great damages any Agency’s credibility with OMB. No organization is without challenges. Spelling it out and putting it out there is very helpful”

WHY DO WE SEE
POTENTIAL TO
EFFECT CHANGE?



- Assistant Director engagement in the process.
- Provides structure to budget planning within an annual cycle.
- Encourages data-driven decision making.

PROCESS TIMELINE - ANNUAL CYCLE

