

# UNIVERSITY OF MINNESOTA

## DEPARTMENT OF BIOPRODUCTS & BIOSYSTEMS ENGINEERING

### STRATEGIC PLAN

### EXECUTIVE SUMMARY

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Poised for institutional and international leadership, the Department of Bioproducts and Biosystems Engineering (BBE) advances the forefront of science, engineering and management knowledge and solutions in bioproducts and biosystems. BBE has developed a strategic plan to meet educational, scientific, technological and business needs for a robust bioeconomy, environmental enhancement, and serving traditional and emerging stakeholders. To achieve excellence in research, teaching, and outreach, we will:

- Provide award-winning institutional leadership around biofuels, bioenergy and environmental sustainability
- Establish comprehensive, state of the art research and teaching facilities
- Build and strengthen BBE undergraduate and graduate educational programs
- Sustain strong departmental culture that rewards excellence
- Cultivate strong relationships and robust involvement of alumni, key stakeholders, advisory council members and other units
- Develop and deliver high quality, recognized research-based education and outreach programs to meet current and emerging needs of industry and communities

All departmental priorities, objectives and activities outlined in the strategic plan are in service to fulfilling these critical measures of our success and long-term vitality.

#### MISSION

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The Department of Bioproducts and Biosystems Engineering integrates engineering, science, technology and management for the sustainable use of renewable resources and enhancement of the environment.

#### VISION

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We will serve as global leaders in the discovery, development and application of renewable resources and sustainable technologies to meet society's needs while enhancing the environment in Minnesota and beyond.

#### STRATEGIC PRIORITIES

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##### Program Priorities

BBE's distinctive programming is positioned to substantially contribute to university and collegiate priorities associated with education, bioeconomy, renewable energy, climate change,

healthy foods, and biodiversity. Moreover, BBE research, teaching, and outreach will offer economic, environmental, and social benefits to stakeholders in Minnesota and beyond. Faculty have identified cross-cutting *Program Priorities* that define the scope and aims of our research, teaching, and outreach/Extension functions and achieve interdisciplinary leadership in:

- Bioproducts and Renewable Energy
- Environment and Ecology
- Advanced Building Systems and Energy Efficiency
- Food Production, Processing, Safety and Security
- Undergraduate and Graduate Education
- Extension Education

BBE will thus make strategic investments by (1) increasing faculty research, innovation, and productivity; (2) refining and investing in future areas of new knowledge creation; (3) enhancing interdisciplinary research; (4) strengthening undergraduate and graduate educational programs; and (5) augmenting the BBE resource base for research and education.

### **Organizational Priorities**

A robust organizational foundation, collaborative departmental culture, world-class facilities, recognized leadership, and continuous improvement are hallmarks of a healthy and progressive Department. BBE has identified four categories for organizational development which include:

- Departmental Culture
- Leadership Development and Recognition
- Physical and Fiscal Infrastructure Expansion
- Evaluation of Progress

To ensure our strength in these four Organizational Priorities, we will support initiatives and activities that range from professional development and recognition, new facilities, enhanced endowments, and ongoing planning and evaluation. We will undertake these efforts in service to developing highly regarded research, teaching, Extension and outreach programs.

## **IMPLEMENTATION**

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BBE will launch implementation of this strategic plan in 2008. As it makes progress in achieving its goals, the Department will initiate a process of continuous improvement involving a comprehensive evaluation framework. Continuous improvement will provide reliable, consistent input on progress toward outcomes and goals outlined in the strategic plan. Faculty, staff, students and key stakeholders will all participate in providing feedback as a part of this process.

The Department looks forward to contributing solution-driven science, engineering and management knowledge in bioproducts and biosystems. Our efforts will position us internationally among our disciplinary peers and institutionally as a leader in developing the bioeconomy and environmental sustainability. We look forward to continuing to contribute to elevating the University of Minnesota to be one of the best public research universities in the world.