



A Path to Sustainability:

A Framework for Starting Sustainability on Your Campus

GAPPA Conference

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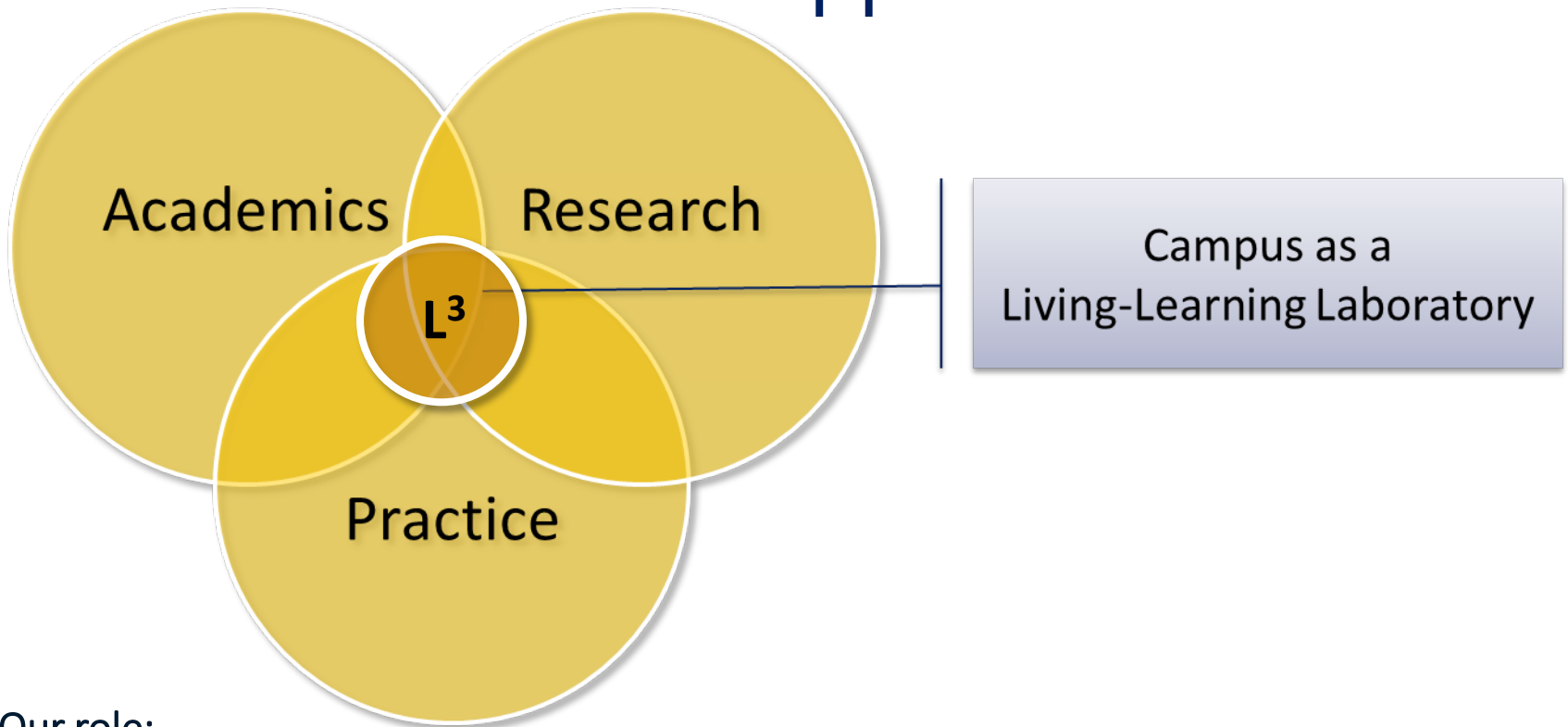
Georgia Institute of Technology

Holistic Approach

Sustainability is about using our resources wisely, to achieve the best possible outcomes in *all* areas – economic, human, and environmental.



Holistic Approach



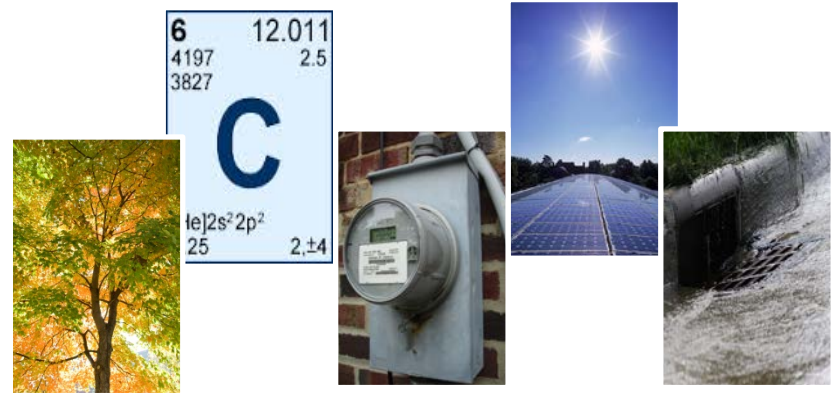
Our role:

- Promote a campus operational “practice” that meets sustainable principles
- Coordinate relationships with Academic, Community (student, faculty, staff, visitor), and Research partners

Practice

Impact Areas

- Strategic direction
- Land use
- Buildings
- Water
- Energy
- Waste management
- Food
- Procurement
- Transportation
- Green IT
- Measurement
- Analysis
- Community



Goals

- Carbon neutral – 2050
- 10% renewable consumption – 2040
- 50% energy use reduction – 2040
- 50% stormwater runoff reduction
- 55% tree canopy

What We Do

Guide Institute's strategic direction in the practice of sustainability

- Build a network of stakeholders
- Support the development of shared goals

Weave resources, people and opportunities together

- Develop intentional programs and policies that support shared goals

Engage and educate community within all levels of influence

- Lead by example
- Meet people where they are

Measure, track and report progress toward goals

- Set baseline – where are we now?
- Reporting clearinghouse

Tech's Existing Focus

- **Energy** – 623 kW of photovoltaic energy development
- **Landscaping** – nearly 12,000 trees over 400+ acres in an urban environment
- **Water** –
 - 2.25 million gallons of storage for stormwater management
 - Trayless dining reduces water use by 31,500 gal / wk
- **Food** – over 35% of produce purchases considered local
 - Local farmers market regularly held on campus
- **Community** –
 - In 3 shifts, Campus Kitchen turned leftovers into 500 meals for local shelters / food banks
 - Student Center Herb Garden yield used by Dining Services
- **Physical Design** – 125 sq. ft. of LEED space / student
 - Nearly 500k gsf at Platinum, 1.7M at Gold, and 325K at Silver
 - LEED Certified Master Site
- **Travel / Transport** – 35% of campus commuters use alternative transportation options
- **Waste Management** –
 - Game Day Recycling Program diverted 120 tons from landfill and involved more than 1,000 student volunteers from inception in 2008 to 9/30/14
 - In 6 months, Dining Services diverted 78 tons of compost from the landfill

Why a Framework?



- Many good activities
- Collaboration is relationship-dependent and opportunistic
- Opportunities for shared overarching goals and leverageable, aligned data

- Aligned with sustainability master plan
- Resourced appropriately
- Measured and communicated
- Shared governance
- Integration with curriculum and research – living laboratory
- Serve.Learn.Sustain. (QEP)

Agreement of Principles

- **Sustainability is a journey, not a destination.**
 - Achieving goals requires the establishment of new ones
- **It challenges the status quo**
 - “If your dreams don’t scare you, they aren’t big enough.”
- **EVERYONE has a role to play in creating sustainable outcomes**
 - Meet people where they are
- **Collaboration is key**
 - Inclusivity is inherent in definition of sustainability
 - No one person should define vision for campus

The Framework

- 1. Make the Commitment*
- 2. Benchmark Existing Activities*
- 3. Prepare for Strategic Transformation*
- 4. Project Implementation*
- 5. Utilize Innovative Financing Strategies*
- 6. Build Awareness and Community Spirit*

1. Make the Commitment

A commitment helps lay the foundation to communicate sustainable goals to the campus community.

- Understand sustainability in context with larger institutional goals
- Connect sustainability vision with the goals and directives already set by institution
- Gain buy-in from stakeholders (every step!)

1. Make the Commitment

Georgia Tech's public commitments :

- **ACUPCC**
 - President Clough signed in 2007
 - Requires university to develop Climate Action Plan, GHG Inventory and regularly report progress
- **STARS**
 - Self-reporting tool for higher ed to measure sustainable progress
- **LEED**
 - Defines sustainability in the built environment
 - LEED is campus standard since 2002

2. Benchmark Existing Activities

A review of existing activities helps determine a current baseline environmental status.

- Goal of this phase is to understand starting point for developing goals and set program priorities.
- What is your impact? What should your priorities be?

2. Benchmark Existing Activities

Inventory Current Activities & Resource Use ("Sustainability Audit")

- Evaluate current programs across campus
 - Academics and research
 - Student groups
 - Operations – multiple impact areas
- Assess utility uses and costs
 - Energy, water, waste
 - Metering and billing systems
 - Prioritize by highest energy uses per square foot

2. Benchmark Existing Activities

- STARS Impact Areas
 - Curriculum and research
 - Campus and Community engagement
 - Operations
 - Planning & Governance
 - Health & Wellbeing
 - Diversity
 - Investment



- ENERGY STAR Portfolio Manager



2. Benchmark Existing Activities

Locate the Champions

- Build allies
- If there are existing projects in place, who is overseeing their implementation and success?
- Roles that control key impact areas, integration points or data
 - Vendor contract managers
 - Design guidelines
- Those with a personal passion
- Establish, acknowledge and value partnerships

2. Benchmark Existing Activities

- Design & Construction
- Operations & Maintenance
- Institute Communications
- Procurement & Business Services
- Human Resources
- Parking & Transportation
- Financial Services
- Capital Planning & Space Management
- Institutional Research & Planning
- Environmental Health & Safety
- Institute Diversity
- Leadership & Civic Engagement
- Government & Community Relations
- Athletic Association
- Georgia Tech Research Institute
- Office of the Provost
- Library
- Registrar
- Professional Education
- Office of International Education
- Landscape Services
- Energy Conservation
- Waste Management & Recycling
- Scholarship & Financial Aid

2. Benchmark Existing Activities

Evaluate Peer Institutions

- AASHE Conference
- Southeast Sustainability Network
- Georgia Campus Sustainability Network

Review Existing Plans & Guidelines

- Help imbed sustainable vision into culture
- Support ongoing practices and policies in operations

2. Benchmark Existing Activities

Strategic Plan (2010)

- Support Goal 1, Strategy 3 of developing the campus and Atlanta into a “laboratory for sustainable economic and social development”

Campus Master Plan (2004)

- Developed the “Eco-Commons”, an open space performance landscape system

Landscape Master Plan (2011)

- A design guideline for all site projects on campus, it outlines a goal to reduce storm water runoff of the Georgia Tech campus by 50%

ACUPCC Climate Action Plan (2008)

- Defines a framework for achieving carbon neutrality by 2050

Yellow Book

- Design guidelines for new and existing building projects, outlines prescriptive requirements by CSI division

3. Prepare for Transformation

Establish Goals & Outline Plan of Action

- Define what sustainability means to you
- Goals are measurable objectives tailored to a sustainable vision
 - Should reflect on impact areas and results identified in benchmarking exercise
- Plans are time-bound, assigned and reviewed on regular basis
- Collaborative meeting sessions, surveys and charrettes can inform the planning process

3. Prepare for Transformation

Create Governance Structure

- Formal structure where participants executing Plan have responsibility, accountability and process for continuous feedback



3. Prepare for Transformation

Create Pilot Projects

- Obtain buy-in and foster campus support
- Bring out lessons learned
- Ease transitions of change
- Educate



4. Implementation & Measurement

A variety of initiatives are expected once clear goals have been outlined in the Sustainability Plan.

- Policy, Project, Program and Events

Develop Initiative Priorities & Schedule

- A formal process for reviewing, prioritizing and approving sustainability initiatives should be in place
- Start with easy wins with engaged green champions

4. Implementation & Measurement

Measure So You Can Manage

- Establish what metrics, or indicators, are important for defining progress/achievement of Plan
- Develop tracking tools
- Establish regular reporting periods to Governance Structure
- Governance Structure to adjust Implementation Plan to reflect progress

5. Utilize a Variety of Financing Strategies

Green Revolving Loan Fund

- Funds loan money to specific projects, which then repay the loan through an internal account transfer from savings achieved in the institution's utilities budget

Annual Capital Planning Process

- With the appropriate ROI, sustainable projects could be included in the context of other capital priorities

Rebates & Energy Incentives

- Can also tie back into the revolving loan fund

Green Bond Programs

- Green bonds are fixed-income securities in which the proceeds will be exclusively applied towards new and existing sustainable projects or activities that promote environmental sustainability purposes.
- Institutional investors are a natural market because green bonds can provide long-term and secure returns



5. Utilize a Variety of Financing Strategies

Property Assessed Clean Energy (PACE) Financing

- Allows property owners to secure upfront funding for energy and water-saving improvements, which they repay through a voluntary contractual assessment lien on their property tax bill

Energy Savings Performance Contracts (ESPCs)

- Agreement between an institution and an Energy Services Company (ESCO), whereby the ESCO provides upfront capital costs for energy efficiency upgrades and receives a share of the savings resulting from the improvements through a contracted period

Power Purchase Agreements (PPAs)

- A developer installs a renewable energy system on an owner's property under an agreement that the owner will purchase the power generated by the system over the life of the contracts.

Grants

Student "Green" Fees

Targeted Gifts

6. Build Awareness & Community Spirit

For sustainability transformation to occur, it must be rooted in institutional cultural values of the campus community.

Awareness of the importance of sustainability and outreach of initiatives is critical for sustainable change.

Marketing Plan

- Internal and external communications strategy
 - Identity development
 - Website, monthly newsletter, press releases, collateral
 - Production calendar

6. Build Awareness & Community Spirit

Education & Training

- Identify training needs associated with tasks related to sustainability goals
- Use already existing training resources
- What are the best communication touchpoints?
 - Student & staff orientations
 - Programs for course credit

Resources & Guidance

- Be transparent!



6. Build Awareness & Community Spirit

Community Outreach

- Share ideas, success stories and lessons learned in peer networks

Celebrate Success

- Collective celebration showcase leadership and motivate the community
- Leadership awards for students, staff and faculty
- Financial rewards

**DO YOU KNOW
A UW GREEN SUPERHERO?**

Nominate them for a

Husky Green Award!

green.uw.edu/hga



Recap: The Framework

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Thank You!

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