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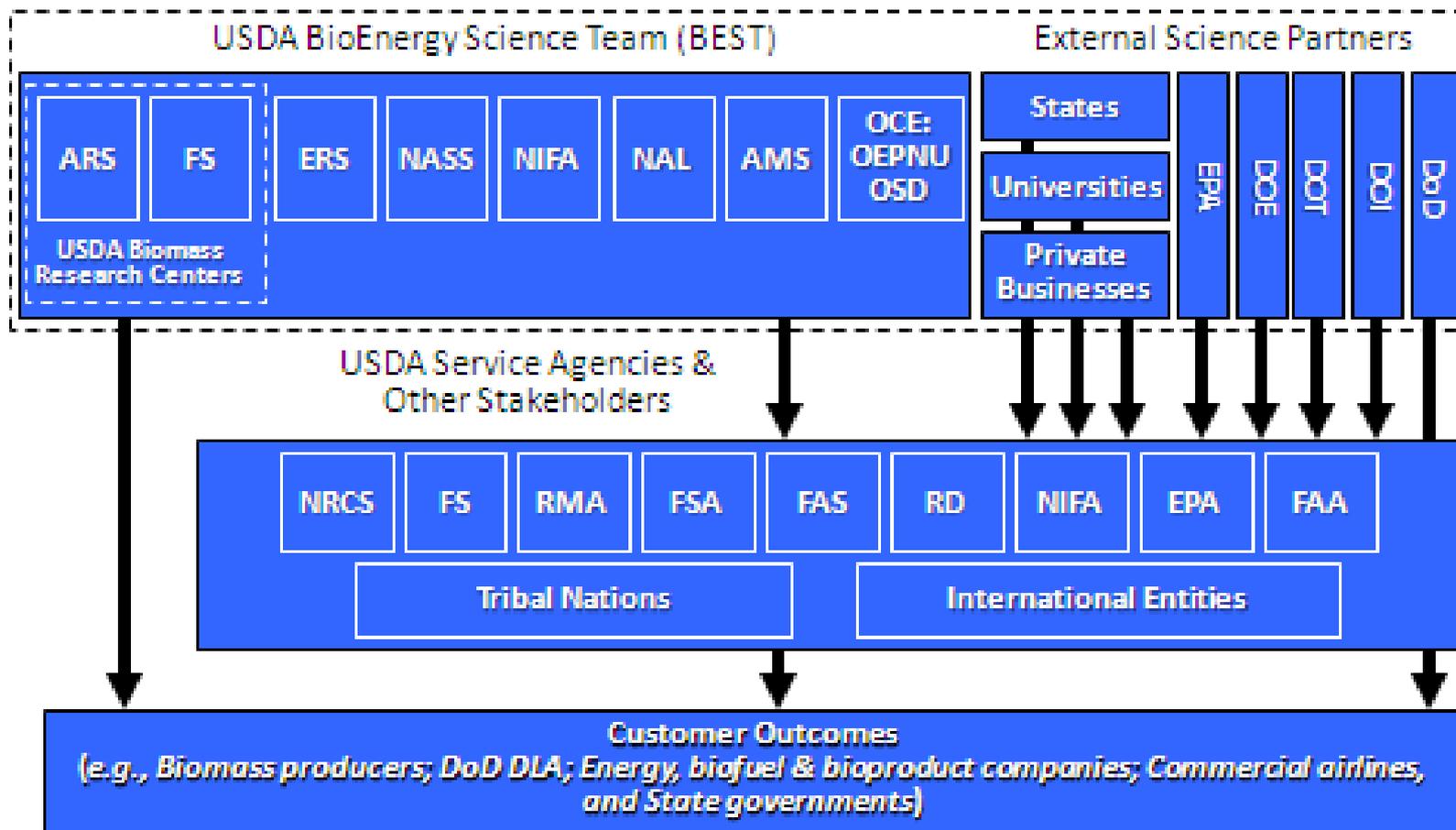
Bioenergy and Biobased Products Portfolio



INVESTING IN SCIENCE | SECURING OUR FUTURE



USDA-Wide Bioenergy Research*





Institute of Bioenergy, Climate, and Environment

Division of Sustainable Bioenergy

- Division Director
 - Mark Poth
- National Program Leaders
 - Carmela Bailey
 - Daniel Cassidy
 - Bill Goldner
 - Fen Hunt
- Program Specialists
 - Peter Arbuckle (LCA, Analysis)
 - Scott Dockum (Project Management and Performance)
 - Laurie Fortis (Bioinformatics)



A Regional Bioenergy Systems Approach

- Sustainable Bioenergy Team
 - Shared leadership
 - Manage Programs as a Portfolio
 - Stakeholder Input
 - Collaboration within USDA and with external partners
- “Growing America’s Fuel” Strategy
 - Builds on existing infrastructure and previous investments
 - Emphasizes feedstock development, production, logistics as part of regional systems
- Based on stakeholder input and discussions with other USDA agencies and Federal Departments



NIFA Bioenergy Portfolio

- Biomass Research and Development Initiative
- Agriculture and Food Research Initiative
 - Sustainable Bioenergy Challenge
- Small Business Innovation Research Program
- Joint USDA/DOE Feedstock Genomics Program
- Other Activities
 - Biodiesel Fuel Education Program
 - Special Grants
 - Formula Funds
 - Woody Biomass Utilization Group



National Research Initiative

- Agricultural Biobased Products and Bioenergy Research Program
 - \$5 M/year (through 2009)
 - Focus on bioconversion of cellulosic feedstocks
 - Notable commercial potential
 - e.g. Iogen Inc.
- USDA/DOE Joint Feedstock Genomics Program
 - USDA \$2 M/year, DOE \$5M/year
 - Accelerates feedstock genetic development



Agriculture and Food Research Initiative

- 2010 Sustainable Bioenergy Challenge
 - National Loblolly Pine Genome Sequencing Project
 - 1 award \$3 M/year for 5 years
 - Sustainable Bioenergy Research
 - ~30 awards \$200 K/year for 5 years
 - Co-Products, Feedstock Crop Protection, Carbon Sequestration
 - Stimulating a New Era of Students and Faculty in Bioenergy
 - 2 awards \$1 M/year
 - Regional Approaches to Bioenergy Systems



Agriculture and Food Research Initiative

- 2010 Sustainable Bioenergy Research
 - Co-Products
 - 2 strengthening, 13 standard research grants
 - Feedstock Crop Protection
 - 1 Strengthening, 12 standard research grants
 - Carbon Sequestration
 - 2 Strengthening, 12 standard research grants
- Stimulating a New Era of Students and Faculty in Bioenergy
 - 2 awards \$1 M/year for 5 years



2010 Agriculture and Food Research Initiative

- Regional Approaches to Sustainable Bioenergy Systems
 - Coordinated Agricultural Projects (CAP)
 - Integrate Research, Education, and Extension
 - Regional consortia
 - Academic, government, non-government, industry
 - Complete Supply Chain, sustainability analysis
 - Targeted Feedstocks
 - 3 Awards \$9M/year for 5 years
 - 60 Letters of Intent, 30 applications reviewed



Small Business Innovation Research (SBIR)

- Funding
 - 2.5% Set aside of USDA extramural R&D investment
 - ~\$22 M per year (\$4-5 M/year for bioenergy and bioproducts)
 - Phase I Feasibility Study \$100 K for 6-8 months
 - Phase II R&D Project \$500 K for 24 months
- Eligibility
 - US Owned and Operated Small Businesses
 - Less than 500 Employees
- Bioenergy-related Topic Areas
 - Forestry, Plant Biology, Ag Engineering, Biofuels and Biobased Products, Small and Mid-size farms



Small Business Innovation Research (SBIR)

- Commercial Success Stories

- Conversion

- Heterogeneous catalysts for biodiesel
 - Biodiesel from waste grease and tallow
 - Biodegradable composites
 - Biobased Low VOC latex paints
 - Processing of poultry manure for fuel gas production

- Logistics

- Switchgrass seed harvester
 - Small diameter woody biomass collection system

- Production

- Camelina sativa

<http://nifa.usda.gov/funding/sbir/sbir.html>



NIFA Bioenergy Points of Contact

- AFRI Sustainable Bioenergy - Bill Goldner,
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- AFRI - Feedstock Genomics – Ed Kaleikau,
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- BRDI – Carmela Bailey,
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- SBIR – Bill Goldner
- WBUG – Daniel Cassidy,
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NIFA Sustainable Bioenergy Team

- Carmela Bailey (Conversion, Biobased Products, Sustainability)
- Daniel Cassidy (Woody Biomass, Education)
- Nancy Cavallaro (Carbon Sequestration, Soils, Environment)
- Jim Dobrowolski (Environment, Water, Rangelands)
- Bill Goldner (Feedstock Genetic Development and Production)
- Richard Hegg (Logistics), Brad Rein (Health and Safety)
- Fen Hunt (Economics, Rural Sociology, Education)
- Ed Kaleikau and Liang Lin (Genomics)
- Shing Kwok (Feedstock Genetic Development, Plant Biology)
- Mary Purcell-Miramontes (Feedstock Crop Protection)
- Vacant (Bioenergy Systems)