

ATIP Foundation Regional Bioeconomy Forumsⁱ:
“Addressing the Challenges & Opportunities of Advancing the Billion Ton Bioeconomy”

Summary Report on Five Regional Bioeconomy Forums Convened in 2016

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EXECUTIVE SUMMARY

This report reflects input received from 223 thought leaders on both the opportunities and challenges of expanding the bioeconomy in the United States. That is, utilizing organic materials such as those that farmers and foresters grow as inputs for refining and manufacturing. The participants are drawn from six broadly defined sectors of stakeholders in five geographically diverse regions of the country.

The fundamental premise of the forums was the projection that the United States has the ability to sustainably produce over one billion tons of biomass annually, by 2030, for industrial purposes including fuels, chemicals and consumer products. The activity could expand current production and contribute additional economic, conservation, and national security benefits to the nation. This vision was articulated by the Biomass Research and Development Board and published in their *Federal Activities Report on the Bioeconomy*, released in February 2016 at the Advanced Bioeconomy Leadership Conference in Washington, DC.

These forums were conducted in partnership with the U.S. Departments of Agriculture and Energy, and regional co-host entities. The purposes were to provide information to and receive input from key stakeholders, relative to the challenges and opportunities inherent in advancing the bioeconomy, as well as to determine their priorities and interest in enacting regional strategies as an outcome of the forum. As an economic development tool, the bioeconomy has been shown to stimulate both wealth and job creation, particularly in rural America.

In evaluating the input received, we have drawn three fundamental conclusions: (1) there is strong, consistent interest, across the various stakeholder groups, in advancing the bioeconomy; (2) there are significant regional differences, in terms of participant stakeholder views, on both opportunities and challenges that must be addressed on a regional basis; and (3) there are six significant, relevant, overarching themes, universally expressed and supported by all five forums, relative to specific issues and recommendations, to be addressed by federal and state agencies, and the broader stakeholder community. The six themes are as follows:

Finance: stated as the ability to successfully finance the growth of the bioeconomy, focused on (1) public funding and (2) general access to capital. Regarding public funding, government loan guarantees were cited, relative to a lack of knowledge, awareness, or understanding of the process required. Also, federal agencies should consider funding more small scale demonstration projects, rather than fewer large scale ones; incentivize public private partnerships; and provide a level playing field for bioenergy investments and allocations, comparable to those of fossil fuel and nuclear energy.

Regarding general access to capital, the high risks perceived by private sector investors, was based on inconsistency in federal incentives, the lack of off-take agreements, and broadly stated, a lack of understanding of the bioeconomy.

Public Education & Awareness: stated as the need for clear, understandable definitions for the "bioeconomy" and "sustainability"; and a robust, orchestrated public educational awareness campaign, inclusive of thoughtful articulation of the value proposition of the bioeconomy, and "Case for Support", relative to why it makes both business and economic sense.

Public Policy: stated as the need to create a level playing field for the bioeconomy, with long term, stable government incentives and tax credits that are competitive and comparative with other energy programs. Also regulatory requirements and controls, in general, and in particular by EPA, are viewed as overly burdensome, especially to small & medium sized businesses.

Supply Chain: stated as the need to ensure the supply chain logistics/capacity/capabilities are in place, to support the movement of biomaterial from the source to final production/processing facilities, and then to market. As a specific example, one recommendation was that more biomass accumulators (biomass depots) are needed to reduce distance from farm/forest to processing facilities. This also reduces cost, and aligns with the recommendation to fund more small models/projects rather than fewer large models/projects.

Workforce: stated as the need to engage the US Departments of Education & Labor, to ensure the publicly funded workforce system is aware of and focused on the development of the workforce needed to support the growth of the bioeconomy. Recommendations include building the talent pipeline; addressing the lack of technical training; the need to create early awareness of opportunities by the 8th grade; and addressing the lack of training opportunities and options in rural areas.

Federal Resources: stated as a general lack of awareness, and a request for federal support of regional collaboration. In terms of awareness, there was a general lack of knowledge of the research and resources available through and from the federal agencies. Outside of academia, most participants were unaware of patent license agreements, cooperative research and development agreements, the scope of federal research, and technical assistance and support, such as loan guarantees.

In terms of collaboration, participants stressed the need for economic growth to be seen, perceived and approached on a regional basis, since generally speaking; regional economies do not follow geographic or political boundaries. They viewed federal agency collaboration at a regional level, in partnership with academia, the private sector, and the broader stakeholder community, as a critical component necessary to grow the bioeconomy.

From the ATIP Foundations perspective, based on the input received, these six themes, relative to their issues and recommendations, should be a primary focus of federal and state government and the stakeholder community, in terms of providing the leadership necessary to address the issues raised, in order to stimulate the growth of the bioeconomy.

Overview

This “Summary Report on Five Regional Bioeconomy Forums” provides a synthesis of issues identified by participants in the regional forums that captures both common issues across the geography of five regions as well as their unique strengths and regional priorities in advancing the bioeconomy. We strongly recommend that, in addition to reading this summary report, interested parties also take the time to read the synopsis of each regional full report (Attachments 1-5) to more fully understand the challenges and opportunities that each region has expressed and prioritized. For the full report of each regional bioeconomy forum, go to www.atipfoundation.com.

Introduction

In late 2013, the seven agencies and the Office of the President that constitute the Biomass Research and Development Board¹ (hereafter referred to as the “Board”) began development of a vision to promote the expansion of the bioeconomy. With the projection that this nation, by 2030, will sustainably produce a billion tons of biomass annually, the “Vision” was published as the “*Federal Activities Report on the Bioeconomy*,” released in by United States Department of Agriculture (USDA) Under Secretary Cathie Woteki at the 2016 Advanced Bioeconomy Leadership Conference (ABLC) in Washington, D.C. (February 2016; for a copy, go to https://www.biomassboard.gov/pdfs/farb_2_18_16.pdf). “The goal of the Billion Ton Bioeconomy Vision is to develop and implement innovative approaches to remove barriers to expanding the sustainable use of America’s abundant biomass resources, while maximizing economic, social, and environmental outcomes.”

Based on this Vision, stakeholder outreach began with a “listening session” at the conclusion of this national ABLC conference where representatives of the Board introduced a graphic depicting the potential of sustainable biomass (Figure 1.) Subsequently, beginning the month of April, 2016 USDA and the Department of Energy (DOE) co-led informal listening sessions at three other major national conferences: 2016 International Biomass Conference and Expo in Charlotte, NC (April 11-14); World Congress on Industrial Biotechnology in San Diego, CA (April 17-20); and the Symposium on Biotechnology for Fuels and Chemicals in Baltimore, MD (April 25-28). In addition, a webinar on the Vision was conducted jointly by USDA and DOE on May 5, 2016. Input garnered from these five events helped shape a subsequent document, titled “*The Billion Ton Bioeconomy Initiative: Challenges and Opportunities*,” released in November 2017 by the Board (for a copy, go to https://www.biomassboard.gov/pdfs/the_bioeconomy_initiative.pdf).

¹ The Biomass R&D Board consists of representatives from the U.S. Department of Energy, U.S. Department of Agriculture, U.S. Department of the Interior, U.S. Department of Defense, U.S. Department of Transportation, the National Science Foundation, the Environmental Protection Agency, and the Executive Office of the President of the United States.