



OFFICE OF SCIENCE AND TECHNOLOGY POLICY

Notice of Request for Information; Technology Roadmap to Increase Wildfire Firefighting Capabilities

AGENCY: Office of Science and Technology Policy.

ACTION: Request for information.

SUMMARY: The Office of Science and Technology Policy (OSTP) requests input from all interested parties on the development of a comprehensive, technology roadmap to increase wildfire firefighting capabilities at the Federal, State, and local levels, pursuant to Executive Order 14308. Through this Request for Information (RFI), OSTP seeks input from the public, including fire professionals, academia, private sector organizations, industry groups, venture capital, philanthropic organizations, and State, local, tribal, and territorial governments, and any other interest parties.

other interest parties, on priorities for such a roadmap.

DATES: Interested persons are invited to submit comments on or before 11:59 p.m. (ET)

[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES:

Interested individuals and organizations should submit comments electronically via the Federal eRulemaking Portal at <http://www.regulations.gov> by searching the Docket ID number OSTP-NATSEC-2025-0034. Comments submitted in response to this notice should be submitted electronically through the Federal eRulemaking Portal at <http://www.regulations.gov> by selecting the Docket ID number. Information on how to use *regulations.gov*, including instructions for accessing agency documents, submitting comments, and viewing the docket, is available on the site under “FAQ” (<https://www.regulations.gov/faq>).

Instructions

Response to this RFI is voluntary. Please note that all submissions received in response to this notice may be posted on <https://www.regulations.gov/> or otherwise released in their entirety.

Do not include in your submissions any copyrighted material; information of a confidential nature, such as personal or proprietary information; or any information you would not like to be made publicly available.

OSTP will not respond to individual submissions. A response to this RFI will not be viewed as a binding commitment to develop or pursue the project or ideas discussed. This RFI is not accepting applications for financial assistance or financial incentives. Responses containing references, studies, research, and other empirical data that are not widely published should include copies of or electronic links to the referenced materials. Responses from minors, or responses containing profanity, vulgarity, threats, or other inappropriate language or content will not be considered.

Comments submitted in response to this notice are subject to the Freedom of Information Act (FOIA). Please note that the United States Government will not pay for response preparation, or for the use of any information contained in a response.

FOR FURTHER INFORMATION CONTACT: For additional information, please direct questions to NRE.RFI@usda.gov or Lisa Kerle at 202-720-0015.

SUPPLEMENTARY INFORMATION:

On June 12, 2025, President Trump signed Executive Order 14308 (Empowering Commonsense Wildfire Prevention and Response), which recognized that firefighters across the country are forced to rely on outdated technology and directed the development of a comprehensive technology roadmap.

OSTP seeks input from professionals in the wildland firefighting community to inform the wildfire technology roadmap. For the purposes of this RFI, “wildfire” refers to

all fires that burn in the natural environment, including those that transition to the built environment or begin in the built environment and transition to wildlands. The technology roadmap is intended to increase wildfire firefighting capabilities at the Federal, State, local, tribal, and territorial levels, including through enhanced integration or application of artificial intelligence, data sharing, innovative modeling and mapping capabilities, and technology to identify wildland fire ignitions, improve weather forecasts that inform response and evacuation, and improve prevention, suppression, and response capabilities.

OSTP is interested in opportunities to advance novel and emerging technology development and use, such as:

- fostering the commercialization of artificial intelligence and innovative modeling capabilities for use in wildfire detection, monitoring, prevention, suppression, response, and performance measurement;
- creating synthetic wildfire imagery datasets for training and testing computer vision models;
- enabling next-generation lightning mapping to advance fire weather forecasts from sources of wildfire ignition to improve response and suppression;
- modernizing physical equipment and infrastructure, including robotics, for wildfire mitigation, response, and recovery;
- establishing data standardization and interoperability requirements to facilitate seamless data-sharing, and tools that will improve situational awareness for Federal, State, local, tribal, and territorial governments and private stakeholders;
- leveraging data, tools, information, and communications to enhance modeling, and decision-making, and performance measurement related to wildfire risk mitigation and response;

- facilitating Federal acquisition of commercial datasets and other information related to wildfire mitigation and response through streamlined procurement processes, resource allocations, and other necessary improvements;
- addressing barriers (e.g., policy, administrative, training, financial) to technology adoption; and
- integrating and improving the National Oceanic and Atmospheric Administration's fire-weather products, including fire-weather models and related decision support technologies, to advance mitigation, preparedness, response, and the application of related technologies.

Questions to Inform the Development of the Technology Roadmap:

1. Wildfire detection and monitoring:
 - a. What are your current capabilities in wildfire detection and monitoring?
 - b. What are your desired capabilities in wildfire detection and monitoring?
 - c. What current gaps or limitations currently exist in wildfire detection and monitoring?
 - d. What opportunities or novel technologies could advance wildfire detection and monitoring within the next 5 years?
 - e. What barriers exist that prevent the adoption or integration of improvements to wildfire detection and monitoring?
 - f. How can existing products leverage or integrate with our current portfolio of tools and applications?
2. Wildfire suppression and response:
 - a. What are your current capabilities for wildfire suppression and response capabilities or effectiveness?

- b. What are your desired capabilities that increase wildfire suppression and response capabilities or effectiveness?
 - c. What current gaps or limitations currently exist in wildfire suppression and response that are lowering response capabilities or effectiveness?
 - d. What opportunities or novel technologies could advance wildfire suppression and response capabilities or effectiveness within the next 5 years?
 - e. What barriers exist that prevent the adoption or integration of improvements to wildfire suppression and response capabilities or effectiveness?
 - f. How can existing products leverage or integrate with our current portfolio of tools and applications?
3. Wildland firefighter safety:
- a. What are your current capabilities related to firefighter safety?
 - b. What are your desired capabilities related to increasing firefighter safety?
 - c. What current gaps or limitations currently exist to improving firefighter safety?
 - d. What opportunities or novel technologies could improve firefighter safety within the next 5 years?
 - e. What barriers exist that prevent the adoption or integration of improvements to firefighter safety?
 - f. How can existing products leverage or integrate with our current portfolio of tools and applications?
4. Wildfire risk reduction and land management, including fuel treatments and building codes:

- a. What are your current capabilities to improve the effectiveness of landscape wildfire risk reduction?
 - b. What are your desired capabilities to improve the effectiveness of landscape wildfire risk?
 - c. What current gaps or limitations currently exist in pre-wildfire land management?
 - d. What opportunities or novel technologies could advance pre-wildfire land management within the next 5 years?
 - e. What barriers exist that prevent the adoption or integration of improvements to pre-wildfire land management?
 - f. How can existing products leverage or integrate with our current portfolio of tools and applications?
5. Post-wildfire recovery and cascading effects(e.g., flooding, mudslides, etc.):
- a. What are your current capabilities in post-wildfire recovery and cascading effects?
 - b. What are your desired capabilities in post-wildfire recovery and cascading effects?
 - c. What current gaps, or limitations currently exist in post-wildfire recovery and cascading effects?
 - d. What opportunities or novel technologies could advance post-wildfire recovery and cascading effects within the next 5 years?
 - e. What barriers exist that prevent the adoption or integration of improvements to post-wildfire recovery and cascading effects?
 - f. How can existing products leverage or integrate with our current portfolio of tools and applications?

6. Data management:

- a. What are your current capabilities in forestry and wildfire data management?
- b. What are your desired capabilities in forestry and wildfire data management?
- c. What current gaps, or limitations currently exist in forestry and wildfire data management?
- d. What opportunities or novel technologies could advance forestry and wildfire data management within the next 5 years?
- e. What barriers exist that prevent the adoption or integration of improvements to forestry and wildfire data management?
- f. How can existing products leverage or integrate with our current portfolio of tools and applications?

7. Modeling, forecasting, and mapping:

- a. What are your current capabilities in modeling, forecasting, and mapping?
- b. What are your desired capabilities in modeling, forecasting, and mapping?
- c. What current gaps or limitations currently exist in modeling, forecasting, and mapping?
- d. What opportunities or novel technologies could advance modeling, forecasting, and mapping within the next 5 years?
- e. What barriers exist that prevent the adoption or integration of improvements to modeling, forecasting, and mapping?
- f. How can existing products leverage or integrate with our current portfolio of tools and applications?

8. Procurement, partnerships, and market access

- a. What barriers exist to entering or scaling in the wildfire technology market?
 - b. What mechanisms (e.g., Small Business Innovation Research (SBIR), Other Transaction Authority (OTA), pilot grants) are helpful for entering or scaling in the wildfire tech market?
 - c. How could industry days, technology sprints, or field demonstrations be better used to surface promising solutions?
 - d. How could the Federal government better support demonstration, evaluation, or acquisition to new and emerging wildfire technologies?
 - e. What are examples of partnerships that could be expanded to facilitate technology development or integration?
9. Is there any additional information related to increasing wildfire firefighting capabilities at the Federal, State, and local levels, not requested above, that you believe should be considered? If so, describe.

Dated: September 16, 2025.

Stacy Murphy,

Deputy Chief Operations Officer/Security Officer.

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