Bioenergy Technologies Office

2017 Program Management Review

Feedstock Supply & Logistics Response

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Program Manager

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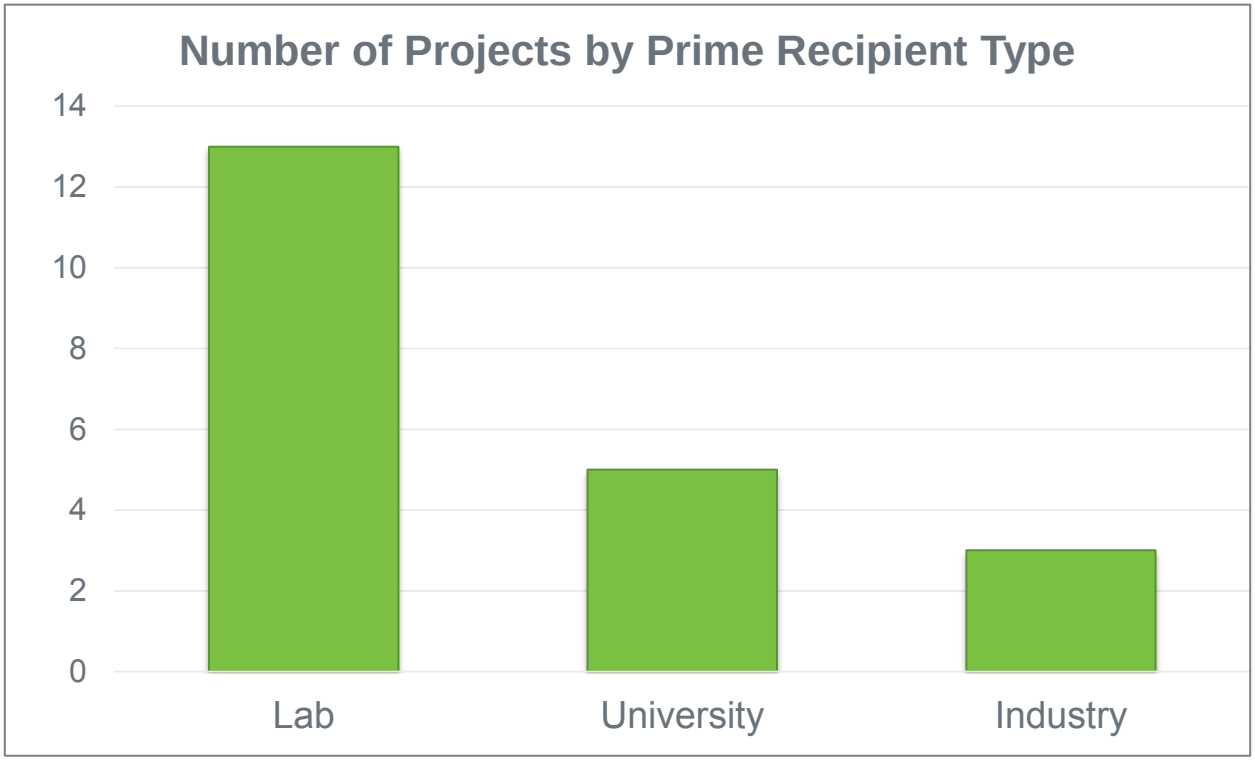
Thank you!

- Lead Reviewer, Steve Searcy of Texas A&M University
  - And Emily Heaton of Iowa State University, standing in for Steve
- The rest of the FSL Peer Review panel:
  - Gerson Santos Leon, Sudhagar Mani, Katherine Delany Behrman and Giovanna Aita
- Steve Thomas, Technology Manager, Review Lead
- Project successes highlighted in evaluation
  - 2016 Billion-Ton Study, Regional Feedstock Partnership, and the synergy among projects
  - FDC Enterprises, Inc. has “accomplished all major challenges associated with harvesting, collection and transport of biomass bales using an integrated approach”
  - INL’s Biomass Engineering – “Excellent project trying to tackle a complicated issue using the expertise of national lab and industry partners”

Technology Area Introduction

- Total of **20** Projects Reviewed, 18 presentations
- Total of **$93,964,152** Funding Reviewed
- **13%** of total BETO Portfolio



Recommendation #1

Closer and more effective collaboration with USDA in setting priorities for research on biomass crop is needed. Provide specific desired phenological or chemical characteristics to target to enhance BETO's goals.

Response #1

- BETO-FSL will pay special attention to increase effectiveness of ongoing USDA collaborations as they relate to crop improvement
  - USDA/DOE Biomass Feedstock Coordination Group Quarterly Meeting.
  - USDA/DOE National Laboratory, Research Center/Station Bioeconomy Research Collaboration Meeting.
  - Five relevant interagency Working Groups between two agencies (Feedstock Production and Management, Feedstock Production and Genetic Improvement, Feedstock Logistics, Sustainability, and Analysis).
  - Discussions to continue the RFP, feedstock network, and field trials on energy crops (deep rooted, sustain lodging, better cultivars, etc.).
  - USDA partners as Program Peer Reviewers on FSL Projects.
  - Including DOE Office of Science and ARPA-E when appropriate.
  - Biomass R&D Initiative (BRDI) solicitation development and execution.

Recommendation #2

Increase emphasis on short to medium term feedstock and logistics issues that are most likely to stimulate the growth of the industry. The industry will never reach a billion ton demand unless successful million ton biorefineries exist.

Response #2

- BETO agrees that the primary focus of the program should be developing technologies to make biorefineries successful.

Future work will focus on:

  - Solving the near term feedstock logistics issues by including and improving productivity, environmental effects, and feedstock quality parameters.
  - Developing preprocessing strategies to address feed handling problems faced by biorefineries in collaboration with the Feedstock Conversion Interface Consortium, so as to achieve greater operational reliability and cost targets.

Recommendation #3

The team reiterates the FY2015 recommendation for a depot level demonstration project, or clearly identify the aspects that are lacking and identify those projects that are intended to provide the knowledge or systems as addressing the intent for a depot demonstration.

Response #3

- BETO acknowledges and agrees with the need for a depot demonstration.
- In light of the Administration's priorities, the depot level demonstration is not within BETO's mission.
- BETO will conduct early stage research and development towards quality specifications and understanding fundamentals of feedstock preprocessing and handling
  - Supporting industry in building upon that knowledge for demonstration and scale-up activities.
- The PDU capabilities are leveraged to address feedstock handling and feeding problems, and the obtained unit operations specifications will continue to provide valuable information to integrate into FCIC and depot demonstration.

Thank you!