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Fall 2017

2014-16 HSI Progress Report

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HANLEY SUSTAINABILITY INSTITUTE

2014-16

PROGRESS REPORT



UNIVERSITY of
DAYTON

A LEADER IN SUSTAINABILITY

The University of Dayton is furthering decades of sustainability-related education, research and outreach through the work of the Hanley Sustainability Institute (HSI). Leveraging existing programs, degrees and courses, such as the Environmental Biology and Geology degrees, the master's degree in Renewable and Clean Energy, and an undergraduate minor in Sustainability, Energy and Environment (SEE), the Institute is making enormous strides to become a leader in sustainability education.

Over the last two years, HSI has developed a cross-disciplinary network of innovative people and projects, stimulating and supporting dynamic collaboration between the College of Arts and Sciences, School of Engineering, School of Education and Health Sciences, School of Business Administration, the University of Dayton Research Institute, and within the community. Evolving areas of focus and expertise include energy and sustainable solutions, water resources initiatives and local food insecurity projects.

Faculty research and expertise are integral parts of the Institute, which help foster a “campus as a laboratory”, cultivating student involvement on cutting edge sustainability solutions. Drawing upon UD's community-oriented, collaborative spirit, HSI is building new on-campus academic programs for sustainability education and partnering with forward-thinking organizations to impact communities locally, nationally and internationally.

The following pages summarize HSI's progress to date including advances in curriculum, community engagement, scholarships, conferences and conversations, campus sustainability, and experiential learning and leadership development.

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CURRICULUM

HSI has worked to support existing—and create new— sustainability-focused opportunities for faculty development and for students seeking degree programs and experiential-learning and study-abroad experiences. In addition, the Institute has established initiatives aimed at introducing first-year and high-school students to the importance of sustainability.

DEGREE PROGRAM DEVELOPMENT

With over 90 students, the SEE Minor has broadened its course offerings and the first-year SEE Learning Living Community (LLC) continues to attract large numbers of students. A group of SEE faculty, facilitated by the Learning Teaching Center, have worked to create student learning outcomes and a curricular structure for a SEE Major. This work is two years ahead of the original development timeline. The SEE Program is expected to be housed in HSI with its own program director. The program director will be responsible for administering the SEE minor, completing work on and administering the Graduate Certificate, and working with faculty to implement the new SEE Major.

COURSE DEVELOPMENT

In Fall 2015, faculty were invited by the Provost's Office and HSI to apply for course development grants. Our Learning Teaching Center hosted workshops for faculty interested in creating sustainability courses. Fifteen course proposals from eleven different departments across campus were subsequently awarded grants. (See page 5 for a listing of new courses.) Another request for sustainability course development proposals will be issued in Fall 2016.

STUDY-ABROAD OPPORTUNITIES

The success of past sustainability-themed study-abroad experiences in Leipzig, Germany in 2011 and 2015 has prompted HSI to develop new study-abroad opportunities for students. Several HSI-associated faculty have been working with the Center for International Programs and the College of Arts and Sciences Dean's Office to develop criteria for location, participant selection and programming for these new and exciting opportunities. Based on these discussions, the following three summer study-abroad programs have been identified: Berlin (2017), Peru (2018) and China (2019).

FIRST-YEAR AND HIGH-SCHOOL EXPERIENCES

HSI partnered with the Rivers Institute and the City of Dayton to distribute 2,200 reusable water bottles to incoming first-year students as part of New Student Orientation (NSO) 2015. NSO activities included a sustainability-focused convocation address and a presentation by upper-class students on opportunities for involvement. This partnership will continue for NSO 2016.

HSI also partnered with the Office of Enrollment Management to develop a week-long summer program for high-school juniors and seniors focused on Sustainable Food Systems that is designed to encourage exploration of sustainability education in college. It will be led by UD faculty and students and offered to 32 high-school students in the summer of 2017.

QUICK LOOK >>

90+ SEE Minor Students

SEE Major In Development

Graduate Certificate in Development

15+ Course Development Grants

3 Study-Abroad Programs

2,200 Reusable Water Bottles

100+ 1st Years in LLC

High-School Student Experience



NEW SUSTAINABILITY COURSES

COURSE	DEPARTMENT	FACULTY
The Light that Sustains Us: Exploring Art and Faith	Art and Design and Religious Studies	Dr. R. Darden Bradshaw and Dr. Sandra Yocum
Art, Sustainability and Community	Art and Design	Dr. Hsuan Tsen and Glenna Jennings
Global Art, Nature and Sustainability	Art and Design	Dr. Roger Crum
Biology of Infectious Disease	Biology	Dr. Yvonne Sun
Sustainable Biosphere	Biology	Dr. Carl Frieze
Green Chemistry	Chemistry	Dr. Judit Beagle
Sustainable Water and Waste Infrastructure	Civil and Environmental Engineering	Dr. Denise Taylor
Cities and Energy	History and English	Dr. Janet Bednarek and Dr. John McComb
Mining History	History	Dr. Caroline Merithew
Sustainable Industrial Systems	Mechanical and Aerospace Engineering	Dr. Jun-Ki Choi
Philosophy of Sustainability	Philosophy	Dr. Viorel Paslaru
The Politics and Implementation of Sustainability	Political Science	Dr. Michelle Pautz
Giving Up Good: Renunciation, Asceticism and Sustainability	Religious Studies	Dr. Jana Bennett
Place, Culture and Social Justice	Sociology, Anthropology and Social Work	Dr. Miranda Hallett
Sustainability in Education	Teacher Education	Dr. Thomas Falk and Dr. Joseph Watras

COMMUNITY ENGAGEMENT

HSI's community work has focused primarily on local food insecurity projects, water resources initiatives and energy solutions. In all cases, UD students, staff, and faculty have taken a collaborative approach, working with longstanding community partners to develop and implement initiatives and projects.

FOOD INSECURITY

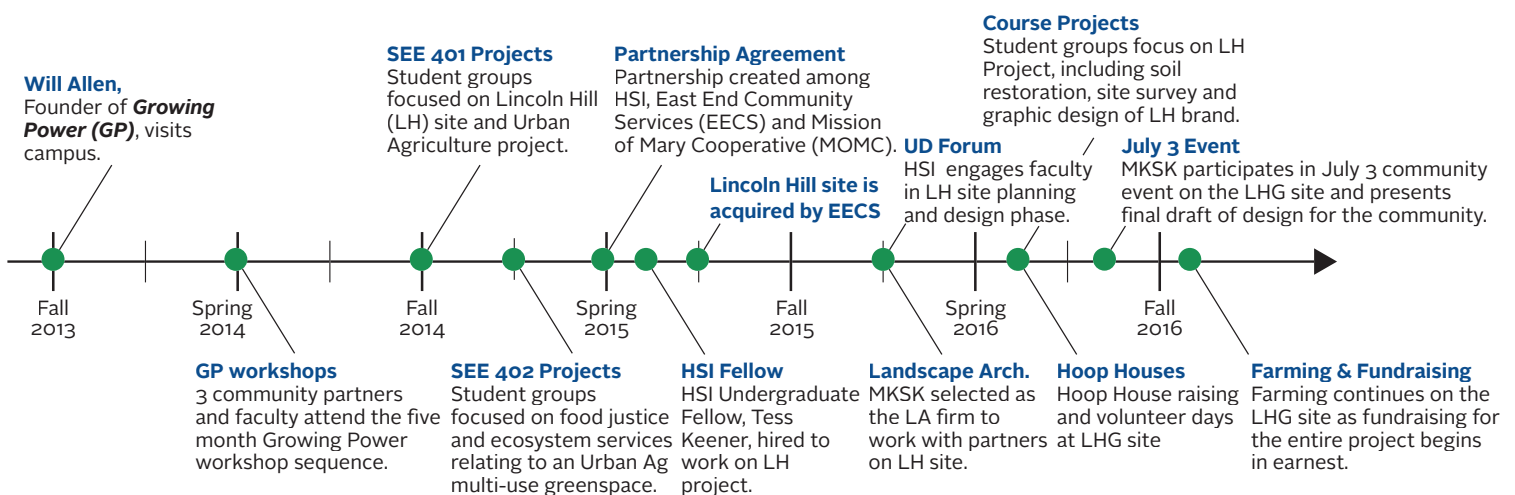
HSI staff and students are addressing the regional food insecurity crisis through the new Lincoln Hill Gardens partnership (project detail on page 7) and through active participation in regional food-insecurity conversations. Collaborative discussions with community partners and city and county agencies have led the Institute to offer tailored resources and support to organizations that combat food insecurity in the Dayton region, such as the emerging Hall Hunger Initiative and the Partners for the Environment Food Team.

WATER INITIATIVES

HSI has partnered with the Rivers Institute to support its River Steward Summer Intern program and to help "green" the educational message and physical plant of the RiverMobile by investing in high-efficiency lighting and exploring ways to supply power through roof-mounted solar panels. A group of engineering students enrolled in a class at the Innovation Center are spearheading the solar-panel project, which is fostered through the Institute's sponsorship.

ENERGY SOLUTIONS

Partnerships with the School of Engineering's Renewable and Clean Energy Graduate Program (RCL), Facilities Management (FM), and several other organizations that include UD alumni in their ranks are helping to extend the impact of HSI on and off campus. Recent connections made with the Ohio Manufacturers Association (OMA) are leading to new areas of collaboration with companies interested in sustainable energy solutions in their practices and processes. A significant project with an Ohio-based global manufacturer is currently underway in the Industrial Assessment Center (IAC), further expanding the reputation of HSI.



LINCOLN HILL PROGRESS

LINCOLN HILL GARDENS

In an almost unbelievable statistic, the Dayton Metropolitan area ranks worst in Ohio and 9th in the country in food hardship. Nearly every urban area in the Miami Valley is a food desert—the Dayton core is no exception. To assist in combating this problem, HSI has partnered with local non-profit organizations East End Community Services and Mission of Mary Cooperative to initiate change within the urban regions of East Dayton. The initial goal of this partnership is to develop a sustainable, multipurpose urban agriculture and community green space within Dayton's Twin Towers Neighborhood.

Known as Lincoln Hill Gardens, this five-acre site, located among

the residents it will serve, is being transformed into a sustainable multipurpose site with educational and recreational elements that increase neighborhood access to fresh, healthy



foods and offers open green space for community gatherings and nature play. MKSK, a Columbus-based landscape architecture and urban design firm, is leading the design and planning process for the Lincoln Hill Gardens



project by masterfully integrating input from both community and UD stakeholders. Through collaborative meetings and workshops, MKSK has developed a master site plan for Lincoln Hill Gardens (found below) that includes elements of urban agriculture, community gathering, outdoor education, and recreation. In addition, they have developed a phased plan and estimated budget. Additional fundraising will be required to execute the MKSK plan.



FINAL SITE DESIGN

SCHOLARSHIP

Scholarship is a central focus of HSI and the work of its faculty, graduate students, and undergraduate researchers. Visiting scholars as well as local on-campus experts have been formally connected to HSI and represent a powerful resource for sustainability education. The University is significantly investing in further strengthening these resources, with the approval of a new senior faculty position.

DIRECTOR OF RESEARCH

Dr. Bob Brecha's work as Director of Research has included organizing faculty scholarship grants, mentoring undergraduate and graduate students, organizing and participating in conferences, hosting a guest researcher, participating in a climate-change and environmental justice-themed theater piece, maintaining an active research and publication program, and conducting public presentations, talks and media appearances.

SCHOLAR FOR FAITH AND THE ENVIRONMENT

Dr./Sr. Leanne Jablonski FMI facilitated campus and greater community dialogues, formed teams and designed educational events, and developed partnerships and media outreach focused on implementing Pope Francis' Laudato Si' and the Catholic and Marianist dimensions of sustainability. She mentored student leaders and presenters, participated in conferences, and was a featured speaker at concerts, churches and statehouse press conferences on energy policy.

VISITING ARTIST

Michael Bashaw, the Dayton-based sculptor, musician, arts educator and environmental activist has had a "home base" in the Institute for the last year. His work is described in detail on page 9.

POST DOCTORAL AND GRADUATE FELLOWS

An HSI post doc and three HSI Graduate Fellows have worked this year in the shared HSI/HRC space. Two of the graduate assistants are joint positions with HSI and the Renewable and Clean Energy Graduate Program (RCL) and are working with Facilities Management (FM) on campus projects. A third Graduate Fellow works with the Acting Head of HSI and FM as part of her graduate education in the Masters in Public Administration program. She is helping prepare the new June 2016 Sustainability, Tracking, and Assessment Rating System (STARS) submission.

VISITING SCHOLAR

In early 2016, HSI hosted an international scholar, Dr. Falko Ueckerdt from the Potsdam Institute for Climate Impact Research (PIK). He worked with Research Director Bob Brecha on a project looking at the integration of fluctuating renewable energy sources into existing electricity grids, in addition to providing guest lectures across campus and completing his own research with PIK colleagues.

FACULTY SCHOLARSHIP GRANTS

Two rounds of Hanley Scholarship Grants have been awarded. Recipients were selected from applications submitted by teams from across campus. Teams funded include UDRI researchers, and faculty from the Schools of Business Administration and Engineering, and the College of Arts and Sciences. Grants total \$380,000.



VISITING ARTIST: MICHAEL BASHAW

With its immediate, sensory demands, art has the potential to engage audiences with issues in deeply resonating ways. Rather than teach or preach, art can connect audiences emotionally and experientially with an idea or theme.

Embedded into Bashaw's art and process are many of the principles key to advancing a sustainable treatment of the environment, including recycling and salvaging of materials, using strategies that "leave no trace," focusing on group-based experiential projects, including and empowering all individuals to make a difference, and being sensitive to place—its aesthetics, history and resources.

Bashaw shared his perspective with student River Stewards during their orientation trip down the Great Miami River, contributing to their introduction to all aspects of Dayton and the river. Paddling along with students, he challenged them to focus on experiencing both the history and natural beauty of the space.

He also navigated the construction of a large-scale, temporary installation during Sustainability Week, aimed at calling attention to the overuse of disposable water bottles. Bashaw invited classes and passers-by to build a bamboo framework to hang 120 salvaged plastic panels—each

signifying one percent of the bottles that might be consumed each day on campus.

At an all-day retreat focused on Laudato Si' and held at the Marianist Environmental Education Center (MEEC), Bashaw enhanced the experience by leading participants in an improvisational musical meditation.

Re-uniting with the River Stewards, Bashaw again used art to further the message of sustainability, working with students to record an evocative soundtrack destined for the Rivers Institute's RiverMobile, which travels the region to introduce area students to basic ecological lessons about the river and watershed.

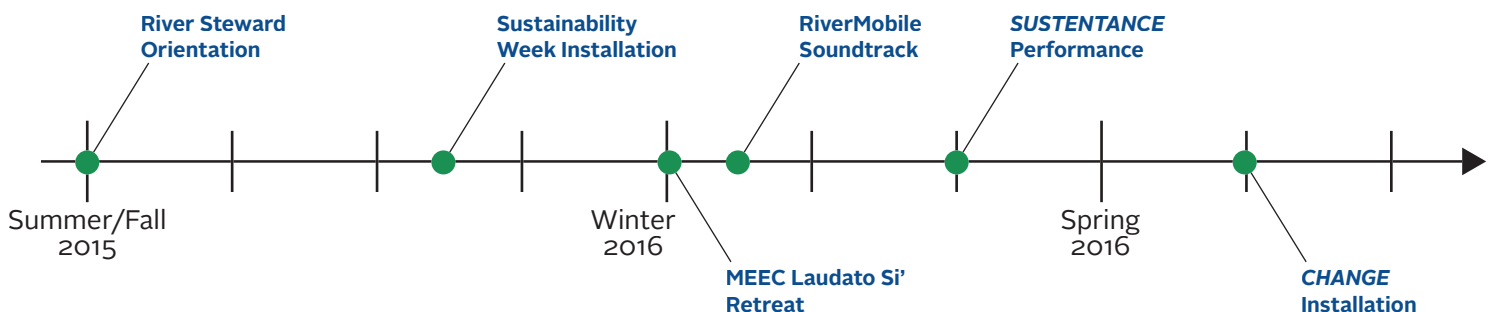
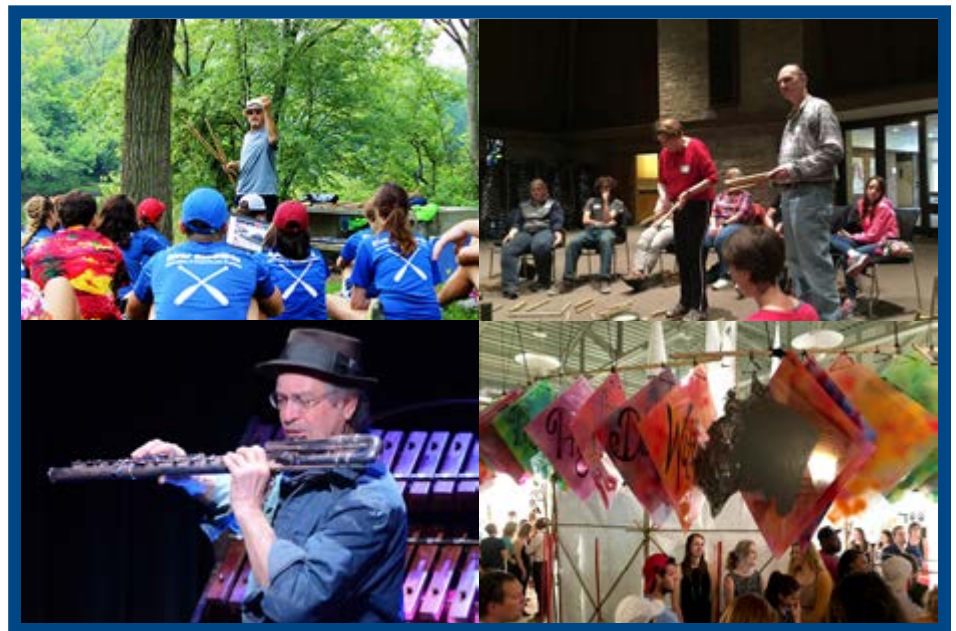
Bashaw also constructed and played kinetic sound sculptures for an experimental theatre presentation, *Sustenance*. Bashaw's interactive musical sets/instruments were crafted

What's most important to me is to find ways to address issues of the environment from a local point of view. I think that's how change happens.

- Michael Bashaw

entirely of salvaged materials, setting the tone for the theatrical experience.

Capping a year's focus on "daily climate," Bashaw guided 70 students in the creation of the final ArtStreet installation, which was called—and called for—CHANGE. Over the course of several weeks, these students designed a moving installation and performance that addressed environmental and social challenges encountered in their world.



CONNECTING ART AND ENVIRONMENT

CONFERENCES AND CONVERSATIONS

In just a short time, HSI has become well known for the creative and impactful conferences and conversations it has brought to UD and the Dayton region. These have ranged from the highly successful Divest/Invest conference, to a scholarly gathering to discuss the vision and call to action of Laudato Si', to various emerging regional conversations focused on sustainability.

DIVEST / INVEST

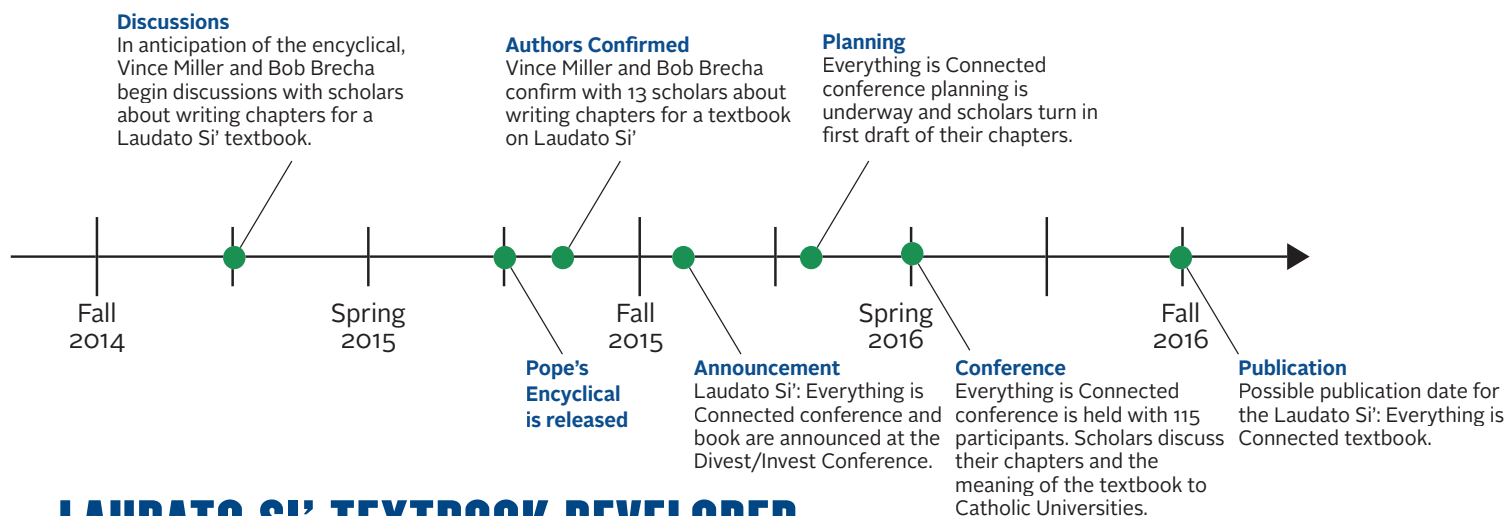
The Divest/Invest Conference brought together over 120 university leaders, scholars, student activists, investment specialists, and community leaders to share the theological and ethical underpinnings of divestment and investment initiatives, strategies for engaging senior institutional leadership, financial mechanisms for divestment, and institutional responses to climate change.

LAUDATO SI': EVERYTHING IS CONNECTED

HSI and Vince Miller, the Gudorf Chair in Catholic Theology and Culture, convened the Laudato Si' conference, a first of its kind. The conference included a public keynote talk by Ottmar Edenhofer, chief economist for the Potsdam Institute for Climate Impact Research. The outcome of the conference will be the creation of a textbook for use at Catholic universities. We anticipate that this will likely be the first textbook published that directly educates around the Laudato Si' encyclical.

CONVERSATIONS ON & OFF CAMPUS

A signature role that HSI has played in the last two years has been to co-sponsor a number of important sustainability-related regional conversations. These have included co-sponsoring the Montgomery County Food Summit, providing a breakout session on water resources at the River Summit, leading a discussion on innovation in water technology in partnership with Dayton's Water Roundtable, and building a relationship with UD's nationally recognized Industrial Assessment Center (IAC).



LAUDATO SI' TEXTBOOK DEVELOPED

LAUDATO SI': EVERYTHING IS CONNECTED

Internationally recognized theologians, ethicists, economists and scientists gathered at the Laudato Si' conference to discuss the vision of environmental interconnection in Pope Francis' encyclical Laudato Si' and his call to action to the world. The common goal was to create the first-of-its-kind textbook on Laudato Si'.

"Pope Francis has captured the world's attention with his spiritual and moral call to address the climate crisis in 'Laudato Si,'" said Vincent Miller, conference organizer and Gudorf Chair in Catholic Theology and Culture at the University of Dayton. "We are gathering leading scholars to discuss the details of Francis' religious teaching, to understand the science of the crisis we face and to sketch the actions and policies needed to respond. Our focus will be on equipping younger generations with the understanding and tools they need to face this challenge."

The conference kicked off with a free, public talk by Ottmar Edenhofer,

chief economist of the Potsdam Institute for Climate Impact Research. In addition to Pope Francis' encyclical, Edenhofer discussed the recent United Nations Framework Convention on Climate Change and the future of climate policy.

Speakers over the next two days included Erin Lothes, an assistant professor of theology at the College



of Saint Elizabeth who researches faith-based environmentalism and energy ethics; Elizabeth Groppe, a Xavier University theologian who sits on the Climate Change Task Force of the Archdiocese of Cincinnati; Daniel Castillo, a theologian specializing in ecology at Loyola (Maryland) University; Douglas Christie, a professor of theology at Loyola

QUICK LOOK >>

115 Conference Participants
62 UD Student Attendees
350+ Attended Opening Talk
20 Outside Organizations
13 Speakers/Panelists

Marymount University who studies the interface of ecology and Christian spirituality; Maria Teresa Dávila, who teaches Christian ethics and social justice at Andover Newton Theological School; Anthony Annett, an economist who is a climate change and sustainable development advisor at Columbia University's Earth Institute; and Daniel DiLeo, project manager of the Catholic Climate Covenant.

Presenters from the University of Dayton included Miller; Sandra Yocum, associate professor of religious studies, who researches theological dimensions of U.S. Catholic life; ecologist Sister Leanne Jablonski, S.M., HSI Scholar for Faith and the Environment and Marianist Environmental Education Center director; and physicist Bob Brecha, HSI Director of Research.



DIVEST / INVEST

In his compelling encyclical, *Laudato Si'*: On Care for Our Common Home, Pope Francis states that climate change “represents one of the principal challenges facing humanity in our day.” He calls for bold action locally and globally, at both the individual and institutional levels.

The Divest/Invest Conference at the University of Dayton engaged Pope Francis’ call to action by convening over 120 representatives of diverse Catholic institutions—colleges and universities, healthcare systems, social service and relief agencies, and religious orders—to discuss the practical implications of the Church’s teaching and of the climate crisis for institutional investment practices. Catholic institutions who have committed to divest from fossil fuels and reinvest in renewable energy solutions were highlighted.

The conference aimed to more deeply engage the Catholic community in the broader fossil fuel divestment movement, which urges governments,

businesses, pension funds, educational institutions, NGOs, foundations, and religious institutions to divest from the top fossil fuel companies and to move those assets into clean energy investments. In this effort, the conference explained the moral and financial imperative for Catholic institutions to divest and what the process entails. It shared success stories of divestment and connected the institutions to the resources and support networks they will need to divest on a practical level and



redirect their resources to desirable investments. It also encouraged Catholic institutions to engage

QUICK LOOK >>

59 Participants

65 Student Attendees

34 Speakers from UD, Financial Organizations, Healthcare, Religious Organizations, Practitioners and fellow Universities

in the conversation driven by the broader Divest-Invest movement and further elevated UD’s profile in the sustainability stewardship movement.

Conference organizers and sponsors included HSI, Divest-Invest Philanthropy, the Franciscan Sisters of Mary, Health Care Without Harm, GreenFaith, and Arabella Advisors.



CAMPUS SUSTAINABILITY

HSI seeks to engage students, faculty and staff with campus as an experiential learning opportunity. From serving as a facilitator for student-led events and organizations to driving collaboration amongst offices on campus, HSI strives for a more sustainable UD.

GREEN REVOLVING FUND

A 2012 student-led research project suggesting the University establish a Green Revolving Fund has now been put into action by UD's Vice President of Finance and Administrative Services. The University has invested \$1 million to seed the fund, which is designed to encourage the community to look at the entire campus as laboratories and testing grounds for energy-saving ideas. (See page 15 for more information.)

SUSTAINABILITY WEEK

Students celebrated a banner year in sustainability in 2015. Held in the Fall semester, Sustainability Week 2015 featured innovative activities throughout the week, including thought-provoking speakers, club meetings and conversations focused on sustainability, tours of the Rivers Institute's RiverMobile, and a student-led campus cleanup day. Approximately 1500 students attended with 30 student volunteers working during the week.

STUDENT ORGANIZATIONS

This past year has seen unprecedented growth in the number of sustainability-related student organizations and student involvement. Led by a very active Sustainability Club, additional organizations include the ETHOS Club, RE-volv, a local chapter of the Food Recovery Network, Flyer Agriculture and the Vegetarian Club.

STARS

With more reporting categories completed with the submission, the 2016 STARS report boosted the university's score from its 2014 rating, and will earn UD a silver rating. The report updates university-wide sustainability accomplishments and highlights areas of opportunity for the future.

FACILITIES MANAGEMENT & THE OFFICE OF SUSTAINABILITY

Collaboration is key to campus sustainability initiatives. HSI jointly funded a Green Kiosk program that captures campus energy usage. Don Pair, Acting Head of HSI, continues to serve on the Beth Keyes-led FM Environmental Sustainability group and Kurt Hatcher (FM) is on the HSI Executive Council. Discussions with both FM and Advancement continue on a range of campus sustainability projects, and have included Andy Horner, Molly Wilson, Chris Morrison, as well as other UD leaders.

RENOVATION OF CHAMINADE HALL

HSI and HRC will be housed together in a newly renovated Chaminade Hall, which we envision as a net-zero-energy and net-zero-waste integrated space with classrooms, project and community meeting areas, faculty and staff offices, and a small lecture hall. The actual design process will be a model of collaboration involving student and faculty input at all stages and connecting to multiple courses, projects, and undergraduate and graduate theses.



AASHE STARS RATING



As UD moves into a leadership role in sustainability education, the STARS report guides the way as both a benchmark of our accomplishments and a guidepost for future endeavors. The Sustainability, Tracking, and Assessment Rating System, created by the Association for the Advancement of Sustainability in Higher Education (AASHE), is a tool we use for internal and external evaluation of our sustainability initiatives.

Internally, it highlights our successes, strengths and areas of potential when compared to past submissions. In addition, our most recent submission served as a focal point for engaging departments and divisions across campus—operational, administrative and academic—in conversations about sustainability and its relationship to campus activity.

AASHE defines sustainability as the three pillars of economic well-being, social equity and ecosystem health. As such, completing the STARS report meant reaching out to a broad range of UD community members, from Human Resources, the Office

of Diversity and Campus Ministry to the more familiar faces of academics, community partners and facilities. These conversations aid in expanding the dialogue and value of sustainability at UD and in the greater Dayton community.

Externally, STARS provides a tool for measuring UD's accomplishments and strengths against other institutions around the country and world, whether they are other mid-sized comprehensive or national Catholic universities. When complete,

A PEER LEADER IN:

- Curriculum
- Public engagement
- Coordination, planning and governance

this year's submission will rank us amongst other universities based on our work in academics, community engagement, administration and planning, and operations.

From the categories completed to date, UD ranks **above average**

QUICK LOOK >>

STARS SILVER

8 new categories submitted

4 with increased rating

20 with max points

3 exceed national average

in sustainability-focused public engagement, curriculum and planning, when compared to other mid-sized U.S. schools. In addition:

- » This year's report captures an additional eight categories of data, **adding 25 points**—most notably bringing credit to UD's academic research, learning outcomes, and incentives for developing courses.
- » We recorded a **16% increase** in four other categories: academic course offerings, outreach and publications, community service, and sustainability planning.
- » In 20 categories UD **achieved maximum scores** representing 48 points in areas such as undergraduate and graduate program offerings, immersive experiences, and new student orientation.

KEY AREAS OF IMPROVEMENT SINCE 2014

- Student life (more opportunities available)
- Academic courses (more courses sustainability focused or related)
- Learning outcomes (more degree programs include sustainability-related learning outcomes)
- Incentives for developing courses (new award program in 2015)
- Faculty Research (increase in the number conducting sustainability-related research)
- Community service participation
- Academic departments (increase in the number of departments represented)
- Support for research (new grant program)
- Sustainability planning (inclusion of sustainability goals in the 2015-2017 transition plan; and the School of Engineering strategic plan)
- UD designated as fair trade university, a student-led effort leading to application and declaration signed by President Curran and new committee

GREEN REVOLVING FUND

The University recently invested \$1 million to establish the Green Revolving Fund (GRF), which supports projects that create a greener campus and provide learning opportunities for students.

- ➔ Project ideas can come from anyone on campus—students, faculty, staff, researchers—who work with facilities to bring projects to life.
- ➔ Projects are approved by the GRF Oversight Committee based on projected savings in operational costs and educational element.
- ➔ For each project, ***energy savings are credited back to the fund to support future projects.***
- ➔ A fundraising campaign is underway to bolster the fund, aiming to match the \$1 million and grow it annually.
- ➔ UD has pledged to match gifts that exceed that \$1 million mark.

OVERSIGHT COMMITTEE

Committee Coordinator
Steve Kendig, Director of Energy Utilization and Contractor Compliance

Committee Sponsor
Andy Horner, Vice President for Finance & Administrative Services

Committee Members
Beth Keyes, Vice President for Facilities & Campus Operations

Chris Morrison, Associate Vice President University Advancement

Chris Wagner, Graduate Student

Don Pair, PhD, Associate Dean for Interdisciplinary Research and Experiential Initiatives, Acting Head, Hanley Sustainability Institute

Matt Worsham, Graduate Student

EXPERIENTIAL LEARNING & LEADERSHIP DEVELOPMENT

Experiential learning provides students with invaluable insights, builds confidence and strong leadership skills, and lends to further progress and innovation. A principal goal of HSI is to cultivate student leadership of sustainable solutions by creating a “campus as a laboratory” environment for students across disciplines. Such an approach allows students to actively engage in the full scope of learning, from the initial concept through final execution, including research, design, development, implementation and evaluation.

SCHOLARSHIPS & INTERNS

Students formally worked with HSI over the past year both as interns and as recipients of HSI Experiential Learning (EL) Scholarships. Interns, such as Chris Wagner and Saehan Lenzen, worked to support HSI initiatives including Sustainability Week, the SEE Minor, collaboration with Facilities Management and the STARS reporting process. Recipients of the EL Scholarships included a group of interdisciplinary students who worked in collaboration with the Department of Geology on the implementation of a pilot precision agriculture sensor network at the Mission of Mary Farm.

CAMPUS PARTNERSHIPS

For the last two summers, a pilot joint ETHOS – SEE program in Guatemala has provided students with the opportunity to focus on hands-on sustainability projects with, among others, coffee growers at La Armonia Hermosa in Santa Maria de Jesus. The project utilizes the ETHOS model to explore the site of a coffee plantation and plan a water supply project. It is a great learning process for students and started a new partnership between ETHOS and the College of Arts and Sciences/HSI. The goal is to learn from the ETHOS model while also broadening student participation to a University-wide experience. Another pilot program in collaboration with the University Honors Program is providing students with the chance to learn urban agriculture practices in India and then return to Dayton and work at the local Mission of Mary Cooperative.

SUSTAINABILITY REPS & LEADERS

UD’s newest program, Sustainability Representatives and Leaders (UDSRL) began as a student research project (SEE 401) focused on University EcoRep programs at other universities. Our program will strive to engage students at a volunteer (Reps) level, as well as support upper-level undergraduate and graduate student leaders to facilitate sustainability initiatives on campus.



STUDENT-LED
HSI OPEN FORUM

HANLEY UNDERGRADUATE FELLOW:

TESS KEENER

As the first Hanley Undergraduate Fellow, Tess Keener exemplifies student leadership development. Tess first engaged in sustainability opportunities at UD as part of her first-year experience activities, engaging in sustainability-themed coursework, co-curricular programming and service opportunities. Though Tess started out as a Mechanical Engineering major, she developed an interest in a more interdisciplinary approach to the study of sustainable technology and development. By self-defining a sustainable development general studies major and completing the SEE Minor, Tess better aligned her interests with the growing availability of sustainability curriculum at UD.

Tess also sought opportunities to become involved in the community. While completing a class project focused on one of HSI's new initiatives, Lincoln Hill Gardens (LHG), Tess found her opportunity to make a difference. Tess began her work with HSI as Undergraduate Fellow laying the groundwork for the LHG Partnership and Project. This work culminated in a request for proposal for the landscape design firm and selection of MKSK as partner.

Tess continued on after graduation as LHG Project Coordinator. Her time as LHG Coordinator led to multiple faculty-project partnerships, successful opportunities for student experiential learning, the activation of the site with the installation of hoop houses, and ultimately to a successful partnership with MKSK and a comprehensive plan for the future development of the LHG site. As a result of this opportunity, Tess is currently looking for career opportunities to pursue her passion to foster sustainability while serving the community.



LINCOLN HILL GARDENS SITE
TWIN TOWERS NEIGHBORHOOD
DAYTON, OHIO

VISIBILITY CAMPAIGN

A high priority for the Hanley Sustainability Institute is to increase the visibility of sustainability initiatives on and off campus. In collaboration with UD marketing and media relations, and with the support of an HSI graduate assistant beginning spring 2016, various promotional strategies improved the visibility and assured viability of the Institute.

The brand establishment efforts utilize conventional and social media:

- ➔ Articles and news stories featured in local and national media promote the distinctive features and research efforts of the Institute.
- ➔ Program advertisements and articles in print and web-based sustainability, community and business publications.
- ➔ Interactive website embedded across UD main pages presenting the mission and latest work of the Institute.
- ➔ Brand consistent and increasingly engaging content posted on HSI Facebook page, Twitter and Instagram accounts featuring all news stories, announcements and events.
- ➔ Conferences and conversations supporting videos are now available on the University of Dayton YouTube channel featuring HSI playlist.
- ➔ Student-driven social media campaigns utilized UD official Snapchat account expanding outreach to thousands of followers, including incoming students and peer institutions.

The remaining pages highlight some of the national and global exposure the Institute received.

CURRICULUM AND EXPERIENTIAL LEARNING

University of Dayton
February 26 · 🌐

#ProUD of our students who live out the mission to "Learn, Lead and Serve" in our local and global communities.



The 25 best colleges for students who want to change the world
Based on Princeton Review's 2016 rankings.
BUSINESSINSIDER.COM

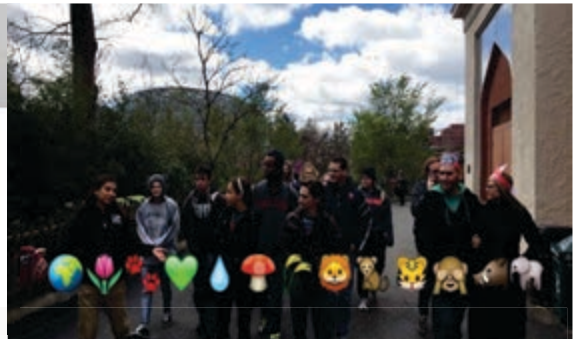
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Ann Hudock, Lo Ca and 370 others · Top Comments ·

153 shares

BUSINESS INSIDER STRATEGY

udayton



Snapchat takeover! Any guesses?
Sat 10:11 AM · 4.2K · 4

NASPA Sustainability retweeted
UD Hanley Sust Inst @ud_hsi · 61d
5 ways to celebrate
#EarthDay2016 @univofdayton 🌱
@UDSustain_Club @leannetmi
@Marianists @ArtStreetUD
pic.twitter.com/QR5CcLo7tP

17. University of Dayton

Location: Dayton, Ohio

True to the school's unofficial motto — "Learn. Lead. Conserve." — most University of Dayton students are "very conscious about community service" and eager to get involved.

Students can enroll in the Sustainability, Energy, and the Environment minor or participate in several of the school's organizations focused on environmental-development projects on campus, in the local community, and around the world.



Facebook/University of Dayton

UD Theatre @UDTheatre · Feb 4
Get your fix for Sustenance now @ udaytontickets.com!

THE UNIVERSITY OF DAYTON
THEATRE, DANCE, & PERFORMANCE TECHNOLOGY PROGRAM AND
THE HANLEY SUSTAINABILITY INSTITUTE PRESENT

SUSTENANCE

A "CHOOSE YOUR OWN" ADVENTURE PERFORMANCE INSTALLATION EXPERIENCE
FEATURING KINETIC SOUND SCULPTURES FROM MICHAEL BISHARA



FEBRUARY 19 & 20 AT 8:00 PM
FEBRUARY 21 AT 8:00 PM
BISHARA LOFT HALL · BLACK BOX THEATRE
88 W. UD RD. 912 GENERAL ADMISSION
BOX OFFICE: 937.229.2545 OR TICKETS.UDAYTON.EDU



LIBRARIES

Living Glass: Sustaining Memory Through Light

On exhibit April 3 - July 20. Students and faculty transformed reclaimed stained glass windows from the Chapel of the Immaculate Conception into new works of art that communicate what the University's Marianist identity and community mean to them.

University of Dayton
April 8 · 🌐

The former nave windows of the chapel were full of light and memory. Student and faculty artists allow them to shine again in a Roesch Library exhibit through July 20.



Chapel memory sustained by student artists
Tiny pieces of glass crowd the projector. Glowing fragments scatter color across the Roesch Library wall. You are transported into a morning Mass 75 years ago at the Chapel of the Immaculate Conception. This is the experience of senior Frankie...

UD.QUICKLY.UDAYTON.EDU

Like Comment Share

Katy Kelly, Carly Hall and 192 others · Top Comments ·

UD Hanley Sust Inst @ud_hsi · May 17
High school junior or senior? Register for this summer program +earn credits! @univofdayton go udayton.edu/summersustains...

COME TO THE TABLE.



Dayton Daily News
Dayton's #1 Source for News

Posted: 5:42 a.m. Tuesday, April 12, 2016

UD offers new summer programs to high school students

COMMUNITY ENGAGEMENT



Input needed to turn former Lincoln School site into urban garden

UD students, community groups partner to create green space



Input needed to turn former Lincoln School site into urban garden



SCHOLARSHIP



My Renewable Electrons

By BOB BRECHA • DEC 28, 2013

Why The Pope's Encyclical Laudato Si' Is Important For Non-Catholics

By BOB BRECHA • SEP 21, 2013

Arthur Morgan And A Century Of Sustainability

By BOB BRECHA • OCT 5, 2013

Cold Winters And Global Warming

By BOB BRECHA • MAY 7, 2013

College Campuses, Students Look For Sustainable Food Systems

By BOB BRECHA • MAY 7, 2013

Ohio's Renewable Energy Backpedaling

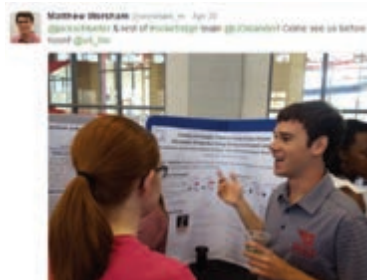
By BOB BRECHA • NOV 9, 2013

Refugees And Climate Change

By BOB BRECHA • DEC 7, 2013

Does Fighting Climate Change Threaten The Economy?

By BOB BRECHA • JUL 9, 2013



Matthew Worsham @mattworsham

Sry if I claimed we'd be showing #solarfridge to 50K @USAScienceFest this wkend. I've been told it's closer to 250K! @ud_hsi #Scifest #EPa3



ETHOS team presents Solar Fridge in DC

The ETHOS Solar Fridge project has spanned four years and two continents, and now the team of engineering students and faculty are gearing up to present the project at the USA Science and Engineering Festival in Washington, D.C. this...



UD Hanley Sust Inst @ud_hsi May 5
Tonight's talk 'On the eco of Wind & Solar Power Generation Variability' is @PEAL_JEEEdayton lecture event. Tune in!



Laurie Guevara-Stone @LaurieGStone May 25
RT @BobBrecha: #CubaSolar2016 Opening session: Renewable energy and sustainable development @ud_hsi



Bob Brecha

Physicist with a deep interest in sustainability, energy and climate issues

Why the Pope's Encyclical Laudato Si Is Important for Non-Catholics

Fossil-Fuel Divestment: Folly or Inevitability

Why the Obama EPA Clean Power Plan Will Help Correct Energy System Market Failures

Nuclear Power - The Solution to Future Energy and Climate Challenges?

Can Free Trade Agreements Be Consistent With Climate Change Mitigation?

Lucidity @LucidityPodcast

There's no place like home. Episode 8 is now available!

UD Hanley Sust Inst @ud_hsi @LucidityPodcast "Let's not be the generation of devastation, let's rebuild our home" ft @BobBrecha #climatechange pic.twitter.com/vaFFsYBw5q



SCHOLARSHIP

The Columbus Dispatch

Home > News > Business

Rally urges end to clean-energy standard freeze



UD Hanley Sust Inst @ud_hsi - Apr 8
@BobBrecha Hearing abt PopeFrancis's #laudatosi at science conf was interesting @AAPTHQ @APSphysics @univofdayton



UD Hanley Sust Inst @ud_hsi - Apr 6
@jeannefmi Bl. Chaminade a patient activist a pragmatist w/ vision
New times, new ways: inclusive, collaborative



CWSF 2016 Alumni Award goes to
Dr. Leanne Jablonski
Tue, May 31 2016
Read More



The Marianists retweeted
UD Hanley Sust Inst @ud_hsi 79d
This week you have an opportunity
to explore #LaudatoSi through the
lens of @Marianists charism with
@jeannefmi
pic.twitter.com/NeG5S6CNaJ



Religious Leaders Stump For Pro-Green Energy Policies

BLANCK CHOW - APR 26, 2016



New Attempt to Keep Ohio Clean Energy Standards on Ice

Public News Service - OH | April 2016 | Download audio



ArtStreet & IAN @ArtStreetUD - Mar 9
Last night's #IAN made students confront the reality that clean water,
the essence of life, is not available to all.



ArtStreet & IAN @ArtStreetUD - Apr 14
Make no mistake folks, the #IAN students are putting in WORK
#CHANGE



CONFERENCES AND CONVERSATIONS

NATIONAL CATHOLIC REPORTER

THE INDEPENDENT NEWS SOURCE

Encyclical-themed week brings prominent cardinals to US

by [Brian Roewe](#) | Oct. 30, 2015

[Francis: The Environment Encyclical](#) [Eco Catholic](#)

Optimism abounds at Dayton divestment conference

by [Maureen Fiedler](#) | Nov. 12, 2015

[Eco Catholic](#)

Dayton divestment conference delves into ways to leave fossil fuels behind

by [Leo J. Schenk](#) | Nov. 12, 2015

[Eco Catholic](#)

Eleven Catholic colleges among Sierra Club's 'cool schools'

by [Brian Roewe](#) | Aug. 24, 2015

[Eco Catholic](#)

Loyola-Chicago climate conference discusses 'nuts and bolts' of fossil fuel divestment

by [James Hug](#) | Mar. 25, 2015

[Eco Catholic](#)

DAYTON BUSINESS JOURNAL

INDUSTRY NEWS • EDUCATION

UD continuing \$35M divestment from fossil fuels

Oct 30, 2015, 3:12pm EDT



J. Anthony Abbott (@Prof Abbott) · Jan 16
Great sess on "sustainability production & practice" @ #AESS2016 -AASHE, schools, & students chiming in. You there?



Industry News

Importance of Investing in Renewable Energy Tops Divestment: Conference

NOVEMBER 19, 2015

((91.3WYSO))

Arthur Morgan And A Century Of Sustainability

By ROB BRIDGES • OCT 5, 2015

CENTER FOR DIGITAL EDUCATION

University of Dayton Divests from Fossil Fuel Investments

The university is one of 460 institutions worldwide that have committed to divest.

91.3 WYSO Public Radio

May 20 at 12:00pm - 4p

Were you one of the thousands of people in attendance at University of Dayton when WYSO General Manager Noreen Ellis interviewed Michael Pollan? You can hear their conversation on our website.



An Evening With Michael Pollan

On April 21, 2016, WYSO General Manager Noreen Ellis interviewed Michael Pollan before an audience of about a thousand people at the University of Dayton.

WYSO 91.3 WYSO



University of Dayton @univofdayton · Apr 21
Author @michaelpollan takes a moment to sit down with students before tonight's #Stand410 keynote (📺 @ud_hsi)



Matthew Worsham (@mattworsham) · Apr 21

Over 1K in @UD_CampusRec for @UDstand4 speaker @michaelpollan. WOW @ud_hsi @univofdayton



UD Hanley Sust Inst @ud_hsi · Apr 21

Earlier tonight a group of @univofdayton students Sustainability Energy & Environment minor met w/ @michaelpollan

3. Bob Brecha, UD SustainClub, Michael Pollan and Meg Maloney



Flyer News @FlyerNews · Apr 21

"But of course, time is the missing ingredient in most of our lives." - @michaelpollan @ud_hsi #Stand410



Michael Pollan retweeted



UD Hanley Sust Inst @ud_hsi
April 21, 2016 at 7:30 pm

@michaelpollan @univofdayton FMI
facebook.com/events/1711488...
pic.twitter.com/75xScwYY6I



CAMPUS SUSTAINABILITY

University of Dayton
May 17 at 4:33pm · 🌐

The University is investing \$1 million to seed the new Green Revolving Fund, designed to encourage the community to look at the entire campus as a laboratory, classroom and testing ground for energy-saving ideas.



Student-led Sustainability

They're turning the campus into a classroom and sustainable practices into saved dollars and cents.

UDAYTON.EDU

Like Comment Share

👤 Dominic Flip, Gregory Hyland and 141 others

Top Comments ·

16 shares



DAYTON
BUSINESS JOURNAL

Exclusive: UD putting \$1M to green venture

May 17, 2016, 10:20am EDT

SEI retweeted



Jessica Davis @jessgldavis · May 17

Incredible #sustainability news from my graduate alma mater, @univofdayton! @ud_hsi #FlyerFaithful #proUD 🌱 udayton.edu/news/articles/...

🔄 5 ❤️ 4 ...



UD Hanley Sust Inst
@ud_hsi

THANK YOU FLYERS!! 🌱💚🌍 #beaUDful
community doing its best to meet our
#demandresponse goals.



DON PAIR
HANLEY SUSTAINABILITY INSTITUTE · UD

University of Dayton
September 18, 2015 · 🌐

Sustainability never looked so chic: Today the University of Dayton Mailing Services accepted two electric cars each valued at \$25,000 to support sustainability efforts across campus. Read more: <http://ow.ly/5ouGR>



Like Comment Share

👤 Daniela Hishon, Carly Hall and 263 others

Top Comments ·

25 shares

UD Hanley Sust Inst Retweeted



Davis Ureña @Ureña · 50m

Just participated in the demand and response test for @univofdayton with peeps from @ud_hsi and the RCL program



UNIVERSITY of
DAYTON

Hanley Sustainability
Institute

