Turning a University/College Campus into a Living Sustainability Laboratory

Bonny Bentzin – Manager
Arianne Peterson – Program Coordinator

University Sustainability Business Practices
Global Institute of Sustainability
Arizona State University
Today’s Discussion

• Universities have a unique advantage in moving toward sustainability - *students*

• Using a campus as a living laboratory turns the challenge of student engagement into an opportunity

• Sharing our evolving model: Campus Living Laboratory Network (CLLN)
  – Background: ASU & Sustainability in Higher Education
  – CLLN – ASU Case Studies
  – Our Ideal Model
  – Where We Are & What We’re Learning
  – How can this model work for your campus?
ASU Snapshot

- Small city of 80K people
  - 65K students
- Urban University
- Four campuses with distinctly different personalities
- Arid environment – located in the fastest growing region in the country
ASU’s Sustainability Vision

Global Institute of Sustainability

Fully Integrated Across All Areas of the University
University Sustainability Business Practices

Greening Maroon and Gold...

active engagement • zero waste • carbon neutrality

http://sustainability.asu.edu/giosmain/campus
Higher Education – an ASU Perspective

- Campuses are small cities
- 1st mission is education and research
- Challenges:
  - Often lose connections between operations/facilities and our missions (on both sides)
  - Campuses function in multiple scales of time
  - Many silos
  - At ASU – engaging 80k people as change agents – multiple platforms required
  - Lot’s of problems to be solved (e.g.: $200M in deferred maintenance costs)
- Opportunity:
  - Students are the “smartest people on campus”
  - Lots of challenges =‘s lots of opportunity
What can happen when you work in silos?

- Communication breakdown
- Lost opportunity
- Prevents efficiency
- Creates defects and added risk
- Barriers to collaboration aka innovation
Active Engagement ➔ CLLN

• Colleges and universities have a responsibility to lead through action by applying science and resources to our own environment
  – Such an effort requires active engagement at all levels of the campus community

• CLLN brings together diverse key players on campus issues and supports them in designing and implementing projects
Why CLLN? - How we got here...

• Reviewed Past Projects – Successes and challenges

• Disconnect between Education – Research Missions and Physical Environment

• Untapped Opportunity
CLLN Rationale

- Addressing Challenges to Sustainability
- Progress in Higher Education:
  - Connecting faculty, staff, and students with similar project interests
  - Facilitating the implementation of a common time frame for project participants
  - Encouraging interdisciplinary partnerships
  - Working to promote accountability between project partners and provide a better understanding of how to navigate the University system to address sustainability issues
• Benefits to the Campus Community (Returns on Investment):

  – Widening the scope of our ability to reduce our collective ecological footprint
  – Members of the campus community gain a sense of ownership over campus sustainability initiatives
  – Students gain credits and valuable research experience
  – Faculty gain opportunities to apply their expertise and be engaged in the community
  – Staff people find support for their own sustainability ideas and a forum for sharing their knowledge
Process of Implementation – Our Ideal Model

• Set up a forum for communication
• Leverage contacts with faculty, staff, and administrators
  – “What do you have? What do you need? What do you want?”
• NOT intended to add layers of bureaucracy
Building Connections & Filling Gaps

Campus Living Laboratory Network (CLLN)

A network of campus sustainability research and learning opportunities promoting active, engaged problem solving

Active Research
- Undergraduate
- Faculty Research Projects
- COURS
- Graduate

Active Learning
- IGERT
- Interdisciplinary Graduate Academy
- Applied/Interdisciplinary Problem Solving Studios
- Undergraduate
- Green Action Fund
- Graduate

Active Engagement

CLLN will:
- Engage the ASU Community in active problem solving
- Foster ownership of the campus
- Fund and support undergraduate and graduate research opportunities in campus sustainability
- Develop campus sustainability programs and partnerships
- Manage a collaborative network of campus sustainability related research and learning.

administered through CLLN
administered outside CLLN
Four Types of CLLN Programs

• Research Projects
• Campus Initiative Internships (Paid & Unpaid)
• Green Action Fund
• Applied, Interdisciplinary Problem-Solving Studios—4 Models:
  – Segmented
  – Unified
  – Menu-based
  – Student-initiated
Project Examples

- Serving Sustainability to Sun Devils
  - Paid Undergraduate Internship
Project Examples

• **Online Sustainability Tour – Podcasts**
  - Undergraduate Class Project (Communications)
Project Examples

- Outdoor Classroom
  - Undergraduate Class Project
Project Examples

• Campus Metabolism Project
Engaging Diverse Interest Groups

- Undergraduate Students
- Graduate Students
- Faculty from a Variety of Disciplines
- Staff in Operations

→ Network structured so that each group can initiate projects
Addressing Accountability Among Project Partners

- Challenge: Students and faculty work on semesters
- All parties need to be upfront about their role and expectations
- For “menu-based” projects, this can be accomplished as part of an RFP agreement
CLLN Memorandum of Understanding

• Outlines:
  – Each partner’s role
  – Resources required (including time commitments)
  – Project timeline
First Steps…

- Form faculty, staff & student committees
- Hold visioning sessions
  - Determine a project list
- Build an interactive (online) portal
- Continue to increase visibility
- Set up a marketing strategy
CLLN in Practice - Where We Are Now

- Identified the Web Portal as our priority
  - Necessary step to showcase what’s already going on before we form visioning committees
  - Still establishing our relationships on an individual basis before bringing faculty and staff committees together
  - Ideally, the Web Portal will allow projects to arise organically, but still exist visibly within a larger support network
CLLN Web Portal

• Includes:
  – A suite of current opportunities for students
  – An “idea board” where faculty, staff, and students can post project ideas, make connections, and gain feedback
  – A showcase of past projects
Lessons Being Learned

• Many faculty and staff members don’t realize that opportunities exist to work directly with students on campus projects.

• Many students don’t realize they have opportunities to initiate campus projects for credit.

• Our challenge is to get the word out but also to support projects that are currently in progress.
Tips for Successful Student Projects

• Make sure projects are time-sensitive
  – Plan ahead to work within semester constraints
• Break projects down into smaller modules
• Set up solid mentorship structures
• These projects aren’t for everyone—make sure to recruit high-caliber, motivated students
Case Study – Building Renovation
Case Study – Business Plan Class
Case Study – Sustainability House at Barrett
Discussion

• What examples of sustainability-related campus living laboratory projects exist on your campus?
• What opportunities do you see?
• What are the successes and challenges to those projects, or what successes and challenges would you foresee?