The Vital Role of the White House Office of Science and Technology Policy in the New Administration

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Innovation is a 21st century imperative for private industry in the U.S. and around the world. It relies on a skilled and diverse workforce as well as continuing advances in science and technology (S&T)—the type of advances made possible by strong public and private investments in research and development (R&D). The influence and end-products of S&T research are present in almost every aspect of daily life. To ensure the future prosperity of all Americans—particularly those who have been left behind in recent decades—the next administration will be challenged to create new policies and initiatives that improve science, technology, engineering and math (STEM) education and training at all levels; to support pathbreaking science and engineering research; and to unleash the power of private sector innovation through partnerships with states, universities, national laboratories, and private industry.

The president’s S&T-related decisions rely, in large part, on information—data and analysis—from the White House Office of Science and Technology Policy (OSTP) and, specifically, on advice from the president’s science advisor. The presidential transition is a critical period for ensuring that science and technology are responsibly and effectively represented during the policymaking process in the White House. Since the new administration will immediately be faced with a host of challenges requiring timely S&T advice, it is important for the president to quickly appoint a science advisor; to put together an OSTP team; to ensure that OSTP has the support of, and access to, other White House offices and councils as required; to establish S&T policy priorities; and to navigate the ongoing budget process for federal R&D investment.

The Baker Institute Science and Technology Policy Program recently produced a full report on the operations and policy work of the White House Office of Science and Technology Policy. Recommendations for the next president and science advisor were developed for the report with input from experts across the country. The summary below lists five of these recommendations for consideration by the president early in the administration.

**RECOMMENDATIONS TO THE PRESIDENT OF THE UNITED STATES**

**Recommendation 1**
Early in the post–election transition period, select a nationally respected scientist or engineer to serve as science advisor and assistant to the president for science and technology. Once in office, the president should nominate this candidate for the position of OSTP director. Qualifications to consider for the role of science advisor include: national recognition and respect as a leader in science and engineering; extensive knowledge of the federal government as well as global science and technology policy experience; strong connections to the S&T community; and established leadership.

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Recommendation 2
Direct the Office of Presidential Personnel to seek the advice of the science advisor before filling the many sub-Cabinet and other senior agency positions related to S&T and before nominating presidential appointees for government positions with major S&T-related responsibilities.

Recommendation 3
Consult with the science advisor to quickly appoint a diverse membership for the President’s Council of Advisors for Science and Technology (PCAST). Early in the administration, the president should establish a practice of regularly meeting with PCAST and charging it to carry out studies and issue reports on topics that the president considers particularly important to the nation.

Recommendation 4
Renew the existing executive order for the National Science and Technology Council (NSTC) or develop a presidential directive detailing its operations. Charge OSTP, in consultation with the Office of Management and Budget (OMB), PCAST, and the NSTC Cabinet secretaries and agency heads, to:

a. Draft a strategy paper outlining the administration’s innovation goals, and release it in the first 100 days.
b. Organize and oversee a multi-year planning process to monitor progress.
c. Prepare action agendas for biannual meetings of the NSTC principals, chaired by the president, to review progress.
d. Develop policy options for the president’s consideration; convene meetings of agencies and nongovernment experts; and draft executive orders and presidential directives to move the president’s innovation agenda forward.

Recommendation 5
Ensure that OSTP has the leadership, access, structure, and resources to enhance the integration of science and technology in policymaking within the executive office of the president and across federal agencies.

a. Continue to house the OSTP director and staff in the Dwight D. Eisenhower Executive Office Building.
b. Nominate four OSTP associate directors and determine the focus and structure of OSTP.
c. Clarify the role and responsibilities of the chief technology officer.
d. Ensure the science advisor is included in all Cabinet meetings attended by other assistants to the president, particularly when issues related to science and technology are likely to be discussed.
e. Direct all White House budget and policymaking entities to collaborate closely with OSTP on a broad range of policies that have a science and technology component.
f. In the annual budget request to Congress, include adequate funding for OSTP to retain the number of knowledgeable and well-trained full-time staff members necessary to handle an increased workload and ensure continuity between administrations.

CONCLUSION

Science, technology, and innovation are vital to America’s economy and workforce, and the competitiveness of U.S. industry. They assure our nation’s security, the quality of our environment, and the safety, health, and overall well-being of the American people. Considering the many policy challenges that relate to science and technology, and the accelerating pace of scientific discovery and technological innovation around the globe, it is critically important for the president to quickly appoint a science advisor and organize a capable OSTP. Both can then begin to engage the many executive departments and agencies that support R&D and rely on science and technology advances to carry out their missions. It is in this spirit that the recommendations above are offered. We aim to underscore sound practices, help identify opportunities for the new administration, and ensure appropriate attention is given to fast-changing science, technology and innovation knowledge to ensure its utilization in the development of federal policy.

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