

**National Science Foundation**  
**Advisory Committee for Business and Operations**  
Spring 2015 Meeting

May 27-28, 2015  
Room 1235

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**Wednesday, May 27, 2015**

- 1:00 pm     **Welcome/Introductions/Recap**  
*Co-Chairs: Greg Jackson and Susan Sedwick*
- 1:15 pm     **BFA/OIRM Updates**  
*Presenters: Marty Rubenstein, BFA, Joanne Tomow, OIRM and other Agency updates*
- 2:00 pm     **Introduction of the Theme of the Meeting**  
*Presenters: Marty Rubenstein (Office of Budget, Finance and Award Management), Joanne Tomow (Office of Information and Resource Management)*
- 2:15 pm     **NSF Relocation- Business Process Planning**  
Relocation to the new NSF Headquarters in Alexandria, VA will present unique challenges with maintaining continuity of services for the Foundation. To ensure a smooth transition, OIRM established a working group in July 2014 to address these challenges in several phases, which includes representatives from all three Divisions and the Future NSF Project Office.
- Phase I was completed in September 2014 and included: identified and categorized 56 key services which could be impacted by the relocation to the new Alexandria Headquarters; supported development of Fiscal Year (FY) 2016 resource requirements as a result of the relocation; identified high level milestones related to service transition; and developed concepts for Phase II.
  - Phase II efforts began in October 2014 and focuses on developing "end state" business operations for all OIRM services areas identified, including developing service alternatives for OIRM consideration, potential FY17 resource requirements, overlaps and coordination.
- Committee Action/Feedback:  
OIRM would appreciate feedback from Committee members that have implemented significant operational change in their organizations. We would also appreciate input along the lines of "What are we missing?"
- Presenter: Dominica Gutierrez, OIRM*
- 3:00 pm     **Break**

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**Wednesday, May 27, 2015 (cont'd)**

3:15 pm

**iTRAK Implementation- Business Process Impact**

On October 14, 2014 the National Science Foundation (NSF) successfully implemented its financial system modernization initiative, iTRAK. Even though the implementation was a success, users continue to be challenged in understanding and applying the concepts of automated business processes to their day to day financial tasks.

Change management continues to be a priority for the Foundation and ensuring that the NSF stakeholders successfully adapt to iTRAK is an ongoing effort. The biggest change that the iTRAK users have to adapt to is the new way of performing financial transactions. Some of the process changes include automating approval workflows, attaching supporting documentation electronically, reconciling transactions in iTRAK, and tracking financial information in the system so that users can provide information in a timely manner to internal and external stakeholders.

The iTRAK Project Manager (PM) will present change management activities that were performed prior to the system going live that prepared users for the change and activities that have occurred since implementation to assist the users with adapting to the new system.

Committee Action/Feedback:

We would like the Committee to provide feedback on change activities that were deployed and how to increase effectiveness of the methods being used to hold the users accountable. In addition, how should the Change Management Team demonstrate that these changes should be part of the NSF culture and are necessary to better support the NSF mission?

*Presenter: Gisele Holden, BFA*

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**Wednesday, May 27, 2015 (cont'd)**

- 4:15 pm      **Operational Change Experiences**  
The agenda for this meeting includes items on the NSF relocation and iTRAK---both initiatives have significant operational, process and policy change components associated with them. Committee discussants who have dealt recently with these kinds of change management challenges will share their learnings and experiences with NSF.
- Committee Action/Feedback:  
Goal is to help NSF more effectively deal with operational, process and policy change management issues, recognizing that these issues are common across many organizations. Are there best practices or lessons learned that that can be gleaned for use at NSF? How can NSF anticipate the unexpected?
- Discussants: Chuck Grimes /Jan Jones*
- 5:00 pm      **Committee Discussion/Recommendations- Operational Change**
- 5:30 pm      **Adjourn**
- 6:30 pm      **Dinner**

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**Thursday, May 28, 2015**

8:30 am      **Preparation for Discussion with Dr. Buckius**

9:00 am      **Discussion with Dr. Buckius, Chief Operating Officer**

10:00 am      **Documentation of BOAC Recommendations**

Brief historical perspective of the BOAC and the impact it has had on NSF. In particular, this presentation will share the common themes of BOAC recommendations over the past five years and will expand on a few examples of recommendations that have made a difference with regard to the Foundation's business and operations.

Committee Action/Feedback:

No action is needed at this time. BOAC senior staff is conducting further analysis of past recommendations dating back to the Committee's inception. NSF welcomes any Committee feedback after the presentation that would inform additional analysis.

*Presenter: Charisse Camey-Nunes, BFA with additional BFA and OIRM staff*

10:30 am      **Break**

10:45 am      **Briefing on the National Academy of Public Administration (NAPA) Study of NSF's Use of Cooperative Agreements to Support Large Scale Investments in Science and Technology**

Transparency, accountability, and continuous improvement motivate the National Science Foundation (NSF) to minimize risk by seeking periodic external review of the agency's core business practices. In April 2015, the NSF Director and the National Science Board commissioned the National Academy of Public Administration (the Academy) to scrutinize NSF's use of Cooperative Agreements to support the development, construction, and operation of state-of-the-art, large-scale research facilities. The Academy has appointed an expert Panel, supported by a professional study team, to explore other federal funding mechanisms and agency practices and to recommend improvements to NSF's processes that support large-scale research facilities.

The study is expected to conclude in 8 months. The NSF Advisory Committee for Business and Operations may be called upon by NSF management to provide expert advice on how best to implement recommendations.

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Committee Action/Feedback:

No action is needed at this time. We will be prepared to give an update as needed at the conclusion of the study. It is possible that the Academy study team may contact individual Advisory Committee members for interviews as the study progresses.

*Presenter: Fae Korsmo, Office of the Director*

11:15 am

**Broadening Participation Initiatives- NSF and Beyond**

Update on the work of NSF's *Committee on Equal Opportunities in Science and Engineering* (CEOSE), the new NSF program *Inclusion across the Nation of Communities of Learners that have been Underrepresented for Diversity in Engineering and Science* (INCLUDES), and NSF's Broadening Participation Working Group (BPWG) and their new *Framework for Action*.

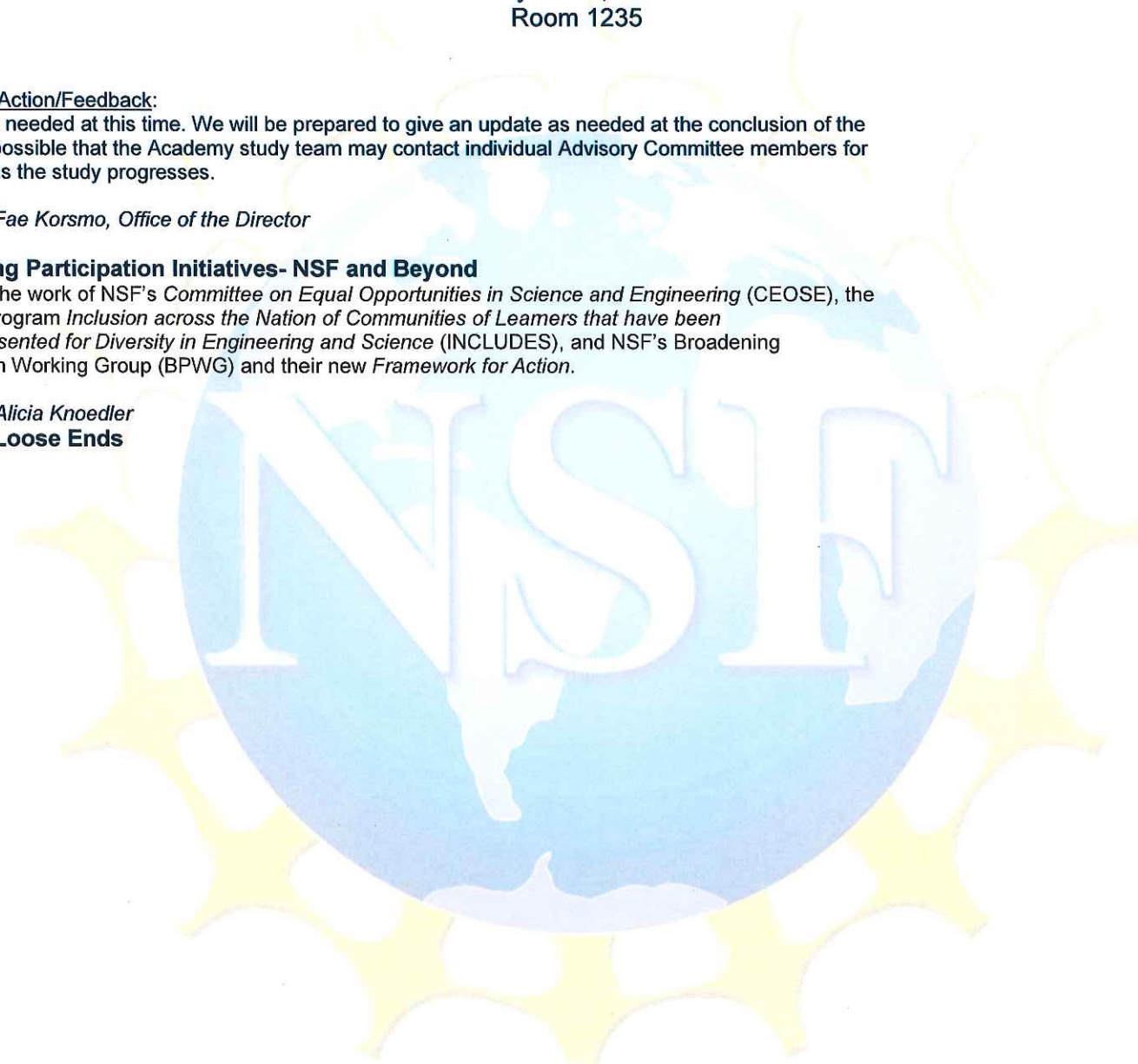
*Presenter: Alicia Knoedler*

11:45 am

**Wrap Up/Loose Ends**

12:00 pm

**Adjourn**



**Backgrounder: Spring 2015**  
*NSF Advisory Committee for Business and Operations*

**Nature of Agenda Item:** Advice on NSF Relocation – Business Process Planning

**Presentation:**

Relocation to the new NSF Headquarters in Alexandria, VA will present unique challenges with maintaining continuity of services for the Foundation. To ensure a smooth transition, OIRM established a working group in July 2014 to address these challenges in several phases, which includes representatives from all three Divisions and the Future NSF Project Office.

- Phase I was completed in September 2014 and included: identified and categorized 56 key services which could be impacted by the relocation to the new Alexandria Headquarters; supported development of Fiscal Year (FY) 2016 resource requirements as a result of the relocation; identified high level milestones related to service transition; and developed concepts for Phase II.
- Phase II efforts began in October 2014 and focuses on developing “end state” business operations for all OIRM services areas identified, including developing service alternatives for OIRM consideration, potential FY17 resource requirements, overlaps and coordination.

**Committee Action/Feedback:**

OIRM would appreciate feedback from Committee members that have implemented significant operational change in their organizations. We would also appreciate input along the lines of “What are we missing?”

**Contact Person:**

Dominica Gutierrez  
Senior Advisor, OIRM  
703 292 8100  
dgutierr@nsf.gov



National Science Foundation  
OFFICE OF INFORMATION & RESOURCE MANAGEMENT

# OIRM Business Process Planning

Overview for Business & Operations  
Advisory Committee

May 27 – 28, 2015

People | Place | Technology  
**Your Success is Our Success!**

Administrative Services  
Human Resource Management  
Information Systems  
Chief Information Officer



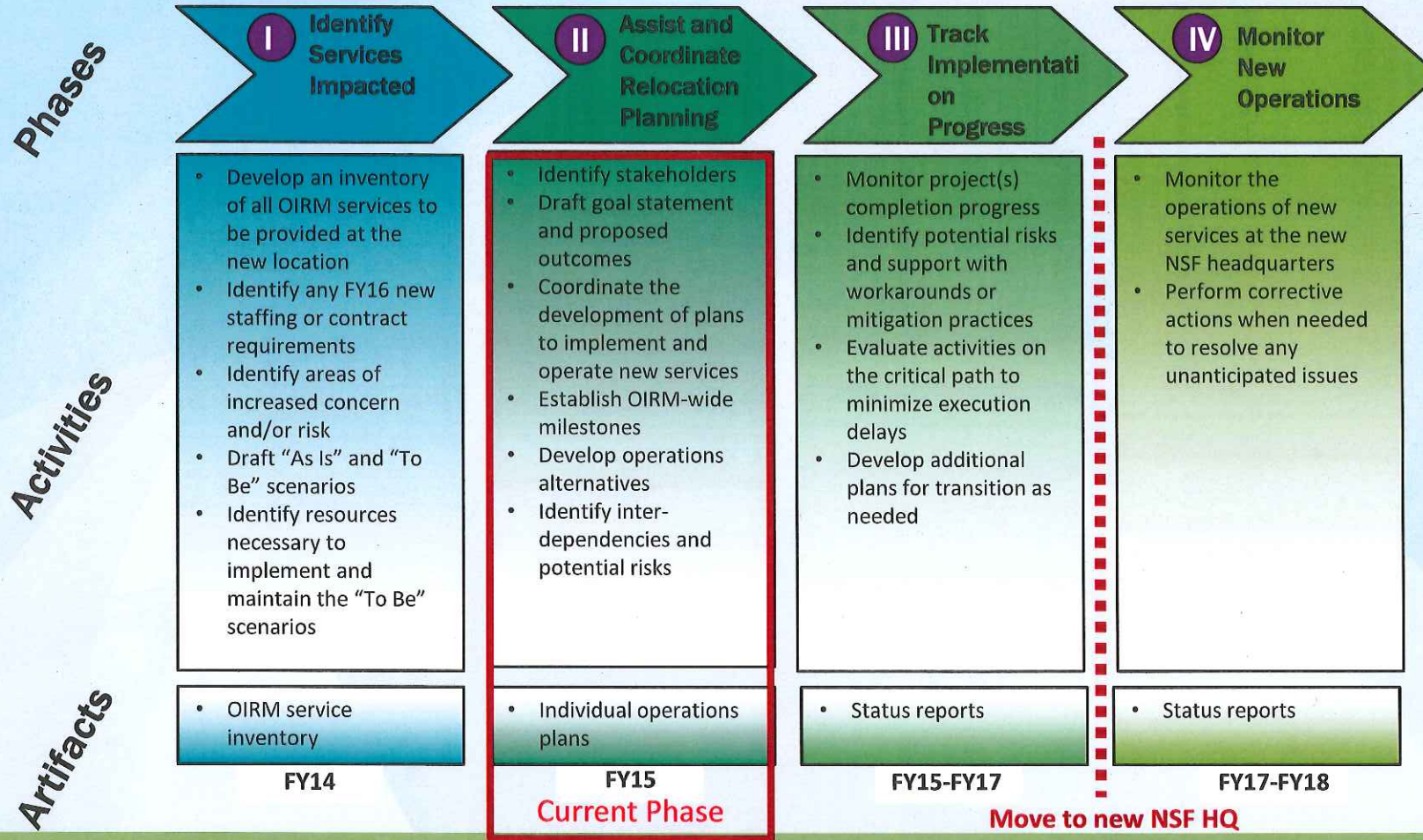
## Information & Background

- Relocation to the new NSF Headquarters in Alexandria, VA will present unique challenges with maintaining continuity of services for the Foundation.
- To ensure a smooth transition, OIRM established a working group to:
  - Identify and categorize key services which could be impacted by the relocation to the new Alexandria Headquarters into three (3) categories: no or minimal impact, moderate impact, significant impact;
  - Support development of Fiscal Year (FY) 2016 Budget Requests in Phase I and FY17 Budget Requests in Phase II as a result of the relocation;
  - Identify and monitor high level milestones related to service transition; and
  - Identify owners who will implement and monitor processes during and post transition.





# Methodology and High-level Schedule



Office of Information & Resource Management

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Administrative Services  
 Human Resource Management  
 Information Systems  
 Chief Information Officer



# Key Services

ID	Division	Service
1	DIS	Deskside, Tier I, II, and III customer help desk support
2	DIS	Data center operations
3	DIS	Network operations
4	DIS	Phone and voicemail operations
5	DIS	Videoconferencing, WebEx, and audio bridges
6	DIS	Application hosting and management of specialized applications
7	DIS	High speed network/Internet2 operations
8	DIS	Operation of remote access tools
9	DIS	Service recovery activities
10	DIS	IT security operations activities
11	DIS	Incident response and continuity planning activities
12	DIS	Mission applications
13	DIS	Administrative applications operations
14	DIS	Back office applications operations
15	DIS	Desktop management (including security patches)
16	DIS	NSF governance and advisory boards
17	DIS	Business intelligence and enterprise data warehouse tools
18	DIS	Enterprise Architecture activities
19	DIS	IT budget activities
20	DIS	Perform privacy-related assessments combined with
21	DIS	Support annual IT audit and review activities
22	HRM	Training and Development:
23	HRM	Personnel security
24	HRM	Health unit
25	HRM	Fitness center
26	HRM	Telework and other career/life balance programs
27	HRM	Discipline/adverse actions, employee relations
28	HRM	Performance management (all)

ID	Division	Service
29	HRM	Retirement counseling/processing and related benefits
30	HRM	Recruiting and outreach,
31	HRM	Data analysis and reporting, workforce planning
32	HRM	FACA
33	HRM	Awards programs
34	HRM	HC Planning and Accountability initiatives
35	HRM	HC information systems
36	DAS	Physical Security
37	DAS	Credentialing
38	DAS	Garage Management/ Parking
39	DAS	Space Management
40	DAS	Sustainability
41	DAS	Information and Reception
42	DAS	Property Management, Mail, Records, Shipping and Receiving
43	DAS	Transportation
44	DAS	Cafeteria / Catering
45	DAS	Communications
46	DAS	Graphic Design and Commercial Printing
47	DAS	Regulatory and Financial Reporting
48	DAS	Website and Application Development and Support
49	DAS	Onsite / Virtual Meeting and Events Support
50	DAS	Travel Management
51	DAS	Digital Signage
52	DAS	Copier and Printer Maintenance and Supplies
53	DAS	Print Shop and Proposal Processing Unit
54	DAS	Library
55	DAS	Facility Management
56	DAS	Business Operations

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## OIRM Services at New NSF Headquarters

- 20 of 56 services we provide are changing, more than a third, approx. 36% overall.
- In the Divisions, the impact is also significant:
  - DAS 10 of 21 or approx. 48%
  - DIS 5 of 21 or approx. 24%
  - HRM 5 of 14 or approx. 36%
- In addition, there are 21 services that overlap internally in OIRM and/or require coordination

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## Next Steps

- Address overlaps & coordination
- Resource requirements & prioritization
- Engage with the Union
- Coordination within NSF
- Finalize recommendations

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Human Resource Management  
Information Systems  
Chief Information Officer

**Backgrounder: Spring 2015**  
*NSF Advisory Committee for Business and Operations*

**Nature of Agenda Item:** Implementing business process changes as a result of moving from a custom built Financial Accounting System (FAS) to iTRAK, a Commercial-Off-The-Shelf (COTS) solution.

**Presentation:**

On October 14, 2014 the National Science Foundation (NSF) successfully implemented its financial system modernization initiative, iTRAK. Even though the implementation was a success, users continue to be challenged in understanding and applying the concepts of automated business processes to their day to day financial tasks.

Change management continues to be a priority for the Foundation and ensuring that the NSF stakeholders successfully adapt to iTRAK is an ongoing effort. The biggest change that the iTRAK users have to adapt to is the new way of performing financial transactions. Some of the process changes include automating approval workflows, attaching supporting documentation electronically, reconciling transactions in iTRAK, and tracking financial information in the system so that users can provide information in a timely manner to internal and external stakeholders.

The iTRAK Project Manager (PM) will present change management activities that were performed prior to the system going live that prepared users for the change and activities that have occurred since implementation to assist the users with adapting to the new system.

**Committee Action/Feedback:**

We would like the Committee to provide feedback on change activities that were deployed and how to increase effectiveness of the methods being used to hold the users accountable. In addition, how should the Change Management Team demonstrate that these changes should be part of the NSF culture and are necessary to better support the NSF mission?

**Contact Persons:**

Gisele Holden – [gholden@nsf.gov](mailto:gholden@nsf.gov) (703-292-4455)  
iTRAK Project Manager

Jackie Angelelli-Golnek – [jangelel@nsf.gov](mailto:jangelel@nsf.gov) (703-292-4465)  
iTRAK Change Management Lead



# iTRAK - Change Management An Agency Adapting to Change

B&O Committee May 2015



## Contents

- iTRAK Change Management Strategy
- Call To Action!
- Change Management, Communication and Training Activities
- Lessons Learned and Challenges
- Feedback from B&O

# The iTRAK Change Management Strategy framework considers three overarching objectives, supported by nine key activity areas

Objective	Activity Area	Summary of Actions and Benefits
<b>1. Lead and Build Buy-In</b>	<b>Change Strategy</b>	<ul style="list-style-type: none"> <li>• Define vision and drivers for change and develop strategy for change</li> <li>• Establish clear need for change and direction for implementing change</li> </ul>
	<b>Change Leadership</b>	<ul style="list-style-type: none"> <li>• Support leadership early and throughout the project in managing change</li> <li>• Maintain consistent leadership advocacy and celebrate successes</li> </ul>
	<b>Stakeholder Engagement</b>	<ul style="list-style-type: none"> <li>• Engage stakeholders early and throughout the project</li> <li>• Develop a feeling of being invested in the new system and process</li> </ul>
	<b>Communications</b>	<ul style="list-style-type: none"> <li>• Deliver the right messages at the right time through the right channels</li> <li>• Build buy-in to change and understanding of new roles and responsibilities</li> </ul>
<b>2. Understand Impact and Build Capability</b>	<b>Business Process</b>	<ul style="list-style-type: none"> <li>• Assess how iTRAK will affect business processes</li> <li>• Enable adaptation of processes and development of process training</li> </ul>
	<b>Workforce</b>	<ul style="list-style-type: none"> <li>• Assess how iTRAK will affect workforce roles and responsibilities</li> <li>• Enable adaptation of organization/workforce and development of training</li> </ul>
	<b>Training</b>	<ul style="list-style-type: none"> <li>• Train workforce in new system, business processes, and roles</li> <li>• Enable workforce to successfully operate once iTRAK is deployed</li> </ul>
<b>3. Measure and Manage</b>	<b>Performance Management</b>	<ul style="list-style-type: none"> <li>• Measure change progress and evaluate change management performance</li> <li>• Enable continual improvement of change management approaches</li> </ul>
	<b>Project Management</b>	<ul style="list-style-type: none"> <li>• Integrate change management activities into the overarching iTRAK project</li> <li>• Enable effective management of change management efforts</li> </ul>





## Call To Action!

- Developed activities to address key changes from iTRAK that affect staff *roles*, *workload*, and required *skillsets*, as well as new *policies*
- Analyzed organizational impacts from two organizational perspectives:
  - Heavy users of iTRAK for multiple core financial functions – daily processing of financial transactions
  - Infrequent users who perform financial functions such as entering requisitions, incoming IAAs, receipts, etc.
- Implemented Change Management, Communication, and Training Activities:
  - **Pre-Deployment:** Preparation before iTRAK goes live
  - **Post-Deployment:** Activities to focus on initial operational capability, supporting users through the change, and adjust organizationally for long term efficiency

## Change Management, Communication, and Training Activities

- **Pre-Deployment** – *Prepare users for transition, analyze organizational impacts, and anticipate issues*
  - Provided **targeted messages** to users through various communication medias
  - Established **Change Champions** and **Subject Matter Experts**
  - Define new **policies**, guidelines, **processes**, and protocols that enable the change to iTRAK
  - Developed and implemented **iTRAK training** (Over 500 users trained in over 100 class room sessions)
  - Conducted **Town Halls** that demonstrated system capabilities and changes to business processes
  - Identified and **managed risks**
  - Conducted multiple **surveys** and used the results to help shape outreach efforts
  
- **Post-Deployment** – *Adjusting change management activities to focus on helping users through the change*
  - Provided **more detailed information** to users through specific communication medias
  - Established iTRAK **Super User** groups
  - Implemented **advance training** and transaction focused **coaching sessions**
  - Conducted **Town Halls** on specific system functionality and access to financial data
  - Conducted post-deployment **survey**
  - Established **Policy Council**; assessing policies and guidance to determine impact

## Lessons Learned and Challenges

- Used lessons learned from other Federal Agencies and survey responses to help form change management activities throughout the project lifecycle:
  - Strong Executive Sponsorship
  - Robust change management and communications using multiple media tools
  - Standardize processes as much as possible
  - Rigorous system training
  - Users have a voice throughout the project
  
- Challenges
  - Transitioning from a custom system built to fit the users needs to a Commercial-Off-The-Shelf (COTS) system with standard business processes used to gain efficiencies
  - Mature Financial Reporting Model
  - Revise financial policy to align with new business processes
  - Standardized processes within NSF

## What we need from the B&O

- Provide feedback on change activities that were deployed and how to increase effectiveness of the methods being used to hold the users accountable.
- How should the Change Management Team demonstrate that these changes should be part of the NSF culture and are necessary to better support the NSF mission?

**Backgrounder: Spring 2015**  
*NSF Advisory Committee for Business and Operations*

**Nature of Agenda Item:** Assist with Operational Change at NSF

**Presentation:**

The agenda for this meeting includes items on the NSF relocation and iTRAK---both initiatives have significant operational, process and policy change components associated with them. Committee discussants who have dealt recently with these kinds of change management challenges will share their learnings and experiences with NSF.

**Committee Action/Feedback:**

Goal is to help NSF more effectively deal with operational, process and policy change management issues, recognizing that these issues are common across many organizations. Are there best practices or lessons learned that that can be gleaned for use at NSF? How can NSF anticipate the unexpected?

**Contact Person:** Jeff Rich, 703-292-4227, [jrich@nsf.gov](mailto:jrich@nsf.gov)

# OPERATIONAL CHANGE EXPERIENCES

*Planning, Implementing, and Adapting to Change:  
Business Systems and Processes*



NSF BOAC – May 2015

# **The 6 STAGES OF PROJECT MANAGEMENT**

1. Wild Enthusiasm
2. Disillusionment
3. Total Confusion
4. Search for the Guilty
5. Punishment of the Innocent
6. Promotion of the Nonparticipants

# **BASIC PRINCIPLES**

**The people/agency culture aspect of change management was the most important, followed by the painstaking and time-consuming level of detail necessary to successfully plan and implement the event.**

**Each layer of project management personnel and project tasks had distinct and clearly defined roles, responsibilities, and accountability/reporting structures.**

**Agency bosses had to have faces and voices throughout the event.**



**MAP THE PLAN**  
*(Plan)*

**MANAGE THE PARTNERSHIP**  
*(Implement)*

**MEASURE THE PERFORMANCE**  
*(Adapt)*

# MAP THE PLAN

*(Plan)*

- Project Management
- Project Staffing
- Details, Details, Details
- Futuring
- Useful Byproducts

# **MANAGE THE PARTNERSHIP**

## *(Implement)*

- **The Tyranny of the Status Quo**
- **Continued Communication**
- **Testing and Validation**
- **Contingency Plans**
- **Contractors**

# **MEASURE THE PERFORMANCE**

*(Adapt)*

- Follow-through
- Assimilation
- Metrics
- Feedback



# **Documenting BOAC Recommendations**

Historical look back of the Committee's  
impact on the National Science Foundation

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# Three issues



- High-level view of impact on NSF
  - Examination of themes of items address
  - Specific examples of impact of recommendations on NSF business and operations
-

# High-level view; NSF Impact



- NSF Advisory Committee Structure
  - Business & Operations Advisory Committee, 2002
  - Organizational Excellence Included in NSF Strategic Plan, September 2003
-

# BOAC Agenda Items



- Five year look back
- Themes, e.g.:

Award Administration	Large Facilities
B&O Internal Operations	Information Technology
Audit & Oversight	Advice on NSF, BFA & OIRM Operations
Change Management	Strategic Planning/Performance
Human Resources	Post Award Monitoring
Financial Management	Virtual Meetings/Technology



# BOAC Agenda Items



- 46 recommendations or groups
- Recurring themes covered:

Theme of Agenda Items	Covered
Large Facilities	10
Human Resources	7
Advice on NSF Operations	6
B&O Internal Operations	6
Award Admin/Post Award Monitoring	6
Strategic Planning/Performance	4
Change Management	3
*Others: IT; Financial Mngmt; Virtual	

# Examples of Impact



- B&O Subcommittees, Spring 2011
  - Leveling Workload, Spring 2013
  - NSF Workforce Challenges, Fall 2012
  - Strategic Planning, Spring 2013
-



# Stay tuned!!!!

**Thanks to Vanessa Richardson, Joan Miller, Jeff Rich & BFA/OIRM Staff**

- Organizing database (transparent)
  - Following up with staff
  - Improving recommendations passageways
  - More extensive report back/periodic efficacy check-ins
-

**Backgrounder: Spring 2015**  
*NSF Advisory Committee for Business and Operations*

**Nature of Agenda Item:** Information for awareness

**Presentation:**

Transparency, accountability, and continuous improvement motivate the National Science Foundation (NSF) to minimize risk by seeking periodic external review of the agency's core business practices. In April 2015, the NSF Director and the National Science Board commissioned the National Academy of Public Administration (the Academy) to scrutinize NSF's use of Cooperative Agreements to support the development, construction, and operation of state-of-the-art, large-scale research facilities. The Academy has appointed an expert Panel, supported by a professional study team, to explore other federal funding mechanisms and agency practices and to recommend improvements to NSF's processes that support large-scale research facilities.

The study is expected to conclude in 8 months. The NSF Advisory Committee for Business and Operations may be called upon by NSF management to provide expert advice on how best to implement recommendations.

**Committee Action/Feedback:**

No action is needed at this time. We will be prepared to give an update as needed at the conclusion of the study. It is possible that the Academy study team may contact individual Advisory Committee members for interviews as the study progresses.

**Contact Person:** Fae Korsmo, Office of the Director, 703-292-8002 or [fkorsmo@nsf.gov](mailto:fkorsmo@nsf.gov).



# Work-in-Progress

## National Science Foundation Use of Cooperative Agreements to Support Large Scale Investment in Science and Technology

### ABOUT THE NATIONAL ACADEMY

The National Academy of Public Administration is a non-profit, independent organization of top public management and organizational leaders who tackle the nation's most critical and complex public management challenges. With a network of more than 800 distinguished Fellows and an experienced professional staff, the National Academy is uniquely qualified and trusted across government to provide objective advice and practical solutions based on systematic research and expert analysis. Established in 1967 and chartered by Congress in 1984, the National Academy continues to make a positive impact by helping federal, state and local governments respond effectively to current circumstances and changing conditions. Learn more about the National Academy and its work at [www.NAPAwash.org](http://www.NAPAwash.org)

### BACKGROUND

The National Science Foundation (NSF) is an independent federal agency created by Congress in 1950 "to promote the progress of science; to advance the national health, prosperity, and welfare; [and] to secure the national defense..." NSF provides nearly one-quarter of all federally supported basic research conducted by America's colleges and universities. The Foundation and its policy-making body, the National Science Board (NSB), commissioned the National Academy of Public Administration (the Academy) to review NSF's use of cooperative agreements to support the development, construction and operations of state-of-the art, large scale research facilities. Cooperative agreements, as described in the Federal Grant and Cooperative Agreement Act of 1978, are a form of financial assistance for projects that require substantial involvement of the awarding agency, beyond routine monitoring or technical assistance.

### PROJECT DESCRIPTION

In this study, the Academy will (1) assess how cooperative agreements are being used at NSF; (2) identify other funding mechanism options; and (3) determine how NSF can improve the mechanisms used to support large scale investment in science and technology. The eight-month study will also investigate how a small number of comparable agencies use cooperative agreements and other procurement instruments.

The Academy formed an expert Panel and study team to evaluate NSF's use of cooperative agreements. The Panel will evaluate current and alternative funding mechanisms for large research facilities, identify respective advantages and disadvantages, and analyze the resource and policy implications associated with each mechanism. The Panel will issue a comprehensive report of findings, along with recommendations to help NSF improve its current use of cooperative agreements.

## PANEL

**Earl Devaney\* (Chair)**, Former Chairman, Recovery and Transparency Board and Inspector General, Department of the Interior; Inspector General, Department of the Interior; Director, Office of Criminal Enforcement, Forensics and Training, Environmental Protection Agency; various positions including as Special Agent in Charge, United States Secret Service.

**Melvin Dubnick\***, Professor, University of New Hampshire and Professor Emeritus, Rutgers University-Newark; former Professor at the University of New Hampshire; The State University of New Jersey-Rutgers; Bernard M. Baruch College/City University of New York; University of Kansas; Loyola University of Chicago; and Emporia Kansas State University; Northern Ireland International Research Fellow, Queen's University, Belfast and Visiting Professor/Senior Fellow, Institute of Governance, Public Policy and Social Research, Fulbright Fellowship, Queen's International Fellow; former Policy Analyst, Office of Regulatory Economics and Policy, Department of Commerce.

**Richard Meserve**, Senior of Counsel, Covington & Burling, President, Carnegie Institution of Washington and Chairman, International Nuclear Safety Group chartered by the International Atomic Energy Agency and Nuclear and Radiation Studies Board of the National Academies of Sciences and Engineering; former Chairman, Nuclear Regulatory Commission (NRC); member of American Philosophical Society and National Academy of Engineering; fellow of American Academy of Arts and Sciences, American Association for the Advancement of Science, and American Physical Society; Board of Directors, PG&E Corporation, member of an independent advisory board to UniStar Nuclear Energy, LLC; Harvard University Overseer; and former legal counsel to President Carter's science and technology advisor.

**Pamela Haze\***, Former Deputy Assistant Secretary for Budget, Finance, Performance, and Acquisition, U.S. Department of the Interior. Former positions with Office of Budget, U.S. Department of Interior: Director, Co-Director, Deputy Director.

**Sean O'Keefe\***, Howard G. and S. Louise Phanstiel Chair in Strategic Management and Leadership, Maxwell School of Citizenship and Public Affairs, Syracuse University. Former Chairman and Chief Executive Officer, EADS North America; Vice President, General Electric Company; Chancellor, Louisiana State University; Administrator, National Aeronautics and Space Administration; Deputy Director, U.S. Office of Management and Budget; Louis A. Bantle Chair in Business and Government Policy, Maxwell School of Citizenship and Public Affairs, Syracuse University; Special Assistant to the Senior Vice President for Research, Dean of Graduate School, Professor of Business Administration, Pennsylvania State University; Secretary of the Navy; Comptroller and Chief Financial Officer, U.S. Department of Defense; Staff Director, Senate Defense Appropriations Subcommittee, U.S. Senate.

**Beth Robinson\***, Chief Financial Officer, Air Line Pilots Association, International; Former Chief Financial Officer, National Aeronautics and Space Administration; Assistant Director for Budget, Budget Review Division, U.S. Office of Management and Budget; Deputy Director, Congressional Budget Office; Deputy Assistant Director for Budget Review and Concepts, and Program Examiner for Energy Issues, U.S. Office of Management and Budget; Staff Member, House Committee on Science, Space and Technology, U.S. House of Representatives; Project Director and Expert, Office of Technology Assessment, U.S. Congress; Congressional Science Fellow, Geological Society of America; Fellow, National Science Foundation; Assistant Professor of Geophysics, Stanford University.

\*Academy Fellow

## PROJECT STAFF

**Joseph Mitchell, Ph.D.**, *Director of Project Development*  
**Cynthia Heckmann**, *Project Director*  
**Allison Brigati**, *Senior Advisor*  
**Nicole Camarillo**, *Project Advisor*

**Chloe Yang**, *Research Analyst*  
**Dan Orr**, *Senior Research Associate*  
**Eric Christensen**, *Research Associate*

# **Broadening Participation Initiatives- NSF and Beyond**

## **Relevant Links:**

- **Inclusion across the Nation of Communities of Learners that have been Underrepresented for Diversity in Engineering and Science (INCLUDES) in FY 2016 Budget Request:**  
**[https://www.nsf.gov/about/budget/fy2016/pdf/44\\_fy2016.pdf](https://www.nsf.gov/about/budget/fy2016/pdf/44_fy2016.pdf)**
- **Pathways to Broadening Participation in Response to the CEOSE 2011-2012 Recommendation and Executive Summary:**  
**<http://www.nsf.gov/pubs/2015/nsf15037/nsf15037.pdf>**  
  
**<http://www.nsf.gov/pubs/2015/nsf15037a/nsf15037a.pdf>**