Turning a University/College Campus into a Living Sustainability Laboratory

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University Sustainability Business Practices

Global Institute of Sustainability

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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?

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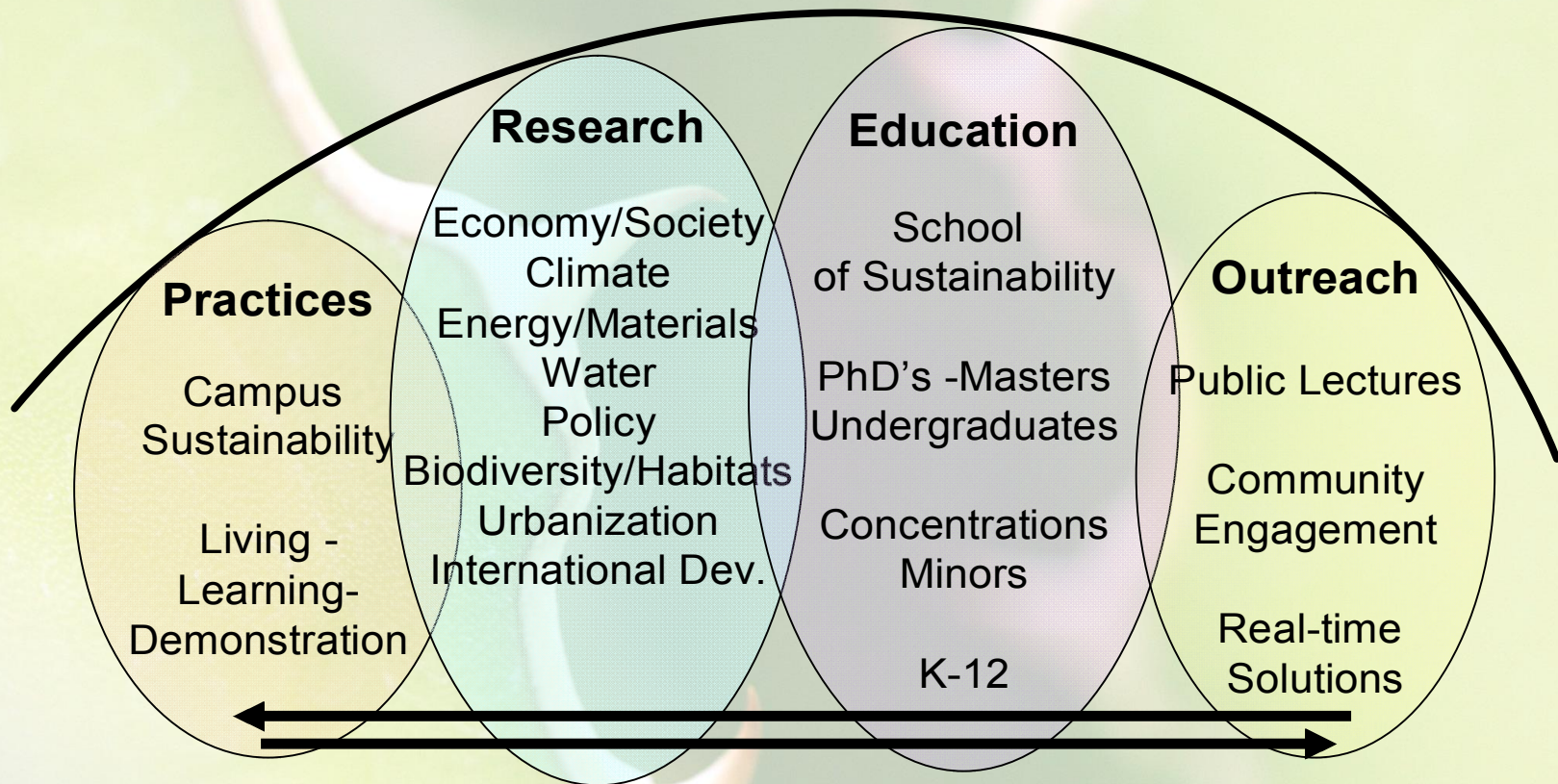
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ASU Snapshot

- 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

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ASU's Sustainability Vision

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Practices

Campus Sustainability

Living - Learning- Demonstration

Research

Economy/Society
Climate
Energy/Materials
Water
Policy
Biodiversity/Habitats
Urbanization
International Dev.

Education

School of Sustainability

PhD's -Masters Undergraduates

Concentrations Minors

K-12

Outreach

Public Lectures

Community Engagement

Real-time Solutions

Fully Integrated Across All Areas of the University

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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*

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What can happen when you work in silos?

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

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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

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Why CLLN? - How we got here…

- Reviewed Past Projects – Successes and challenges

- Disconnect between Education – Research Missions and Physical Environment

- Untapped Opportunity

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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

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CLLN Rationale, cont'd

- 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

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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

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Building Connections & Filling Gaps

Campus Living Laboratory Network (CLLN)
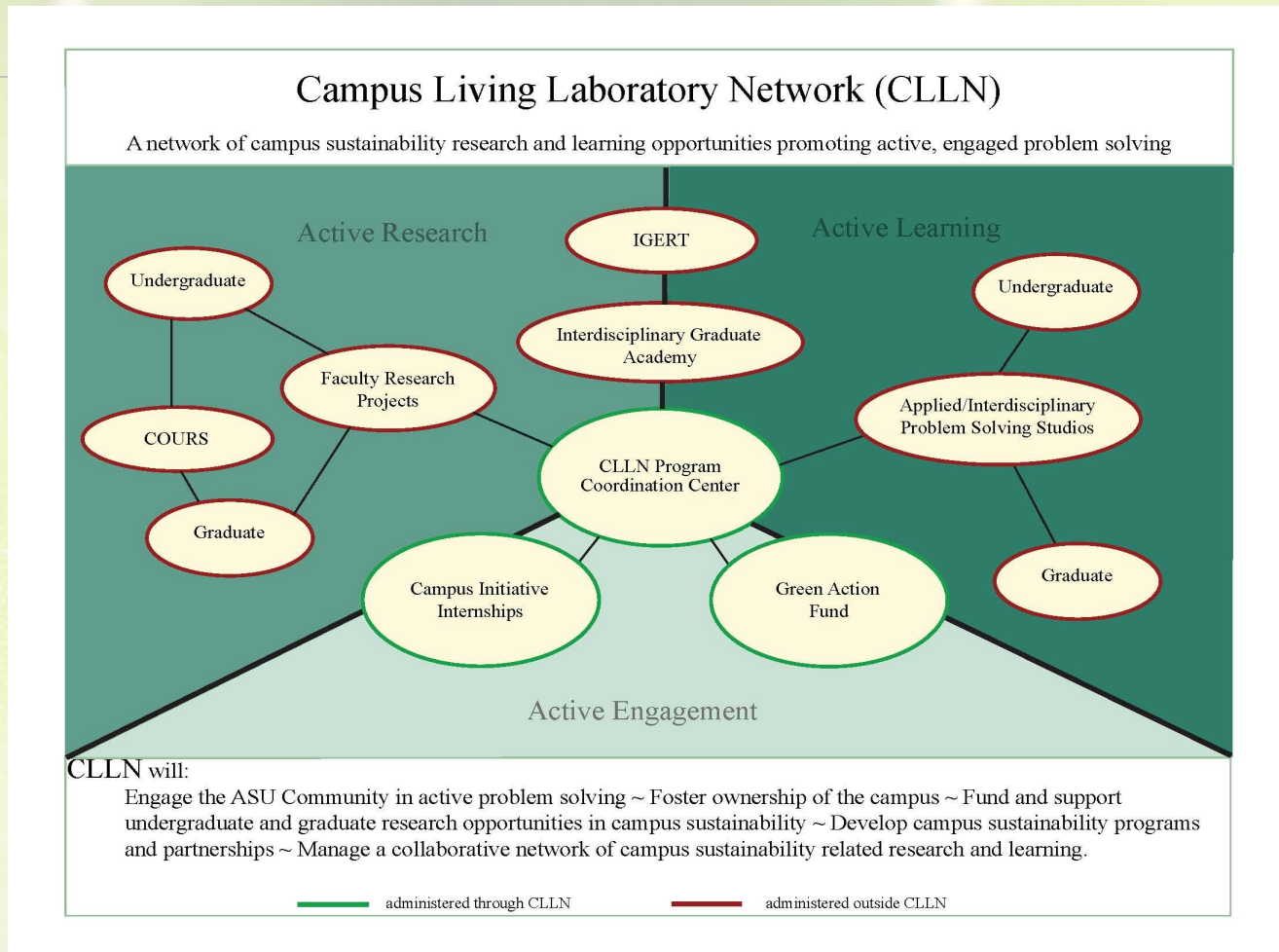
Four Types of CLLN Programs

- Research Projects

- Campus Initiative Internships (Paid & Unpaid)

- Green Action Fund

- Applied, Interdisciplinary Problem-Solving Studios—4 Models:
  - Segmented
  - Unified
  - Menu-based
  - Student-initiated

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Project Examples

- Serving Sustainability to Sun Devils
  - Paid Undergraduate Internship

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Project Examples

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

Project Examples

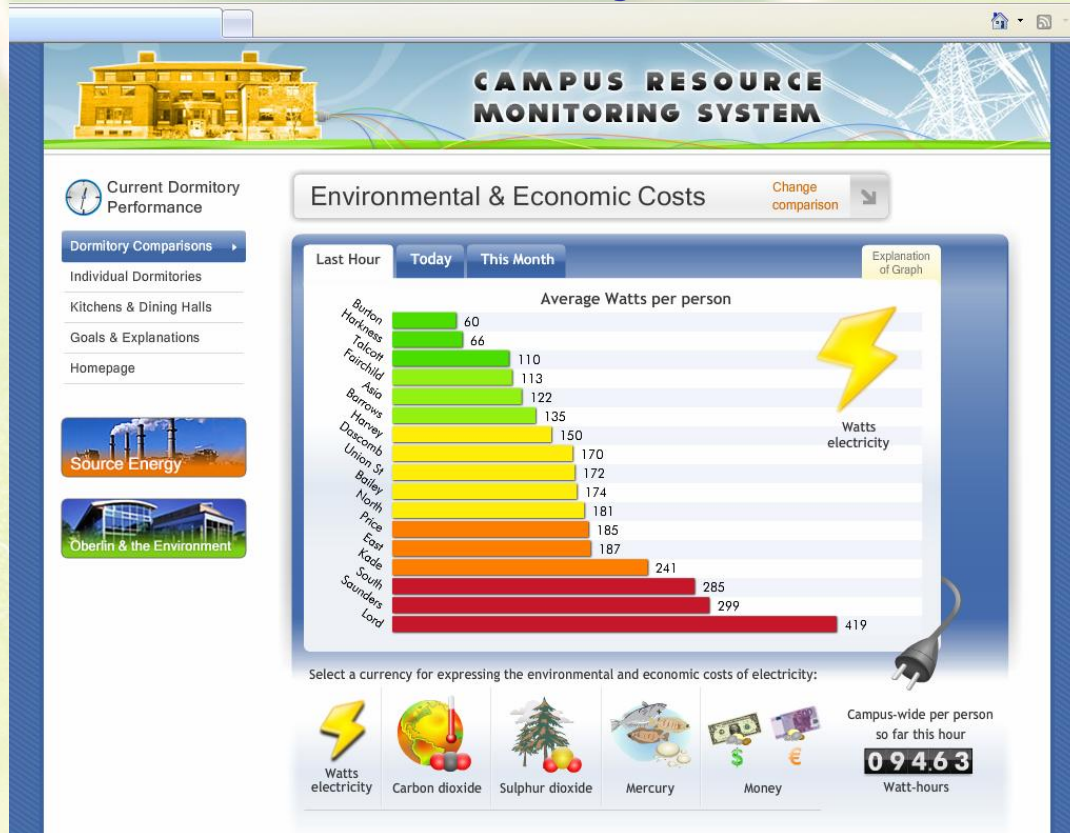- Outdoor Classroom
  – Undergraduate Class Project
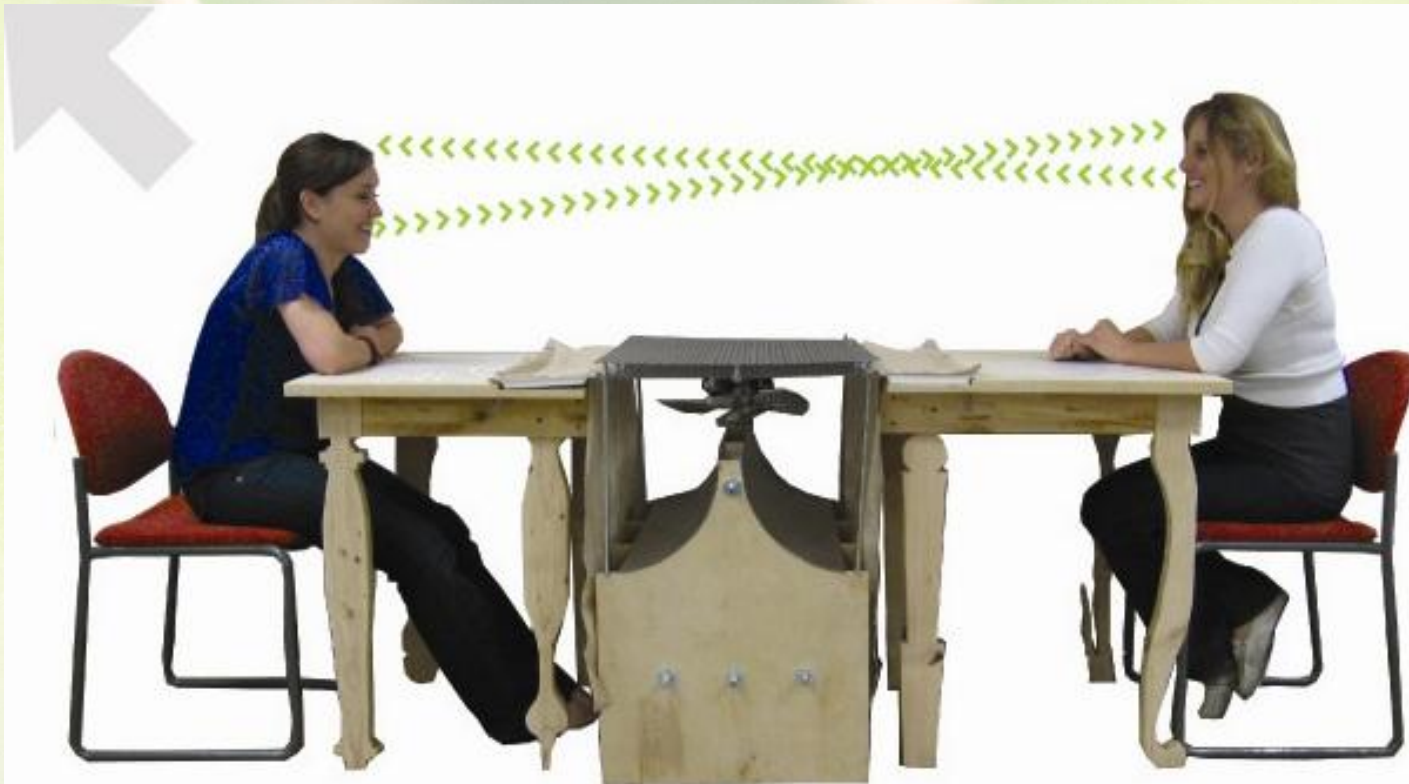
Project Examples

- 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

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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

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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

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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

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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?