

**THE BUSINESS CASE FOR SUSTAINABILITY - A STRATEGIC PLAN FOR SMEAL**  
**REPORT TO THE DEAN OF THE SMEAL COLLEGE OF BUSINESS**  
**SUBMITTED BY THE SMEAL SUSTAINABILITY STRATEGY TASK FORCE**  
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## **THE BUSINESS CASE FOR SUSTAINABILITY - A STRATEGIC PLAN FOR SMEAL**

Our vision is that Smeal will be a top-ten business school in the area of sustainability through our teaching, research, and outreach. Through our teaching, we will enhance the understanding of sustainable business practices and produce knowledgeable graduates prepared to apply these practices in the marketplace. Through our research efforts, we will create knowledge relative to sustainable business practices and their impact on businesses and on society. Through our outreach, we will work with industry and government to collaboratively provide thought leadership in understanding and implementing sustainable business practices, and demonstrate within Smeal how these business practices can enable organizational success.

This document outlines the steps that Smeal will take in the next three years to realize its vision of the role of sustainability in its teaching, research, and outreach missions. We recognize that a vision is never fully realized, but approached by successive steps. Also, we expect that our vision will be refined by the steps that we take to realize it. In this light, we present our perspective on sustainability and how it shapes our vision of its role in Smeal. Our perspective on sustainability is not focused on a defined field of study, but rather on a means by which companies can create and capture value for the largest number of their stakeholders. It should not be considered as an addendum to our present curriculum, but rather transformative of it so that every department and related field of study will frame its problems and solutions and apply its concepts and tools in new ways. We may discover in this perspective a means by which Smeal can “brand” its approach to sustainability and differentiate itself from what other major business schools are offering in this area.

Sustainability creates and captures value in different ways throughout a company; its application varies by functions, roles, and areas of specialization. Yet underlying every application is recognition that effective decision-making considers the interaction among social, physical, and biological systems, accepts that global resources are finite and will be increasingly scarce, and that current actions have social, economic, and environmental consequences not only for the present generation but also for future generations. Therefore, faculty in all disciplines should encourage students to incorporate sustainability thinking and frameworks in making and implementing business decisions.

Sustainability creates and captures value most consistently when it is embedded in the company’s strategy and structures, thereby enhancing its governance, operational excellence, competitive positioning, and product and process innovations. This conception of sustainability is consistent with, and reinforces a company’s pursuit of profitability. It also offers students and faculty a lens through which to identify business-related sustainability opportunities and challenges, understand and analyze them, and to develop frameworks that provide solutions for meeting the challenges and exploiting the opportunities. We will use this view of sustainability consistently throughout all of our required undergraduate and graduate courses. Additionally, we will be asking each academic department at Smeal to offer courses or course modules that provide its majors with sustainability concepts and tools that are specific to its field.

We propose several initiatives that will allow Smeal to be a leader in sustainability. There is hardly a major company in the world that isn’t seriously addressing the subject. Penn State is seriously addressing it as well, and has approved a university-wide sustainability strategy. Smeal is one of five test-cases (and the only academic unit) at Penn State that has agreed to participate in the initial implementation of the university’s strategy. The initiatives proposed below are

grouped under the headings of teaching, research, and outreach, which track closely in meaning with three goals that are central in the university's strategic plan; they are learn, live, and lead. These three concepts are inextricably linked, mutually reinforcing, and have overlapping boundaries. We intend that teaching, research and outreach be related in similar fashion within Smeal.

### **TEACHING (Learn)**

Sustainability will be introduced in Smeal's undergraduate and graduate teaching programs first in introductory courses to enhance awareness and appreciation of sustainability's benefits to companies and society. A few specialty courses will expand on the basic concepts by introducing students to concepts and tools for specific applications. Several undergraduate courses exist in which the business case for sustainability is already embedded into course material. These include the freshman seminar, MGMT 301, BA 342, and MKTG 497G. We plan to develop a "two-piece" course sequence in which students who are interested in sustainability can gain greater depth and breadth of exposure. Two new courses are being proposed as two-piece options. One course focuses on developing and marketing new products that will make a company's customers more sustainable, e.g., reducing their energy or water use. Another course focuses on streamlining a company's operations so that it uses less water, energy, emits less carbon, or reduces landfill. Smeal may propose other courses for "two-piece" eligibility or allow credit for courses that are offered by other colleges but cross-listed as a Smeal course.

Additionally, we propose that each department offer course modules and/or course(s) that provide its majors with sustainability concepts and tools that are specific to its field of specialization. There have been initial discussions at Smeal's Executive Committee about adopting sustainability as an AACSB<sup>1</sup> learning goal, and modifying our curricular and co-curricular offerings appropriately.

Related initiatives are underway in the MBA Program, where we already have a core course in ethical leadership (BA 504). Currently, MBA students can choose among five functional concentrations (Finance, Marketing, Supply-Chain Management, Strategic Leadership and Innovation & Entrepreneurship). We will add a sixth one in sustainability. We currently offer three sustainability-related courses (not in the same semester). Students can take related courses from outside the MBA program to complete the concentration. Supporting courses from the School of International Affairs and Earth and Mineral Sciences have been identified. We will encourage our faculty to develop new sustainability-related courses or modify existing courses to add Smeal-based offerings to the concentration.

Whether at the undergraduate or the graduate level, learning to apply sustainability concepts and tools effectively requires students to be exposed wherever possible to realistic settings that mirror the complexity and "untidiness" of the world in which they ultimately will apply their decision-making and leadership skills. Also, students need to be self-directed in their inquiry and guided rather than taught in a traditional or didactic fashion. Such self-direction can be encouraged by minimizing the distinction between teacher and learner. We will encourage our faculty to teach in a problem-based or student-centered fashion, to offer guidance and hands-

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<sup>1</sup> Association to Advance Collegiate Schools of Business

on experiences that minimize the distinctions between classroom and elsewhere. We can do this by assigning students to projects that focus on "facilities and grounds that teach" whether these be within Smeal, Penn State or in a broader community. We will create an experiential learning coordinator position within Smeal that will be responsible for encouraging and supporting faculty to identify potential projects, encouraging student participation in those projects, cataloging completed projects that may be used again for future classes and coordinating their efforts with central clearinghouses or other university units that share similar goals. This coordinator will also be responsible for identifying problem-based or experiential learning tools and promoting their use, especially those that leverage new technologies or learning strategies.

Undergraduate and graduate student organizations can facilitate achievement of many of our strategic goals, particularly those related to teaching. The MBA Net Impact chapter will be organizing webinars and hosting alumni in sustainability-related events this fall and next spring. Smeal has over thirty undergraduate student organizations. Some of them will be recruited to host sustainability-related events that are consistent with their members' professional interests. We endorse and support the start of an undergraduate Net Impact chapter this academic year. A faculty advisor has identified students who want to start an undergraduate chapter. He will advise them on election of officers, initiation of new members, and hosting of events and projects.

The Ph.D. Program will offer annually or biennially a seminar or course on business-related sustainability research that will be open to students who specialize in any of the six primary fields that we currently offer (accounting, finance, management and organization, marketing, real estate, and supply chain). The focus of the seminar will be to help students integrate sustainability issues or questions within their primary field. We intend that students who are interested in sustainability will be scholars in their primary field, but be trained to take a sustainability perspective in their approach to research in their primary field. Doctoral students pursuing research in sustainability will be strongly encouraged to focus on top-tier journals in their primary field for publishing their research.

### **RESEARCH (Live)**

We recognize that business school faculty will likely identify or frame sustainability-related research questions differently than faculty located elsewhere in the university. Nevertheless, faculty members across Penn State who conduct applied or basic research have more in common than may be apparent initially; the commonality is not only in framing research questions, but in regard to complementarity in the substance of their respective research. Each type of researcher can enlighten or aid in explaining the other's research findings. Thus, a potential strong bridge exists for collaboration across college boundaries on research that is associated with sustainability. We will formalize this potential by creating and supporting a joint faculty appointment between Smeal and another Penn State college, such as Engineering, Agricultural Science, Science, or Earth and Mineral Science if such an arrangement makes sense for all parties involved. We believe that a joint faculty appointment can attract a high profile individual to Penn State (from pooled college resources), and increase our success in grant proposal submissions, e.g., NSF is asking for more interdisciplinary research teams.

Another excellent way to foster collaborative research is to explore formally what is potentially complementary in the research questions that different faculty pose. Whether strictly discipline-based or potentially cross-disciplinary, the domain of sustainability-related research questions is under-explored and under-articulated. Smeal can be a national business school leader in this domain. We propose several initiatives to do this.

As a start, we will host a workshop in spring 2013, most likely after classes end so that faculty will be free to participate for at least one full day. Workshop participants will be asked to formulate research questions and identify what questions remain unanswered, or what findings are perplexing or unsatisfying. A cross-disciplinary group of Smeal faculty will plan the event to assure a broad representation of interests, and that a wide range of sustainability-related research questions are explored. The primary criterion for inclusion of research questions is that their exploration focuses on long-term value creation and capture for stakeholders of public or private organizations. We will invite mainly business school faculty or those from similar professional schools who have a problem/solution orientation. We want participants to come prepared to make brief presentations to stimulate discussion. Our final product from the workshop will be a collaborative report that evolves from the discussions. Thus, its main conclusions won't be known until the end of the workshop. However, we will give high priority to producing a research agenda for which we will seek external funding from corporate or government sponsors.

We will support a Smeal study in fall 2013 to identify the major researchers in the business-related sustainability field. Who are they, what have they published, what is their influence on the field, who are their students? This study should also explore all existing business-related sustainability research so that we have a clearer idea of what we know and don't know. This project can identify what questions or topics have been thoroughly researched, under-researched, what evolutionary or developmental path this research has followed, and what major knowledge gaps exist.

We will create a scholar-in-residence program in which we invite leading faculty researchers in sustainability to spend a few weeks or a semester at Smeal. We can seek candidates who are planning to take a sabbatical leave from their home university. Ideally, a candidate should have a reputation that transcends a single department because his or her work impacts more than one discipline. Highest priority should be given to candidates from business schools that have reputations that are equal to or higher than Smeal's, and have complementary capabilities or research programs that might lead to future research partnerships or exchanges of scholars. Most or all of their salary will likely be covered by their home university, but we can make ourselves especially attractive by offering research support for projects done in conjunction with Smeal faculty. We also will explore the possibility of obtaining corporate funds for the scholar-in-residence program.

We will explore the creation of an executive-in-residence program in which executives from industry agree to spend two to four weeks or longer at Smeal. Their primary value will be to help faculty tackle the most relevant research questions and assure that the research will have practical impact. Ideal candidates are executives who have worked in the sustainability area and will be retiring or have recently retired from industry, and are willing to share their accumulated wisdom and to nurture the development of others.

We propose the creation of the Center for Sustainable Business Research that will focus on research on business ecosystems that are environmentally, socially, and economically sustainable. Although the primary focus of the center will be research, major attention will be given to the application of research to teaching and industry practice. Industry involvement will be critical to the success of the center and executives will be actively involved in articulating the research issues and providing access to company data and managers. One way to assure relevant research and practical application is to host a series of academic-industry roundtables to exchange best practices, disseminate academic research, and help identify emerging research issues from practice. These roundtables can be a rich source of ideas for faculty and doctoral student research. The research will be publishable in top tier business research journals and influential managerial business publications. The center will work closely with the experiential learning coordinator (p. 2) to develop teaching cases on relevant sustainability problems and issues for use in undergraduate and MBA courses. The center will also work closely with Penn State Executive Programs to develop and offer sustainability focused executive education in open-enrollment and custom-learning formats.

### **OUTREACH (Lead)**

One of the most effective ways to promote sustainability is to lead by example. Faculty, staff and students can change others' behavior by disposing of trash into proper bins, using water refill stations, using the stairs instead of the elevators, and alerting visitors to what our Green Team has done within Smeal to enhance sustainability, e.g., reduce water and energy use within the building. We also should highlight on monitors and posters all sustainability-enhancing projects that are undertaken on or off campus, whether course related or not.

We will develop executive programs for general managers and technical specialists that focus on sustainability. Penn State Executive Programs (PSEP) is currently exploring the development of a program for supply-chain managers. PSEP is preparing a survey to be distributed to a large sample of managers that will explore what these managers need or want to know about sustainability.

We will launch a speaker's series in which distinguished executives, researchers, writers, and practitioners will be invited to speak to Smeal faculty, staff and students. Most speaker visits will be sponsored exclusively by Smeal, but there may be instances when other Penn State units may be asked to co-sponsor a visit, especially if the speaker is widely known outside of business and the speaker's presentation may attract a broader audience.

Smeal's research centers and institutes can offer programs and applied research engagements to companies that seek advice on how to effectively introduce sustainability into specific functions or technical specialties. The Advanced Manufacturing Forum that is sponsored by CMTOC focuses twice a year on sustainability implementation to enhance operational excellence within plants and offices. ISBM and CSCR can provide similar focus for marketing and supply-chain functions respectively.

Smeal should reach out to its alumni to learn what they are doing to enhance sustainability in their companies or in the services that they provide to their customers. We can create a speakers series in which alumni are invited to speak about their initiatives and successes and challenges, and what advice they can offer to faculty, staff and students. We, in turn, can offer similar advice to alumni about their initiatives.

## **SUSTAINABILITY LEADERSHIP**

**Professor of Sustainability in Business.** We will seek an accomplished scholar who can shape our thinking in research and teaching on the business aspects of sustainability, and help us become a top-ten business school in the sustainability area. This scholar could hold a joint faculty appointment between Smeal and another college. We prefer that the primary appointment be within Smeal, but it doesn't have to be. If the primary appointment is within Smeal, the candidate should have the background and accomplishments to get tenure in one of Smeal's six departments. The overriding consideration of our search is that we select a scholar who can leverage Penn State's vast expertise in one or more areas related to sustainability (e.g., energy, environment, engineering, developmental economics, and sociology, to name a few areas of excellence at Penn State), and link those to one or more areas of business, such as strategy, marketing, supply chains, real estate, accounting, or finance. We will also expect the appointee to initiate collaborative research projects that can help multiply the impact of our efforts in this area. The search committee for this position will include the Senior Associate Dean of the Smeal College and deans holding similar positions at other colleges, in addition to selected faculty from Smeal and other colleges.

**Sustainability Leader/Champion.** This can be either a separate position from the Professor of Sustainability in Business, or its responsibilities folded into the Professor position. The choice depends on the type of person we are able to attract as the Professor of Sustainability in Business. The appointee will ideally be a senior faculty member who will coordinate the sustainability-related activities within Smeal. He or she should be well-acquainted with all aspects of sustainability and be highly respected by his or her colleagues. This person will be director of the Sustainability Council, presiding officer of the Smeal Sustainability Advisory Board, adviser to the program directors with responsibility for fulfilling the teaching, research and outreach missions within Smeal, and primary point of contact for sustainability-related activities and inquiries that originate outside of Smeal. The sustainability leader/champion will be appointed by the Dean and report to the Senior Associate Dean.

## **REWARDS AND RECOGNITION**

We will announce an annual award for faculty, staff and students who apply sustainability creatively and effectively in their major areas of responsibility. For example, we might recognize a faculty member who developed and implemented a sustainability-related project, or supervised a student-led project. In the latter case, the students would be recognized also and their project displayed prominently on a poster in the Business Building, and highlighted on the Smeal homepage. Similarly, we could recognize a faculty member who developed a sustainability teaching tool that engaged students in an effective way or utilized leading-edge media creatively, e.g., videos, Internet. We could recognize a staff member who recommended and/or implemented (if within his or her authority to act) a change in a procedure that significantly reduced energy or water use or increased recycling of waste. We will seek corporate or individual endowments to create various types of recognition programs that include a monetary reward.

Research funds can be earmarked for allocation to faculty members who have demonstrated consistently their ability to conduct sustainability-related research. These funds would be allocated in addition to those already available for those who respond to annual requests for proposals.

## **GOAL SETTING, MEASUREMENT, PRIORITIES and IMPACT**

Smeal will be investing substantial funds in sustainability activities over the next three to five years because the Dean's Office views business-related sustainability as an important strategic opportunity. This investment will be leveraged considerably by funds invested and sustainability activities launched elsewhere at Penn State. Smeal is in the vanguard in introducing sustainability activities now into its teaching, research, and outreach missions, but it will be followed soon by related activities in other Penn State units. We should track separately all dollars that can be tied specifically to our sustainability initiatives. In that way, we can estimate reasonably well the return that we can expect to receive from this investment. Listed below are general metrics that we can use to estimate our return on investment. This is followed by a matrix that contains the goals that we will pursue, who "owns" these goals, when activities to achieve the goals will begin, and metrics to set goals and measure progress toward achieving them. Also included is a priority-impact matrix that was developed by polling the sustainability task force members for their judgment on a five point scale (5 =highest) on how many resources (people and/or funds) should we allocate to support each goal (priority) and what difference will achieving each goal make on realizing our vision for sustainability at Smeal within three years (impact). Each dot on the matrix indicates location on the priority and impact dimensions. Finally, a priority list simplifies the priority-impact matrix by categorizing the goals as necessary, recommended, or optional.

### **General Metrics to Measure the Success of our Efforts**

- Number of faculty research projects initiated
- Sustainability-related jobs obtained by our students
- Annual surveys of recruiters on enhanced attractiveness of our sustainability-literate students
- Dollar amount of external funds generated from industry and government funding agencies
- Number of sustainability-related publications generated by Smeal faculty
- Number of students who apply to Smeal because of our sustainability initiatives
- Endowments/other long-term support generated
- Number of media mentions about Smeal sustainability activities (TV, radio, newspapers, Internet)
- Overall energy and water consumption in the building (percent reduction/year)
- Amount of waste re-cycled (percent increase/year)

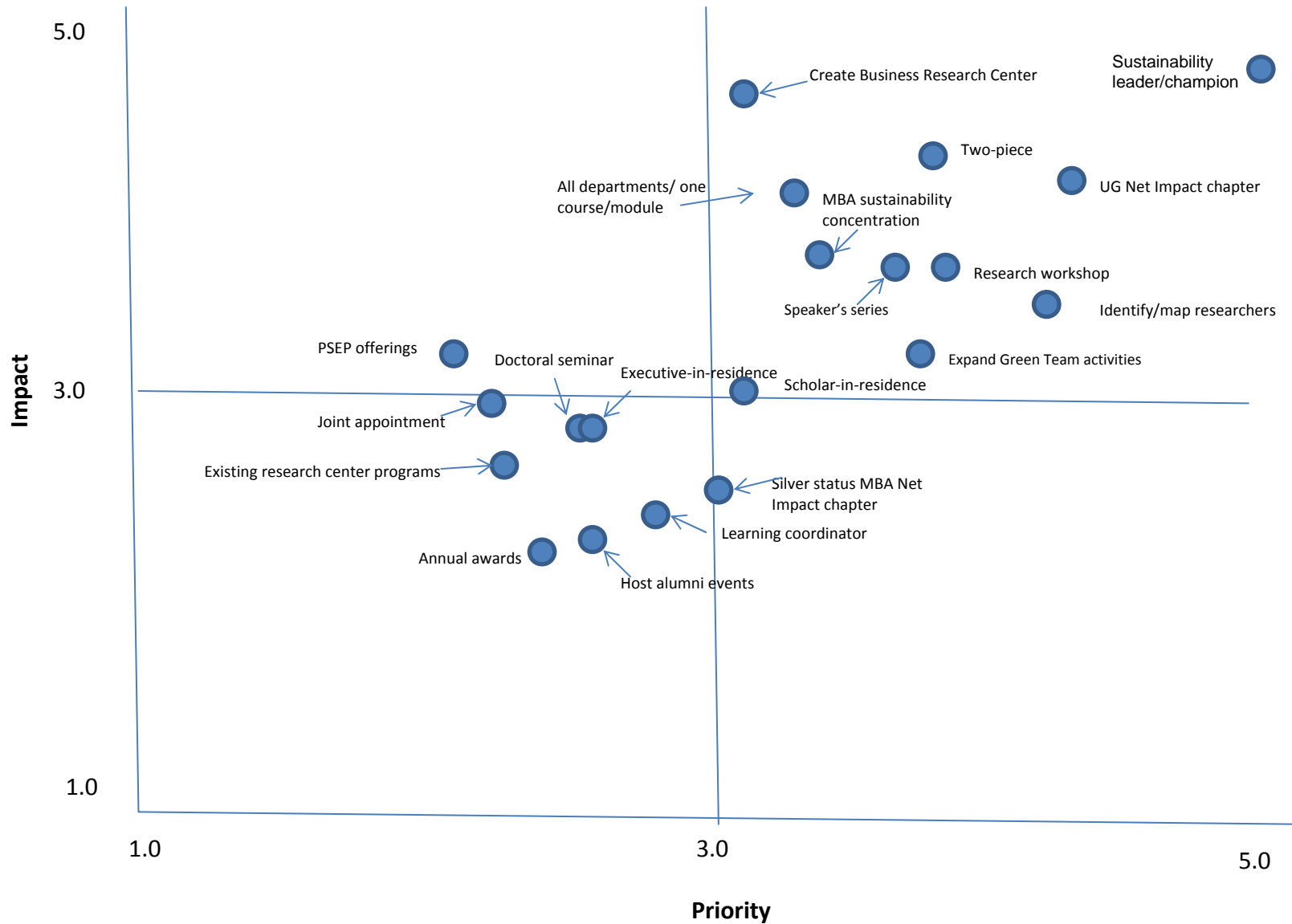


**TABLE 1. SUSTAINABILITY GOALS, OWNERS, TIMING, METRICS, AND OVERLAPPING GOALS**

	GOAL	OWNER (S)	TIMING	METRICS TO SET GOALS AND MEASURE PROGRESS	OVERLAPPING GOALS <sup>2</sup>
Teaching (Learn)	Appoint interim or permanent sustainability leader/champion	Whiteman, Senior Associate Dean	Fall 2012 - Spring 2013		T, R, O
	Appoint Professor of Sustainability in Business (possible joint appointment)	Senior Associate Dean, counterparts in other colleges, faculty	Fall 2014	Funded jointly by Smeal and other college (s)	T, R, O
	Annual sustainability award for faculty, staff and student(s)	Whiteman, Senior Associate Dean, Sloan	2013	Funded by corporate or individual endowment	O
	All departments have at least one course or module with sustainability learning goals	Senior Associate Dean, Department chairs	Fall 2013	# of these courses or modules offered # of students taking these courses	T
	Develop and offer undergraduate two-piece course sequence	Associate Dean for Undergraduate Education, Gilpatrick	Spring 2013	# of students who take two-piece sequence	T
	Start an undergraduate Net Impact chapter	Johnson	Fall 2013	Officers elected, # of members initiated, # of activities undertaken	T, R
	MBA Net Impact chapter designated as silver chapter	Belknap, Harrison	Spring 2013	50% of current MBA students join chapter	T, R, O
	Formalize MBA sustainability concentration	Thomas	Spring 2013	Offer at least two Smeal sustainability courses per year + agree on list of qualified non-Smeal courses	T
Research (Live)	Offer doctoral seminar or course on business-related sustainability research	Ambrose, Guide	Fall 2013	Offered annually or biennially # of Ph.D. students enrolled per year	T, R
	Create and fill experiential learning coordinator position	Senior Associate. Dean, Whiteman	Spring 2013	# of courses with experiential learning component # of sustainability teaching tools developed	T, R, O
	Host workshop to explore sustainability research questions	Susman	Spring 2013	# of participants, write and distribute report	R
	Launch study to identify major researchers in business-related sustainability and map their contributions	Susman	Fall 2013	Issue report by December 2013	R
Outreach (Lead)	Create scholar-in-residence program	Senior Associate Dean, Sloan	Fall 2014	Corporate funds to support these programs	R
	Create Center for Sustainable Business Research	Whiteman, Sloan	2014	Funded by corporate or individual endowment	R, O
	Host alumni events in Business Building or via webinar	Belknap, Eury	2012	4 alumni events hosted per year	T, O
	PSEP to offer sustainability executive management programs	Taylor	Spring 2013	# of program offered per year # of participants per program	O
	CMTOC, ISBM, and CSCR offer specialty sustainability programs	Susman, Grenoble, Oliva	2012	# of programs offered by each center per year # of participants per program	O
	Launch sustainability speaker's series	Susman	2012	# of internal and external speakers per year	T, O
Expand Green Team activities	Snyder	2012	# of meetings, initiatives undertaken	R, O	
Create executive-in-residence program	Senior Associate Dean, Sloan	Fall 2014	Corporate funds to support these programs	R, O	

<sup>2</sup> Entries in this column express our aspiration to perform teaching, research and/or outreach activities so that the goals they represent are “inextricably linked, mutually reinforcing, and have overlapping boundaries”

**FIGURE 1. PRIORITY- IMPACT MATRIX (n = 11)**



**TABLE 2. PRIORITY LIST**

<b>GOAL</b>	<b>STATUS</b>	<b>TIMING</b>
Appoint interim or permanent sustainability leader/champion	Necessary	Fall 2012-Spring 2013
Appoint Professor of Sustainability in Business (possible joint appointment)	Necessary	Fall 2014
Launch sustainability speaker's series	Necessary	2012
Expand Green Team activities	Necessary	2012
Develop and offer undergraduate two-piece course sequence	Necessary	Spring 2013
Formalize MBA sustainability concentration	Necessary	Spring 2013
Host workshop to explore sustainability research questions	Necessary	Spring 2013
All departments have at least one course or module with sustainability learning goals	Necessary	Fall 2013
Launch study to identify major researchers in business-related sustainability and map their	Necessary	Fall 2013
Start an undergraduate Net Impact chapter	Necessary	Fall 2013
Host alumni events in Business Building or via webinar	Recommended	2012
MBA Net Impact chapter designated as silver chapter	Recommended	Spring 2013
Create and fill experiential learning coordinator position	Recommended	Spring 2013
Offer doctoral seminar or course on business-related sustainability research	Recommended	Fall 2013
Create scholar-in-residence program	Recommended	Fall 2014
Create Center for Sustainable Business Research	Recommended	2014
Create executive-in-residence program	Recommended	Fall 2014
Annual sustainability award for faculty, staff and student(s)	Optional	2013
CMTOC, ISBM, and CSCR offer specialty sustainability programs	Optional	2012
PSEP to offer sustainability executive management programs	Optional	Spring 2013