UNIVERSITY OF WORLD O

OSHKOSH

COMMUNITY CATALYST, ECONOMIC & KNOWLEDGE POWER SOURCE



PRESENTATION TO BOARD OF REGENTS'

RESEARCH, ECONOMIC DEVELOPMENT & INNOVATION COMMITTEE

RICHARD WELLS, CHANCELLOR

THOMAS SONNLEITNER, VICE CHANCELLOR ADMINISTRATIVE SERVICES

ART RATHJEN, FOUNDATION PRESIDENT

FEBRUARY 7, 2013



WORKFORCE DEVELOPMENT INITIATIVE EXAMPLES

- A. Professional / Technical Skills Gap Closers
- B. Higher Order "Cognitive / Soft Skills" Gap Closers



 Nearly three-fourths of all our degrees awarded annually—about 1,500—are professional, career-ready or science, technology, engineering and math-based (STEM) degrees. The total number of degrees awarded annually increased by 28% (1,700 to 2,200) since fall of 2000



2. Over the last five years, we boosted STEM baccalaureate degrees conferred from 143 to 201 (more than 40% increase) and health-related degrees, such as nursing increased from 243 to 273 (more than 12% increase)



- Accelerated Bachelor degrees in Nursing and Math/Science Education
- 4. Wisconsin's first Bachelor of Applied Studies and Fire/Emergency Response Management degrees
- Collaborative on-line Masters degrees in Business Administration



- 6. New Doctorate of Nursing Practice degree
- 7. Three new collaborative baccalaureate engineering technology majors scheduled to be launched and delivered during the 2013-14 academic year by NEW ERA's 13 New North higher educational institutions.



HIGHER ORDER "COGNITIVE / SOFT SKILLS" GAP CLOSERS

- University Studies Program: transforming General Education
- NEW ERA's innovative on-line Intern-to-Work program connecting New North employers to thousands of talented college students needing internship experience
- Student-to-Professional Career Services programs



Economic Development Initiatives, Programs, Impacts

- A. Creating Local / Regional Market
 Opportunities / Economic Impacts
- B. Supporting, developing new / existing business enterprises
- C. Public / Private Business Development Partnerships



CREATING LOCAL / REGIONAL MARKET OPPORTUNITIES / ECONOMIC IMPACTS

- University's \$500 million annual economic impact
- University's annual economic impact directly and indirectly creates 9,000 jobs and more than \$37 million of tax revenue
- University's decade of growth results in double digit percentage increase of annual economic impact



SUPPORTING, DEVELOPING NEW / EXISTING BUSINESS ENTERPRISES

- The New North's only Internationally accredited, largest and highly respected College of Business
- 2. Wisconsin Family Business Forum
- 3. Small Business Development Center
- Environmental Research and Innovation Center (ERIC)



SUPPORTING, DEVELOPING NEW / EXISTING BUSINESS ENTERPRISES

- Technology Transfer Projects
- 6. Business Success Center
- 7. Business Accelerator / AeroInnovate / Business Aviation Park collaboration



PUBLIC / PRIVATE BUSINESS DEVELOPMENT PARTNERSHIPS

- Biodigester projects / Viessmann partnerships
- Waterfront Hotel & Convention Center partnership

UNIVERSITY OF WISCONSIN

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UNIVERSITY OF WISCONSIN

OSHKOSH

FROM WASTE TO ENERGY
TO ACADEMIC PROGRAMMING



UW OSHKOSH AND RENEWABLE ENERGY

- Committed to sustainability
- UW Oshkosh adopted comprehensive Sustainability Plan in 2008 (http://www.uwosh.edu/sustainability)
- UW Oshkosh is Leader in Buying Renewable Energy
- UW Oshkosh was the first school in the state of Wisconsin to sign the President's Climate Commitment and pledge to attain carbon neutrality



UW OSHKOSH AND RENEWABLE ENERGY

- Coupling of education, research, and private sector expertise
- Demonstration site for a variety of renewable technologies
- Committed to the development of partnerships in renewable energy
- Unique capabilities and positioned for the future



DEVELOP THE PLAN



Genesis of the UW Oshkosh
Sustainability Project
which led to the Biodigester
construction

Early Development of the Idea

- •Nov. 28-30, 2006 ACORE (Met Stephen Hansen)
- Jan. 4, 2007 Stephen Hansen presents at UW Oshkosh
- Sept. 24, 2007 JCI/UWO discussion of BIO Gen idea with Chancellor
- Oct. 26, 2007 Navigation session with JCI
- June 10-12, 2008 Legislative visits to Washington, DC re: biodigester



DEVELOP THE PLAN



Continuing to evolve.....

- June 25, 2008 First discussion with Nadeem Afghan/Tim Rikkers from BIOFerm regarding the dry fermentation anaerobic digester
 - July 6-10, 2008 Visit to Germany to see an operating system
- August 18, 2008 Met with County Executive, Mark Harris regarding the idea of a landfill digester
- September 5, 2008 Discussion with JCI Nexterra at Reeve Union



PROJECT DECISION

BioFerm selected

- Nov. 3, 2008 FOE conference call with BioFerm, UWO, FOE
- Nov. 29, 2008 JCI presentation Brengel Center

Continued design process to identify appropriate system

- September, 2011 Construction Underway
- August 3, 2012- Dry Fermentation Plant Completed





ANAEROBIC DIGESTION: "DRY" VS "WET"

Solid Waste

e.g. municipal organic waste, manure on Straw



UW Oshkosh Applications:

Urban campus

Liquid Waste e.g. liquid manure

Energy Crops e.g. corn and grass silage

Mixed Wastes
e.g. liquid manure and
energy crop



Rural, Family Dairy Farm (100 cows)

Rural, Large Dairy Farm (9,000 cows)



TWO MAIN SUBSTRATES USED AT UW OSHKOSH







DRY ANAEROBIC DIGESTER FACILITY

- Methane (biogas)
 produced by
 fermentation of organic
 matter
- Burn biogas to generate electricity and heat
- Biosolid (digestate)
 product for
 composting, soil
 amendment, etc.

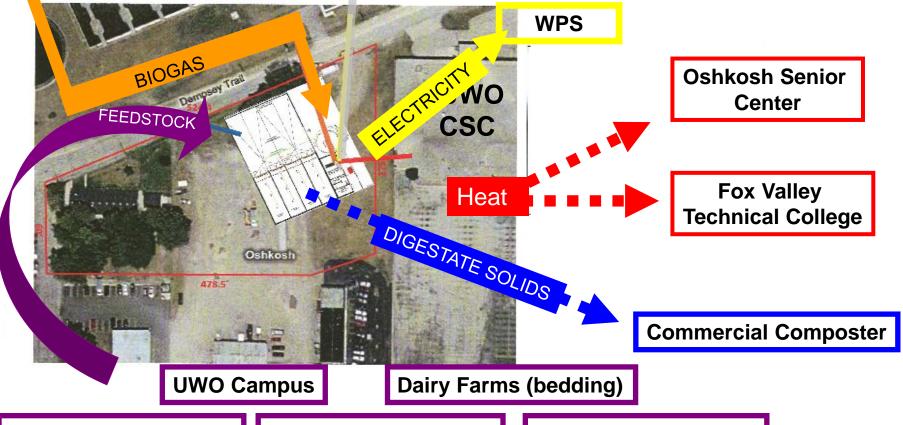




UW Oshkosh Anaerobic Digester

Oshkosh Wastewater Treatment Plant CHP Generator: 370 kW

Annual Electric: 2,400 MWh (ca. 8% of UWO)
Annual Heat: 2,700 MWh (ca. 8% of UWO)



City of Oshkosh Yard Waste Site Food Processing Plants

Food Waste Collectors



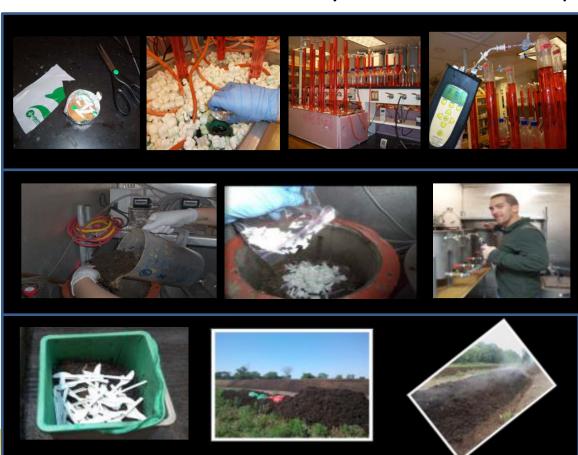
ANAEROBIC DIGESTION RESEARCH AND SERVICES

Lab, pilot-scale and field studies of bioplastics (new products that need demonstration of efficacy for market development)

LAB:

PILOT:

FIELD: (composting)





ANAEROBIC DIGESTION RESEARCH AND SERVICES

Consumer-to-compost studies of bioplastics Real-world scenario: Food Court to Digester



Feed the Beast Campaign



Delivery

Public organics collection (Mirel bags by Cortec)





Waste Sort data







 Become a leader in renewal energy production, research and development. With access to the Witzel Street dry fermentation biodigester (BD1), BD2, and the new Titan 55, We will be in an unprecedented situation as it relates to research and testing on these systems.



- Be involved in the operation of BD2. BD2 will be a educational facility for students in our proposed baccalaureate program in Environmental Engineering Technology.
- Increase the research and testing work done at the UW
 Oshkosh ERIC lab which will also create additional revenue
 to support students and education programs.



- Increase the number of scholarships and paid internships available for students
- Develop new and grow existing programs for students in curricular programs such as pre-Veterinarian, Environmental Studies, Engineering Technology, Microbiology, Chemistry, and Geology



- Develop related graduate programs
- Increase scientific, social and environmental research opportunities.
- Develop the new center on rural community development
- Offer outreach/training programs for K-12, businesses and municipalities

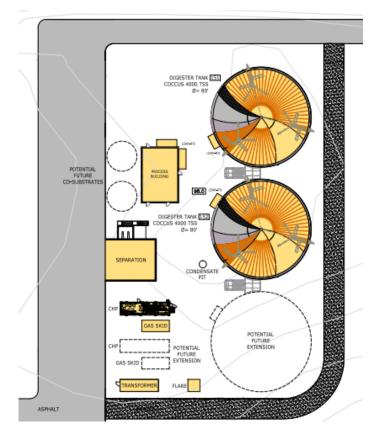


PROPOSED PLANT LOCATION



Aerial view of Rosendale Dairy





Proposed Site Layout



TITAN 55

- EUCOlino is a compact containerized biogas plant system designed for small farm applications that uses biomass to create energy through anaerobic digestion.
- The system is ideal for agricultural operations with a limited amount of biomass, and can utilize a number of different feedstock options, including manure, yard waste, and food waste.
- The EUCOlino system is simple, flexible and can be easily integrated into already-established operations.



TITAN 55







THE VIESSMANN GROUP

The Viessmann Group GmbH (\$2.3 billion annual revenue), which is headquartered in Allendorf, Germany and is one of Europe's largest producers of boilers and heating equipment. The Viessmann group was founded in 1917 and has since become one of the leading international manufacturers of heating and renewable energy systems. The Group maintains a staff of approximately 9,400 employees.



THE VIESSMANN GROUP

Has committed to:

- Dozens of paid internships for UW Oshkosh Students at Viessmann, (including monthly stipend and accommodations).
- Seminars for UW Oshkosh Students in Germany
- Lectures by Viessmann experts at UW Oshkosh
- Fund 2 full scholarships per year for UW Oshkosh students



THE VIESSMANN GROUP

- Exchange program bring up to 50 German students (per year) to UW Oshkosh
- Custom middle level management training program for hundreds of Viessmann employees at UW Oshkosh provided by the College of Letters & Science and College of Business
- Custom top-level executive training program for Viessmann employees at UW Oshkosh provided by the College of Letters & Science and College of Business



THE VIESSMANN GROUP

Has committed to:

 A fully-endowed \$100,000 per year salary for the chair of Sustainable Technology in support of the emerging NEW ERA engineering degree program in environmental, electrical and mechanical technology majors



BIOFERM USA

- A fixed term design/build contract
- Support for research opportunities for faculty and students
- For example: the current Crawford/Schuttlefield project to "Demonstrate Conversion of Biogas Methane and carbon Dioxide to Methanol via Solar Energy"



BIOFERM USA

- Using ERIC as its primary testing laboratory
- Allowing students and faculty access to engineers and facility to support the Environmental Engineering Technology program
- Guaranteeing energy output to 80% of predicted performance



MILKSOURCE LLC

- Purchasing its electricity from BD2
- Giving UW Oshkosh ownership of fiber (post-digested substrate)
- Developing and investing in research and education center



MILKSOURCE LLC

- Allowing UW Oshkosh faculty and student researchers access to dairy and surrounding land
- Working with the Rosendale area citizens toward being a productive, responsive member of the community



SOIL NET LLC

- Providing Post-doctoral positions at UW Oshkosh
- Involving UW Oshkosh faculty in cutting-edge research on fiber use
- Investing in infrastructure for fiber processing needed to ensure most efficient use of and maximize payback from sale of fiber



ART RATHJEN, FOUNDATION PRESIDENT



Foundation

Oshkosh Premier WATERFRONT

HOTEL AND CONVENTION CENTER



UW OSHKOSH

UNIVERSITY OF WISCONSIN OSHKOSH



Oshkosh Premier Waterfront Hotel and Convention Center



TIMELINE

- Summer 2010 contracted Hospitality Marketers International for operational performa (for Alumni Welcome Center)
- Fall 2010 addendum to HMI contract to explore performa on downtown City Center Hotel
- Fall 2010 create UW Oshkosh Foundation Hotel LLC
- Fall 2010 joint partnership with WHG hotel group and UWO Foundation to purchase downtown hotel
- Spring 2011 partnership dissolves
- Fall 2011 UWO Foundation engages second partnership with RB Hospitality and Pfefferle Group
- February 2012 purchase hotel for \$2.1 million
- February 2012 immediately close property to initiate 15 month redevelopment plan for May 1, 2013 opening



COLLABORATION















COMMUNITY PARTNERS

- University of Wisconsin Oshkosh Foundation
- RB Hospitality
- Pfefferle Companies
- Oshkosh Area Community Foundation
- City of Oshkosh





OWNERSHIP GROUP

A vested interest: University of Wisconsin Oshkosh Foundation, RB Hospitality and Pfefferle Companies.

Income Components:

- Hotel Revenues
- Restaurant Revenues
- Convention Center Revenues





Financial Projection

	Year One	Year Two	Year Three
Occupancy Rate	50%	58%	65%
ADR	\$94.00	\$98.00	\$101.00
Hotel Revenue	\$3,028,338	\$3,662,356	\$4,230,008
Gross Revenues	\$6,065,225	\$6,400,900	\$7,382,610
Net Income	\$99,402	\$1,015,988	\$1,526,544



INVESTMENT STRUCTURE

- \$7.5 million secured bank loan
- \$2.0 million City of Oshkosh TIF
- \$1.0 million ownership group
- \$1.0 million Oshkosh Area Community Foundation
- \$4.2 million private equity investors
- Total = \$15.7 million*
- *Year three additional \$1.0 million pay-go TIF committed to the project by City of Oshkosh





BENEFITS TO INVESTORS

- High performance hotel = excellent earnings
- Quarterly distributions
- Non-recourse debt
- Benefits of real estate ownership: Taxable income
- Exit strategy
- Beyond the financial aspects: Community/University





THE GROWTH PLAN 2010, Hospitality Marketers International Inc:

Local market would support mid-market, full-service hotel and Convention Center

Probable Occupancy Rates

53.5% in 2012

61.8% in 2013

67.3% in 2014

Projected ADRs

\$90.36 in 2012

\$96.33 in 2013

\$102.62 in 2014



WATERFRONT HOTEL UNDER CONSTRUCTION



LOBBY UNDER CONSTRUCTION



LOBBY UNDER CONSTRUCTION



Renovated Lobby



BALLROOM CONSTRUCTION



RENOVATED BALLROOM



RESTAURANT UNDER CONSTRUCTION



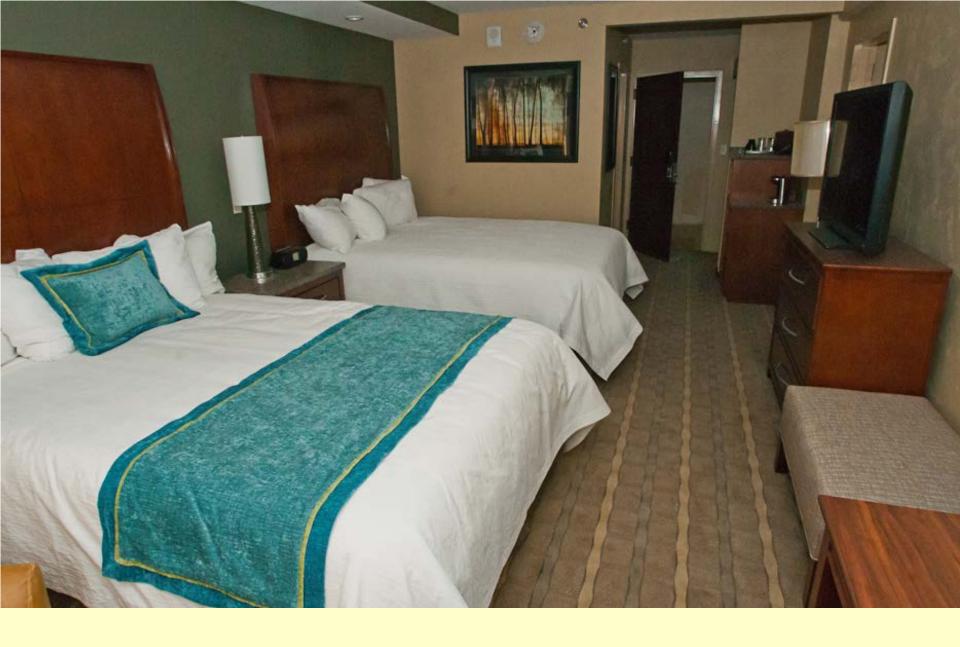
Restaurant at River's Edge



Restaurant floor plan



GUEST ROOM UNDER CONSTRUCTION



REMODELED GUEST ROOM



REMODELED GUEST ROOM



OUTDOOR PATIO



COLLABORATIVE BENEFITS OF PARTNERSHIP

- Visibility downtown presence for UW Oshkosh
- Renovated facility compliments campus event facilities (AWCC)
- Hotel partnership site for University / technical college / UW System paid internships
- Event City UW Oshkosh plays expanded role



Takeaway: Economic Benefits & Impact

- Created over 350 full-time/part-time construction jobs (71 contractors on site 2-5-13)
- Renovated facility creates over 220 full-time/part time hospitality jobs (hotel, restaurant, convention center)
- New hotel revitalizes downtown businesses, supports resurgence for conference/convention business and indirectly infuses thousands of dollars and hundreds of job supporting other Oshkosh businesses (restaurants, fine arts, lake activities, concert series, etc.)
- One of the largest single site lodging facilities (four-star waterfront hotel) serving Oshkosh and northeast Wisconsin)



Takeaway: Educational Benefits & Impact

- Committed Foundation's profit share to Oshkosh high school student scholarships and innovative high impact priority academic programs at UWO
- Creation of paid internship programs for students and consultant opportunities for faculty and staff
- Career employment opportunities and part-time jobs (hotel, business office operations, hospitality services, and convention center operations)



Foundation

Oshkosh Premier WATERFRONT

HOTEL AND CONVENTION CENTER



UW OSHKOSH



Foundation

ALUMNI WELCOME AND CONFERENCE CENTER \$12.3 MILLION PROJECT CURRENTLY UNDER CONSTRUCTION







PROJECT GOALS

- Enhance Image, Visibility, Accessibility, and Prestige of UW-Oshkosh
- Replace River Center (lost in the 2008 flood)
- Create a Front Door "Sense of Place" for UW Oshkosh
- Enhance Meeting and Conference Facilities serving the campus, Community, and State.
- Provide a Campus Venue to Showcase Academic and Intellectual Programs
- Become a Destination for Our Community and Regional/State Events
- AWCC complements and enhances the waterfront hotel conference/convention project





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Questions?
Thank you