NSF Strategic Plan

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Strategic Plan to be Updated This Year

“The strategic plan shall cover a period of not less than five years forward from the fiscal year in which it is submitted, and shall be updated and revised at least every three years.”

Government Performance and Results Act (GPRA) of 1993
Why Should You Care?

The Plan Contains...

1. Agency mission and vision.
2. One or more strategic goals.
4. Relationship between annual performance goals and strategic goal framework.
5. Identification of key factors that could affect achievement of the strategic goals.
7. Outline the process for communicating goals and strategies throughout the agency, and for assigning accountability to managers and staff for goal achievement.
"The most effective means of evaluating federally funded research programs is expert review."

Objectives Evaluated by Advisory Committee for GPRA Performance Assessment

**IDEAS**
discoveries & new knowledge
- New Opportunities
- Underrepresented Groups
- Cross-Disciplinary
- Collaborations
- Connections
- Contributions

**TOOLS**
state-of-the-art S&E architecture
- Data Collection/Analysis
- Cyberinfrastructure
- Next Generation Facilities
- Instrument Technology
- Expand Access

**PEOPLE**
competitive S&E workforce
- STEM Education
- Public Understanding
- Continuous Learning
- Greater Diversity
- Global S&E Workforce

**ORGANIZATIONAL EXCELLENCE**
a capable, responsive NSF
- Quality Merit Review
- Utilize New Technologies
- Diverse/Capable Staff
- Performance Assessment

**Priority Areas**
Fundamental S&E
Centers Programs
Capability Enhancement
Large Facilities
Infrastructure & Instrumentation
Polar Tools & Logistics
FFRDCs
Individuals
Institutions
Collaborations
Human Capital
Business Processes
Technologies & Tools
**PMA = President’s Management Agenda**

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**Priority Areas**
- Large Facilities
- Infrastructure & Instrumentation
- Polar Tools & Logistics
- FFRDCs

**PART Programs**

**PMA**
Evolving Strategic Planning Process --
Recommendations from internal focus group...

Use an OPEN Process

**Keep**
- Use expert evaluation of long-term goals (GPRA alternative format)
- Keep strategic plan assessment of goals at agency level and keep goals as consistent as possible

**Add/Change**
- Examine roles, responsibilities and processes for activities and groups involved in the evaluation of the strategic plan (including COVs, Advisory Committees, Staff)
- Identify a few key priorities over plan duration (FY 06-11)
- Ensure strategic plan objectives can be evaluated and that they are meaningful

**Eliminate**
- Review usefulness of investment categories (OMB PART Programs)
Plan Update Process

Focus Groups
Current Strategic Plan
Staff Survey
Staff Interviews
AC Recommendations
OMB Examiner
Public Comment

Communication with NSF Staff

reports to
created

NSF Leadership

Plan Writing Subgroup

+ NSB, Congress, ACs, Staff Website, DD Roundtable, OMB, Public, Town Hall?
Community Input – First Round

An online survey was administered from December 14th, 2005 to January 20th, 2006 and consisted of two open-ended questions, with options to provide name, title, affiliation, and additional comments

–**Question 1**: Does NSF’s current Strategic Plan effectively communicate NSF’s roles and responsibilities as part of the S&E community? If not, what is lacking and how can it be improved?

–**Question 2**: What broad characteristics of the near and long term environment for S&E research and education should NSF consider and address in its next Strategic Plan?

–**Question 3**: Other comments?

*Over 200 responses (some from entire organizations)*
Themes from public comments...

- The nation has a critical need to improve math and science education

- The nation needs to continue to attract the best and brightest to study and perform research

- NSF needs to balance support for investigators with the development of world-class research infrastructure

- NSF needs to continue to coordinate research efforts with other organizations

- NSF needs to further enhance consistency and transparency of the merit review process
NSF Leadership and Staff Comments

- **Stay Strategic**, Find Common Ground and Keep it Short
- Communicate the Types of Things that Can Only Be Achieved Through Publicly-Funded Research
- **Greater Convergence of Fields** in S&E
  - Take steps to promote cross-foundation initiatives
  - Permit more flexibility to “dog the frontier”
- **Build Capacity** at Two and Four Year Colleges and Minority Institutions
  - Faculty and Instrumentation
  - STEM Ph.D. Programs (minority institutions)
- **Public Science Literacy** – Inform and Engage the Public
NSF Leadership and Staff Comments (cont.)

- **Recognize Needs in Computational S&E**
  - Increased complexity
  - Need for cyberinfrastructure tools
  - Added emphasis across disciplines on applied mathematics, statistics, databases and data management

- **American Competitiveness Initiative**
  - Continue Investment in Making Math & Science Education Best in the World
    - Focus on K-12 without neglecting critical NSF role in undergraduate, graduate and post-doc education and training
    - STEM Workforce – ensuring pathways to graduate education are established and full
NSF Leadership and Staff Comments (cont.)

- Increase Investment in **Major and Mid-Size Instrumentation**
- Emphasize NSF’s Leadership Role in Developing New Knowledge in **All Disciplines**
- NSF’s Education Roles
  - Research Directorates are Critical
  - NSF Niche: Exploratory, Best Practices, Research-Based
  - Need Partnerships with Other Agencies and Organizations Outside of Government
- Communicate Wonder & Awe of Science
NSF Leadership and Staff Comments (cont.)

- Management of MREFC Projects
- Continue to Have NSF as One of the Best Places to Work
  - Training and Development
  - Constantly Challenging All of Our Staff
- Emphasize to Community Science Ethics and Integrity
- Merit Review
  - Increase Transparency and Efficiency
  - Improve Proposal and Award Management Mechanisms (e.g. finding and selecting reviewers)
  - Role of Program Officer
Current Plan

Mission
To promote the progress of science; to advance the national health, prosperity & welfare; to secure the national defense

Vision
Enabling the Nation's future through discovery, learning and innovation

IDEAS
discoveries &
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Programs

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Institutions
Collaborations

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Business Processes
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Priority Areas
**Mission**

To promote the progress of science; to advance the national health, prosperity & welfare; to secure the national defense

**Vision**

Assuring the Nation’s Future Through Discover, Learning and Innovation

**GOALS (consistent with NSB Strategic Priorities)**

- **Discovery**
  - new knowledge within the core and at the frontier

- **Learning**
  - Scientifically literate citizenry and world-class S&E workforce

- **Research Infrastructure**
  - Broadly accessible state-of-the-art S&E architecture

- **Stewardship**
  - finding & supporting excellence in S&E research & education

**OBJECTIVES** (evaluated over a 3 year cycle)

- To Inspire and Transform
- To Grow and Develop

**Simplify**
Performance Assessment Process

**GPRA**
- Ideas
- Tools
- People
- Organizational Excellence

**PART**
- Strategic Planning
- Purpose
- Results and Accountability
- Program Design
- Program Management

**R&D Criteria**
- Quality
- Relevance
- Performance

**Components**
- Strategic or Long-Term Planning
- Scientific Advisory Committee Reviews
- NSF Performance Planning
- Advisory Committee for GPRA Performance Assessment
- Business and Operations Advisory Committee
- Committees of Visitors
- Merit Review
- Project Reports
- Program Assessment Ratings Tool
- Staff Performance Assessments Directly Linked to Mission and Goals

**Advisory Committee for GPRA Performance Assessment**

**Directorate Advisory Committees**

**Committees of Visitors**

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*GPRA*: The Government Performance and Results Act of 1993  
*PART*: Program Assessment Rating Tool  
*R&D*: Research and Development
FY06 – FY11 Strategic Plan Development Timeline

DRAFT

Sep 30, 2005
Staff Input on Current Plan

Oct 1, 2005
Strategic Planning Group Meets (Deputy ADs)

Nov
Senior Management Retreat

Nov
Initial Discussions with ACs

December 31, 2005
Final NSB Vision Document

Feb
AC Chair Teleconference

Mar
NSB Overview

Mar
Public Comment on Current Plan

April
NSB Overview

May
NSB Discussion (planned)

June
AC/GPA

Aug
NSB Review/Approval

Jun - Jul
Public Comment

Sep 30, 2006
Submission to Congress and OMB

To ACs

Timeline will include discussions with OMB and Congress