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SUSTAINABILITY ASSESSMENT IN HIGHER EDUCATION INSTITUTIONS. THE STARS SYSTEM

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Abstract: Sustainable development is a concern for countries, businesses and organizations sensitive to excess in terms of utilized resources. This is evident in international initiatives which aim to establish guiding principles for institutions to follow regarding what is considered to be socially responsible behavior, allowing for assessment and the identification of objectives. As higher education institutions, colleges and universities have a public responsibility to generate and transmit knowledge to society as a whole, as well as an economic and social responsibility regarding resource management; hence the importance of specifically analyzing their socially responsible behavior.

This paper introduces an initiative which has been implemented in the United States and Canada; one of its aims is to identify best practices in this field and obtain knowledge that allows for the creation and development of a guide to social responsibility adapted specifically to higher education institutions.

The Sustainability Tracking, Assessment & Rating System (STARS) is an innovative initiative developed by the Association for the Advancement of Sustainability in Higher Education (AASHE), in which all higher education institutions in the United States and Canada are welcome to participate.

Their analysis will allow us to determine which measurable aspects will become a part of the sustainability culture that is developing in the higher education institutions that participate in this initiative. Furthermore, it will allow us to highlight the ethical values that are being promoted among its special interest groups.

Keywords: Sustainable Development, Campus Sustainability, Higher Education, Institutional Rating System

INTRODUCTION

Beginning in the 1970s, environmental concerns arose in relation to unchecked economic development and the existence of resources over the long term (Meadows *et al.*, 1972). This concern, which was voiced in different studies and reports (the Club of Rome), led the United Nations to define and divulge the concept of *sustainable development* as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland, 1987). In order to advance the principles of sustainability, the Brundtland Commission called for a *universal declaration* of norms.

Subsequently, it was shown that development should not be limited solely to economic variables, so that individuals would have the possibility of acquiring knowledge that allows them to access the resources required to achieve adequate quality of life, known as Human Development (UN Human Development Report - HDR, 1990). However, this philosophy must not overlook the fact that this will be unattainable if not conducted in a sustainable manner; hence, there is a need for wealthy countries to be concerned with sustainable development in order to facilitate the achievement of *sustainable human development*.

This philosophy is widely accepted by society at an international level and in the 1990s different institutions and organizations promoted the concept of sustainability as including not only the search for environmental quality but also equality and social justice as values to be further developed. This is reflected in UNESCO's programs (UNESCO, 1988) and is included amongst its Decade of Education for Sustainable Development objectives (DESD, 2005-2014), as detailed by the UN in 2002, in which the ethical role of universities and the responsibility of their anticipatory function are underlined as a consequence of institutions being capable of promoting

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education and raising public awareness about sustainable development.

As significant change agents in society, universities incorporate these objectives into their actions (education and training, research, management, etc.), starting with diverse initiatives on a worldwide basis that favor the fulfillment of such commitments. One of these initiatives is the Sustainability, Tracking, Assessment & Rating System (STARS), analyzed here with a view to providing knowledge and experience that may serve as a reference to higher education institutions during their quest for sustainability. STARS is based upon Brundtland's interpretation of sustainable development, as outlined in *Our common future: The World Commission on Environment and Development* (Brundtland, 1987).

A direct reflection of the concept of sustainability in business is the triple bottom line: human capital, natural capital and financial capital, all of which are addressed in Corporate Responsibility reports. Likewise, sustainability educators often refer to the Three E's of sustainability: economy, ecology and equity. One popular representation of sustainability is shown in Diagram 1, which depicts the concept's three dimensions in the form of three overlapping circles, representing environmental, economic and social needs. The area of sustainability is precisely where all three overlap and thus these needs are met.

The relationship between STARS credits and a higher education institution's environmental, social and economic performance represents the system's "attempts to translate this broad and inclusive view of sustainability to measurable objectives at the campus level" (AASHE, 2010).



Diagram 1: Concept of Sustainability

THE SUSTAINABILITY TRACKING, ASSESSMENT & RATING SYSTEM (STARS)

Given the rapid growth of sustainability initiatives at institutions of higher education in the United States, measuring and assessing progress toward sustainability goals has become increasingly important. In response to the need for sustainability assessment in higher education institutions and for a system capable of translating sustainability indicators into a single metric that enables simple comparisons across a large number of campuses in terms of their level of sustainability achievement, the Association for the Advancement of Sustainability in Higher Education (AASHE¹) has developed the Sustainability Tracking, Assessment & Rating System (STARS[®]).

STARS, which is a "voluntary, self-reporting framework for recognizing and gauging relative progress toward sustainability for colleges and universities" (AASHE, 2010) has been developed over several years with widespread input from the sustainability and higher education communities. The objectives of STARS are to:

- Provide a framework for understanding sustainability in all sectors of higher education.
- Enable meaningful comparisons over time and across institutions using a common set of measurements developed with broad participation from the campus sustainability community.
- Create incentives for continual improvement toward sustainability.
- Facilitate information sharing about higher education sustainability practices and performance.
- Build a stronger, more diverse campus sustainability community.

The program is open to any institution of higher education in the United States or Canada, ranging from community colleges to research universities, and is designed for both institutions that are in the process of initiating their sustainability programs and those already considered leaders in the field of sustainability (AASHE, 2010).

On January 19, 2010, STARS 1.0 was launched after a three-year development process, allowing for participants to earn a rating. It is

¹ AASHE is a member-driven organization with a mission to empower higher education to lead the sustainability transformation.

important to underline that STARS is a rating system, not a ranking system, where levels of achievement (a *rating*) are highlighted rather than the numerical score. In contrast, a ranking system typically implies a survey performed by a third party, with campuses ranked from best to worst according to a numerical score.

One of the advantages of a rating system is that it allows for more in-depth questions. Campuses participating in a rating system frequently do so in anticipation of receiving positive recognition, and thus are more motivated to respond to more complex questions and a thorough survey. A rating system provides a clear strategic plan for a campus to reach a benchmark level, whilst a ranking system does not provide a clear target (a campus doesn't know in advance what its final outcome in the rankings will be). A rating promotes change more effectively, as institutions strive toward the highest level of achievement, rather than simply focusing on surpassing other institutions. With a ranking system an institution may be at the top of the list, even if it is far from achieving sustainability, whereas in a rating system the top classification could potentially be unfilled as institutions work toward it. Finally, scoring and weighting are generally transparent in rating systems, as opposed to third party ranking systems. While transparent reporting allows for comparison between institutions, it is the STARS focus on institutional accountability and authentic assessment that sets it apart from other green lists.

STARS was born of the need to address all dimensions of sustainability, including health, social, economic and ecological factors, which encompass all sectors and functions of a campus, such as curriculum, facilities, operations and collaboration with communities. As a result, in 2006 the AASHE brought together different higher education stakeholders in order to initiate the collaborative process required to develop such a system.

Over 120 colleges and universities have already registered as STARS Charter Participants. These institutions represent 34 U.S. states, 4 Canadian provinces and the District of Columbia. The Charter Participants are diverse in type and include research universities, community colleges, baccalaureate colleges and special focus institutions.

STARS Credits

STARS credits are the result of extensive review of campus sustainability assessments, sustainability reports from businesses and other sustainability and ranking systems, as well as feedback from diverse stakeholders and experts on the initial set of credits. STARS credits are based upon four criteria:

- 1. Each credit must lead to improved environmental, social, and/ or financial performance by colleges and universities.
- 2. Each STARS credit should be relevant and appropriate for most higher education institutions.
- 3. STARS aims to prioritize performance over strategy.
- 4. The credit must be measurable, objective and actionable.

Each STARS credit that complies with these four criteria is assigned a type:

- Tier One credits worth 1 or more points each and grouped in a subcategory (e.g. Diversity and Affordability) within a category (e.g. Planning, Administration & Engagement PAE).
- Tier Two credits many of the subcategories in STARS include Tier Two credits, which are worth 0.25 points each.

The two reasons behind classification as Tier Two are: strategies worthy of recognition but with a lower impact than Tier One credits and the promotion of strategies whose benefits are already largely captured by a Tier One credit. Tier One credits vary in the number of points they are worth, with consideration being given to the extent to which the credit contributes to improved environmental, financial and social impacts, as well as education benefits associated with the achievement of this credit.

The focus in allocating points is on the impact, as opposed to the difficulty, of earning the credit. The difficulty of implementing certain sustainability initiatives does not necessarily imply significant impacts. On the contrary, there may be simpler processes and projects put in place which have tremendous impacts. This system avoids the possibility of institutions focusing on difficult projects or initiatives in order to earn more points, which may not have the most impact or meaning. Despite the approach taken by AASHE to point allocation, the goal of developing a more "robust point allocation methodology – including finding stronger ways to accommodate how regional variations and difference in institution type influence each institution's sustainability impacts", is an area of improvement cited for future versions of STARS (AASHE, 2010).

Modeled on the U.S. Green Building Council's (USGBC) LEED certification system², the STARS 1.0 Credit Checklist (Appendix 1) requires comprehensive documentation of sustainability efforts. The system strives to achieve a more holistic approach, with a points system designed to rate the entire campus across the triple bottom line or the three Es of sustainability – economy, ecology, and equity. The points system includes 100 possible points in each of the 3 major categories: Education & Research, Operations and Planning Administration & Engagement, plus an additional 4 possible points in the Innovation category.

One approach that is being discussed is to follow the LEED model and accommodate regional variation by assigning certain credits regional priority points. Consideration is also being given to following the same strategy based on institution types as well (i.e. credits of greater importance to community colleges are assigned additional points for those institutions).

The relationship between STARS and campuses with a Campus Sustainability Plan in place is that STARS includes a credit – PAE Credit 4: Sustainability Plan – which recognizes institutions that have completed a sustainability plan. The system also provides a framework for institutions looking to develop sustainability plans.

STARS credits are organized into categories which aim to cover the functional areas of colleges and universities, not campus stakeholder groups. These campus groups do not separate out perfectly into the STARS categories. As a result, one of STARS goals is to "facilitate sustainability work that transcends these groupings" (AASHE, 2010).

The backbone of STARS is the concept of sustainability and this is engrained in its rating system. We increasing hear about sustainability initiatives in higher education institutions, as well as in business and society. However, there is often a lack of understanding as to its history and meaning. STARS, which addresses the concept of sustainable development as previously mentioned and defined by Brundtland, exemplifies how the social, environmental and economic components of sustainability are intertwined.

² Developed by the USGBC, LEED provides building owners and operators with a framework for identifying and implementing practical and measurable green building design, construction, operations and maintenance solutions.

Scoring and Ratings

STARS only provides positive ratings, each level representing significant sustainability leadership. A higher education institution's decision to participate in STARS involves collecting extensive data and making it available to the public, thus demonstrating its commitment to sustainability. Since STARS is based upon self-assessment, the availability of data to the public is a key strategy to ensure accuracy. The system is designed to incorporate a wide range of sustainability achievements, with the highest levels representing ambitious, long-term objectives. There are five levels of ratings available, each with its own corresponding threshold score: Bronze, Silver, Gold, Platinum and Reporter. The Reporter level is available for those institutions that wish to use STARS and make their data available to the public, but do not choose to pursue a rating or score.

Calculation of an institution's STARS score is based on the average percentage of applicable points earned in the three categories. In addition to the credits available in the three categories, institutions can earn up to 4 innovation credits for practices and performances that are not included in other STARS credits or that go above and beyond the highest criterion of a current STARS credit. Institutions will earn a score based on the percentage of applicable points they earn, so that credits that do not apply to their institution will not be counted against their overall score. A STARS rating is valid for three years, with the opportunity for institutions to update information in their profile and submit for a new rating on an annual basis.

Participating institutions will earn STARS Ratings, which they can use to communicate their sustainability leadership. University systems or community college districts may register for STARS and report as one entity or each institution may register independently.

The STARS Reporting Tool is available online and is similar to the American College & University Presidents Climate Commitment (ACUPCC) Reporting System (http://acupcc.aashe.org/). The Reporting Tool was released on January 19, 2010 as part of the STARS 1.0 launch. This tool tracks all of the documentation required for the credits listed in the STARS 1.0 Technical Manual (AASHE, 2010), by which participants can submit for a STARS rating.

While similar initiatives exist, STARS is considered the reference for tracking and objectively assessing an institution's commitment to sustainability in higher education. Furthermore, one of the benefits of STARS is transparency, as all data submitted will be made public. However, it is important to note that institutions will know their result before completing the submission, as a provisional score is displayed throughout the reporting process. Also, participation in STARS is voluntary and an institution may choose to omit any credit it chooses. Upon finalizing its submission, an institution will have the option to submit data as a STARS Reporter, instead of for a rating, implying that its score will not be included as part of the data set.

COMPARISON BETWEEN STARS AND OTHER INITIATIVES

In relation to other sustainability assessments, the AASHE has expressed its willingness to collaborate with organizations that can assist them in furthering their mission, including other initiatives that offer ratings or rankings for higher education. One of the goals of STARS is to eliminate redundancy in gathering information and reporting, in order to more effectively satisfy the needs of the campus sustainability community. Therefore, in the near future, the AASHE will be encouraging other organizations with ratings, rankings or surveys to use the information submitted to the STARS Reporting Tool (AASHE, 2010).

Greenhouse gas (GHG) emissions inventorying tools, such as the Campus Carbon Calculator³, complement STARS. For the credit based on GHG emissions, STARS participants enter their total emissions in terms of CO2 equivalent, as opposed to raw energy or fuel inputs. Although STARS is not a GHG inventory tool or calculator, should an institution be using one, this will simplify reporting of certain STARS credits (OP Credit 4: Greenhouse Gas Emissions Inventory, OP Credit 5: Greenhouse Gas Emissions Reduction, and PAE Credit 5: Climate Plan).

Another group, the Sustainable Endowment Institute (SEI), rates colleges and universities in its College Sustainability Report Card, on several different areas of green compliance, such as recycling, student involvement and green building. The AASHE has collaborated with the SEI in the past and hopes to again in the future.

Designed to assist institutions in their sustainability transformation initiatives, a comparison can be made between STARS and other environmental management systems (EMS), such as the International

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³ The Campus Carbon Calculator[™] is considered to be the leading tool for assessing campus greenhouse gas emissions and is currently in use at more than 1,200 campuses across the U.S.

Standardization Organization's system (ISO) 14000 or ISO 19011. Both ISO 14000 or 19011 and STARS are considered valuable tools for campuses, with a couple of key distinctions. STARS was developed by and for higher education institutions. Therefore, it includes credits unique to higher education, such as curriculum and research. Furthermore, the credits in other areas, such as Human Resources or Public Engagement, are informed by a higher education perspective. In addition, STARS is a sustainability system, rather than solely environmental, and includes indicators related to institutions' social, environmental and economic performance, as a reflection back to the all-encompassing definition of sustainability. An EMS focuses more narrowly on environmental aspects.

In its development of the STARS credit system, the AASHE consulted several other sustainability reporting and assessment frameworks, including the Global Reporting Initiative (GRI), allowing for a comparison to be made. STARS and GRI are similar in that both systems are in agreement as regards the definition of sustainability and include social, economic and environmental considerations. Both systems require transparency in reporting. GRI thus proved to be a valuable resource for the AASHE in its development of STARS credits, and so the AASHE strives to remain abreast of the GRI's activities and developments. Nevertheless, it is important to highlight key differences between the systems, such as the fact that STARS was developed by and for colleges and universities and thus covers topics specific to higher education, such as curriculum and research, which GRI does not include. Furthermore, GRI is not a rating system, but rather a reporting framework. Although STARS can also be considered a reporting framework, it is also a rating system. As such, STARS is organized into a series of credits, while GRI's organizational system is based on reporting fields. Finally, GRI recently published a Non-Profit Sector Supplement, which shows a greater relationship between both initiatives, as they both deal mainly with non-profit entities.

In relation to the LEED certification system, there are several similarities to be noted with STARS. In terms of structure, both systems are based on a checklist of credits organized into different categories, including innovation credits which recognize new practices not currently included on its checklist. Both LEED and STARS include multiple levels of recognition, as well as an additional level (Reporter) in the case of STARS, for institutions that are not pursuing a Rating. Finally, both are based on positive recognition – green building leadership in LEED and campus sustainability leadership in STARS.

The key differences between the two include the LEED certification's limitation to one building, whereas a STARS rating covers an entire college or university. In terms of scope, LEED credits are generally focused on the specific features of a building, whereas STARS credits cover a broader range of activities. Finally, LEED certification is verified by a third party, while STARS is a self-assessment framework that ensures accuracy by making data reported to earn a rating publicly available, and requiring that each credit be accompanied by an affirmation from a responsible party attesting to the accuracy of the information submitted and that each submission be accompanied by a letter from the institution's President or Chancellor affirming the accuracy of the entire submission.

The AASHE considers both rating systems to be complementary. As such, STARS includes two credits (OP Credit 1: Building Operations and Maintenance and OP Credit 2: Building Design and Construction) that award points for having LEED certified campus buildings. The USGBC, the organization that developed and administers LEED, was involved in the STARS development process and is a STARS Founding Partner.

The AASHE recognizes the importance and necessity of immediately confronting the challenges being faced by higher education institutions today and believes STARS to be the answer in effectively addressing sustainability challenges, especially since STARS recognizes outcomes and focuses on performance, whilst allowing flexibility for campuses to decide the best approach.

In the field of campus sustainability, one of the greatest growth opportunities is in assisting more people on campus to better grasp the meaning of sustainability and its relationship with the mission of higher education. Sustainability is frequently perceived as an emphasis on energy conservation and operational efficiencies. However, it goes beyond this in that it involves virtually every academic discipline, includes both curricular and co-curricular dimensions and provides a link between campuses and their surrounding communities.

APPLICABILITY TO THE SPANISH UNIVERSITY SYSTEM

In analyzing sustainable campus initiatives for their potential applicability to higher education institutions in Spain, it is crucial that they have the ability to adapt to the institution they aim to change, as well as to the cultural and regulatory context of the Spanish system. As in other fields, national, regional and institutional backgrounds provide the setting for shaping the challenges and opportunities faced with advancing sustainability on campus.

In comparing approaches at universities around the world spearheading change in sustainability, the following topics should be addressed: team composition and background; financial models employed; implications of the institutional framework; activities and lessons learned; and future challenges. It would be important to extrapolate the elements identified as essential in shaping similarities and differences between sustainability approaches at the different institutions, with a focus on developing sustainability metrics, in order to create benchmarks for progress made toward reaching goals.

The importance of returning to the fundamental goals of sustainable campus development is vital. The document announcing the UN commitment to the Decade of Education for Sustainable Development (DESD, 2005-2014) includes amongst its objectives the development of knowledge, skills and values that empower people to take responsibility for creating a sustainable future. A wide range of learning experiences and goals contribute to the attainment of such an objective.

Unlike in the US, in Spain there is more discussion revolving around socially responsible behavior, more so than sustainable development, which leads to the coining of the term *University Social Responsibility*, addressing the three aforementioned aspects, environmental, social and economic, in the dimensions of education and training, research and management.

In Spain, universities enjoy a certain level of autonomy in their management, but they are accountable to the autonomous regional governments that fund them and need to be transparent for the purpose of society. As a result, several initiatives have been created to guide them in this process, such as the following:

- on behalf of Administration, the Environmental Protection Act (*la ley de Protección del Medio Ambiente*), the Conciliation of Work and Family Act (*la ley de Conciliación Vida Familiar*) and the Public Sector Contracts Act (la ley de Contratos con el Sector Público).
- on behalf of the Board of Spanish University Chancellors (CRUE 2003), the creation of a Working Group on Environmental Quality and Sustainable Development (*Grupo de Trabajo en Calidad Ambiental y Desarrollo Sostenible*), which is involved in different aspects of sustainability curricula, environmental improvements in buildings, a culture of prevention and green purchasing.

- on behalf of university boards and councils that are developing University Social Responsibility reports.⁴
- and/or on behalf of management through the development of strategic plans that are reflected in their operational plans.

Studies such as those carried out by Alba (2007) or the University of Catalunya's IPSO Project, detail the concern felt by Spanish universities to address their commitment to society. However, there is still much to be accomplished in this regard, for which we envision STARS as a reference – an evaluation system that promotes transparency and continuous improvement, as well as a desire for quality, equality, environmental protection and responsible purchasing, through the consideration of all aspects analyzed.

The creation of an initiative such as STARS in Spain would favor its adaptation to the Spanish higher education context and thus would act as an instrument that would allow for access to knowledge of best practices and the application of techniques such as benchmarking in defining policies, objectives, actions, etc., promoting sustainable development in Spanish universities.

In the application of a system such as STARS to the Spanish higher education system, which encompasses nearly 50 public and 25 private universities, a distinction should be made between campus sustainability and the goals of larger scale sustainability. Much like the Bologna Plan in the Spanish university system, the integration of a system such as STARS will require a transformation and change in attitudes in order to overcome the resistance to change evident in the national university system. The European Space for Higher Education (ESHE), which stems from the Bologna Plan, provides an opportunity for Spain to catch up with countries leading the pack in sustainability initiatives, as demonstrated by Áznar and Ull (2009).

⁴ By way of an example please see the Forum of Public University Boards in Andalusia (Foro de los Consejos Sociales de la Universidades Públicas de Andalucía -www.rsuniversitaria.org)

REFERENCES

- AASHE (2010), STARS- Version 1.0 Technical Manual, 283 pp. Retrieved January 2010, from www.aashe.org/files/documents/ STARS/STARS 1.0 Technical Manual.pdf.
- Alba, D. (2007), La sostenibilidad universitaria en las universidades españolas: estado de la cuestión. Retrieved January 2010, from http://www.usc.es/plands/seccions/datos_plan/eixe3/linas_actuacion/ redestraballo/crue/crue_pdf/reunion_santiago_190607/present_ santiago/critevacal_uam_dalba.pdf.
- Áznar, P. & Ull, M. A. (2009), "Education in basic competences for sustainable development. The role of University". *Revista de Educación*, nº extraordinario, 2009, pp. 219-237.
- Brundtland, G. (ed.) (1987), Our common future: The World Commission on Environment and Development. Oxford University Press, Oxford.
- CRUE (2003), Reglamento específico para la comisión sectorial de la Conferencia de Rectores de las Universidades Españolas (CRUE) para la calidad ambiental, el desarrollo sostenible y la prevención de riesgos. Retrieved January 2010, from http://www.crue.org/export/ sites/Crue/Sostenibilidad/reglamento.pdf.
- Fernández, L. & Newman, J. (2006), Strategies for Institutionalizing Sustainability in Higher Education, Report on the Northeast Campus Sustainability Consortium 3rd Annual Conference and International Symposium. Yale University, New Haven, Connecticut.
- Pomeroy, M. et al. (2009), Proyecto IPSO: síntesis de experiencias de incentivos en sostenibilidad. Centre per a la Sostenibilitat. Retrieved January 2010, from http://upcommons.upc.edu/revistes/ bitstream/2099/8126/6/71 Francisco%20Esteban.pdf.
- Sustainable Endowments Institute (2009), College Sustainability Report Card 2009. Retrieved January 2010, from http://www. greenreportcard.org/report-card-2009.
- UN (2002), United Nations Decade of Education for Sustainable Development, Resolution 57/254 of the General Assembly of the United Nations. Retrieved January 2010, from http://www.undocuments.net/a57r254.htm.
- UNESCO (1998), Higher Education in the Twenty-first Century. Vision and Action. World Conference on Higher Education. Paris, ED 98/ CONF 202/7.2. Retrieved January 2010, from www.unesco.org/ education/educprog/wche/declaration_eng.htm.

APPENDIX 1

STARS 1.0 CREDIT CHECKLIST

CATEGORY	1: EDUCATION & RESEARCH (ER)	
Credit Number	Credit Title Possible	Points
Co-Curricular	Education	
ER Credit 1	Student Sustainability Educators Program	5
ER Credit 2	Student Sustainability Outreach Campaign	5
ER Credit 3	Sustainability in New Student Orientation*	2
ER Credit 4	Sustainability Materials and Publications	4
Tier Two	Co-Curricular Education Tier Two Credits	2
Curriculum		
ER Credit 5	Sustainability Course Identification	3
ER Credit 6	Sustainability-Focused Courses	10
ER Credit 7	Sustainability-Related Courses	10
ER Credit 8	Sustainability Courses by Department*	7
ER Credit 9	Sustainability Learning Outcomes*	10
ER Credit 10	Undergraduate Program in Sustainability*	4
ER Credit 11	Graduate Program in Sustainability*	4
ER Credit 12	Sustainability Immersive Experience*	2
ER Credit 13	Sustainability Literacy Assessment	2
ER Credit 14	Incentives for Developing Sustainability Courses	3
Research		
ER Credit 15	Sustainability Research Identification*	3
ER Credit 16	Faculty Involved in Sustainability Research*	10
ER Credit 17	Departments Involved in Sustainability Research*	6
ER Credit 18	Sustainability Research Incentives*	6
ER Credit 19	Interdisciplinary Research in Tenure and Promotion*	2
	Total	100
* credit does no	ot apply to all institutions	

* credit does not apply to all institutions

CATEGORY	2: OPERATIONS (OP)				
Credit Number	Credit Title	Possible Points			
Buildings					
OP Credit 1	Building Operations and Maintenance	7			
OP Credit 2	Building Design and Construction*	4			
OP Credit 3	Indoor Air Quality	2			
Climate					
OP Credit 4	Greenhouse Gas Emissions Inventory	2			
OP Credit 5	Greenhouse Gas Emissions Reduction	14			
Tier Two	Climate Tier Two Credits	0.5			
Dining Services					
OP Credit 6	Food Purchasing*	6			
Tier Two	Dining Services Tier Two Credits	2,5			
Energy					
OP Credit 7	Building Energy Consumption	8			
OP Credit 8	Renewable Energy	7			
Tier Two	Energy Tier Two Credits	1.5			
Grounds					
OP Credit 9	Integrated Pest Management*	2			
Tier Two	Grounds Tier Two Credits	1.25			
Purchasing					
OP Credit 10	Computer Purchasing	2			
OP Credit 11	Cleaning Product Purchasing	2			
OP Credit 12	Office Paper Purchasing	2			
OP Credit 13	Vendor Code of Conduct	1			
Tier Two	Purchasing Tier Two Credits	0.5			
Transportation					
OP Credit 14	Campus Fleet	2			
OP Credit 15	Student Commute Modal Split*	4			
OP Credit 16	Employee Commute Modal Split	3			
Tier Two	Transportation Tier Two Credits	3			

Waste		
OP Credit 17	Waste Reduction	5
OP Credit 18	Waste Diversion	3
OP Credit 19	Construction and Demolition Waste Diversion*	1
OP Credit 20	Electronic Waste Recycling Program	1
OP Credit 21	Hazardous Waste Management	1
Tier Two	Waste Tier Two Credits	1.5
Water		
OP Credit 22	Water Consumption	7
OP Credit 23	Stormwater Management	2
Tier Two	Water Tier Two Credits	1.25
	Total	100
* credit does no	t apply to all institutions	
CATEGORY 3	: PLANNING, ADMIN. & ENGAGEMENT (P	AE)
Credit Number	Credit Title Possible	Points
Coordination a	nd Planning	
Coordination a PAE Credit 1	nd Planning Sustainability Coordination	3
	5	3
PAE Credit 1	Sustainability Coordination	
PAE Credit 1 PAE Credit 2	Sustainability Coordination Strategic Plan [*]	6
PAE Credit 1 PAE Credit 2 PAE Credit 3	Sustainability Coordination Strategic Plan [*] Physical Campus Plan [*]	6 4
PAE Credit 1 PAE Credit 2 PAE Credit 3 PAE Credit 4	Sustainability Coordination Strategic Plan [*] Physical Campus Plan [*] Sustainability Plan Climate Plan	6 4 3
PAE Credit 1 PAE Credit 2 PAE Credit 3 PAE Credit 4 PAE Credit 5	Sustainability Coordination Strategic Plan [*] Physical Campus Plan [*] Sustainability Plan Climate Plan	6 4 3
PAE Credit 1 PAE Credit 2 PAE Credit 3 PAE Credit 4 PAE Credit 5 Diversity and A	Sustainability Coordination Strategic Plan [*] Physical Campus Plan [*] Sustainability Plan Climate Plan Affordability	6 4 3 2
PAE Credit 1 PAE Credit 2 PAE Credit 3 PAE Credit 4 PAE Credit 5 Diversity and A PAE Credit 6	Sustainability Coordination Strategic Plan [*] Physical Campus Plan [*] Sustainability Plan Climate Plan Affordability Diversity and Equity Coordination	6 4 3 2 2
PAE Credit 1 PAE Credit 2 PAE Credit 3 PAE Credit 4 PAE Credit 5 Diversity and A PAE Credit 6 PAE Credit 7	Sustainability Coordination Strategic Plan [*] Physical Campus Plan [*] Sustainability Plan Climate Plan Affordability Diversity and Equity Coordination Measuring Campus Diversity Culture	6 4 3 2 2 2 2
PAE Credit 1 PAE Credit 2 PAE Credit 3 PAE Credit 4 PAE Credit 5 Diversity and A PAE Credit 6 PAE Credit 7 PAE Credit 8	Sustainability Coordination Strategic Plan [*] Physical Campus Plan [*] Sustainability Plan Climate Plan Iffordability Diversity and Equity Coordination Measuring Campus Diversity Culture Support Programs for Under-Represented Groups	6 4 3 2 2 2 2 2
PAE Credit 1 PAE Credit 2 PAE Credit 3 PAE Credit 4 PAE Credit 5 Diversity and A PAE Credit 6 PAE Credit 7 PAE Credit 8 PAE Credit 9	Sustainability Coordination Strategic Plan* Physical Campus Plan* Sustainability Plan Climate Plan Affordability Diversity and Equity Coordination Measuring Campus Diversity Culture Support Programs for Under-Represented Groups Support Programs for Future Faculty	6 4 3 2 2 2 2 2 4
PAE Credit 1 PAE Credit 2 PAE Credit 3 PAE Credit 4 PAE Credit 5 Diversity and A PAE Credit 6 PAE Credit 7 PAE Credit 8 PAE Credit 9 PAE Credit 10	Sustainability Coordination Strategic Plan* Physical Campus Plan* Sustainability Plan Climate Plan Affordability Diversity and Equity Coordination Measuring Campus Diversity Culture Support Programs for Under-Represented Groups Support Programs for Future Faculty Affordability and Access Programs Diversity and Affordability Tier Two Credits	6 4 3 2 2 2 2 2 4 3
PAE Credit 1 PAE Credit 2 PAE Credit 3 PAE Credit 4 PAE Credit 5 Diversity and A PAE Credit 6 PAE Credit 7 PAE Credit 8 PAE Credit 8 PAE Credit 9 PAE Credit 10 <i>Tier Two</i> Human Resourt	Sustainability Coordination Strategic Plan* Physical Campus Plan* Sustainability Plan Climate Plan Affordability Diversity and Equity Coordination Measuring Campus Diversity Culture Support Programs for Under-Represented Groups Support Programs for Future Faculty Affordability and Access Programs Diversity and Affordability Tier Two Credits	6 4 3 2 2 2 2 2 4 3

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PAE Credit 13	Staff Professional Development in Sustainability	2		
PAE Credit 14	Sustainability in New Employee Orientation	2		
PAE Credit 15	Employee Sustainability Educators Program	5		
Tier Two	Human Resources Tier Two Credits	0.75		
Investment				
PAE Credit 16	Committee Socially Responsible Investment*	2		
PAE Credit 17	Shareholder Advocacy*	5		
PAE Credit 18	Positive Sustainability Investments*	9		
Tier Two	Investment Tier Two Credits	0.75		
Public Engagen	nent			
PAE Credit 19	Community Sustainability Partnerships	2		
PAE Credit 20	Inter-Campus Collaboration on Sustainability	2		
PAE Credit 21	Sustainability in Continuing Education*	7		
PAE Credit 22	Community Service Participation	6		
PAE Credit 23	Community Service Hours	6		
PAE Credit 24	Sustainability Policy Advocacy	4		
PAE Credit 25	Trademark Licensing *	4		
Tier Two	Public Engagement Tier Two Credits	0.75		
	Total	100		
* credit does not apply to all institutions				
CATEGORY 4	: INNOVATION (IN)			
Credit Number	Credit Title Possible	Points		
IN Credit 1	Innovation Credit 4	1		
IN Credit 2	Innovation Credit 4	1		
IN Credit 3	Innovation Credit 4	1		

Source: AASHE (January, 2010)

IN Credit 4 Innovation Credit 4