



Project Portfolio

Paradigm Sustainability Solutions

www.paradigmsustain.com



“ By seeing through the lens of sustainability, we are accelerating the pace of innovation across our business. ”

- Doug McMillon, CEO Wal-Mart Stores, Inc.

ABOUT PARADIGM

Companies that implement sustainable solutions not only benefit from reduced environmental impacts, they also boost revenue, reduce risk, and minimize wasted resources. Sustainable companies are better positioned to attract top talent, enter new market segments, grow retail presence, and maintain customer loyalty and brand image. However, implementing effective solutions for business sustainability requires in-depth technical



People



Planet



Profit

expertise, leaving it one of today’s most underutilized competitive advantages. We derived our unique, data-driven methodology from experience working with industry leaders to replace negative “soft science” connotations with results.

INDUSTRY EXPERIENCE

The associates at Paradigm utilize a robust skillset to develop sustainable solutions that lead to measurable results. Our associates can help your business draft a sustainability plan that is right for you, and help you effectively communicate performance improvements to your customers. Our associates have

partnered with top companies, producer groups and government agencies to develop sustainability solutions for a wide range of organizations. The associates at Paradigm are experts in strategic planning, life cycle assessment, supply chain analysis, risk assessment, and stakeholder engagement.



Food, Beverage & Agriculture

Sustainability Planning for the Pork Industry

In order to help pork producers advance their sustainability goals, our associates partnered with the University of Arkansas and the National Pork Board to develop a sustainability plan for U.S. pork that included metrics for tracking performance across a number of sustainability dimensions. In addition, our associates performed detailed life cycle assessments of the greenhouse gas, water use, and land use impacts associated with pork production in the United States.

Life Cycle Assessment of U.S. Peanut Butter

U.S. peanut production is a \$2 billion dollar industry, with over a third of the peanuts produced being used in peanut butter. Our associates participated in a life cycle assessment funded by the National Peanut Council in order to determine the climate impacts of peanut butter production.

Life Cycle Assessment of U.S. Cotton

In 2010, our associates worked with the University of Arkansas and Cotton, Inc. to perform life cycle assessments of U.S. cotton production in order to help Cotton, Inc. better prioritize and plan for sustainability improvements in their industry. Both greenhouse gas emissions and human and freshwater toxicity impacts were considered in this assessment.

Comparative Life Cycle Assessment of Beer Packaging

The SYNEK Draft System is a unique beer packaging technique that involves cartridge dispensers for beer transport and dispensing. In order to determine the differences in greenhouse gas emissions associated with the cartridges compared to traditional glass bottles, our associates performed a comparative life cycle assessment of the two packaging systems.

Regional Modeling of Corn Production

In order to help corn producers plan for a changing climate, Paradigm associates partnered with Monsanto and the National Corn Growers Association to model U.S. corn yields under future climate change scenarios.



Energy, Water & Climate Change

Municipal Carbon Accounting

Reducing net carbon emissions as part of a comprehensive greenhouse gas reduction strategy requires understanding and quantifying the carbon cycling within urban systems. The associates at Paradigm partnered with Nokose, Inc. and the City of North Little Rock to investigate and benchmark the city's greenhouse gas footprint. As part of this effort, our associates developed a novel method for modeling annual carbon sequestration in an urban forest. This work has been featured in *Biological Engineering*

Facility-Level Water Risk Assessment

For international businesses with hundreds of facilities spread across the globe, it is important to have the ability to rank and prioritize your operations for improvements. Through the University of Arkansas, our associates performed facility-level water risk modeling in order to help Tyson Foods mitigate risks and prioritize for improvements.

Tertiary Wastewater Treatment with Algae

In 2008, our associates partnered with the Smithsonian Institute to evaluate the ability of Algal Turf Scrubbing™ technology to remove excess nutrients from municipal wastewater treatment plant effluent streams. Our findings have been published in *Ecological Engineering*, and show up to 80% removal of total phosphorus across the ATS system.

Alternative Biofuel Feedstocks

In a project designed to identify promising feedstock alternatives to biofuel production, our associates worked with the U.S. Department of Energy to cultivate high lipid and carbohydrate content algal cultures in both open raceway and enclosed photobioreactor systems.



PARADIGM SUSTAINABILITY
SOLUTIONS

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