National Science and Technology Council

Jayne B. Morrow, PhD
Executive Director
National Science and Technology Council

About the NSTC

- The NSTC was established by Executive Order on November 23, 1993
- A cabinet-level council of advisers to the President on science and technology
- The President chairs the NSTC. Membership consists of the Vice President, cabinet secretaries, agency heads with significant science and technology responsibilities, and other White House officials
- The Office of Science and Technology Policy serves as the secretariat for the NSTC
- Principal means to coordinate science and technology matters within the Federal research and development enterprise
- Means to establish clear national goals for Federal science and technology investments

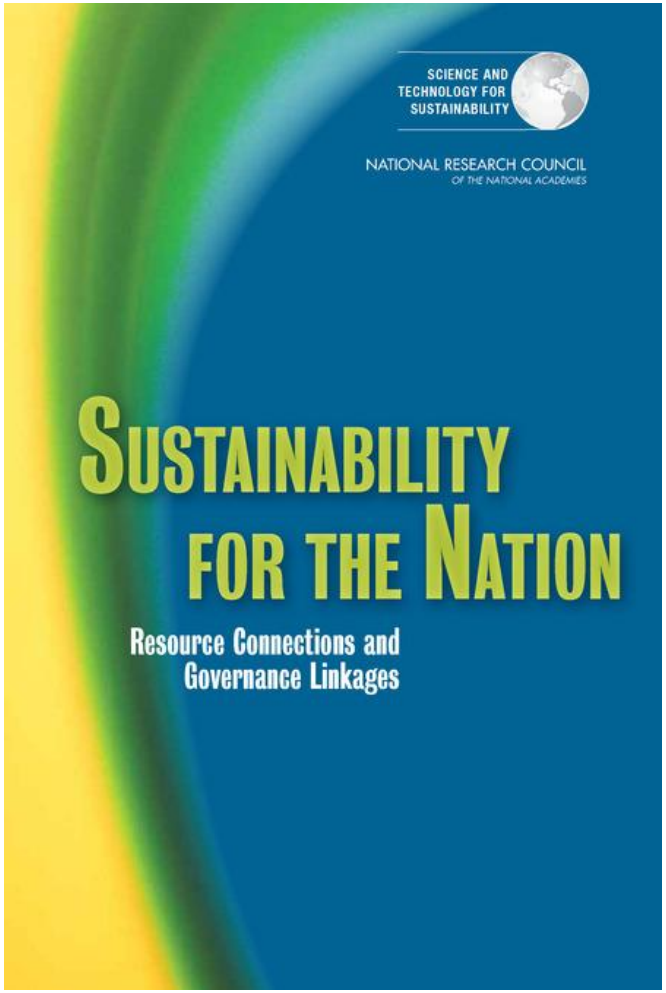
"This country must sustain world leadership in science, mathematics, and engineering if we are to meet the challenges of today. . . and of tomorrow."
President William J. Clinton, November 23, 1993

Executive Order 12881

The National Science and Technology Council (NSTC) was established with the following functions:

- To coordinate the science and technology policy-making process;
- To ensure that science and technology policy decisions and programs are consistent with the President's stated goals;
- To help integrate the President's science and technology policy agenda across the Federal Government;
- To ensure that science and technology are considered in the development and implementation of Federal policies and programs; and,
- To further international cooperation in science and technology.

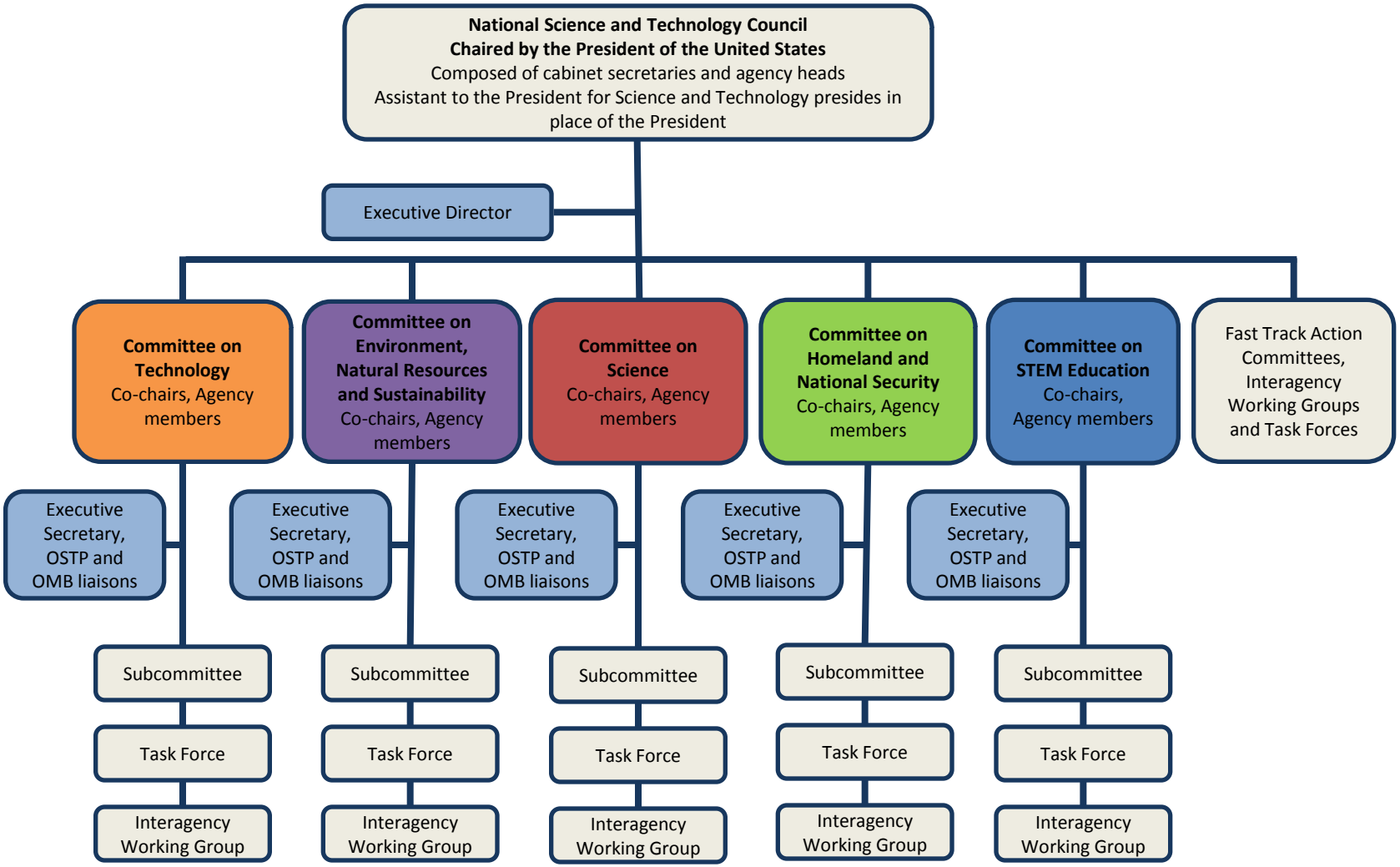
Calls for Coordination



"Currently, several barriers frustrate government efforts to address sustainability challenges…Funding mechanisms that favor short-term, single-agency initiatives rather than longer-term, cross agency projects…A lack of access to or coordination of foundational elements such as research and information/data. One of the observed consequences of the silo effect is that agencies have traditionally compiled data they need or have undertaken research for activities they view as their own, independent of their sister agencies."

National Research Council Report, Sustainability for the Nation, 2013

NSTC Organizational Framework



The NSTC is “staffed” by representatives from the Departments and Agencies as assigned by the Cabinet level Council Members- ***the People of the NSTC***

Who's Who in the NSTC?

- Assistant to the President for Science and Technology – provides Direction and Oversight
- NSTC Executive Director - Implements and manages day-to-day operations
- Executive Secretary - Provides administrative support and coordinates working group activities and products
- OSTP Liaisons - Oversees and facilitates the technical work of the subcommittees, Interagency Working Groups and Task Groups
- OMB Liaisons – Coordinates the technical activities of the subcommittees, Interagency Working Groups and Task Groups with OMB efforts to coordinate the budget

COMMITTEE ON ENVIRONMENT, NATURAL RESOURCES, AND SUSTAINABILITY (CENRS)

Tamara Dickinson (OSTP), Kathryn Sullivan (NOAA), Glenn Paulson (EPA)

AQRS: Air Quality Research (SC)		SOST: Ocean Science & Technology (SC)*
CSMSC: Critical & Strategic Mineral Supply Chains (SC)	SDR: Disaster Reduction (SC)	SWAQ: Water Availability & Quality (SC)
IARPC: Interagency Arctic Research Policy Committee (IWG)*	SES: Ecological Services (SC)	T&R: Toxics & Risk (SC)
ISTS: Integration of Science and Technology for Sustainability (TF)	SGCR: Global Change Research (SC)*	USGEO: U.S. Group on Earth Observations (SC)

COMMITTEE ON HOMELAND & NATIONAL SECURITY (CHNS)

Patricia Falcone (OTSP), Alan Shaffer (DoD), Tara O'Toole (DHS)

BDRD: Biological Defense Research & Development (SC)	ISC: Infrastructure (SC)	SOS-CBRNE Standards (SC)
CDRD: Chemical Defense Research and Development (SC)	NDRD: Nuclear Defense Research & Development (SC)	
D-IED: Domestic IEDs (SC)	NSLFI: National Security Laboratory Facilities and Infrastructure (IWG)	

COMMITTEE ON SCIENCE (CoS)

Francis Collins (NIH), Philip Rubin (OSTP), Cora Marrett (NSF)

IWGN: Neuroscience (IWG)*	PSSC: Physical Science (SC)	LSSC: Life Science (SC)*
Social, Behavioral, and Economic Science (SC)		

COMMITTEE ON STEM EDUCATION (CoSTEM)*

John Holdren (OSTP), Cora Marrett (NSF)

FC-STEM: Federal Coordination in STEM Education (TF)	

COMMITTEE ON TECHNOLOGY (CoT)

Thomas Kalil (OSTP)

ASTS: Aeronautics Science & Technology (SC)	IAM: Advanced Manufacturing (IWG)*	SG: Smart Grid (SC)
BidM: Biometrics & Identity Management (SC)	DGT: Digital Game Technologies (IWG)	SMGI: Material Genome Initiative (SC)
Privacy (SC)	NITRD: Network and Information Technology R&D (SC)*	SoS: Standards (SC)
GIG - Global Internet Governance (SC)	NSET: Nanoscale Science Engineering & Technology (SC)*	TFSD: Smart Disclosure (TF)
H2FC: Hydrogen & Fuel Cells (IWG)		

NSTC Committees

Long-standing bodies of the NSTC that oversee Federal science and technology (S&T) policy and interagency S&T activities of high national priority and ongoing interest.

- Constituted by Charter
- Have agency and OSTP Co-Chairs and an appointed Executive Secretary
- Agency members at the Assistant Secretary, Deputy Assistant Secretary, or higher level
- OMB, OSTP, and other key White House offices and Administration officials may be represented
- May work with Executive Branch agencies and officials not formally represented on NSTC
- All members are Federal officials
- May form Subcommittees, Interagency Working Groups and Task Forces, reporting to the Committee, as required

Other Types of NSTC Groups

- **Subcommittee (SC):** long standing groups with a more narrow focus than Committees to work on a specific field of technical issues or coordinate efforts in a stakeholder community
- **Interagency Working Groups (IWGs):** more narrowly focused with shorter time horizon than Subcommittee
- **Task Force or Task Group**: Formed to perform a specific, short-term task (generally not to exceed 1 year's duration).
- **Fast-Track Action Committees (FTACs):** Formed to perform a specific, very short-term task, typically be chartered to operate within a window of 60 to 120 days.

Examples of Utilization of NSTC

- Generation and coordination of Science and Technology policy
- Facilitation of National strategic plans and implementation plans
- Implementation of initiatives and PCAST recommendations
- Operation of National Coordination Offices

Coordinated Policy Generation and Implementation Plans

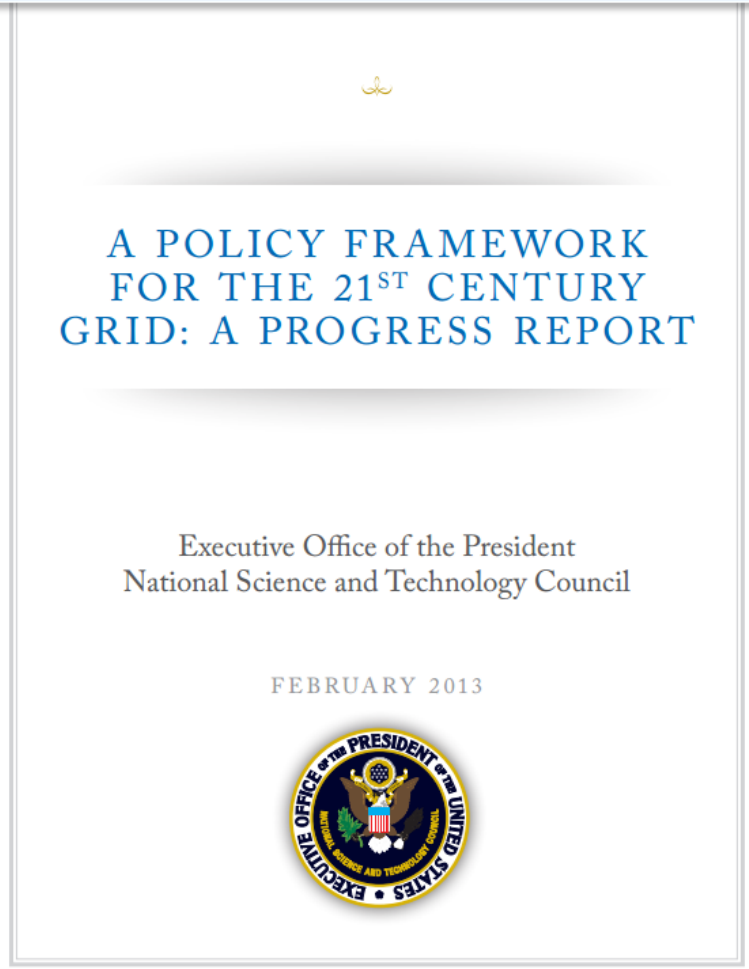
Subcommittee on Smart Grid

Committee on Technology

- The Subcommittee developed a policy framework that articulates the vision of the Smart Grid, including priorities, goals, and opportunities for Federal action.
- The Subcommittee worked complementary to the Smart Grid Task Force established in Title XIII in EISA 2007. The Task Force serves a coordinating function of existing activity, and the NSTC Subcommittee creates the policy and analysis for further advancing the Smart Grid.

OSTP Contact:

Nick Sinai, Deputy Chief Technology Officer,
Nicholas_S_Sinai@ostp.eop.gov

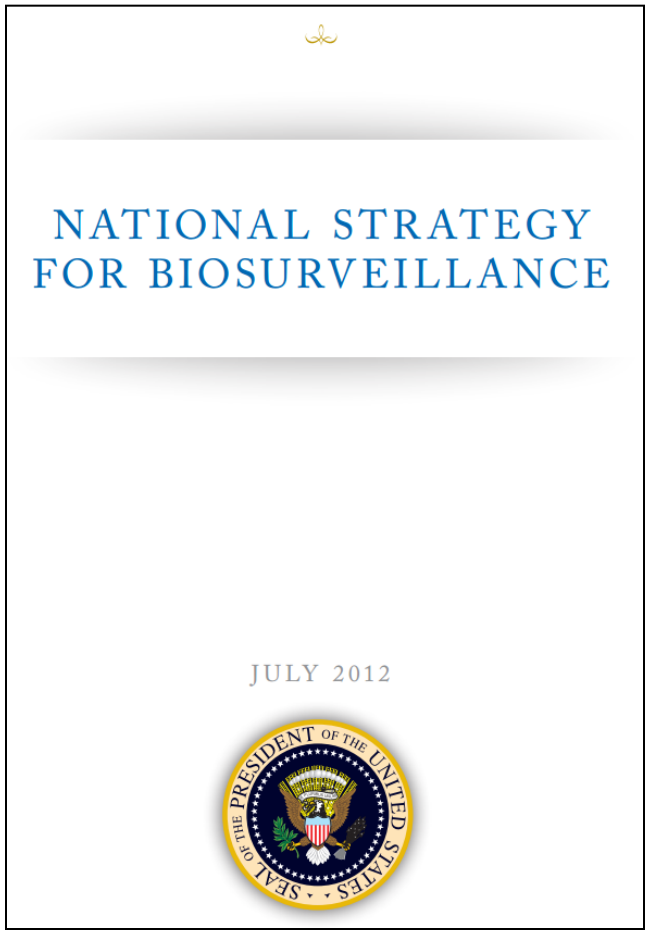


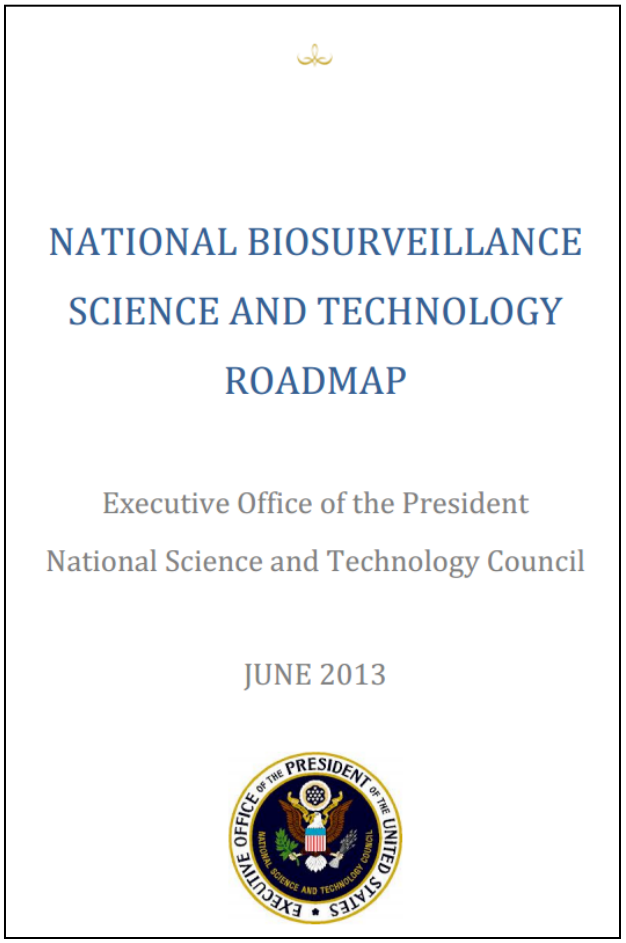
Strategic Planning and Implementation

Subcommittee on Biological Defense Research and Development (BDRD)

Committee on Homeland and National Security

Andrew Hebbeler, Senior Policy Analyst Andrew_Hebbeler@ostp.eop.gov





Implementation of Initiatives and PCAST Recommendations

Materials Genome Initiative

About | Goals | Examples | News & Announcements | Federal Programs | External Stakeholder Activities | Contact Us

To help businesses discover, develop, and deploy new materials twice as fast, we're launching what we call the Materials Genome Initiative. The invention of silicon circuits and lithium-ion batteries made computers and iPods and iPads possible -- but it took years to get those technologies from the drawing board to the marketplace. We can do it faster.

– President Obama, June 2011 at Carnegie Mellon University

About the Materials Genome Initiative

Advanced materials are essential to economic security and human well being, with applications in industries aimed at addressing challenges in clean energy, national security, and human welfare, yet it can take 20 or more years to move a material after initial discovery to the market.

Accelerating the pace of discovery and deployment of advanced material systems will therefore be crucial to achieving global competitiveness in the 21st century. The Materials Genome Initiative is a multi-agency initiative designed to create a new era of policy, resources, and infrastructure that support U.S. institutions in the effort to discover, manufacture, and deploy advanced materials twice as fast, at a fraction of the cost.

MATERIALS GENOME INITIATIVE

Download the MGI White Paper

Download the MGI Presentation

Download the MGI Fact Sheet

Materials Genome Initiative Subcommittee

Committee on Technology

Cyrus Wadia, Cyrus_N._Wadia@ostp.eop.gov
Meredith Drosback, Meredith_M_Drosback@ostp.eop.gov

National Coordination Offices

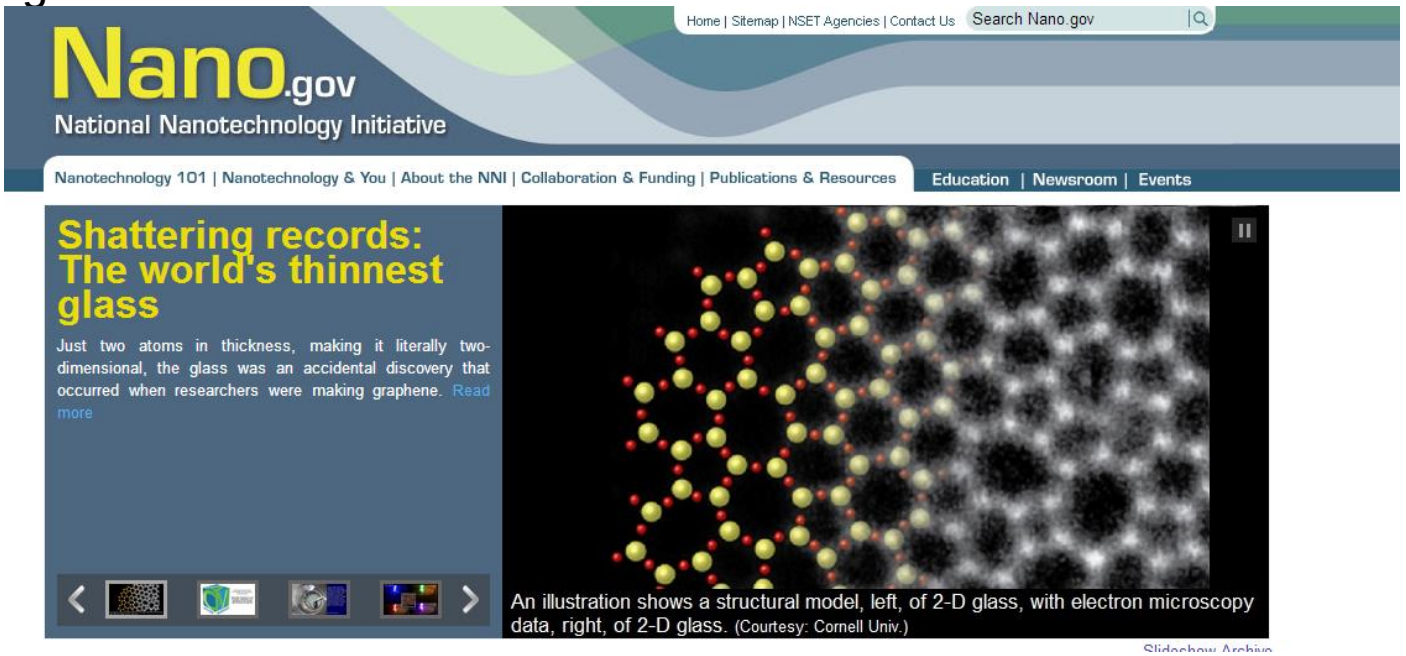
Coordination of four major technology initiatives:

- National Nanotechnology Coordination Office
- Networking and Information Technology Research and Development Program
- US Global Change Research Program
- US Group on Earth Observations

National Coordination Offices

National Nanotechnology Coordination Office

coordinates the multi-agency nanoscale science, engineering and technology initiative known as the National Nanotechnology Initiative (NNI) through the Nanoscale Science Engineering and Technology Subcommittee. Facilitated through 4 subgroups covering global issues in nanotech, environmental and health implications, nanomanufacturing, public engagement and communications.

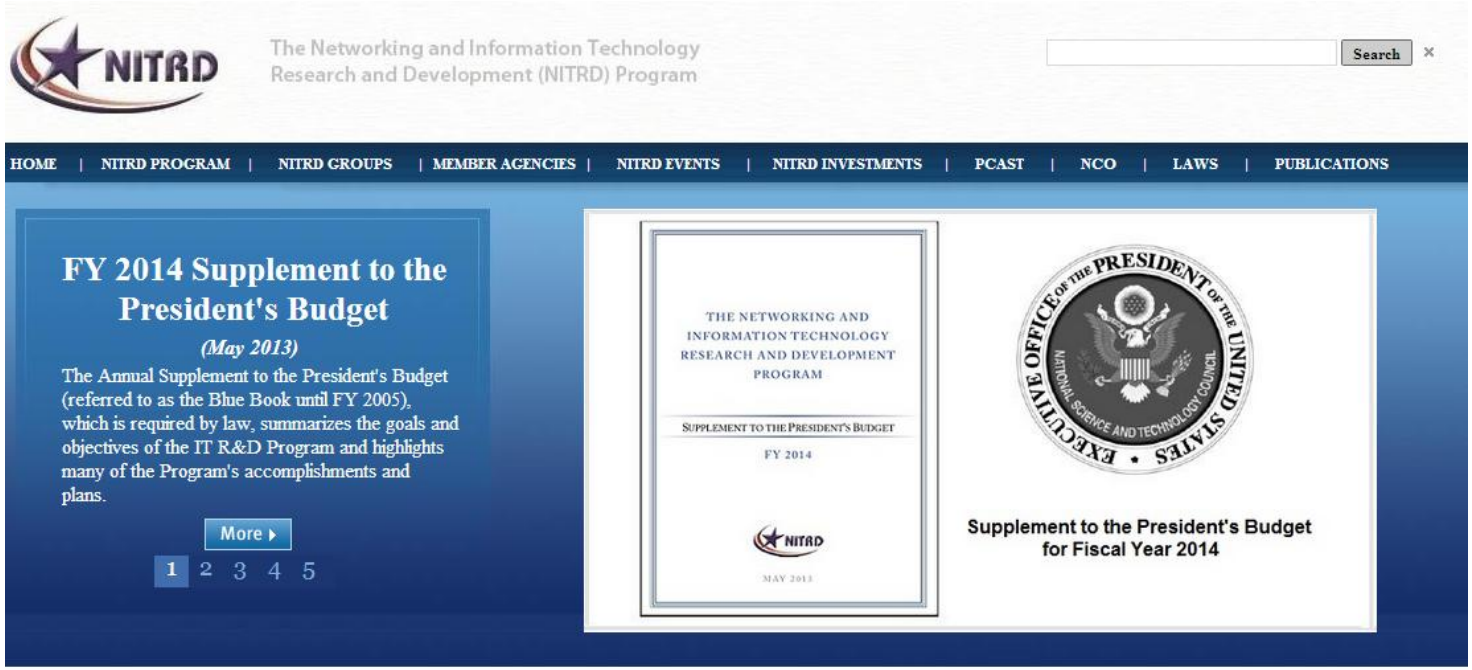


OSTP Contact:
Tof Carim, Assistant Director, Nanotechnology
Altaf_H_Carim@ostp.eop.gov

Lloyd Whitman,
Interim Director, National Nanotechnology Coordination Office
lwhitman@nnco.nano.gov

National Coordination Offices

Networking and Information Technology Research and Development Program provides the framework for Federal agencies to coordinate their networking and information technology R&D efforts and implement the provisions of the High-Performance Computing Act of 1991 (P.L. 102-194). Facilitated through 13 subgroups including Steering Committees in Big Data, Wireless Spectrum, Health Information IT, Cyber Security and Cyber Physical Systems.



OSTP Contact:
Nick Maynard, Assistant Director, Telecommunications Innovation, Nicholas_C._Maynard@ostp.eop.gov

George Strawn
Director, Networking and Information Technology Research and Development (NITRD)
strawn@nitrd.gov

National Coordination Offices

Subcommittee on Global Change Research plans and coordinates the U.S. Global Change Research Program (USGCRP), as described in the Global Change Research Act (GCRA) of 1990 (P.L. 101-606).[1] The USGCRP provides for development and coordination of a comprehensive and integrated research program, which assists the Nation and the world to understand, assess, predict, and respond to human-induced and natural processes of global change.

OSTP Contact:
Tom Armstrong, Director, US Global Change Research Program
Thomas_R_Armstrong@ostp.eop.gov

Chris Weaver, Assistant Director, US Global Change Research Program
cweaver@usgcrp.gov

National Coordination Offices

United States Group on Earth Observations Subcommittee develops and coordinates of the U.S. Integrated Earth Observation System (IEOS) and integrates current observational capabilities across scales, and an evaluation of data gaps and research and development needs for the U.S. and coordinates U.S. participation in intergovernmental Group on Earth Observations (GEO).

CHARTER
of the
UNITED STATES GROUP ON EARTH OBSERVATIONS SUBCOMMITTEE
of the
COMMITTEE ON ENVIRONMENT, NATURAL RESOURCES, AND SUSTAINABILITY
NATIONAL SCIENCE AND TECHNOLOGY COUNCIL

A. Official Designation

The United States Group on Earth Observations Subcommittee (USGEO) is hereby re-chartered by action of the Committee on Environment, Natural Resources, and Sustainability (CENRS), National Science and Technology Council (NSTC).

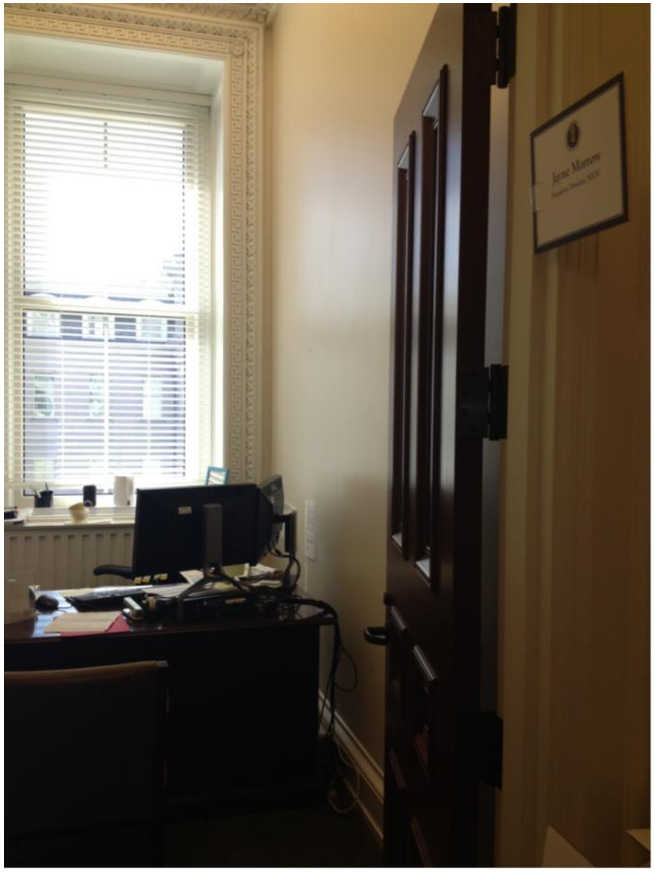
B. Purpose and Scope

Pursuant to Sec. 702 of the National Aeronautics and Space Administration Authorization Act of 2010 (P.L. 111-267),† the USGEO is to: (1) coordinate, plan, and assess Federal Earth observation activities in cooperation with domestic stakeholders; (2) foster improved Earth

OSTP Contact:
Peter Colohan, Senior Policy Analyst,
Peter_E._Colohan@ostp.eop.gov

Tim Stryker
Director, US GEO
Timothy_S_Stryker@ostp.eop.gov

How to learn more?

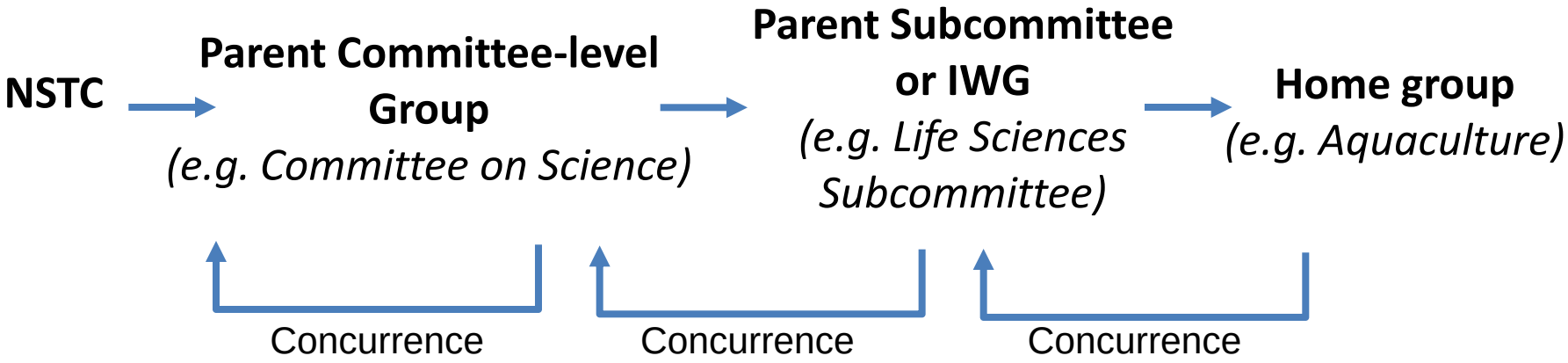


Jayne B. Morrow, Ph.D.
Executive Director
National Science and Technology Council
(w) 202-456-6055, (m) 202-725-2706

Jayne_B_Morrow@ostp.eop.gov
EEOB 449A

Check out the NSTC Website:
www.whitehouse.gov/ostp/nstc

NSTC: Tasking and Clearance Process



NSTC Process Flow Diagram. Tasking and group charters are processed from left to right. Product and charter approval is processed from right to left. The Executive Secretary of the group is responsible for verifying approval through a formal interagency concurrence process. Concurrence is required for a product to transcend to the next level of approval with final Committee or NSTC level approval for publication as a Category 2 or Category 1 report, respectively.