

# Developing an environmental management system for a multiple-university consortium

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## Abstract

South Carolina's three research universities — Clemson, Medical University of South Carolina and the University of South Carolina — have come together through the Sustainable Universities Initiative (SUI) to incorporate sustainability into their own institutions, and, by extension, other institutions in the state. Coordinating an effort by three such large and diverse institutions is a challenge. One tool we think will assist us in this endeavor is an environmental management system geared specifically toward the needs of higher education. This paper briefly describes SUI and offers an in-depth view of our plans for the development of a statewide higher education EMS. © 2001 Elsevier Science Ltd. All rights reserved.

## 1. Introduction

In late 1996, representatives of an international foundation approached South Carolina's three research universities — Clemson, Medical University of South Carolina (MUSC) and the University of South Carolina (USC) — and asked them to work together to incorporate sustainability into their own institutions, and, by extension, other institutions in the state. Among the three universities are two medical schools, a law school, and a variety of professional programs. Together, the three schools educate approximately 56,000 students — or 60% of those educated in public colleges and universities in the state.

Coordinating an effort by three such large and diverse institutions is a challenge. Integrating the activities of the three is an even greater challenge. We believe that one tool which will help us to both coordinate and integrate activities at the research universities, and eventually at all institutions of higher education in the state, is an EMS geared specifically toward the needs of higher education.

This paper briefly describes SUI and offers an in-depth view of our plans for the development of a statewide higher education EMS.

## 2. Vision and goals

The following statement attempts to capture our vision for SUI.

The primary focus of our efforts — our strategy — is to change the products of our institutions, and ultimately the state, by working with faculty to expand their teaching and research agendas, and with administrators and operations managers to ensure that our institutions are practicing what the faculty are preaching. SUI will serve as both an intellectual and a financial catalyst for activities which will make the state's three research universities, other educational institutions, and ultimately, the state as a whole, more sustainable. It will also result in a new model for multi-disciplinary and multi-institutional cooperation within South Carolina's higher education community.<sup>2</sup>

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<sup>2</sup> Sustainable Universities Initiative, Five Year Plan, January, 1999.

Bearing in mind the ‘catalytic’ nature of the initiative, efforts are designed to foster discussion, inform debate, facilitate cooperation, encourage action by others, and keep principles of sustainability in the forefront of academic consciousness. The initiative will not become the sole locus of action for sustainability at any of the institutions — and will be most successful if the need for an organized campaign disappears over time as others claim ‘ownership’ of projects and programs.

Four goals guide our approach to effecting change within our universities:

1. effect change within the faculty;
2. provide student and community educational programs;
3. conserve natural resources by making university operations more efficient;
4. share information with a broad range of individuals and institutions.

### 3. Organizational structure and administration support

The Initiative is coordinated by a statewide steering committee comprising three faculty members, two administrators or operations managers, and one student from each of the three research universities. An executive committee consisting of one principal investigator from each university and the program manager makes many decisions. Each institution will have its own environmental policy committee, made up of faculty, administrators and operations managers, and students. These committees will become the focus of campus efforts, and will work closely with the EMS teams.

The first step in effecting change was to secure the cooperation of the leadership at each university. All three-research university presidents signed the following statement of support.

The South Carolina Sustainable Universities Initiative

The South Carolina Sustainable Universities Initiative represents an intellectual community committed to the advancement of theoretical and practical knowledge, as well as a collection of physical operations rivaling small towns in size and scope of impact on the environment. Recognizing our role as a positive force in the state’s economic and social advancement, we believe it is incumbent upon us to cooperate in leading the way toward a more sustainable future through our teaching, research, community service and facilities management.

We therefore singly and collectively commit to:

fostering in our students, faculty and staff an understanding of the relationships among the natural and man-made environment, economics, and society as a whole;

encouraging students, faculty and staff to accept individual and collective responsibility for the environment in which they live and work;

serving as a center of information exchange for other institutions within the state;

operating existing facilities and constructing new facilities so as to maximize efficiency and minimize waste, thereby protecting the environment and conserving resources.

### 4. Implementation

The five-year plan was approved in March of 1999. However, work began in the fall of 1997, with a year spent assessing strengths and interests within our own institutions and planning for future efforts. Both the size and research focus of these universities makes communication among departments and disciplines a formidable task. We used a number of mechanisms to generate conversations about creating positive change, including group and individual meetings with faculty, administrators, operations managers and students, and a major conference.

In general, we found a strong interest among faculty in including ‘sustainability’ in their teaching and research agendas, in developing research projects related to campus operations for students, and in seeing campus operations become more ‘green’. While some faculty members appear to be very comfortable launching into ‘sustainable’ projects on their own, many more are seeking ideas. While this requires greater energy on the part of project administrators on each campus, it also allows for greater coordination of research efforts.

Administrators were interested in improving operations if it allowed them to save money. One of our challenges is to help all administrators consider long-term costs, and to link university budget categories in a way that allows for a more complete evaluation of costs and savings. For example, separate departments generally manage construction budgets and operations budgets. This reduces incentives for installation of more expensive water or energy-saving equipment in new construction, because costs will come from one budget, while incentives will come from another.

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