Sustainable Campus as a Living Learning Lab for Environmental Studies and Climate Change Education:



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GVSU FACTS

- Total students 24,654, one of 100 largest universities in the US, the 5th largest in MI
- The 9th top college based on June 30, 2014 ranking by Forbes!
- AASHE STARS GOLD ranking (top 45)
- One of the highest rankings by the Princeton Review
- the 16th in the nation for sustainable practices based on the Green Metric World University Ranking.
- 392 undergraduate and graduate courses address sustainability-related issues.


Traverse City
Saginaw
Flint
Grand Rapids
Lansing
Detroit
Kalamazoo
Chicago

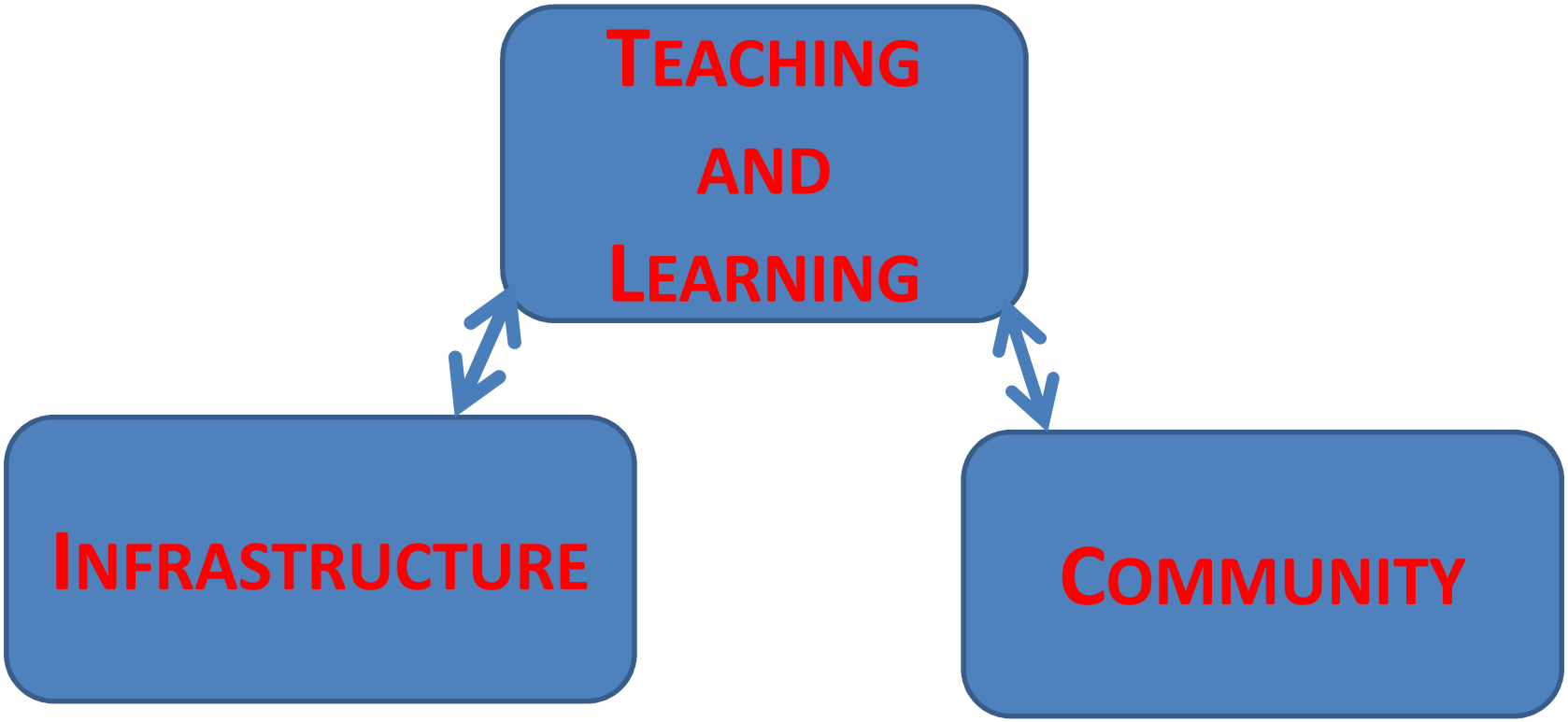
SUSTAINABILITY AT GVSU

- **First Sustainability Indicator Report issued in 2005**, covered 18 Triple-Bottom-Line impact areas and used 76 sustainability indicators to determine sustainable practices on campus.
- **In 2008, GVSU joined the American College and University Presidents Climate Agreement (ACUPCC)** and became a charter member of the American Association for Sustainability in Higher Education (AASHE) Sustainability Tracking Assessment and Reporting System (STARS).
- Sustainability became a value in the University's 2010-2015 Strategic Plan.
- **Achieved AASHE STARS Gold Rating in 2013**.

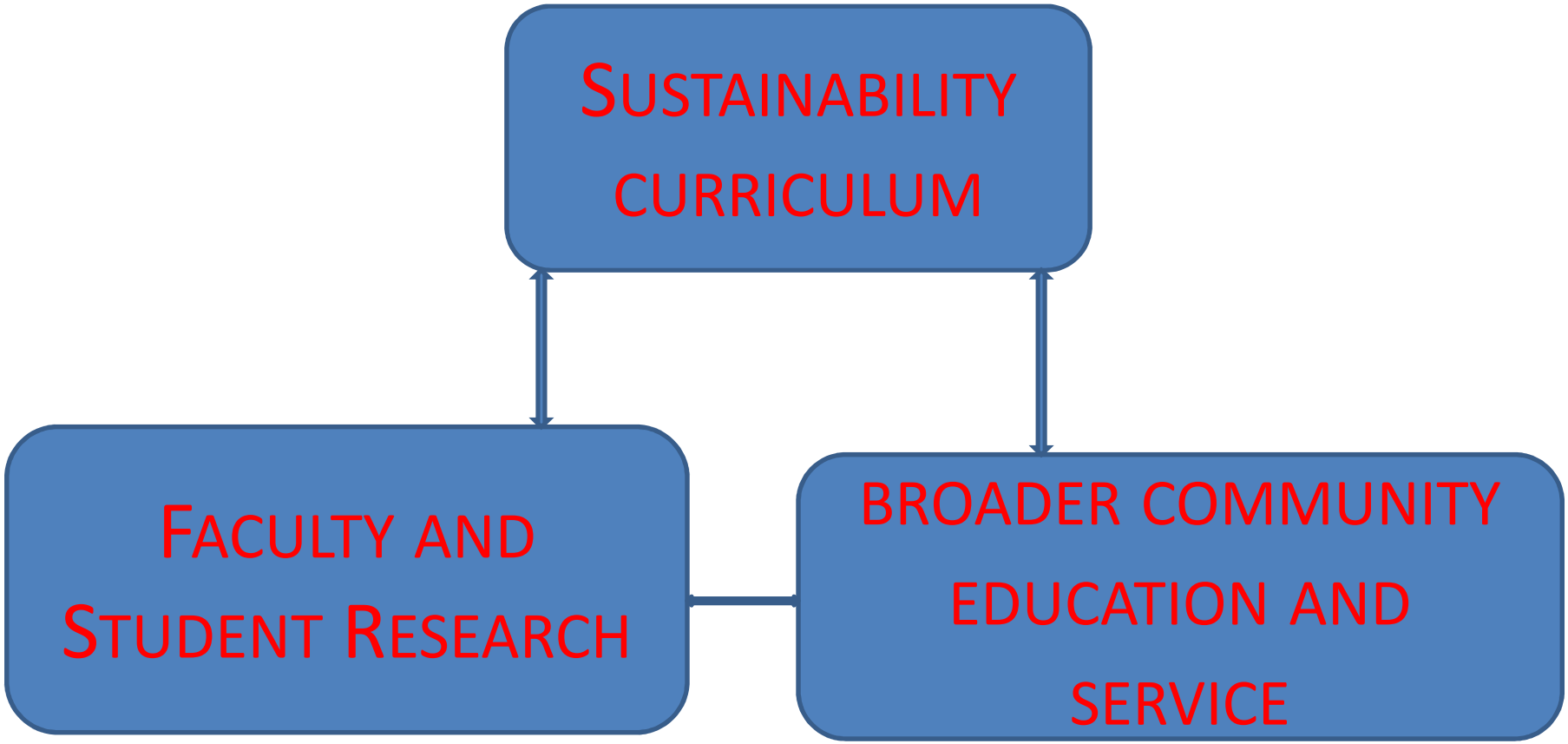
University-wide integration of environment and sustainability

- **Curriculum**
- **Faculty and student research**
- ***Campus infrastructure and operations***
- ***Student organizations***
- ***Community-based projects/service learning***
- ***Local, regional and international partnerships***

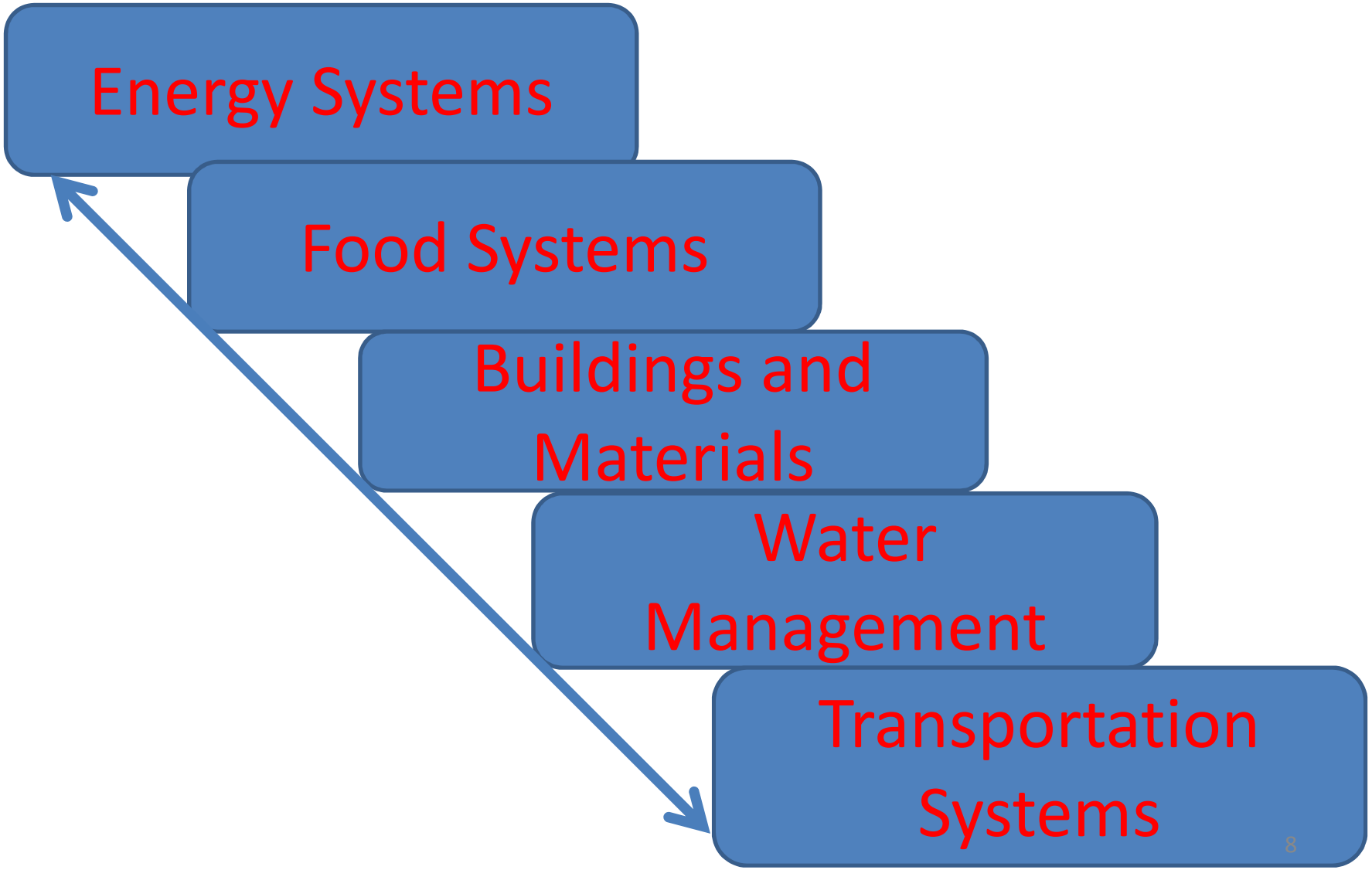
SUSTAINABLE CAMPUS IS A SYSTEM



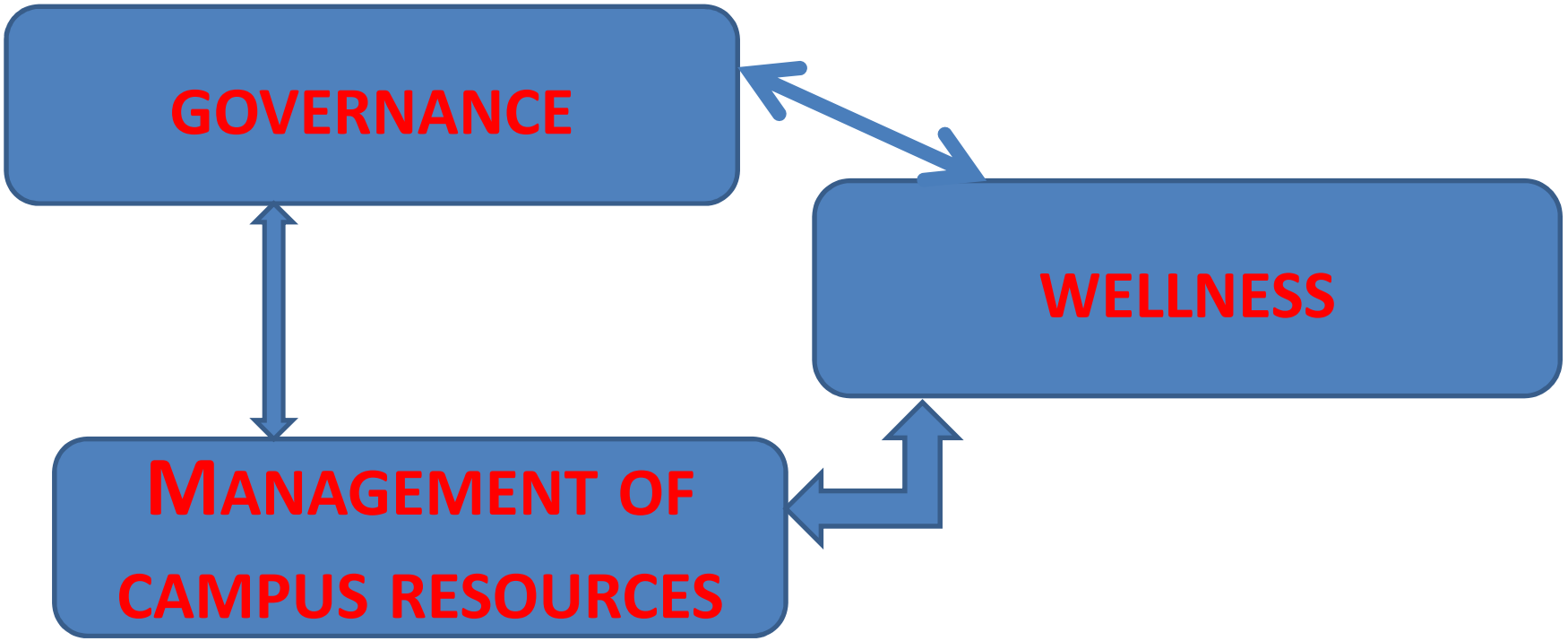
TEACHING AND LEARNING



Campus Infrastructure



CAMPUS COMMUNITY



1. Sustainable Food Systems

- Purchased:
  - 930,500 lbs of local food ($2.2 MM)
  - 164,000 lbs of MI Brand local food ($221K)
  - 1100 lbs of certified seafood ($6K)
  - 11,000 lbs of fair trade coffee ($77K)
- Increased the number of sustainability certified vendors:
  - 23 local farms
  - 31 local suppliers
  - 2 seafood vendors
  - 3 organic vendors
  - 1 cage free egg supplier.
- Sustainable Agriculture Project



ENS401 Environmental Problem Solving at GVSU



Student Environmental Coalition, a class called "Food For Thought", SCDI, and Campus Facilities collaborated to capture the yard waste, sort it, and windrow it for compost.

This process will enable the Sustainable Agriculture Project to avoid their annual compost purchase and free up $3000 for additional internships.

The Sustainable Agriculture Project started in 2008 from a student project in ENS401 Environmental Problem Solving.

Two unheated hoop houses have been added to extend growing seasons to about 50 weeks a year.

Interns sell the produce on campus each Wednesday every week.

Proceeds from sales are used to hire additional interns.



SAP HIGHLIGHTS

- Formal partnerships have been developed with Our Kitchen Table, a Grand Rapids Food Justice Non-profit organization; Baxter Community Neighborhood Center, and Grand Rapids Public School District to assist with growing techniques and education.
- 2013 will mark the fifth year of involvement with the Upward Bound TRiO organization during their summer stay at GSVU.
- The SAP Farm now has one acre under cultivation with plans to expand to 2 acres within 3 years.
- The SAP Farm employs 2 students part-time to help at the farm.





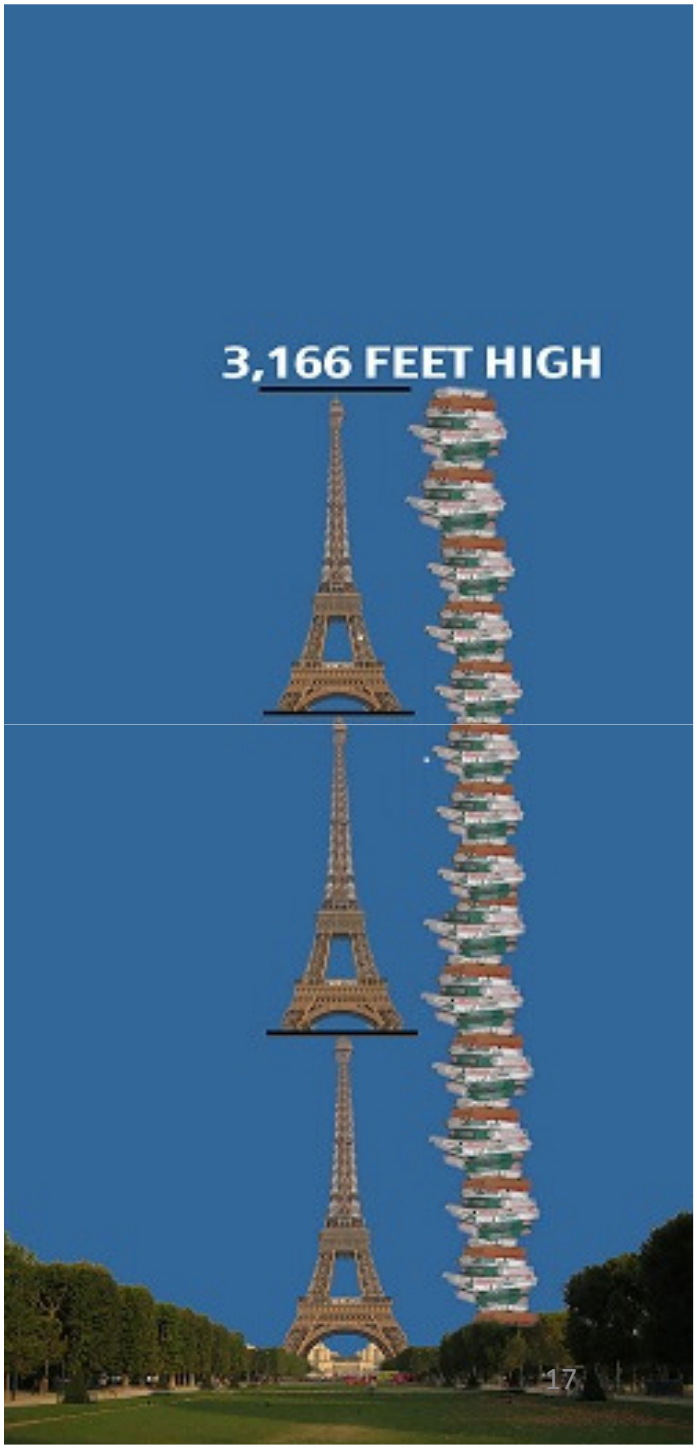



Scallions
$2.50
Carrots
$3.00
Radishes
$2.50
Spinach
$3.00
Cilantro
$2.00

2. Recycling and Waste Minimization

- Generated 2357 tons of total waste with a landfill disposal rate of 57.4%
- Recycled 1005 tons of paper, cardboard, glass, plastic, scrap metal, computers, batteries, pallets, food waste, and light bulbs for a recycling rate or waste diversion rate of 42.5% ($30K savings)
- Composted 234 tons of food waste and 10,000 pizza boxes
- “Zero Waste” football game
- Water bottle filling stations

- Eco-reps: peer-to-peer education program called the Eco-reps.
- The students worked with SCDI, Facilities, and Housing to remove the boxes and direct them to our compost dumpsters.
- In 15 months the students diverted over 25,000 pizza boxes.





61% of waste composted or recycled. Within the stadium, the landfill from 15,000 fans was stuffed into one garbage bag! The game ranked number one in composting for all Division 2 & 3 events in the country.



The Student Environmental Coalition collaborated with the Campus Dining, Facilities, and SCDI to identify waste stream problems.

The effort was to find ways to improve upon our 42% diversion rate.

By conducting a series of waste audits, problems are identified and re-education efforts are implemented.

3. Energy Efficiency and Optimization

- Invested $2,689,744 in energy projects and achieved $1,640,301 in annual energy cost avoidance
- One time cost avoidance projects have saved $1.3mm over last 12 years
- Reduced housing community energy costs by $10,760 per year since 2006

4. Water Conservation

- Going tray-less in campus dining saves 2.5 gallons of water per person, or 1,482,749 gallons of water ($9K)
- University reduced water consumption by 25mm gallons from 2007-2011 ($163K savings)
- Irrigation and retention ponds accounted for 15mm gallons of water



A Storm-water Management Plan is being implemented to take the run-off map back to the way it was before the campus was created.
Wetlands have been developed and retention ponds created.

Natural Resource Management Faculty and Students work with Facilities to monitor progress and implement change. Last year the university consumed 25 million fewer gallons of water than it did in 2005.



GVSU and NMC students are conducting bathymetry study in the Traverse Bay

5. Alternate Transportation and Fuel

- Recycled 3,000 gallons of cooking oil which was used as feedstock for biodiesel fuel
- Achieved 3MM bus rides
- Avoided 36,737,480 passenger vehicle miles ($21.3mm savings automobile cost)
- Avoided 1,836,874 gallons of fuel ($6.4mm cost savings)
- Avoided 15,864 MT CO_2E
- Reduced parking passes by 15%
- Bike Transit
- WeCar Services

6. Sustainable Purchasing

- Achieved $49,437,444 in sustainable supplies:
- $6K for the fair trade coffee and tea
- $40K Adidas apparel (FLA member)
- $911K apparel (Worker Rights consortium member)
- $211K recycled paper products
- $46.2MM LEED building and construction products
- $2.1MM minority owned vendor purchases

7. Green and LEED Buildings

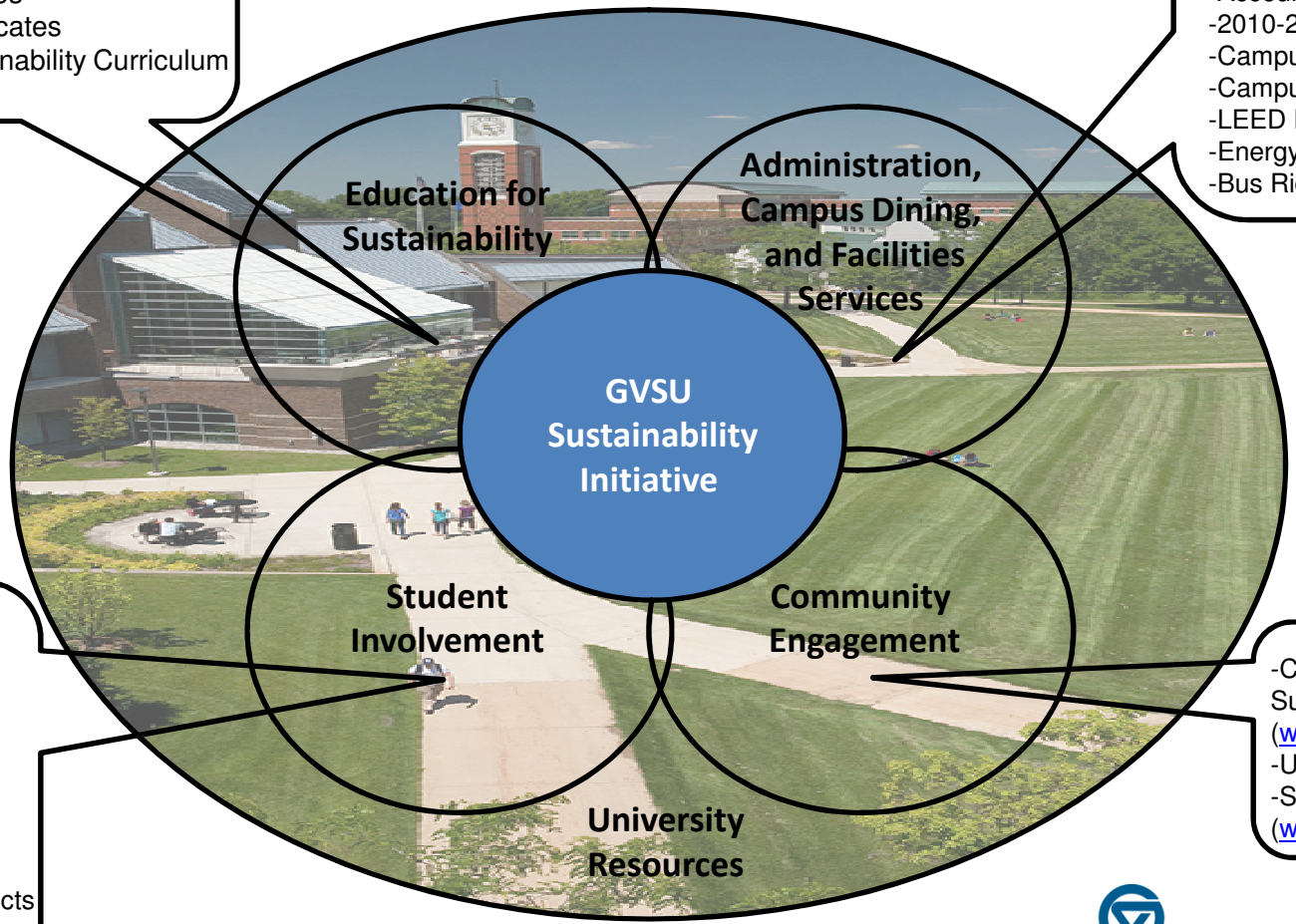
- 15 LEED certified buildings (957,845 square feet)
- $32MM invested for new and remodeled facilities that created 700 trade and construction jobs
- Estimated savings of $800K for LEED buildings in energy, operations, water, and waste cost avoidance

Sustainable Campus is an Integrated System

www.gvsu.edu/sustainability

-Sustainability Emphasis
-Environmental Studies Minor
-Sustainability Themes
-Sustainability Certificates
-Education for Sustainability Curriculum

-Sustainability Guide
-Talloires Declaration
-ACU President's Climate Change Agreement
-AASHE STARS Project
-Accountability Report
-2010-2015 Strategic Plan
-Campus Sustainability Reporting
-Campus Dining
-LEED Building
-Energy Projects
-Bus Ridership



-Sustainability Guide
-Student Ambassadors
-Sustainability Pledge
-Campus Sustainability Year Activities
-How Green Are You?
-Recyclemania
-Eco Reps
-Service Learning Projects
-Student Environmental Coalition (SEC)

-Community Sustainability Partnership (www.grpartners.org)
-UNU RCE designation
-Seeds of Promise (www.seedsofpromise.net)

Adapted:
Tony Cortese, *Second Nature*

GRAND VALLEY STATE UNIVERSITY

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