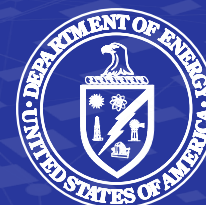


# Strategic Partnerships and Engagement

Overview, Key Initiatives, and Strategic Role in the  
NNSA

Njema J. Frazier, Ph.D.  
June 6, 2024



# Partnership focus since Day 1

INNOVATE. COLLABORATE. DELIVER.

- “...my two top priorities as Administrator are mission delivery and partnerships.”
  - “My second priority, partnerships, spans both internal and external working relationships for the NNSA. The Secretary, Deputy Secretary, and I view DOE, NNSA, and its Labs/Plants/Sites, as well as the DOE labs and sites, as internal partners who have different roles and responsibilities but share common goals.”
  - “From an external partnership standpoint, I want us to remember that each of our partners depend on NNSA to listen and understand, be transparent and efficient in our interfaces, and deliver on our commitments. As Administrator, I intend to develop compelling and honest narratives to clearly and consistently communicate to our USG, National, and international partners.”



**Jill Hruby**

Under Secretary for Nuclear  
Security & Administrator, NNSA

# DOE/NNSA Leadership

INNOVATE. COLLABORATE. DELIVER.



Secretary of Energy



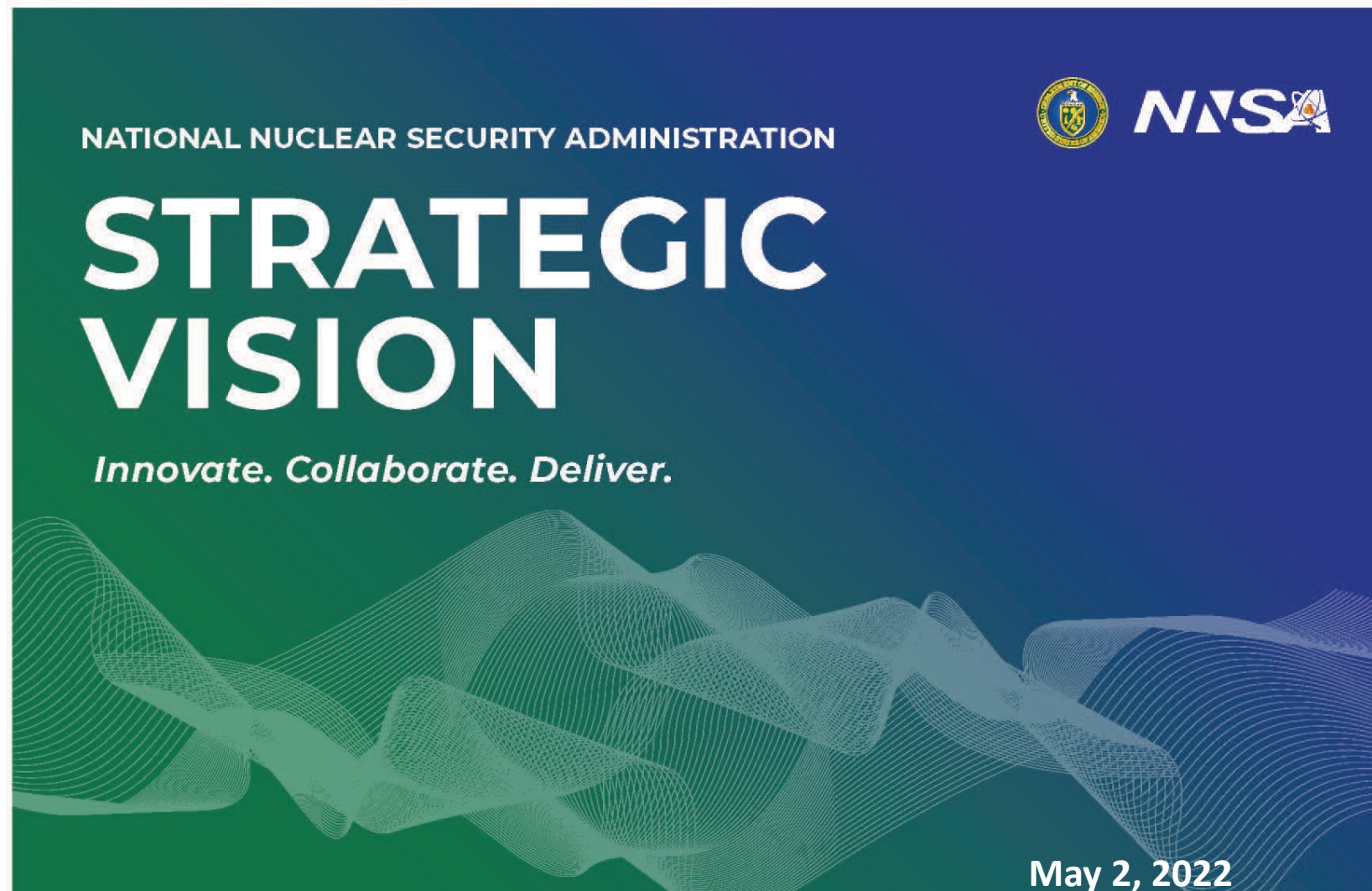
Under Secretary for Nuclear  
Security & Administrator,  
NNSA



Director for the Office of  
Policy and Strategic  
Planning



Director, Strategic  
Partnerships &  
Engagement





**NUCLEAR  
STOCKPILE**

**GLOBAL  
SECURITY &  
STABILITY**

**NAVAL  
NUCLEAR  
PROPULSION**

**EMERGING  
CHALLENGES**

**WORLD-CLASS  
SCIENCE,  
TECHNOLOGY &  
ENGINEERING**

**ADAPTIVE  
WORKFORCE &  
RESILIENT  
INFRASTRUCTURE**

**INTEGRATED  
ENTERPRISE  
MANAGEMENT &  
OPERATIONS**

The three Mission Enablers are the foundation that allows NNSA to achieve its four Mission Priorities.

# Future of Nuclear Deterrence

INNOVATE. COLLABORATE. DELIVER.

- NNSA is focused on
  - Identifying future nuclear deterrence needs beyond the mid-2030s
  - Building collaborative efforts to innovate and stay ahead of adversaries
  - Ensuring a robust and responsive deterrent
  - Positioning NNSA to be agile in the face of Emerging Threats

# Modernizing the Nuclear Security Enterprise

INNOVATE. COLLABORATE. DELIVER.

- Partnership with the Department of Defense and other agencies
- Collaborative efforts that contribute to the safety, security, and reliability of the nuclear stockpile
  - Delivery of 200 modernized nuclear weapons to the DoD in the past year
  - Concurrent execution of FIVE Nuclear Weapons Modernization Programs
    - W88 Alt 370, B61-12, W80-4, W87-1, W93
  - Deep dive on future infrastructure and technology needs

# Science & Production Needs for the Future

INNOVATE. COLLABORATE. DELIVER.

- Plutonium Pit Production
  - Importance of re-establishing plutonium pit production
  - Two-site strategy involving Los Alamos and Savannah River
  - Collaboration with Congress and other stakeholders to achieve production goals
- Enterprise Blueprint
  - Developing a vision for the Nuclear Security Enterprise until 2050
  - Engaging a wide array of stakeholders have been involved in shaping this blueprint
- IT & Cybersecurity
  - Modernization of information technology (IT) and cybersecurity capabilities
- AI, ML, Digital Engineering, Scaled Agile Frameworks



# International Collaboration and Coalition Building

INNOVATE. COLLABORATE. DELIVER.

- NNSA supports work in over 120 countries
- Maintains active involvement in international organizations (i.e. IAEA)
- Collaborates with allies to counter proliferation threats



# NA-1.1 | Policy & Strategic Planning

INNOVATE. COLLABORATE. DELIVER.

- Supports NNSA leadership with cross-cutting policy, enterprise-wide strategic **partnerships** and planning, governance and management, and directives solutions that enable mission achievement in an evolving strategic environment.
  - Leads cross-organizational teams in integrated analytical studies of complex, crosscutting, enterprise-wide issues and supports implementation of identified resolutions.
  - Advances NNSA mission by taking longer term, strategic view of international and operational trends and communicating recommendations to executive leadership.
  - Coordinates with the labs, plants, and sites to develop long-term strategic plans and priorities.
  - Engages elements of the NSE to ensure enterprise-wide coordination and integration of policy and planning with agency objectives.
  - Liaises with external stakeholders (including academia, the think tank community, and the interagency) to exchange expert views on matters relevant to the NNSA mission.
  - **Partners with industry, academia, and the interagency to leverage NNSA capabilities and provide mutually-beneficial, whole-of-Government solutions nation wide.**

# The Vision for SPE

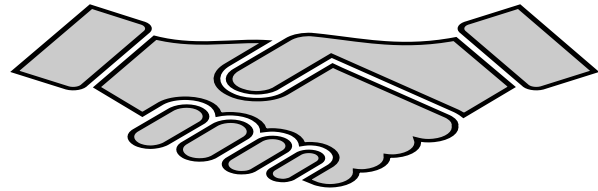
INNOVATE. COLLABORATE. DELIVER.

A robust, enduring, and synergetic network of partnerships and alliances in Industry, Government, NGOs, and Academia that ensures:

- NNSA investments in facilities, people, and capabilities are optimally leveraged for the benefit of the country
- The nation's best technology and methods are employed by NNSA to support the mission
- NNSA can contribute to Whole-of-Government solutions for national and global issues

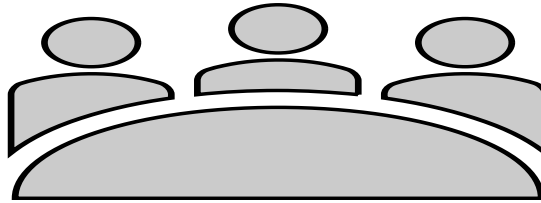
# Strategic Partnerships & Engagement

INNOVATE. COLLABORATE. DELIVER.



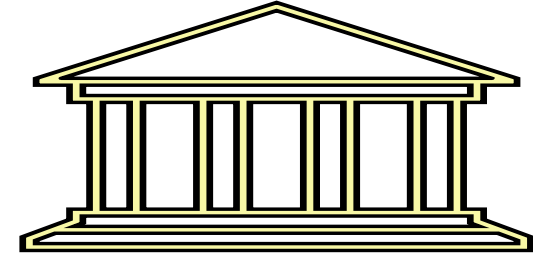
## SPP

- Oversee Strategic Partnership Projects (SPP) executed by the NNSA labs, Field Offices, and HQ in partnership with external Agencies.



## ACNS

- Manage Activities of the Advisory Committee for Nuclear Security (ACNS), to include meetings, studies, and reports delivered to NA-1.



## TTP

- Work with OTT, Interagency, and the Administration (i.e. OSTP) to update, execute, and drive Tech Transfer Policy (TTP) actions that directly impact NNSA.

# SPP Vision, Mission, and Goals

INNOVATE. COLLABORATE. DELIVER.

## Vision:

- Foster partnerships and interagency cooperation to enhance and improve NNSA national security resources.

## Mission:

- Advance and strengthen relationships with our strategic partners through world-class science and technology solutions available at NNSA labs.

## Goals:

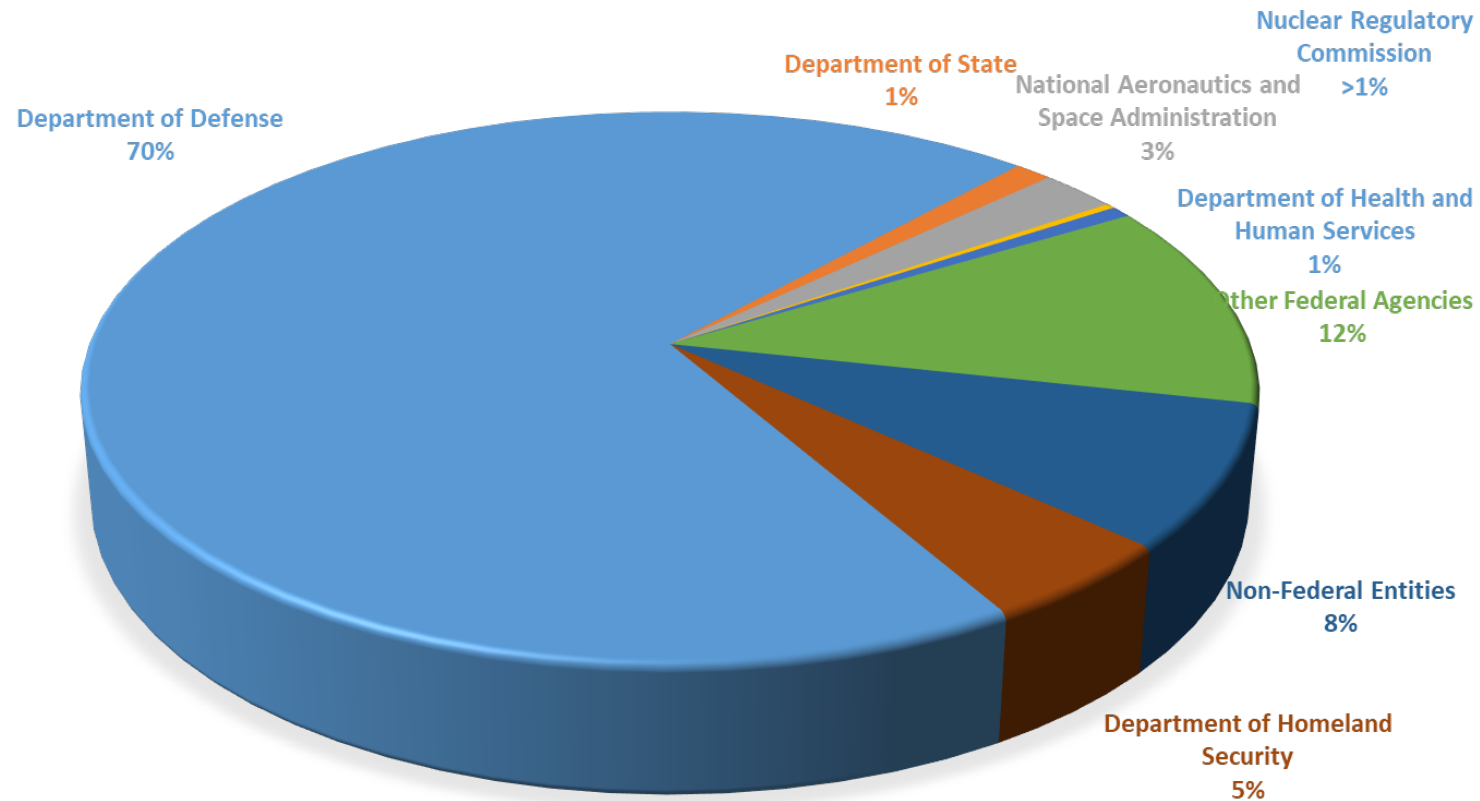
- Attract, facilitate, and strengthen strategic partnerships that enhance the synergies between NNSA's core capabilities and broader national security needs
- Improve and expand internal and external communication pathways.
- Strengthen key science, technology, and engineering (ST&E) technologies and capabilities and modernize the national security infrastructure.
- Foster and sustain a highly capable NNSA Federal and contractor workforce with appropriate SPP knowledge and skills to effectively process and address future interagency challenges.



# Sponsoring Organizations

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FY2024 SPP FUNDING PERCENT BY SPONSOR

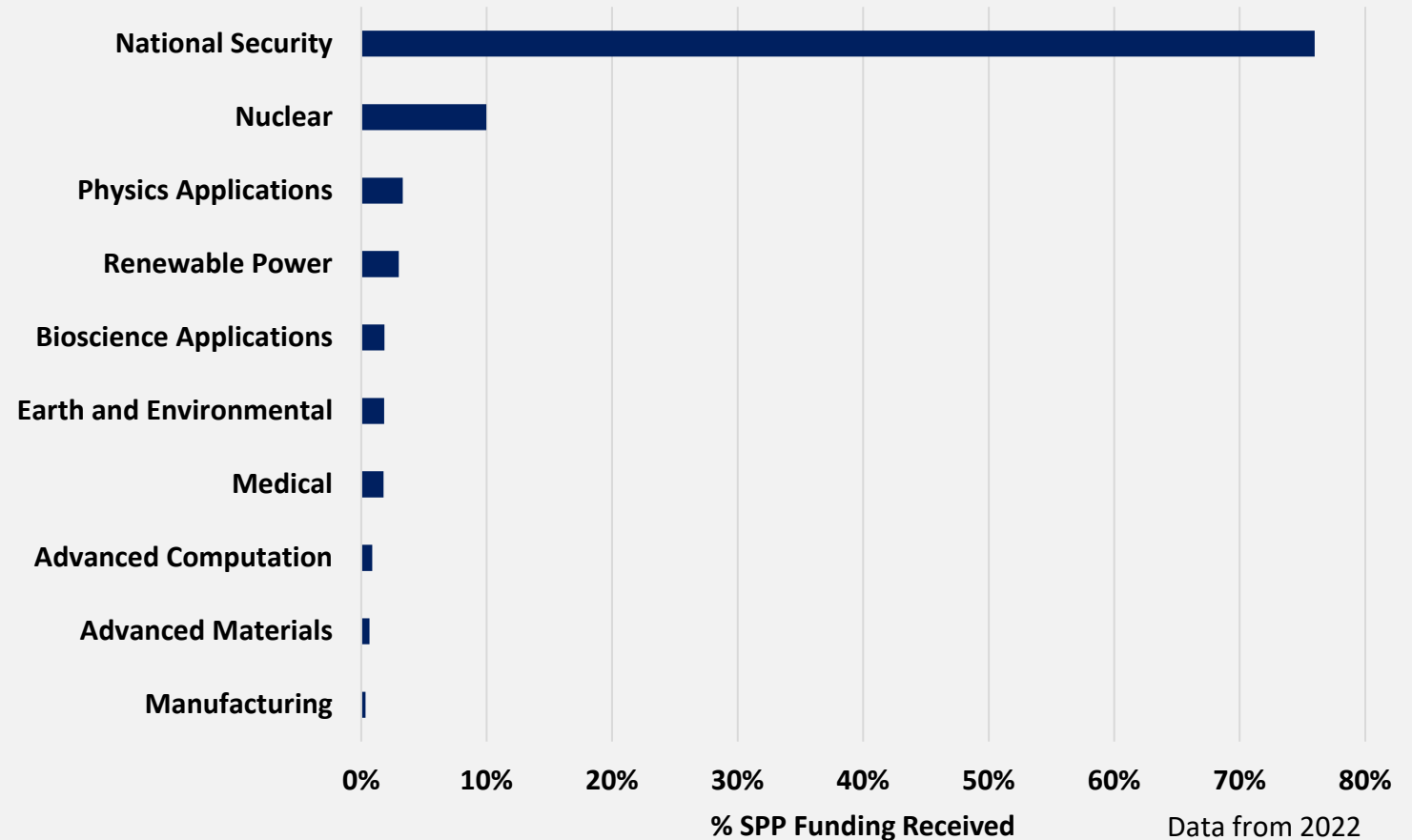


# Partnerships Technology Areas

INNOVATE. COLLABORATE. DELIVER.

- SPP supports many key technology areas for our partners.
- National Security work makes up over 75% of SPP Federal partner funding
- Nuclear work makes up 10% of SPP Federal partner funding

**SPP Funding Received (Largest Shown)**



# SPP Facilities/Training

INNOVATE. COLLABORATE. DELIVER.

## Counterterrorism Operations Support



## Nuclear and Radiological Field Training Center



Training modules on IND/RDD threats, nuclear production, radiological and fissile hazards, vulnerabilities and process defeat, and strategic competitor capabilities



# Purpose

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SPP is the key which provides strategic partners access to capabilities they cannot find elsewhere and help to meet the NNSA Strategic Vision.

Assist Federal Agencies and non-Federal entities in accomplishing their goals.

Provide access to highly specialized or unique facilities, services, equipment, or technical expertise unavailable elsewhere.

Increase RD&E interactions between our facilities and industry to provide opportunities for transferring technology for further development or commercialization.

Assist U.S. industry and universities to strengthen their technology base and improve their international competitiveness.



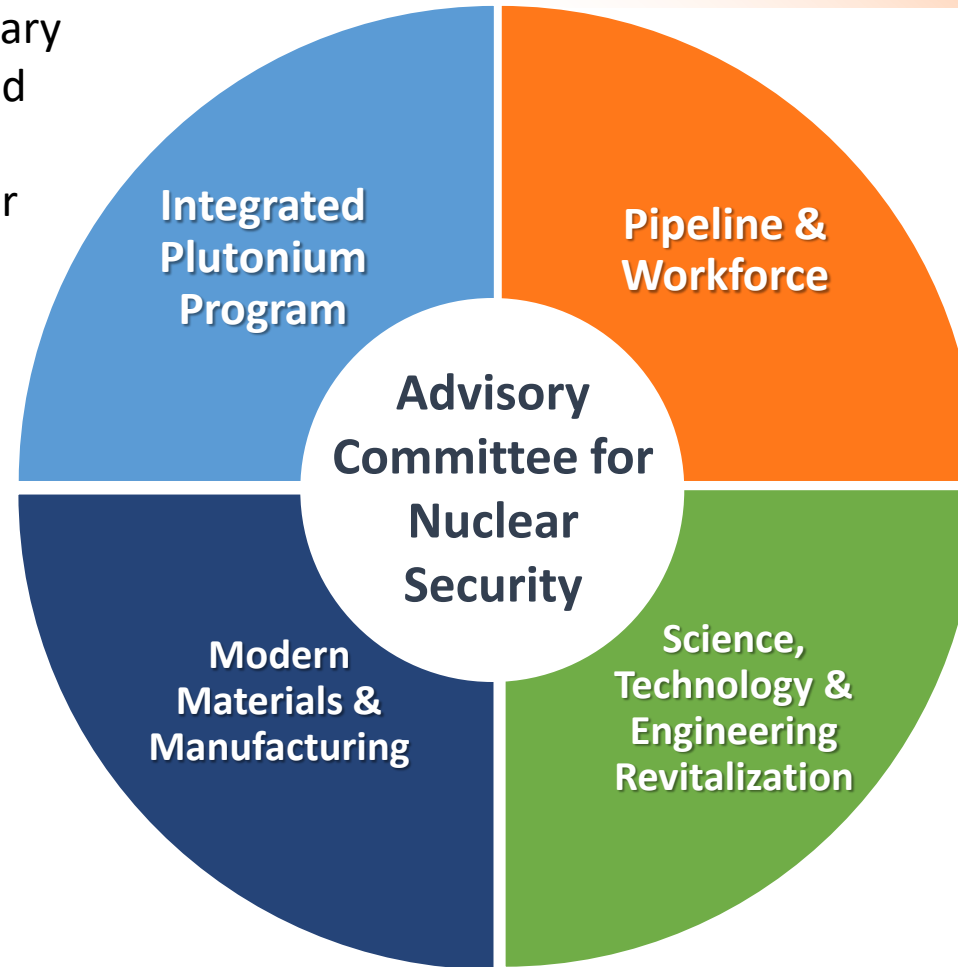
# Advisory Committee for Nuclear Security (ACNS)

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The ACNS was established in February 2023 to provide advice, findings and recommendations to the NNSA Administrator in any area under her purview:

- Nuclear deterrent
- Nuclear security
- Nonproliferation
- Counterterrorism
- Counterproliferation
- Nuclear incident & accident response

There are currently **four active subcommittees** approved by NA-1.



## IPP Subcommittee

S. Johnson (Chair), J. Harvey (Co-Chair),  
P. Hommert, W. Goldstein, A. Rollett

## Workforce Subcommittee

S. Pozzi (Chair), S. Graham (Co-Chair)  
T. Beechem, J. Cizewski, R. Hayes

## M<sup>3</sup> Subcommittee

T. Rollett (Chair), T. Kurfess (C-Chair), S. Graham,  
W. Goldstein, M. Cooper, B. Wirth, +5

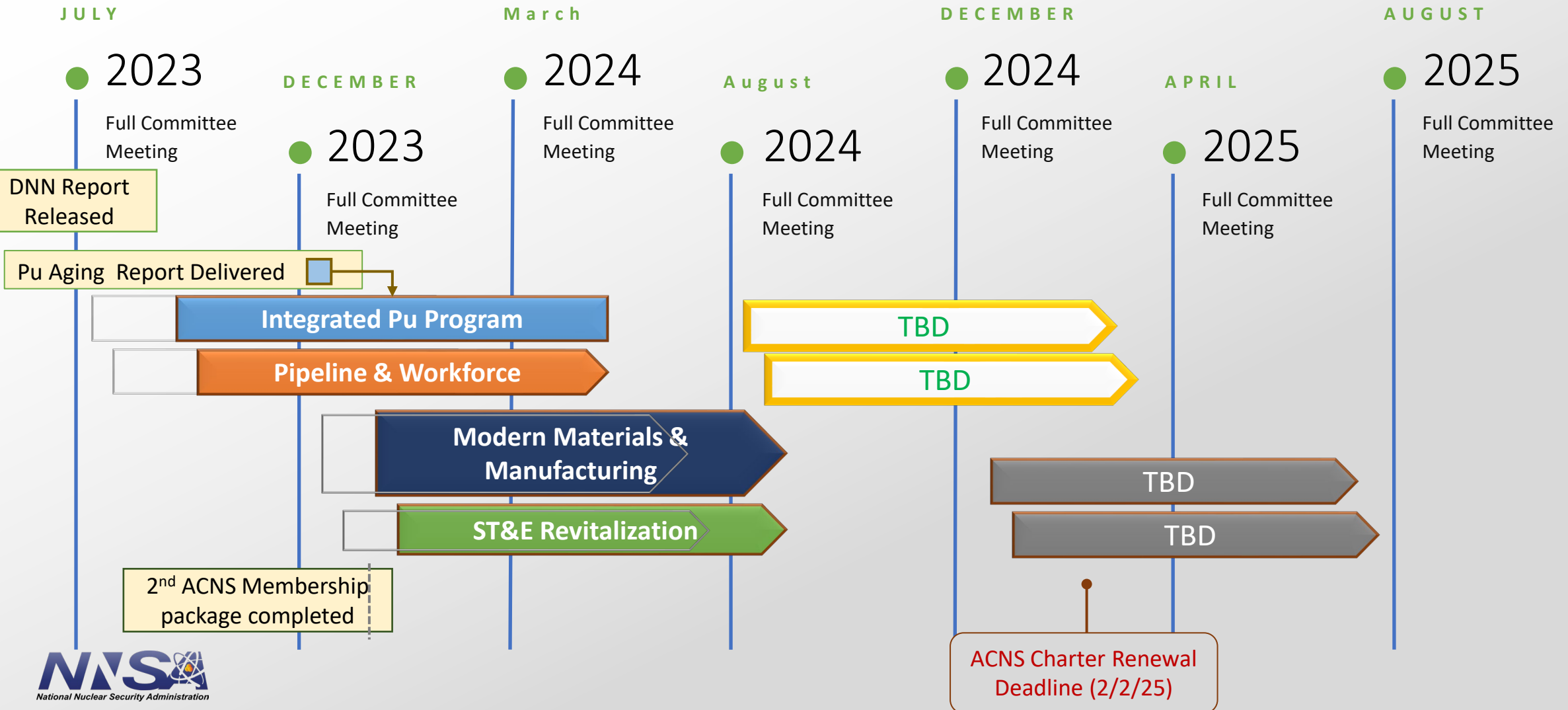
## ST&E Subcommittee

D. Cook (Chair), M. Creedon,  
W. Goldstein, P. Hommert, S. Seestrom, +2

**ACNS Members (12):** Dr. Donald Cook (Chair), Dr. Jolie Cizewski, Hon. Madelyn Creedon, Dr. William Goldstein, Dr. Samuel Graham Jr., Dr. John R. Harvey, Dr. Robert Hayes, Dr. Paul Hommert, Ret. RADM Stephen Johnson, Dr. Tom Kurfess, Dr. Sara Pozzi, Dr. Anthony Rollett, .

# ACNS Forecast – June 2024

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# Building out the Tiers of Technology Transfer Policy (TTP)

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## Tier 1: Enterprise-Wide

- Development, modification, reporting, and norms for TT Policy nation-wide – across Agencies, OSTP, and other government entities

## Tier 2: DOE-wide

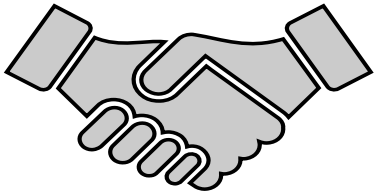
- Development, modification, reporting, and norms for common TT policies within DOE – includes primarily Office of Technology Transitions, Office of Science, and General Council
  - USG Laws, DOE Orders, DOE-wide requests for information
  - DOE Reports, internal and external Reviews (i.e. GAO, Lab Licensing 180-Day Study)

## Tier 3: Within NNSA

- Understanding of TT policy issues, challenges, and legal authorities relative to operations at the Labs, Plants, and Sites

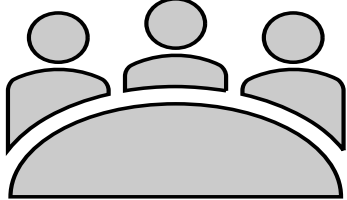
# What's Next!

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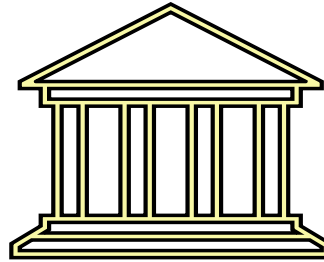
## SPP

- Oversee Strategic Partnership Projects (SPP) executed by the NNSA labs, Field Offices, and HQ in partnership with external Agencies.



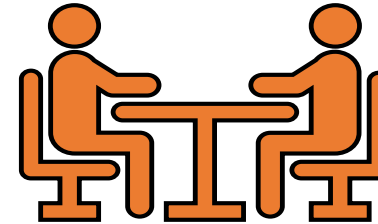
## ACNS

- Manage Activities of the Advisory Committee for Nuclear Security (ACNS), to include meetings, studies, and reports delivered to NA-1.



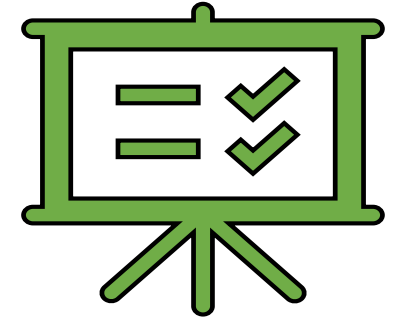
## TTP

- Work with OTT, Interagency, and the Administration (i.e. OSTP) to update, execute, and drive Tech Transfer Policy (TTP) actions that directly impact NNSA.



## PPP

- Build relationships and partnerships with NGOs & the private sector (PPP), to capitalize on synergies in the S&T and/or Nuclear Security Space.



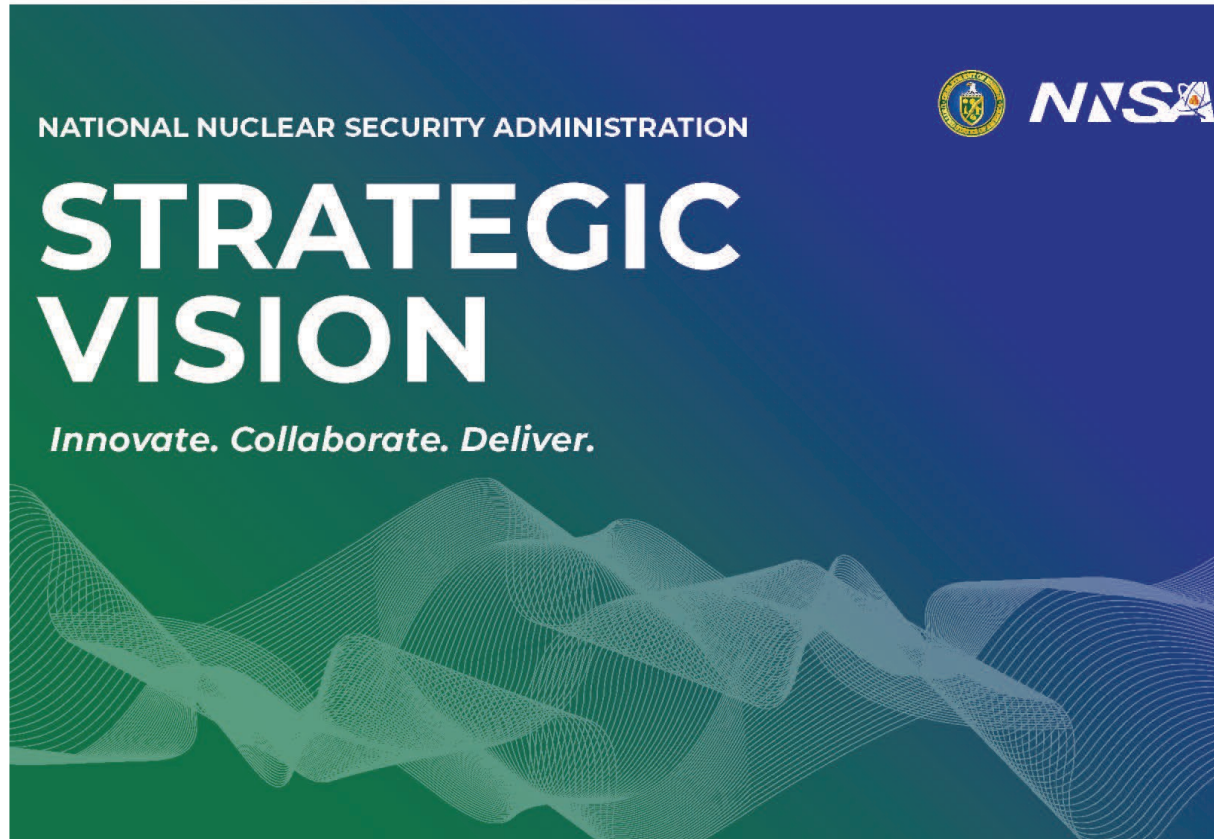
## ISR

- Erect a subprogram in NA-1.1 dedicated to the Implementation of Study Recommendations (ISR), primarily focused on independent, external studies that have Congressional visibility – ACNS, JASON, NAS.



# Wrap-Up

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NNSA



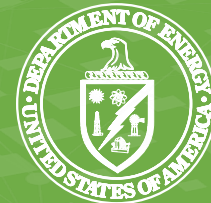
Strategic  
Partnerships &  
Engagement

# Discussion/Q&A

INNOVATE. COLLABORATE. DELIVER.



# Backup slides





# UNDER SECRETARY FOR NUCLEAR SECURITY & ADMINISTRATOR, NNSA

(NA-1)

Jill Hruby

Acting Principal Deputy Administrator

(NA-2)

Corey Hinderstein

Associate Principal Deputy Administrator

James J. McConnell

Chief of Staff

Steven Ho

Science Advisor

Tina Nenoff

Office of Policy and  
Strategic Planning  
(NA-1.1)  
Cindy Lersten

Office of Civil Rights  
(NA-1.2)  
Bonnie Baisden

Office of Cost Estimating and  
Program Evaluation  
(NA-1.3)  
Theresa Lalain



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Deputy Admin for  
Defense Programs  
(NA-10)  
Marvin Adams

Deputy Admin for  
Defense Nuclear  
Nonproliferation  
(NA-20)  
Corey Hinderstein

Deputy Admin for  
Naval Reactors  
(NA-30)  
Admiral Bill Houston, USN

Assoc Admin for  
Emergency Management  
(NA-40)  
Sean Muth (Acting)

Assoc Admin and Chief for  
Defense Nuclear Security  
(NA-70)  
Lewis Monroe III

Assoc Admin for  
Counterterrorism and  
Counter-proliferation  
(NA-80)  
Kasia Mendelsohn (Acting)

Assoc Admin for  
Infrastructure  
(NA-90)  
Nicole Nelson-Jean

Assoc Admin for  
Congressional and  
Intergovernmental Affairs  
(NA-CI)  
Jessica Lee

Office of Communication  
(NA-COMM)  
Anna Newby

Assoc Admin for  
Environment, Safety, and  
Health  
(NA-ESH)  
Ahmad Al-Daouk

Office of  
General Counsel  
(NA-GC)  
Timothy P. Fischer

Assoc Admin for  
Information Management  
and CIO  
(NA-IM)  
James Wolff

Assoc Admin for  
Management and Budget  
(NA-MB)  
Frank Lowery

Assoc Admin for  
Partnership and  
Acquisition Services  
(NA-PAS)  
Peter Rodrik

Kansas City Field Office  
(NA-KC)  
Jeffrey Shoulta

Livermore Field Office  
(NA-LL)  
Janis Parenti

Los Alamos Field Office  
(NA-LA)  
Ted Wyka

Savannah River Field Office  
(NA-SV)  
Michael Mikolanis

Nevada Field Office  
(NA-NV)  
Dave Bowman

Pantex Field Office  
(NA-PFO)  
Jason Armstrong

Sandia Field Office  
(NA-SN)  
Daryl Hauck

Y-12 Field Office  
(NA-YFO)  
Teresa Robbins

MAY 30, 2024



# SPP Accomplishments

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## FY 2022 NNSA SPP Accomplishments

Over **\$2.2B** for all  
work performed



>**\$1.9B** of all work supports  
Weapons, Counterterrorism,  
and Non-proliferation efforts



**1467** SPP  
Projects

**23** Federal  
Partners



**1047** National  
Security related  
projects



### Includes TT Data

**625** Patents and  
Copyrights issued



**552** Invention  
Disclosures



**4365** Scientific  
Results  
Published

# Alignment with NNSA Vision

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## Mission Priority 2 - Forge solutions that enable global security and stability

- Deliver technical solutions that strengthen current and future arms control and nonproliferation strategies
- Support and advance technology to counter the threat of nuclear proliferation and nuclear terrorism
- Provide subject matter experts and technology needed to respond to nuclear and/or radiological incidents and accidents worldwide

## Mission Priority 4 - Leverage transformative technologies to address emerging challenges

- Support the safe, peaceful use of nuclear energy as a clean energy source
- Allow partners to leverage expertise to provide solutions, advance capabilities, and improve the Nation's ability to anticipate and respond to emerging and non-traditional threats

## Mission Enabler – World-Class Science, Technology, and Engineering

- Support activities with interagency, commercial, and university partners to push the boundaries of science and to foster and exercise the national technology base
- Leverage the capabilities of all laboratories, plants, and sites to spur the innovation life cycle

# Integrated Plutonium Program Subcommittee

INNOVATE. COLLABORATE. DELIVER.

## Members

S. Johnson (Chair)  
J. Harvey (Co-Chair)  
P. Hommert  
W. Goldstein  
A. Rollett

### Study Focus

- Assess NNSA's management of pit production programs and projects, as well as progress made in recent years toward a consensus understanding of the effects of pit age on primary performance.

### Actions for NA-1.1

- Work with DP and serve as Subcommittee liaison (DFO: Dr. Frazier).

### Actions for DP

- Coordinate meetings at Forrestal May 7-9, 2024.

### Actions for Subcommittees

- Deliver Comprehensive Study to Full ACNS by May 20, 2024

### Past Meetings

- September 12, October 11, October 20, December 6, 2023.  
March 27, 2024, April 16-18.

### Upcoming Meetings

- May 7-9 FORS to develop the draft report.

### Deliverables to Date

- ***NNSA Advisory Committee for Nuclear Security Independent Report to Congress on NNSA's Research Program Plan for Plutonium and Pit Aging*** was delivered to Congressional Staff on December 20, 2023.

### Projected Completion Date

- June 4, 2024

# Pipeline & Workforce Subcommittee

INNOVATE. COLLABORATE. DELIVER.

## Members

S. Pozzi (Chair)  
S. Graham (Co-Chair)  
T. Beechem  
J. Cizewski  
R. Hayes

### Study Focus

- Decadal assessment of what is necessary to produce an Integrated Federal and M&O workforce strategy for current and future missions; sourcing recent and ongoing actions and studies focused on pipeline, recruitment, retention, and other workforce reforms (i.e. FMDI, SOI)

### Actions for NA-1.1

- Meet with and provide support to Subcommittee Chair and Co-Chair. Deliver requested information and arrange for a technical review of the draft report.

### Actions for PAS and MB

- Review Subcommittee Report and complete NNSA fact check May 20-24, 2024.

### Actions for Subcommittee

- Complete final draft. Submit to ACNS for review and comment May 28-June 2, 2024.

### Past Meetings

- October 25, December 6, 2023  
March 12 April 17-18 May 3, 2024

### Upcoming Meetings

- Reoccurring weekly meetings with Chair, Co-Chair, and DFO

### Deliverables to Date

- N/A

### Projected Completion Date

- June 4, 2024



# Modern Materials & Manufacturing

INNOVATE. COLLABORATE. DELIVER.

## Members

T. Rollett (Chair)  
T. Kurfess (Co-Chair)  
S. Graham  
M. Cooper  
D. Korzekwa  
L. Minier  
A. Schwartz  
B. Wirth

### Study Focus

- Review the planning, manufacture, and use of new materials (i.e. additively manufactured polymers and metals) and other modern materials options qualified through computation, experimentation, and diagnostics.

### Actions for NA-1.1

- Work with DP and serve as Subcommittee liaison (DFO: Dr. Frazier).

### Actions for DP

- Coordinate travel and meetings.

### Actions for Subcommittee

- Deliver completed report to full Committee by September 11, 2024.

### Past Meetings

- March 26, 2024.

### Upcoming Meetings

- Reoccurring biweekly meetings.
- August 12 – 16, 2024, FORS

### Deliverables to Date

- N/A

### Projected Completion Date

- September 25, 2024

# Science, Technology, & Engineering Revitalization

INNOVATE. COLLABORATE. DELIVER.

## Members

D. Cook (Chair)

M. Creedon

W. Goldstein

P. Hommert

D. Larsen

S. Seestrom

C. McMillan

## Study Focus

- Validation of the Integrated Strategic Plan to revitalize the science, technology, and engineering base; including review of plans for time-phased investments in new and recapitalized facilities, capabilities, and investments in the S&T workforce. (Outcome of EMDI #18)

## Actions for NA-1.1

- Work with DP and serve as Subcommittee liaison (DFO: Dr. Frazier).

## Actions for DP

- Coordinate travel and meetings.
- Gather requested data for Subcommittee Chair.

## Actions for Subcommittee

- Deliver completed report to full Committee by September 11, 2024.

## Past Meetings

- March 27, 2024

## Upcoming Meetings

- Reoccurring biweekly meetings

## Deliverables to Date

- N/A

## Projected Completion Date

- September 25, 2024