OBAMA ADMINISTRATION UNVEILS “BIOECONOMY BLUEPRINT” ANNOUNCES NEW R&D INVESTMENTS

The White House today released a national Bioeconomy Blueprint, a comprehensive approach to harnessing innovations in biological research to address national challenges in health, food, energy, and the environment. In coordination with the Blueprint’s release, Federal officials also announced a number of new commitments to help the Nation achieve the Blueprint’s goals.

The Bioeconomy Blueprint will guide Federal agencies—in coordination with one another and in partnership with private-sector entities—to enhance economic growth and job creation, improve the health of all Americans, and move toward a clean-energy future through scientific discovery and technological innovation.

The biological sciences have demonstrated enormous advances in recent years. As a result, economic activity fueled by research and innovation in those fields—the “bioeconomy”—is also growing rapidly, providing an expanding array of job opportunities in both rural and urban environments. In addition to the societal benefits these advances are bringing in health, medicine, and agriculture, and through the development of clean energy sources, researchers are generating a growing spectrum of bio-based products for use in industrial and chemical processes, helping to reduce reliance on petroleum-based products.

“The life sciences have proven to be a remarkably vital source of economic growth, and today they promise further game-changing advances in a wide range of commercial sectors,” said John P. Holdren, the President’s science and technology advisor and Director of the White House Office of Science and Technology Policy. “This Administration is committed to accelerating these advances and ensuring that Federal agencies and private entities work together to bring the benefits of the bioeconomy to market as quickly as possible.”

In coordination with the release of the Bioeconomy Blueprint, a number of commitments supportive of the Blueprint’s goals were released today by the Secretary of Health and Human Services Kathleen Sebelius and the Secretary of Agriculture Tom Vilsack. Among them are initiatives to encourage Federal procurement of an expanded range of bio-based products; take better advantage of large pharmaceutical data sets to speed drug development; apply the latest genomics discoveries to quickly identify emerging microbial threats; and accelerate research on non-embryonic stem cells as possible treatments for blood-related and neurological diseases.
The Bioeconomy Blueprint highlights life-sciences advances the Obama Administration is fostering and provides a roadmap for taking even greater advantage of trends and emerging capacities in this fast-moving field. The Blueprint identifies five strategic objectives to enable a vibrant U.S. bioeconomy in the years and decades ahead, with potential to deliver major economic and social benefits:

**Support R&D investments that will provide the foundation for the future U.S. bioeconomy:** Because many of the greatest opportunities in the bioeconomy require coordination among numerous fields of science, the Administration will prioritize multidisciplinary efforts to enable biological research at the boundaries of fields such as physics, chemistry, engineering, computer sciences, and mathematics. To complement these efforts, the Blueprint calls for novel funding mechanisms—prizes and challenges—to support creative, high-risk/high-reward research.

**Facilitate the transition of bioinventions from research lab to market, including an increased focus on translational and regulatory sciences:** The Administration is committed to accelerating the commercialization of bioinventions. The Blueprint calls upon funding agencies to support the integration of entrepreneurship into university research programs and use the purchasing authority of the Federal government to bolster nascent elements of the bioeconomy. Among other approaches, the Federal government will increase its procurement of biobased products, creating jobs in rural America where many of these products are manufactured.

**Develop and reform regulations to reduce barriers, increase the speed and predictability of regulatory processes, and reduce costs while protecting human and environmental health:** The Administration is committed to reducing uncertainty in regulatory processes to reduce costs and investment impediments while protecting human health and the environment. The Blueprint calls upon regulatory agencies to expand their work with stakeholders to accelerate application review times and, when possible, run in parallel some reviews traditionally run sequentially.

**Update training programs and align academic institution incentives with student training for national workforce needs:** Many jobs in science- and technology-related businesses remain unfilled due to shortages of trained applicants. While the Administration has made significant investments in science, technology, engineering, and mathematics (STEM) education at the K-12 and undergraduate levels, the Blueprint calls upon agencies to take further steps—through, for example, support for employer-educator partnerships—to ensure that the future bioeconomy has a sustainable and appropriately-trained workforce.

**Identify and support opportunities for the development of public-private partnerships and precompetitive collaborations - where competitors pool resources, knowledge, and expertise to learn from successes and failures:** President Obama has emphasized that the Federal government, universities, and companies should work together to invent, deploy, and scale the cutting-edge technologies that will create new jobs, spark new breakthroughs, and reinvigorate America today and in the future. The Blueprint calls upon Federal agencies to provide new incentives not only for public-private partnerships but also for precompetitive collaborations among private entities to benefit the bioeconomy broadly.

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