Policy Update: The Biden Administration Announces FY 2023 R&D Priorities

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The Biden Administration released its first memorandum on priorities for research and development (R&D) for fiscal year (FY) 2023, offering direction for federal agencies’ proposing science and technology (S&T) investments in the next President’s budget request. The memo is developed annually by the White House Office of Management and Budget (OMB) and Office of Science and Technology Policy (OSTP), and priorities articulated in the memo are reflected across relevant federal agencies in subsequent budget priorities. The memo highlights the importance of federally supported R&D to address societal grand challenges affecting the U.S. including climate change, health, prosperity, security, environmental quality, equity, and justice. The Biden Administration’s focus on innovation and the translation of basic research into businesses and products is also emphasized in the memo.

The priorities covered in the memo highlight the need for continued investments in R&D; science, technology, engineering, and mathematics (STEM) education, engagement, and workforce development; technology transfer and commercialization; and research infrastructure, with an emphasis on investments at Historically Black Colleges and Universities (HBCU) and other Minority Serving Institutions. The memo guides agencies in developing their FY 2023 budget requests to balance allocating resources for agency-specific mission-driven R&D with multi-agency R&D activities that cannot be addressed solely by a single agency.

Below are the multi-agency R&D priorities identified in the memo (*new areas of emphasis in bold)*:

- **Pandemic Readiness and prevention**
- **Innovation for Equity**
- **Tackling Climate Change**
  - **Climate science**
  - **Innovation in clean-energy technologies and infrastructure**
  - **Climate adaption and resilience**
  - **Nature-based climate solutions for mitigation and adaption**
  - **Monitoring and measurement**
- **Catalyze research and innovation in critical and emerging technologies**
  - **AI**
  - **QIS**
  - **Advanced communications technologies**
  - **Microelectronics**
  - **High-performance computing**
  - **Biotechnology**
  - **Robotics**
  - **Space technologies**
- **National Security and economic resilience**
  - **Biosecurity and biosafety**
  - **Nuclear nonproliferation**
  - **Defense against cyber-attacks and supply chain attacks**
These priority areas will enable federal agencies and the S&T community to align with the Administration’s R&D and goals. The memo maintains Trump era priorities in critical and emerging technologies, national security, and pandemic related readiness and prevention research. New areas of emphasis include directing agencies to prioritize R&D investments that advance understanding of climate change and the development of mitigation and adaption solutions. This includes advances in climate science to improve understanding of the Earth’s changing climate and the subsequent impacts, spurring adoption of clean energy and climate technologies that will lower costs and decrease emissions, and improving resilience to the effects of climate change to protect our communities and environments. The memo also reinforces President Biden’s focus on equity throughout the federal government and directs agencies to prioritize R&D investments in programs “with strong potential to advance equity for all, including people of color and others who have been historically disadvantaged, marginalized, and adversely affected by persistent poverty and inequality.” This includes open science and other participatory modes of research and developing data infrastructure that facilities identification of inequities across sectors at scale. The memo also directs agencies to take steps to improve diversity and equity in the research workforce.

Other R&D program guidance includes increasing accessibility of federally funded R&D for every American to increase the American public’s knowledge and involvement in science research and its products to benefit the people, the environment, and the economy, and to foster trust with the research enterprise. The Administration also states its commitment to use federally funded R&D to rebuild U.S.-based supply chains, seeding the market with cutting-edge new technologies, and providing a comparative advantage for our companies and workers by promoting domestic manufacturing jobs and economic prosperity in the U.S. The memo also directs Federal agencies to “develop measurable strategies to promote diversity, inclusion, equity, and accessibility across all R&D focus areas, while building supportive STEM education and engagement ecosystems.”

Sources and Additional Information: