



OFFICE OF SCIENCE AND TECHNOLOGY POLICY

Request for Information: National Nanotechnology Initiative Strategic Planning

AGENCY: Office of Science & Technology Policy (OSTP).

ACTION: Request for information.

SUMMARY: The National Nanotechnology Coordination Office (NNCO), on behalf of the Nanoscale Science, Engineering, and Technology (NSET) Subcommittee of the National Science and Technology Council (NSTC), seeks public input to inform the development of the 2021 National Nanotechnology Initiative (NNI) Strategic Plan. A restructuring of the NNI is under consideration, and the NSET Subcommittee seeks feedback from the community to help identify effective mechanisms, strategies for communication, and priority topics to shape the future directions.

DATES: Responses are requested by 11:59 p.m. ET on November 9, 2020. Input received after this date may not be considered.

ADDRESSES: Responses should be submitted via email to NNIStrategicPlanning@nnco.nano.gov and include “RFI Response: NNI Strategic Planning” in the subject line of the message.

Instructions: Response to this RFI is voluntary. Respondents need not reply to all questions listed. For all submissions, clearly indicate which questions are being answered. Each individual or organization is requested to submit only one response. Submissions should include the name(s) of the person(s) or organization(s) filing the comment. No other personally identifiable information, business proprietary information,

or copyrighted information should be included. Submissions should not exceed 10 pages in length using 12 point or larger font and should be in plain text, Microsoft Word, or Adobe PDF format.

In accordance with FAR 15.202(3), responses to this notice are not offers and cannot be accepted by the Federal Government to form a binding contract. Additionally, those submitting responses are solely responsible for all expenses associated with response preparation. Submissions are subject to Freedom of Information Act (FOIA) disclosure and may be posted, without change, on a Federal website.

FOR FURTHER INFORMATION CONTACT: Patrice Pages at info@nnco.nano.gov or 202-517-1041.

SUPPLEMENTARY INFORMATION:

Background Information: This request is in alignment with the 21st Century Nanotechnology Research and Development Act as amended (15 U.S.C. 7501), which calls for an update to the NNI Strategic Plan every 5 years.

The NNI is a U.S. Government research and development (R&D) program of 20 departments and independent agencies working together toward the common vision of a future in which the ability to understand and control matter at the nanoscale level leads to a revolution in technology and industry that benefits society. Additional information, including participating agencies, is available at www.nano.gov/about-nni.

The NNI Strategic Plan provides the framework that underpins the nanotechnology activities of the NNI agencies and ensures continued advances in nanotechnology R&D and their applications. The plan describes the NNI vision and goals, as well as the mechanisms used to support progress.

“A Quadrennial Review of the National Nanotechnology Initiative”

(<https://www.nap.edu/catalog/25729/a-quadrennial-review-of-the-national-nanotechnology-initiative-nanoscience-applications>) was recently released by the National Academies of Sciences, Engineering, and Medicine and will inform the planning process. The report recommends that the NNI continue and be reorganized and relaunched to promote a renewed focus on nanotechnology and respond to the dynamic global research environment.

Information Requested: The NSET Subcommittee seeks responses to the questions below to identify effective mechanisms, strategies for communication, and priority topics to inform the future directions of the NNI. Additional background information and points for consideration are available at www.nano.gov/2021StrategicPlanRFI.

Mechanisms

- What is your understanding of how the Federal Government has supported the nanotechnology community since the launch of the NNI?
- How should this support evolve into 2030 and beyond? What mechanisms and programs are necessary to support the broad NNI R&D portfolio?
- What key elements and intersections are necessary to form an agile framework that will enable response to new developments along the nanotechnology continuum, from discovery and design to development and deployment?
- How can the government engage effectively with stakeholders in industry and academia to advance nanotechnology research, development, and eventual commercialization? What are some best practices for this kind of engagement?

- How could public-private partnerships contribute to progress towards the NNI goals?
Are there any examples (domestic or international) of productive partnership mechanisms that should be considered as a model?
- What are exemplary models (domestic or international) for accessing NNI resources, including user facilities and laboratories?

Communication

The NNCO serves as the public-facing entity of the NNI in addition to and in support of NNI agency communication efforts. NNCO maintains Nano.gov and shares information through numerous communication means. However, the NNI community is complex and multifaceted, and diverse stakeholder groups consume information in different ways.

- How can the NNCO facilitate communication and collaboration throughout the nanotechnology R&D ecosystem to enhance research and ultimately commercialization? How can the NNI/NNCO best communicate opportunities, resources, and advancements to the community? How can the NNI/NNCO best engage with the stakeholder community to understand their advancements and needs?
- Beyond the media platforms used by NNCO, what additional means should be considered to better reach the public and various stakeholder groups?
- What are effective strategies for improving communication of desired nanotechnology workforce skills and capabilities between industry and academia?
- How can the NNI participating agencies or NNCO best raise awareness among teachers regarding the educational resources that have been developed over the past 20 years and help get these resources into their classrooms?

Topics

- What are the high priority open scientific questions in nanoscience and nanotechnology?
- What are challenges facing the United States and the world where nanotechnology is poised to make significant contributions?
- What nanotechnology-enabled “moonshots” should be considered?
- How does nanotechnology support other foundational fields/initiatives? What future technical topics are likely to emerge from advancements in nanotechnology?
- What are the gaps in the fabrication, characterization, and modeling and simulation tools available through the NNI user facilities (listed on Nano.gov)? What other tools are necessary to conduct nanotechnology R&D?
- What specific nanotechnology topics could be accelerated to commercialization by public-private partnerships?
- As concepts surrounding responsible development have evolved over the past twenty years, what factors may contribute to the responsible development of nanotechnology going forward?

Thank you for taking the time to respond to this Request for Information. We appreciate your input.

Dated: October 7, 2020.

Stacy L. Murphy

Operations Manager,

White House Office of Science and Technology Policy.

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