

A New Model for Collaborative and Effective Campus Sustainability Decisions

**Ben McCall, Associate Director for Campus Sustainability
Institute for Sustainability, Energy, and Environment
University of Illinois at Urbana-Champaign**

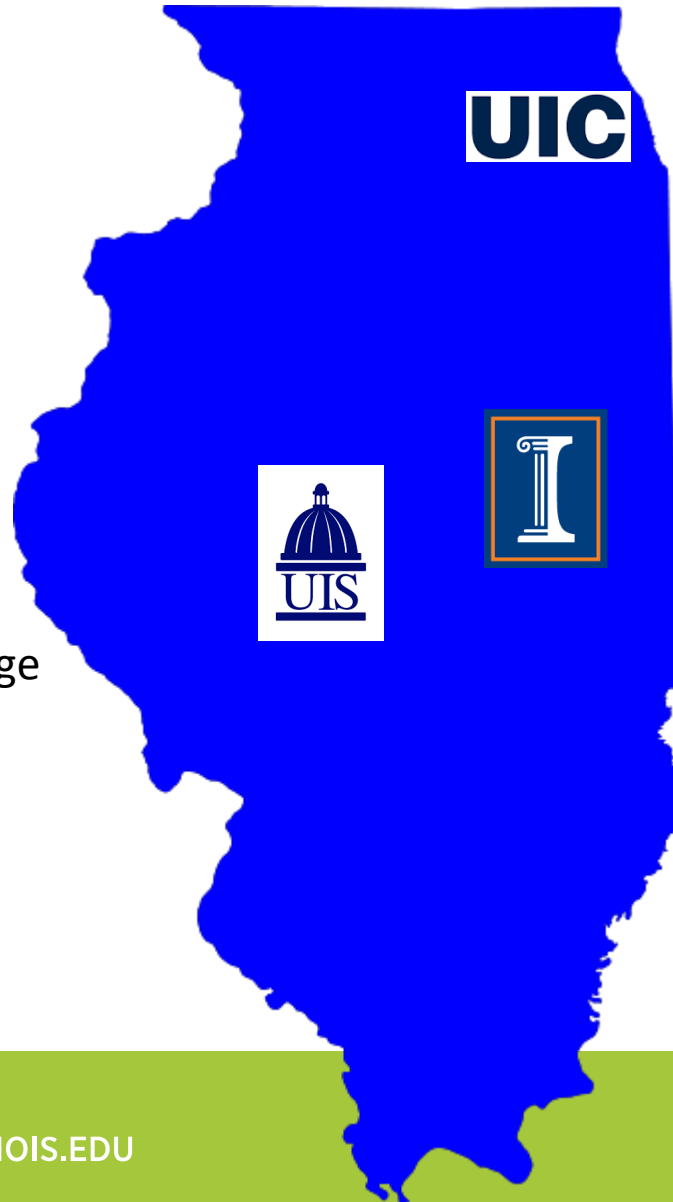


INSTITUTE FOR SUSTAINABILITY, ENERGY, AND ENVIRONMENT



October 26, 2015

The University of Illinois System



Chicago:

Urban research university
Strong medical school
17,000 undergrads
11,000 grads

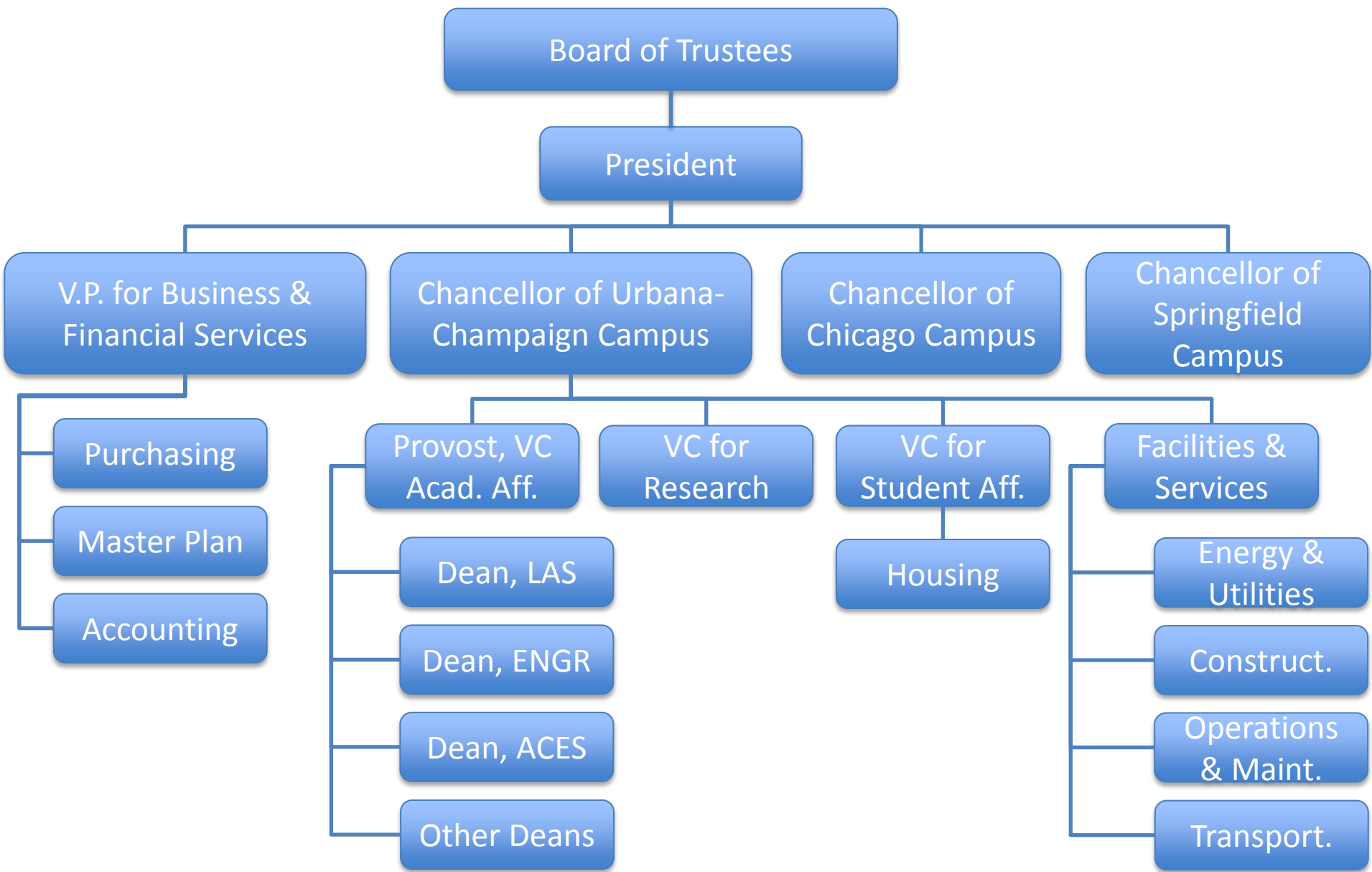
Urbana-Champaign (“Illinois”):

Flagship campus
Land grant
38,000 undergrads
11,000 grads
\$743M annual R&D
647 buildings
4552 acres (7.1 mi²)

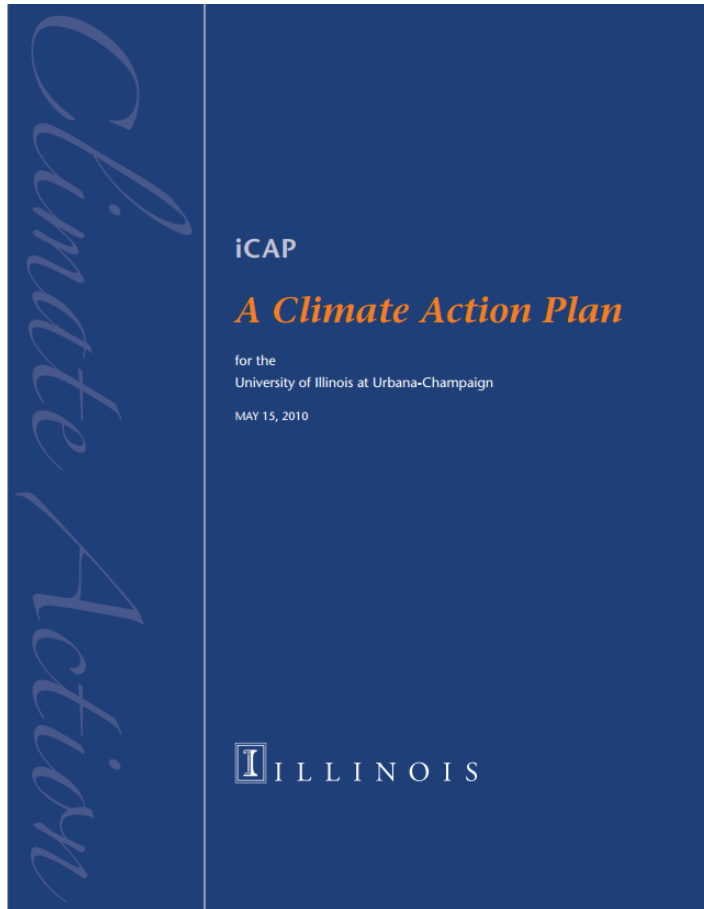
Springfield:

Public liberal arts college
~5,700 students





2010 Illinois Climate Action Plan (iCAP)



AMERICAN COLLEGE & UNIVERSITY
PRESIDENTS CLIMATE COMMITMENT

“Our intentions are clear and our goal remains ambitious: to be the model of sustainability for all universities in the nation.”

Robert A. Easter,
Chancellor,
May 15, 2010



Illinois Achieves STARS Gold

- 2015 the second time in a row our campus earned Gold ranking
- One of 80 schools to earn Gold
- One of three 2.0 Gold schools in Big Ten Conference
- Illinois campus stood out even more in certain categories ...



Mining Down on STARS Gold Ranking

- Illinois among Top 10 Sustainable Campuses (only other Big Ten campus was Penn State)
- The top achiever in the category for Buildings, 62.3% ranking (next best was 60.3%; average was 35.7%)
- Second-best score on water at 88.9% (behind Penn State's 89.1%; average score was 56.3%)
- 100% score on campus engagement
- 100% score on coordination and planning
 - new campus sustainability procedure, including SWATeams

Visioning Future Excellence - 2012

- What are society's most pressing issues?
- What distinctive and signature role Illinois can play in addressing those issues in the next 20 to 50 years?

Economic Development Education
Energy and the Environment
Social Equality and Cultural Understanding
Health and Wellness Information and Technology



Visioning Future Excellence - 2012

- What are society's most pressing issues?
- What distinctive and signature role Illinois can play in addressing those issues in the next 20 to 50 years?

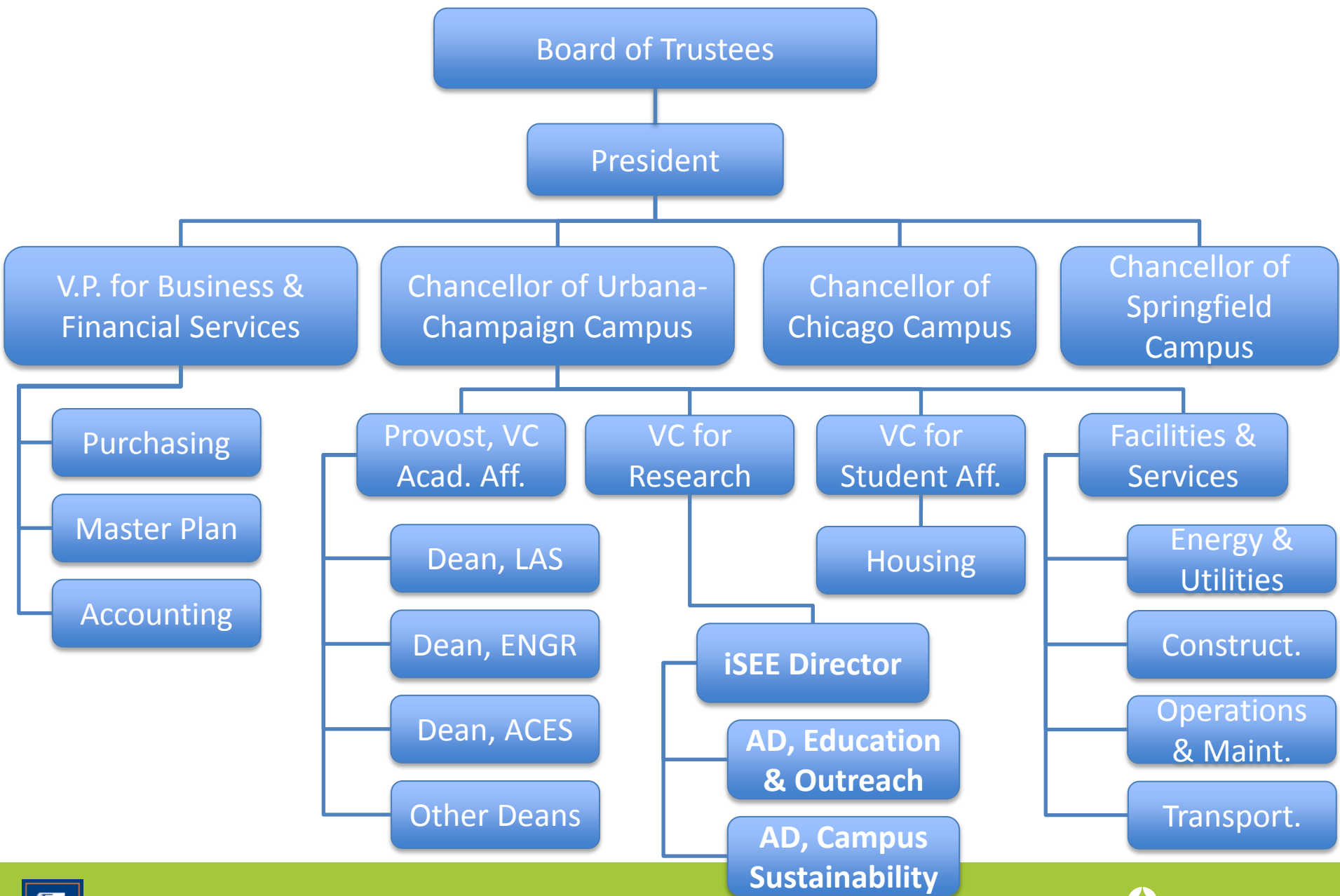
food supply, production and safety
air quality natural resources
innovative alternative energies
population growth energy availability and costs
water supply and quality sustainability
environmental security and policy
climate change and environment degradation



Institute for Sustainability, Energy, & Environment

- Mission: To foster actionable, interdisciplinary research to address fundamental challenges in sustainability, energy and environment; to provide national and international leadership in these areas through interdisciplinary education and outreach activities; and to develop and implement strategies for a sustainable environment on the University of Illinois' Urbana-Champaign campus and beyond.



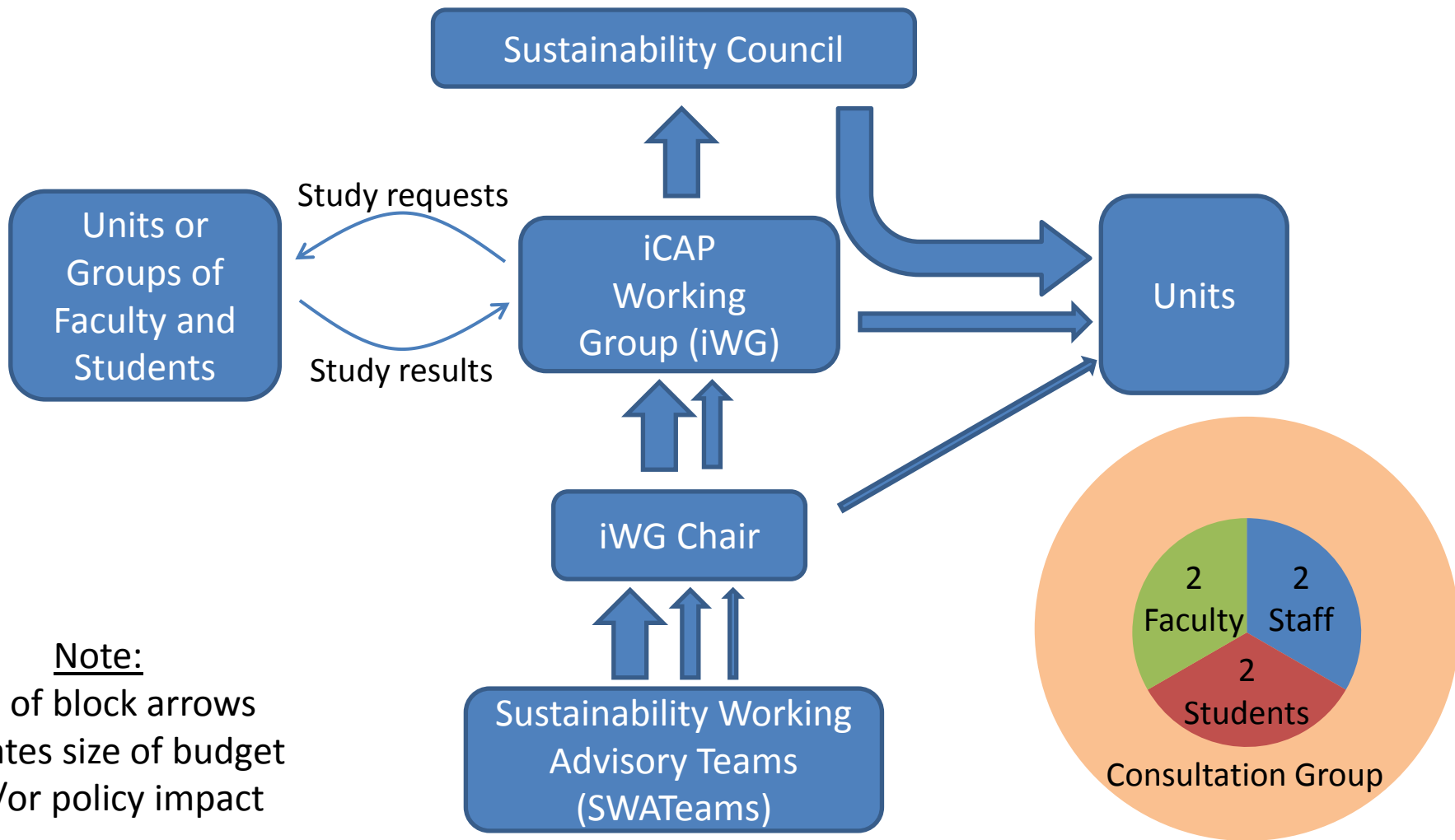


Campus Sustainability Procedure

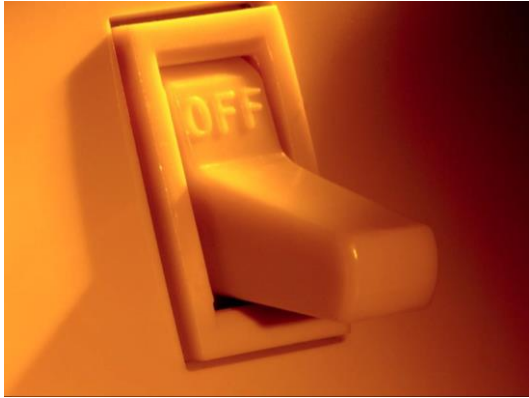
- Right away, iSEE recognized:
 - We don't have disciplinary expertise in all areas
 - We need to engage students, staff, and faculty
 - We especially need to engage Facilities & Services
 - We need a process to legitimize recommendations
- Process developed in collaboration between:
 - iSEE, Facilities & Services, Vice Chancellor for Research, Office of Provost
- Formally approved by Chancellor (June 2014)



Sustainability Procedure Flowchart



SWATeam Areas



Energy Conservation & Building Standards



Energy Generation, Purchasing, & Distribution



Transportation



Purchasing, Waste, & Recycling



Water and Stormwater



Agriculture, Land Use, Food, and Sequestration



Energy Generation, Purchasing, & Distribution

Faculty:

Prof. Angus Rockett

Prof. Scott Willenbrock

Staff:

Mike Larson

Tim Mies

Students:

Jack Morrissey

Catherine Yee



iSEE Campus

Sustainability Intern:

Ben Reeber

iSEE Staff Liaison:

Morgan Johnston



Purchasing, Waste, Recycling

Faculty:

Prof. Dilip Chhajed
Prof. Warren Lavey

Staff:

Bart Bartels
Marcy Wright

Students:

Karin Jones
Liz Shancer



iSEE Campus

Sustainability Intern:

[vacancy]

iSEE Staff Liaison:

Nishant Makhijani



SWATeam Charge

1. Annual evaluation of campus progress on iCAP objectives
2. Develop and recommend specific actions or initiatives the campus should take to meet iCAP objectives
3. Recommend information-gathering or feasibility studies that need to be performed in order to evaluate or enable sustainability objectives
4. Every five years, reassess sustainability targets and recommend revisions to iCAP



iCAP Working Group Members

Ben McCall (chair)	iSEE
Morgan Johnston	Facilities & Services
Lowa Mwilambwe	Student Affairs
Matthew Tomaszewski	Office of Provost
Nancy O'Brien	Senate Cmte. on Campus Ops
Jess Tang	Student Sust. Leadership Council
Kevin Duff	OBFS
Rob Fritz	College-Level Facility Manager



iCAP Working Group Charge

1. Review SWATeam recommendations
 - Seek more detailed info from units as needed
 - Transmit small-mid scale directly to units
 - Transmit large scale to Sustainability Council
2. Oversee iCAP revisions
 - Synthesize SWATeam suggestions
 - Public input
 - Send to Sustainability Council



Sustainability Council

- composed of campus decision-makers at the highest level
- evaluates recommendations in the area of campus sustainability with major impacts on budget and/or policy
- bears the ultimate responsibility for ensuring that the campus meets its iCAP targets

Chancellor (chair)

iSEE Director (vice-chair)

Provost

Vice Chancellor for Research

Vice Chancellor for Student Affairs

Vice Chancellor for Institutional Advancement

Executive Director of Facilities & Services

Deans of Three Largest Colleges

Rotating Dean of a Smaller College

Chair of Senate Executive Committee

President of Illinois Student Senate

Chair of Student Sustainability Committee



Recommendation Example #1

- **Energy Generation, Purchasing, Distribution SWATeam**
“We strongly endorse pursuing Power Purchase Agreements (PPAs) with one or more Wind Farms as soon as possible. Given current market conditions, we believe that a PPA with one or more Wind Farms presents a great opportunity to purchase renewable energy in support of the campus iCAP targets.”
- **iCAP Working Group (iWG)**
 1. The campus should undertake a wind PPA > 119 million kWh per year (25% of our total electrical usage), as much as we possibly can.
 2. Pursue as quickly as possible; expedite by all necessary means.
 3. iWG should be kept informed during the process, and given opportunity to provide recommendations before key decisions are made, to ensure that technical and financial considerations are appropriately balanced with our campus sustainability objectives.



Recommendation Example #2

- **Transportation SWATeam**
“Hire a Sustainable Transportation Coordinator. This individual would ensure the success of the other transportation recommendations from the iCAP and be the key asset within our University to promote reducing single-vehicle occupancy.”
- **iCAP Working Group (iWG)**
“The iWG endorses the SWATeam recommendation.”



Recommendation Example #3

- **Purchasing, Waste, & Recycling SWATeam**
 - “We recommend that the Waste Transfer Station accept all plastics 1-7 to simplify what can be recycled and better align with what is accepted by the Cities of Champaign and Urbana, UIC, Parkland College, students’ high schools, and students’ homes.”
 - Preliminary financial analysis: up-front cost of ~\$300k, annual savings of ~\$100k/yr
- **iCAP Working Group (iWG)**

“The iWG enthusiastically supports this recommendation.”

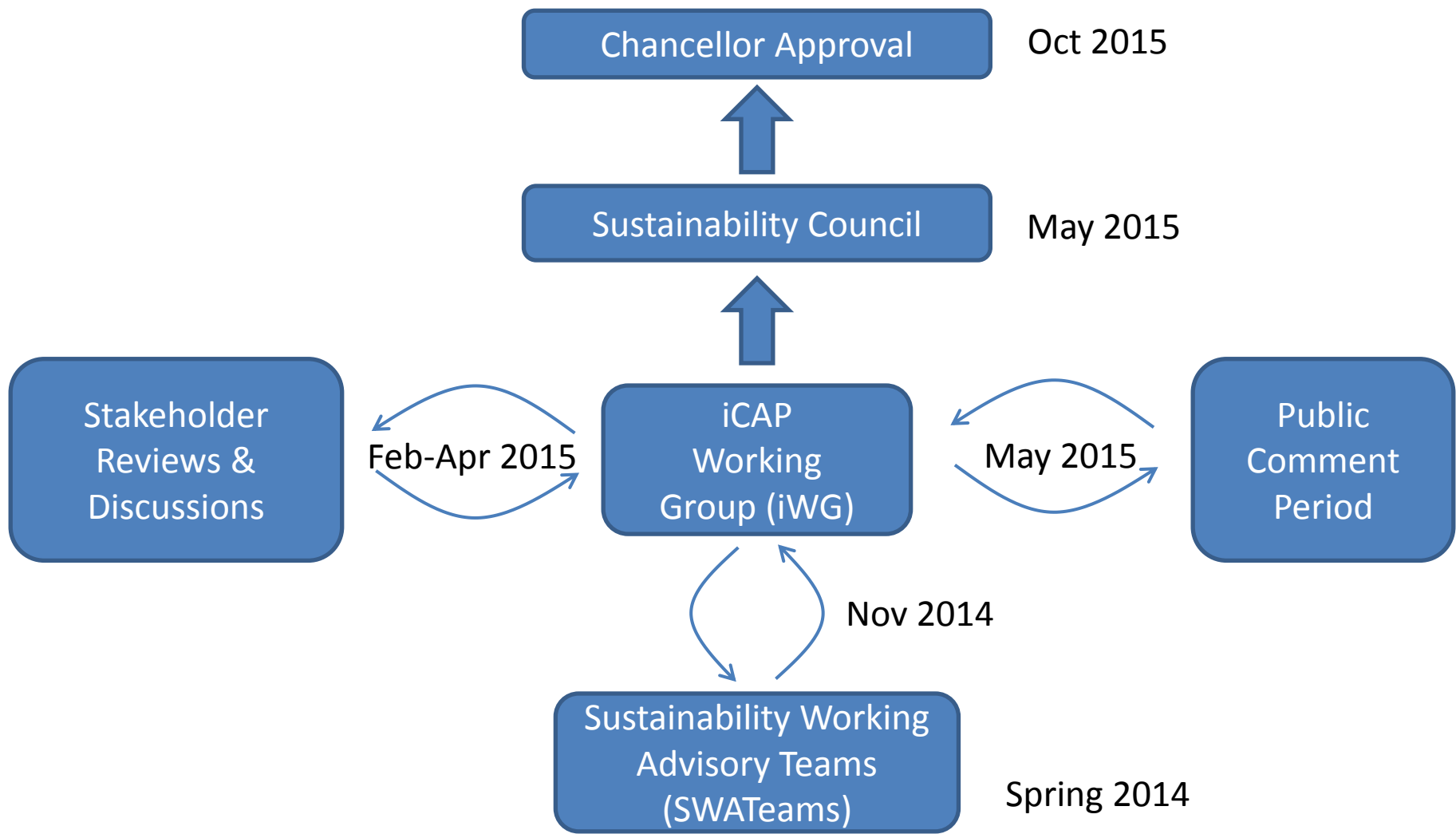


Other Successes / Co-Benefits

- **Net Zero Space Policy**
 - Stated goal in 2010 iCAP
 - Essentially no progress through 2014
 - iSEE worked with iWG staff member in Provost's office, and staff in Facilities & Services
 - Adopted in Campus Administrative Manual summer 2015
- **30% Recycled Paper**
 - Purchasing got truckload discount from vendor
 - Facilities & Services agreed to order and distribute through stockroom
 - Housing committed to buy first truckload from Facilities & Services
- **Nitrile Glove Recycling**
 - Program developed by SWATeam, Purchasing, Facilities & Services



2015 Illinois Climate Action Plan



2015 iCAP Highlights

- High-level goals
 - Reduce energy use 50% by 2050
 - Reduce energy emissions 50% by 2030
- Specific objectives
 - 50% of units participating in conservation programs by 2020
 - Purchase 120,000 MWh/yr clean energy by 2020
- Potential strategies
 - Conservation incentive programs
 - Enter into wind PPAs
- Study feasibility of carbon neutrality by 2035





FROM THE OFFICE OF THE INTERIM

CHANCELLOR

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN



MASSMAIL

Dear Faculty, Students, and Staff,

Our campus recognizes the urgent need to reduce its greenhouse gas emissions. We do this to help mitigate climate change and to be better stewards of the environment. We intend to serve as a model for campuses and communities around the world, while educating the next generation of sustainability leaders.

We have made great strides in the sustainability of our campus operations in recent years, and I am excited to present the [2015 Illinois Climate Action Plan \(iCAP\)](#), building on these successes. It reaffirms our commitment to become carbon neutral as soon as possible, no later than 2050 and perhaps as early as 2035.

This plan requires the dedicated and sustained efforts of our faculty, students and staff to identify and implement the best sustainability solutions for our campus. Many of these solutions will require strategic up-front investments but will save money in the longer term.

Given the current budget uncertainty, we have a responsibility to carefully weigh the costs and benefits of any solutions. But we must consider all of our options.

The Institute for Sustainability, Energy, and Environment (iSEE) has a web page with suggestions for [how you can get involved](#), and I invite you to attend the iCAP Forum on the plan at 1 p.m. this Wednesday, Oct. 21, in Illini Union Room A.

Sincerely,

Barbara J. Wilson
Interim Chancellor

Conclusions

- Clear Procedure for Sustainability Recommendations
 - Engaging experts across campus
 - Including key stakeholders in process
 - Bridging academic/operational “divide”
 - Legitimizing decisions
- Results
 - Clear impact of some recommendations
 - Co-benefits from relationships established
 - Ambitious 2015 iCAP that is taken very seriously



Questions/Discussion?

Ben McCall, campus-sustainability@illinois.edu

<http://sustainability.illinois.edu/iCAP>

