



LEAP INTO PROGRESS

2023 VOLUNTARY UNIVERSITY REVIEW OF THE
SUSTAINABLE DEVELOPMENT GOALS



Carnegie Mellon University
Sustainability Initiative



Sustainable Developmental Goals

<p>1 NO POVERTY</p>	<p>2 ZERO HUNGER</p>	<p>3 GOOD HEALTH AND WELL-BEING</p>	<p>4 QUALITY EDUCATION</p>
<p>5 GENDER EQUALITY</p>	<p>6 CLEAN WATER AND SANITATION</p>	<p>7 AFFORDABLE AND CLEAN ENERGY</p>	<p>8 DECENT WORK AND ECONOMIC GROWTH</p>
<p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</p>	<p>10 REDUCED INEQUALITIES</p>	<p>11 SUSTAINABLE CITIES AND COMMUNITIES</p>	<p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</p>
<p>13 CLIMATE ACTION</p>	<p>14 LIFE BELOW WATER</p>	<p>15 LIFE ON LAND</p>	<p>16 PEACE, JUSTICE AND STRONG INSTITUTIONS</p>
<p>17 PARTNERSHIPS FOR THE GOALS</p>	 <p>Carnegie Mellon University Sustainability Initiative</p>		



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Foreword

Dear Colleagues and Community Members,

On behalf of Carnegie Mellon University's (CMU) Sustainability Initiative, I am pleased to share with you our Voluntary University Review (VUR) of progress during 2023. This year's VUR pays particular attention to the work of Carnegie Mellon's remarkable students, and we are all grateful for their enthusiasm and commitment.

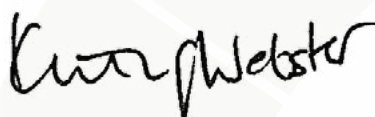
Now settled into its permanent home in the University Libraries, the Sustainability Initiative has taken the essential step of shifting its focus from analysis to action. Director of the Sustainability Initiative Alexandra Hiniker has led this charge as a member of my leadership team, launching initiatives that welcome new voices into the conversation and providing support to those looking to take their work to the next level. As in previous years, and in keeping with the framework of the Sustainable Development Goals, we continue to devote ourselves to an expansive understanding of what sustainability means, including environmental protection, social equity, and economic justice.

A key part of this effort is steered by students from the university. This past year, we established an expanded internship program to enhance student leadership and involvement in our work on sustainability at CMU. Our phenomenal team of six interns has contributed to a wide range of achievements for the initiative, from thematic programming to data analytics to communications. They also took the lead on this year's VUR, developing a methodology for campus engagement, advising on content and purpose, and drafting relevant sections under the guidance of the director of the Sustainability Initiative. Their efforts have propelled the initiative to a new level of impact, as they connected with the campus community, highlighted new areas of interest, and even traveled around the world to U.N. events to engage with these topics on the global stage.

Our successes in sustainability are also tied to our partnerships throughout the CMU community and beyond, which we continue to strengthen and expand. We do this by collaborating with and lifting up the many significant projects and initiatives across campus that demonstrate the ways that CMU community practices are contributing to the 17 Sustainable Development Goals.

Carnegie Mellon's fourth VUR represents an evolution in purpose and structure in order to better serve the university community. We provide resources and summarize sustainability-related work on campus, capturing aspects of the structures and activities that are important to the student, staff, and faculty experience. The new format emphasizes the crucial role that our partners play in this people-centered movement and incorporates increased opportunities for feedback and engagement as we seek to grow and improve even further.

Since publishing the first-ever VUR four years ago, CMU continues to set a standard for sustainability in higher education and to push our own collective commitment to new levels as we pioneer additional ways to advance this crucial work. I am grateful to the essential members of my team, my Steering Committee co-chairs, and to the rest of the CMU community, for enabling us to move closer to a more sustainable world for all.



Keith Webster
Helen and Henry Posner Jr. Dean of the University Libraries
and Director of Emerging and Integrative Media Initiatives



Executive Summary



→ Sustainability Initiative interns meet with the chief of Education Outreach at the United Nations in New York City

The Sustainability Initiative is Carnegie Mellon University's commitment to fostering a sustainable future for all by integrating the Sustainable Development Goals (SDGs), or Global Goals, into education, research, and practices. The initiative goes beyond environmental concerns to include social and economic justice, centering equity.

Established in 2019 with a Steering Committee and Advisory Council, the Sustainability Initiative hired an executive fellow and published the world's first Voluntary University Review (VUR) in 2020. The executive fellow became the director of the Sustainability Initiative in 2022 with the opening of the Sustainability Studio in Hunt Library.

In 2023, the Advisory Council transitioned into three working groups focusing on climate action, measuring engagement, and thematic programming, and formalized an internship program led by the director that places students at the forefront of the Sustainability Initiative. The Sustainability Initiative team divides responsibilities based on individual interests and values, with community engagement, programming strategies, and cross-campus collaborations being shared efforts.

Through the Climate Action working group, in 2023, Carnegie Mellon President Farnam Jahanian made a formal commitment to elevating our efforts to tackle climate change by joining Second Nature's Climate Leadership Network and signing the President's Climate Leadership Commitment. This includes affirming CMU's ongoing commitment to Climate Action by accelerating our transition to net zero emissions by July 1, 2030.

The Measuring Engagement working group assessed previous activities, defined the goals of a new community survey to be launched in the 2024-2025 academic year, and reviewed sample surveys from other universities.

For Thematic Programming, responsibility transitioned from the working group members to the Sustainability Initiative interns in fall 2023, with a focus on creating programming strategies and educational content that was valuable and relevant to CMU students, faculty, and staff.

The previously created dashboards on education, research, and practices have been refined, and the team is now translating analysis into action across these three areas. The Global Goals were incorporated into the university-wide Core Competencies Initiative, and the Sustainability Initiative created educational opportunities for students to engage with the United Nations on a few different occasions. The Sustainability Initiative team developed a strategy together with the Research Information Management Services team to engage all departments on how their faculty's research contributes to the Global Goals, and partnered with the Office of Undergraduate Research and Scholar Development (OURSD) to create

SURF-Sustainability Awards to support research that helps achieve the Global Goals. To demonstrate the many ways that the CMU community is contributing to the Global Goals through practices led by students, faculty, and staff, we highlight key partnerships and provide information to help inspire new collaborations and future projects.

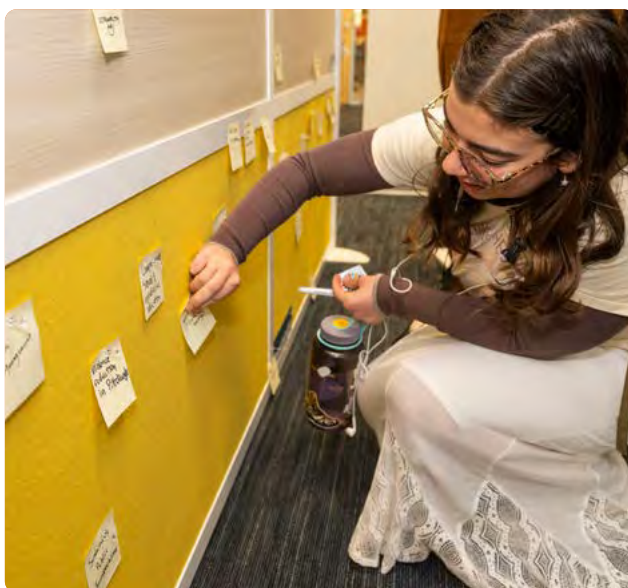
The VURs serve as checkpoints, acknowledging shortcomings, and inspiring action. The methodology this year was updated and involves the CMU community, highlighting people-centered efforts, and providing opportunities for feedback and improvement.

We welcome further engagement from the CMU community and partners and encourage interested colleagues to reach out to sustainability@cmu.edu with questions, suggestions, comments, and encouragement.

In summary, CMU's Sustainability Initiative stands as a pioneering effort, engaging the university community in sustainable practices that contribute to the Global Goals, reflecting a commitment to continuous improvement and positive impact.

Questions?

Please reach out to sustainability@cmu.edu with any questions, suggestions, comments, and encouragement!



Sustainability Studio Grand Reopening ←



Sustainability at CMU

Carnegie Mellon University's Sustainability Initiative is the university's collective commitment to the pursuit of a more sustainable future for all. We are incorporating the Sustainable Development Goals (SDGs), or Global Goals, into education, research, and practices across the campus community, and identifying and lifting up connections and partnerships to achieve them. We use the Global Goals as a framework to integrate sustainability into interdisciplinary events that empower students, faculty, staff, and community partners with tools and knowledge to drive sustainable change. The intention is to go beyond the traditional understanding of sustainability as an environmental issue to incorporate social and economic justice, centering equity.

With the establishment of the Sustainability Initiative Steering Committee and Advisory Council, Carnegie Mellon University's Provost James Garrett committed in 2019 to assessing how the Global Goals were reflected in CMU's education, research, and practice. CMU hired an executive fellow and published the world's first Voluntary University Review in 2020, and in 2022, the executive fellow became the director, and the Sustainability Studio was established in partnership with the University Libraries. The Sustainability Studio serves as a central space for the campus community to forge partnerships across academic and administrative departments. It is dedicated to resources, guidance, connection, and discussion across disciplines. In 2023, the Advisory Council transitioned into three working groups focusing on climate action, measuring engagement, and thematic programming.

The Sustainability Initiative is led by a director and a team of student interns, in consultation with the Sustainability Initiative Steering Committee that meets monthly. The team of undergraduate and graduate students focuses on community

engagement, communication, thematic programming, data analytics, research, and diversity, inclusion, climate, and equity. Within this framework, students use their interests and values to divide responsibilities and shape the goals of their internship and the Sustainability Initiative as a whole. The academic and personal backgrounds of each intern guide their approach and are what motivate interns to create a positive impact in the university community. With only one professional staff member, transparency, trust, and collaboration between the director and the interns make the Sustainability Initiative team effective.

Unique administrative responsibilities are associated with each role, but the meaningful work of community engagement, programming strategies, and cross-campus collaborations are collaborative efforts shared among the entire team. Collectively, we work to explain the Global Goals and CMU's engagement with them and to demonstrate how to use online Global Goal tools, including our dashboards that track CMU's efforts. These dashboards allow campus community members to find out how faculty and courses address the Global Goals. By bringing together the team's collective understanding of our stakeholder community with the expertise and interests of each team member, we can shape events to meet the needs of a diverse audience.

The Sustainability Initiative is responsible for conducting Carnegie Mellon's Voluntary University Review (VUR). The review reports how and where CMU's research, practices, and education align with the Global Goals. It also addresses areas for growth. As an annual report, it helps signal the university's commitment to the Global Goals and perhaps inspires action within and beyond CMU. At the same time, the report acknowledges shortcomings and acts as a checkpoint to keep our efforts moving forward.



VUR Methodology

With the fourth VUR, undertaken now at the midpoint to 2030, the Sustainability Initiative team reviewed the evolution of the VUR process over the first three years and set up a new procedure to better meet the stated needs of the CMU community for whom this effort is primarily intended.

As a starting point, the Sustainability Initiative interns reviewed the three previous Voluntary University Reviews and collected feedback from the CMU community on how to improve the process.

The top recommendation was to be clear that the purpose of the document is to provide resources and summarize sustainability-related work on campus rather than providing a surface-level overview of our goals with few concrete examples. This report does not attempt to provide a comprehensive review of every single sustainability activity at CMU. It aims instead to capture aspects of the structures and activities that are important to the student, staff, and faculty experience. It was also essential to highlight the people involved to show that this is a people-centered effort, instead of mapping various activities to the Global Goals without context. Finally, the feedback process included the recommendation that there should be clearly defined opportunities for feedback and engagement throughout the year to better capture areas for growth and improvement.

To that end, the Sustainability Initiative interns took the lead on this year's review, developing a methodology for campus engagement, advising on content and purpose, and drafting relevant sections with advice from the Sustainability Initiative director.

For the research analysis, the Sustainability Initiative interns drafted and sent emails to each academic department contact provided by the CMU University Registrar's Office. The emails provided an overview of the Sustainability Initiative and the VUR and noted the top Global Goals associated with faculty

in that department according to the Elements research management system, along with information about scholars.cmu.edu. The email included directions on how to access this dashboard and a request for the departmental contact to review their Tableau in consultation with department faculty. Departmental contacts were requested to reply to the email if the data contained in the Tableau did not accurately reflect their department's research. Additionally, the email included a survey with an open-ended opportunity to submit work to be featured in the VUR or to submit feedback on the VUR or Sustainability Initiative dashboards. There was a clearly stated deadline for a response, indicating that a lack of response would be considered as approval of the Global Goals reflected in the Tableau.

For education, the Sustainability Initiative published a new dashboard accessible to the CMU community that draws course descriptions from CMU's Student Services Suite (S3), analyzes the information, and displays it in a Tableau format. The system is automated and remains available as a resource for anyone at CMU to search for courses related to the Global Goals. The Sustainability Initiative has now expanded beyond the education dashboard to incorporate the Global Goals into a range of educational efforts that are outlined in the education section.

Finally, for the practices analysis, the online Tableau continues to be updated, with activities entered and manually tagged with up to three relevant Global Goals. This helps direct people toward potential partners with shared interests. However, the Sustainability Initiative team has transitioned from mapping activities to actively connecting with sustainability partners across campus and identifying ways to collaborate and lift up their contributions to the Global Goals. The practices section highlights some of these key partnerships and identifies up to three relevant Global Goals to demonstrate how they are contributing to broader sustainability efforts.

Progress

Recognizing progress made toward the initial six charges established in 2019, the provost approved six new charges in 2022 for the Sustainability Initiative.

- 1** Measure engagement with sustainability at CMU using the Global Goals
- 2** Convene Global Goals-themed events that bring together students, staff, and faculty to learn, explore, and develop collaborations
- 3** Work with relevant groups on campus to create support structures for students, staff, and faculty in their efforts to integrate the Global Goals in their education, research, and practices
- 4** Develop strategic external partnerships to advance the integration of the Global Goals in education, research, and practices at CMU and beyond, with a focus on joint work to close data gaps
- 5** Develop and disseminate engaging communications about the Global Goals in education, research, and practices at CMU including through the annual VUR
- 6** Create opportunities to develop, inspire, and support Cohort 2030 global citizens at CMU

In response to the new charges, the Sustainability Initiative Advisory Council established in 2019 transitioned into voluntary working groups (open to anyone) to address three overarching themes:

- **Climate Action**
- **Measuring Engagement**
- **Thematic Programming**

Each working group developed a methodology relevant to the objectives of their charges, with the chair taking the lead on how the working groups move forward.

Climate Action



→ CMU community attendees at the Listen and Learn event

Introduction and Goals

To advance transparency and participation, the Climate Action Working Group will develop comprehensive recommendations to identify short- and long-term opportunities to materially reduce the impact of university greenhouse gas emissions. The working group is chaired by Assistant Vice President for Facilities Management and Campus Services & University Engineer Steven Guenther, who is also a co-chair of the Sustainability Steering Committee.

Activities

The working group hosted a “Listen and Learn” session that invited the campus community to join an interactive event for learning about climate action at Carnegie Mellon, neighboring campuses, and within the region. The event included a poster session and a feedback wall with questions about climate knowledge, individual behaviors, campus goals, and suggestions. Campus groups and external partners participated, including the City of Pittsburgh, the Green Building Alliance, the Higher Education Climate Consortium, the University of Pittsburgh, Chatham University, and graduate students.

As a result of the feedback received during the Listen and Learn event, Carnegie Mellon’s president has made a formal commitment to increasing our

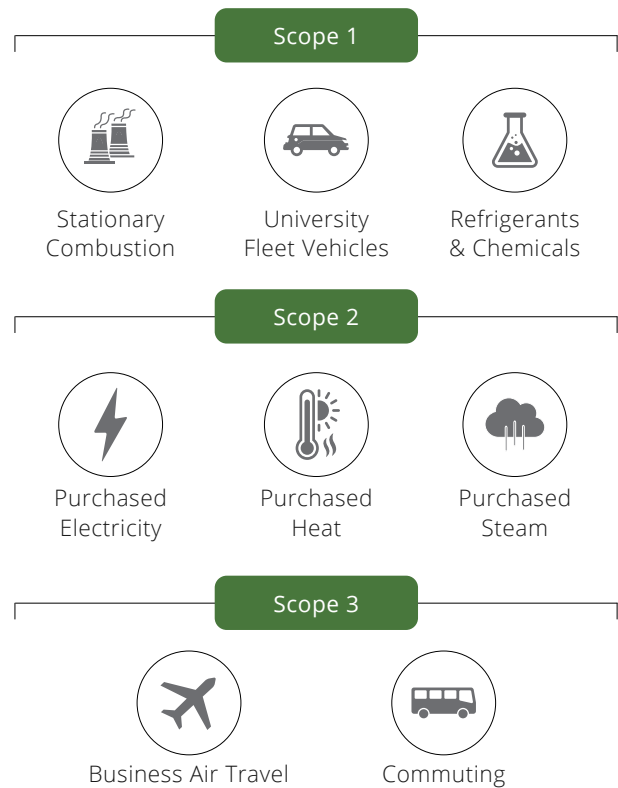
climate leadership by joining Second Nature’s Climate Leadership Network and signing the Presidents’ Climate Leadership Commitment. As a signatory of the Climate Commitment, CMU has pledged to continue to work toward the goal of Carbon neutrality — or net-zero greenhouse gas emissions. A greenhouse gas (GHG) inventory measures the emissions that are released into the atmosphere as a result of university operations. This analysis, which Carnegie Mellon currently performs annually, provides the metric to understand and identify sources of and opportunities for reducing emissions.

Emission sources are defined as direct and indirect. The GHG Protocol defines these and categorizes emissions into three categories:

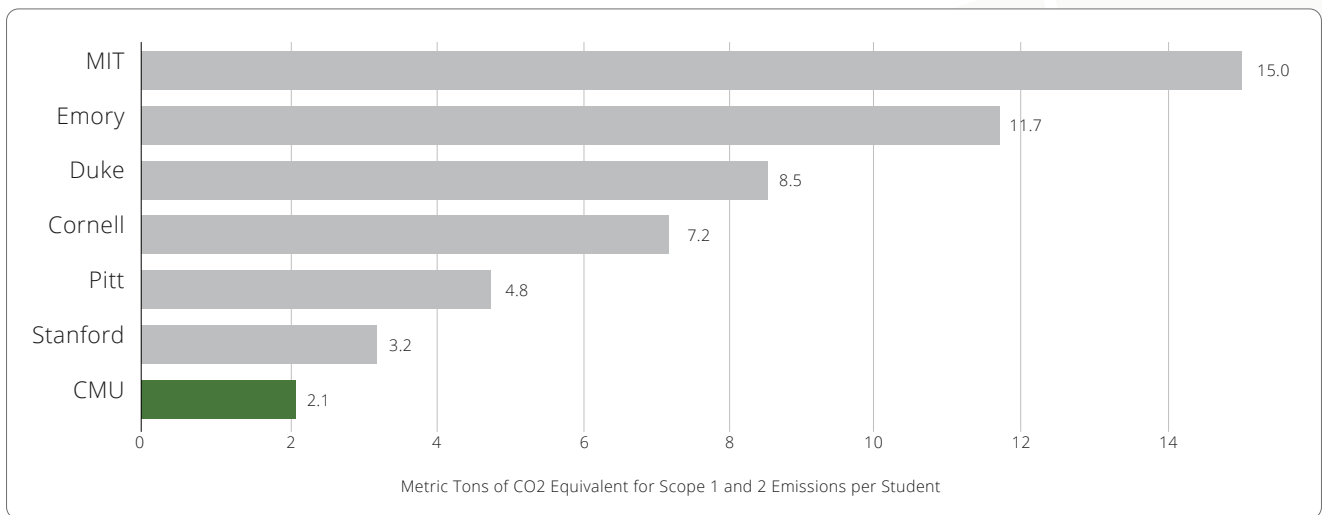
- **Scope 1** includes *direct emissions* that are physically produced on campus (such as fleet fuel use or on-campus power production). These sources are “owned or directly controlled” by the institution.
- **Scope 2** includes *indirect emissions* associated with purchased utilities required for campus operation such as purchased electricity, heat, or steam.
- **Scope 3** includes *induced emissions* from sources that are not owned or controlled by the campus, but that are central to campus operations or activities (such as student and employee commuting and university-paid air travel).

Emissions from Scope 1, 2, and 3 sources are measured, translated into metric tons of carbon dioxide equivalent, and reported using the Second Nature and GHG Protocol methodology. To ensure consistency in reporting, CMU will use the Sustainability Indicator Management and Analysis Program (SIMAP) for tracking and reporting this data.

Carnegie Mellon University plans to eliminate or offset net greenhouse gas emissions by 2030. The Pittsburgh campus has already reduced Scope 1 and 2 emissions by 72% in comparison to our 2005 baseline — and that is without adjustment for campus growth in population of more than 60% and increased building area by more than 35%. The progress reflects actions across multiple initiatives dating back more than two decades. The university continues to make steady progress — over the past five years, energy consumption for the university has declined by 15%. However, the transition to net zero emissions is a significant challenge and will require continued focus and diligence.



Bar graph illustrating the publicly reported 2023 Greenhouse Gas emissions per student at CMU and peer institutions



Commitments

2030 Net Zero Emissions Goal

The university affirms its ongoing commitment on Climate Action by accelerating our transition to net zero emissions related to direct Scope 1 emissions, indirect Scope 2, and indirect Scope 3 emissions by July 1, 2030.

Committee Charge

The Climate Action Planning Committee is charged with developing an actionable plan for the 2030 goal to achieve net-zero greenhouse gas emissions related to direct Scope 1 emissions and indirect Scope 2 emissions by July 2030. The standing committee will also develop recommendations to measure indirect Scope 3 emissions and make recommendations for addressing the associated emissions.

The resulting Climate Action Plan will define opportunities in the following 10 areas:

1. Greenhouse gas emissions measurement and reporting
2. Energy use and production
3. Space planning and management
4. Use of public transportation and mobility
5. Campus woodland and grounds planning
6. Retro-commissioning of buildings and infrastructure
7. Waste streams and disposal
8. Procurement and purchasing
9. Dashboards and other publicly accessible information
10. Additional areas as determined by the committee.

The committee's recommendations will be comprehensive, scientifically sound, fiscally responsible, and operationally feasible in conjunction with available technologies at the completion of the plan document.

The committee will collaborate with members of the university community on researching progress toward carbon neutrality and related benchmarks. The committee will include representatives from student, faculty, and staff rosters and seek wide input from all campuses.

Next Steps

The Presidents' Climate Leadership Commitments provide frameworks to advance campus climate action. The Climate Action Working Group will develop goals and actions needed to fulfill the intention of the commitments starting with the following framework:

- Review and confirm the baseline Greenhouse Gas Inventory
- Identify opportunities to strengthen internal and campus-community structures for climate action and resilience
- Within one year of the implementation start date, complete an annual progress evaluation
- Within two years after signing, complete an Initial Campus-Community Resilience Assessment
- Within three years, identify actions to make carbon neutrality and resilience a part of the educational experiences for all students



News clips mapped to the Global Goals ←

Measuring Engagement

Introduction and Goals

Building on the Knowledge, Attitudes, and Practices survey sent to all CMU students, faculty, and staff in February 2020, and the focus groups conducted with CMU students, faculty, and staff in April and May 2021, this working group is establishing a baseline set of criteria to measure engagement with and knowledge of sustainability at CMU using the framework of the Global Goals. The group will periodically conduct reassessments to evaluate progress and guide programming.

The working group is co-chaired by Deborah Steinberg, Green Practices and Sustainability Manager for Facilities Management and Campus Services and Shannon Foster, associate director for Institutional Research and Assessment in the Office of Institutional Research and Analysis.

Activities

Over the course of the year, the working group reviewed previous activities, defined the goals of the survey, and reviewed sample surveys from other universities. Sample surveys included the Assessment of Sustainability Knowledge (ASK) questionnaire developed at the Ohio State University, the United Nations Sulitest, and sample surveys submitted as part of AASHE STARS report submissions. We also reviewed the survey questions from Colby College, Furman University, Knox College, Pennsylvania State University, and the University of Pittsburgh. From this review, the working group created a survey with 40 questions that will inform both our commitment to the AASHE STARS reporting program and our Sustainability Initiative objectives.



Sustainability Studio Grand Reopening ←

Next Steps

We will administer the community-wide measuring engagement survey in the 2024-2025 academic year. Recognizing that there are many groups across campus interested in surveying our community, and that in general, there is survey fatigue, we are making every effort to ensure our plans are complementary to other surveys across campus. In the coming academic year, we will roll out the survey in line with the Office of Institutional Research and Analysis to ensure the broadest possible participation by all relevant stakeholders.

Thematic Programming



→ CMU community members participating in a Sustainability Open Studio event

Introduction and Goals

With the opening of the new Sustainability Studio in 2022 and a return to in-person events, the Thematic Programming Working Group was formed to help identify opportunities to guide thematic programming that will engage students, faculty, and staff across the university.

During the fall 2023 semester, responsibility for thematic programming in the Sustainability Initiative was transitioned to the Sustainability Initiative interns under the leadership of Thematic Programming intern Camden Johnson, with a focus on identifying programming strategies and educational content that was valuable and relevant to CMU students, faculty, and staff. The programming objectives include 1) building relationships between community members; 2) providing resources to help community members broaden their understanding of sustainability and its implementations across campus; 3) providing skill-building opportunities related to sustainability; 4) situating programming in context of the work of CMU community members; and 5) creating a positive and accessible space that centers equity to create a sense of belonging in the Sustainability Studio, at CMU, and within the discipline of sustainability.

The interns observed how visitors interacted with the Sustainability Studio and provided recommendations to update the space, which reopened in October 2023, when the team began exploring how to make the space welcoming while defining the purpose of the space. Thus far, the Studio has functioned either as an extension of the first floor of Hunt or a space for public-facing events focused on sustainability. Defining the purpose of the studio and the most effective types of programming it will hold is an ongoing process that will be student-led.

Intern Office Hours

The desk at the front of the Sustainability Studio was occupied by student interns for 25-30 hours per week. Interns would answer questions from students in the library about the purpose of the Studio, engage students in conversations about how their work was connected to sustainability, and have conversations about the purpose of the Sustainability Initiative. This programming was important for creating visibility of the space because it helped people in the library to recognize that the space has a distinct purpose.



→ Sustainability Studio Grand Reopening

Sustainability Studio Grand Reopening

The redesign of the Sustainability Studio was launched with an opening event on the Tuesday following fall break. The CMU community was invited into the space with snacks, sustainability-focused games, and music. Participants were invited to scrapbook and map news clippings to Global Goals or identify overlaps between Global Goals. A case-study activity, based on the work of the students in the course Local Advocacy for Global Change, asked participants to identify key stakeholders and sustainability issues in a complex human and environmental rights challenge. The event was intended to increase the visibility of the Sustainability Studio, welcome CMU community members into the space, and garner low-stakes engagement with programming goals.

Youth Leaders in Sustainability Symposium

The Sustainability Initiative hosted student leaders from undergraduate and graduate organizations at CMU, Chatham University, and the University of Pittsburgh for a two-hour symposium focused on student leadership in sustainability. Center for Student Diversity and Inclusion executive director M. Shernell Smith and assistant director of the Office of Student Leadership, Involvement, and

Civic Engagement (Leadership Development) Justin Pearl presented short talks about communication strategies and community engagement respectively. Participants then practiced communication strategies by leading conversations with one another reflecting on their organizations' work in community engagement. Events to extend and engage this community of young leaders are planned for 2024 and will be hosted in collaboration with Chatham University and the University of Pittsburgh.



← SLICE's Justin Pearl speaks at the Youth Leaders in Sustainability Symposium

Sustainability Snack Hour

The redesign of the Sustainability Studio changed how regular users of the first-floor of Hunt Library view and use the Studio — making it seem more welcoming and open to a wider range of use possibilities. The Sustainability Initiative organized this low-stakes event to foster a sense of belonging for the CMU community and encourage more regular use of the space. Refreshments, coloring, and sustainability-focused activities were all available and well-received.

Sustainability Open Studios

To bring together diverse student organizations and departments working in social, economic, and environmental sustainability, the Sustainability Initiative hosted three corresponding open studio events. Attendees engaged in loosely structured conversation focusing on identifying aspects of sustainability in their existing work and understanding the work of other organizations. The events sparked collaborations between attendees and engaged attendees in using the Global Goals framework to analyze sustainability in their ongoing work.

Sustainability Office Hours

Several organizations including SEED (Sustainability Education + Empowerment = Doing) leaders, Student Government, the Green Practices Committee, and the winners of the Steinbrenner Sustainability Symposium hosted office hours from the front desk of the Sustainability Studio. This allowed low-stakes engagement with ongoing projects within the hosts' organizations and/or provided access to information about ongoing sustainability work in the CMU community.



Sustainability Initiative intern Phidor Kong welcoming people to a Sustainability Snack Hour



Sustainability Studio Grand Reopening

Alumni Engagement

Recognizing CMU student interest in careers related to sustainability, Sustainability Initiative Research intern Phidor Kong developed a plan for spring 2024 to create a series of events where students can hear from CMU alumni working in fields related to the Global Goals. These informal sessions will provide an opportunity for students to directly engage with speakers in an informal setting in the Sustainability Studio.

External Events

The Sustainability Studio is open to reserve, free of cost, to all CMU community members, with the requirement that event hosts:

- Identify how their work fits into the Global Goals framework
- Make events in the space open to the public

The Sustainability Initiative interns support events in planning, setup, and execution. The space is highly effective for events that take advantage of the high traffic in the library during rush periods. The space is modular and is adapted to fit the needs of individual events, evidenced by the breadth of events hosted by external organizations:

Spring 2023

- Fix-it Fair: Mending Workshop
- No-sew Tote Bag Workshop
- Luncheon for Geographic Information Systems (GIS) Day: Sustainable Cities and Communities

Fall 2023

- Sustainable Earth Weekly Meetings
- Data Science Office Hours
- Department of Data Science Advisor Office Hours
- Giving Day Tabling
- Fix-it Fair: Mending Workshop

Communications and Outreach

To promote participation in thematic programming and educate the CMU community about the

Sustainability Initiative, Communications and Outreach intern Aleena Siddiqui created an outreach strategy on Instagram that is complemented by targeted engagement with departments, units, and student groups. She also coordinates the team's communications about the Sustainability Initiative.



Fix-It Fair: Mending Workshop

Next Steps

In the coming year, the Thematic Programming Working Group will strengthen programming to ensure broader, more meaningful participation across the campus community, with a focus on student sustainability leaders across the campuses of universities in Pittsburgh. By increasing the number of participants, the Sustainability Initiative will also highlight new topics or activities to connect all community members with the Global Goals. Most importantly, the styles and goals of programming will be adapted based on feedback from the campus community in order to have a greater impact on how the CMU community views and engages with sustainability.



Education

In 2023, the Sustainability Initiative expanded its efforts from conducting the course mapping exercises to integrating the Global Goals into a range of educational efforts. This includes engaging with the university-wide Core Competencies Initiative (CCI), which incorporates a distinctive approach that leverages faculty expertise in core areas and situates competency development in the context of the holistic student experience. Since large majorities of CMU graduates at all levels — bachelor's, master's, and doctoral — enter the workforce immediately following graduation, the CCI is designed to help students learn and practice key skills that employers are looking for regardless of industry or position. While discipline-specific proficiencies are regularly a focus of program review efforts, competencies that cut across departments and disciplines have been identified as ripe for further focus and support.

With the CCI, CMU envisions that students will be able to find relevant opportunities to develop their core competency skills and monitor their progress; CMU educators will be able to incorporate core competencies into their educational activities in a coordinated manner without having to make a huge effort; and ultimately CMU graduates will have demonstrably stronger core competency skills they can take into their future work and lives.

The Core4 Competencies include Collaboration & Teamwork, Communication & Presentation, Information & Data Literacy, and Intercultural & Global Learning + DEI. While the Global Goals are relevant to all four competencies, they were formally incorporated into the work of the Intercultural & Global Learning + DEI working group.

Additional Major and Minor in Environmental and Sustainability Studies

The university-wide program in Environmental and Sustainability Studies has offered a minor since 2018 and an additional major since 2021. The Steinbrenner Institute for Environmental Education and Research led the initiative to create and manage this interdisciplinary academic program. Both the minor and additional major are designed to be accessible for every undergraduate student at CMU, regardless of their college or major, and to complement their primary major with courses addressing the intrinsically interdisciplinary issues associated with the environment and sustainability.

The learning objectives for the additional major are:

- Apply humanistic, social, and scientific perspectives for problems of environment and sustainability
- Distinguish among scientific methods for evaluating problems of environment and sustainability
- Explain how aspects of history, culture, ethics, language, and arts relate to environment and sustainability, including goals for environmental justice and global climate justice
- Assess sources of data about environment and sustainability
- Formulate a research question for interdisciplinary studies of environment and sustainability. Identify discipline-specific methods for exploring or answering the questions posed and use the chosen methods to gather and analyze evidence.

By allowing students from any college at CMU to complement the depth of their primary major, the additional major asks students to address the breadth of approaches and problems for environment and sustainability, venturing into new disciplinary domains as part of the process.



Sustainability Initiative director and interns with the governor of Hawai'i and the Green Building Alliance president and CEO at the American Leadership Advancing the Sustainable Development Goals event

The Sustainability Initiative also identifies and supports opportunities for students to learn about the Global Goals. For example, Sustainability Initiative director Alexandra Hiniker advises the Student-Centered Community Engagement and Learning Network (SCCELN) and the Dietrich Community Engagement Fellowship Program on how to incorporate sustainability into their overarching activities, and the Sustainability Initiative has created opportunities for students to engage in global discussions around sustainability. Students who participate in these activities share their experience and perspective through thematic programming events in the Sustainability Studio.

Engaging with the United Nations

In September 2023, Sustainability Initiative interns Ishwrya Achuthan Geetha, Bethel Endawoke, Camden Johnson, and Aleena Siddiqui traveled with Sustainability Initiative director Alexandra Hiniker to New York City to join the United Nations SDG Action Weekend. They also attended the flagship American Leadership Advancing the Sustainable Development Goals event co-hosted by the UN Foundation and the Center for Sustainable Development at the Brookings Institution, which took place on the sidelines of the UN General Assembly and showcased multi-generational U.S. leadership and action on the

Global Goals. The students also shared perspectives and experiences with students from Hawai'i.

Local Advocacy for Global Change Course

Through mapping CMU courses to the Global Goals, the Sustainability Initiative identified the Department of Modern Languages as the top contributor to Goal 10: Reduced Inequalities. This sparked a collaboration with the department that led to the Sustainability Initiative director creating an interdisciplinary course, jointly offered by the Department of Modern Languages and the School of Design, to guide students to center equity while identifying links between environmental, social, and economic justice and strategizing solutions to issues at home and around the world. The mini course was offered to undergraduate and graduate students in spring and fall of 2023 and will transition to a semester-long course in the coming academic year.



Sustainability Initiative interns attend the SDG Action Weekend at the United Nations in New York City



→ CMU students standing at the entrance to the United Nations in Geneva

Participation in International Diplomatic Conferences

In November 2023, CMU students Camden Johnson, Cameron Shapiro, and Tatym Rasmussen were selected by Mines Action Canada and CMU’s Sustainability Initiative to travel to the United Nations in Geneva and participate in the 21st Meeting of the States Parties to the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on Their Destruction.

The students attended the conference in Geneva with the International Campaign to Ban Landmines, a Nobel Peace Prize-winning nongovernmental organization. They were among about 20 youth fellows from around the world between the ages of 20 and 30 selected to participate in the Mines Action Canada youth delegation.

Learning from United Nations Diplomats

In April 2023, the Sustainability Initiative invited the CMU community to join a conversation between Ambassador Maritza Chan, the first woman to serve as the Permanent Representative of Costa Rica to the United Nations, and CMU’s Sustainability Initiative director Alexandra Hiniker.

Ambassador Chan shared what Costa Rica’s priorities are at the United Nations, how she employs the Global Goals to advance that agenda, and how universities can help the world achieve these ambitious objectives by 2030. There was an opportunity for Q&A at the end of the session, with priority given to questions submitted by students.



← Flyer for the Global Advocacy for Local Change event featuring Ambassador Chan

Research

By identifying and connecting researchers from CMU and beyond, we are accelerating efforts to advance the Global Goals. To do so, the Sustainability Initiative maintains a Tableau dashboard that maps faculty members to the Global Goals. In 2023, the Sustainability Initiative partnered with Research Information Management Services director Jason Glenn to develop a system so that the Elements research management system automatically updates faculty profiles at scholars.cmu.edu, while also providing an opportunity for faculty to review and update their top Global Goals. The Tableau dashboard created by Research Information

Management Services data analyst Andrey Chang takes this information and creates an interactive data visualization that the CMU community can access to search by Global Goal, college/division, department, or faculty name.

The Sustainability Initiative group was invited to present their dashboard in the Data Collaborative’s “Dashboard Showcase” event. It was also submitted for inclusion to the DASH page in conjunction with the University Leadership Dashboard project and is currently undergoing review and adjudication through the Data Governance Office.

Global Goals Research Dashboard

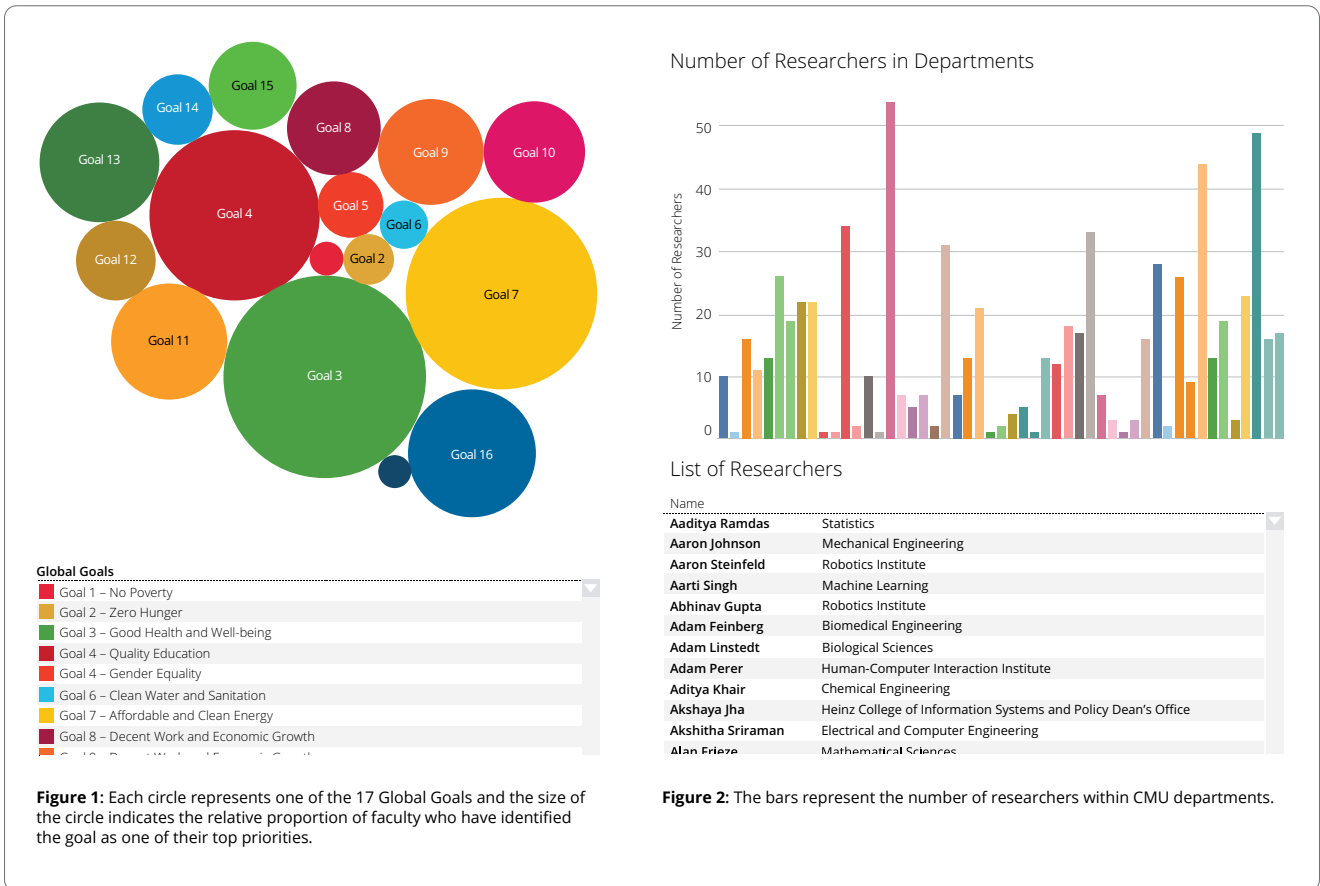


Figure 1: Each circle represents one of the 17 Global Goals and the size of the circle indicates the relative proportion of faculty who have identified the goal as one of their top priorities.

Figure 2: The bars represent the number of researchers within CMU departments.

→ Screenshot of the Global Goals Research dashboard as of February 2024. To view live updates, visit cmu.edu/sustainability

Research Dashboard Methodology

To increase engagement with and accuracy of the Tableau dashboard, the Sustainability Initiative team took a systematic approach to verify that the Global Goals recorded in the Tableau were accurate in a process led by Community Engagement intern Purva Bommireddy. The data displayed are sourced directly from the Elements database where faculty identify their priority Global Goals on their profile. Additionally, outreach also engaged departments in a dialogue about how their work can be viewed using an expansive definition of sustainability embedded in the framework of the Global Goals. Detailed information about this approach is included in the methodology of the report.

The responses to outreach emails are grouped into three categories below. This information serves as a baseline for measuring our engagement with researchers in the coming year. The responses and resulting dialogue with the Sustainability Initiative team will also inform our future approach to outreach.

Approval and Changes (11/50 departments): If the departmental contact requested changes in their Global Goals, Elements — the data source for the Tableau research dashboard — was updated to reflect such changes. Approved data were not updated.

No response (34/50 departments): If there was no email response from the departmental contact, a reminder email was sent approximately two weeks after the original email. A lack of response was treated as approval of the Global Goals indicated in the Tableau for this year's analysis, with the intention to engage more deeply with the departments next year as we build out the engagement strategy. Departments who redirected the initial outreach email to an alternative contact and who did not respond are included in this category.

Feedback on Methodology (5/50 Departments): If the departmental contact provided feedback on the

VUR or VUR outreach process, their feedback was addressed on a case-by-case basis. This feedback has been valuable in shaping the approach in presenting these data in the VUR and will inform how future outreach is undertaken.

The thoughtful engagement of several departments is highlighted below. Increasing dialogue with academic departments is a key objective of the Sustainability Initiative.

The Department of Philosophy engaged in the VUR outreach by performing an independent survey of the Global Goals among their faculty. Based on this survey, the department was able to accurately represent the Global Goals being studied by each faculty member and remove outdated profiles from Elements. Further, the Community Engagement Sustainability intern was able to clarify questions the department had and discuss alternative methods for data collection. Other departments engaged in a way that suited their needs. The Department of Architecture had already conducted their own analysis, while the Human-Computer Interaction Institute took the opportunity to consult with leadership to identify the relevant Global Goals.

Based on the feedback from individual departments, the response rates, and the Sustainability Initiative's goals for community engagement, it is clear that individualized engagement with stakeholders is crucial. The generalizable nature of the Global Goals framework makes it especially important for engagement with the framework to be specific to departments. Already, feedback through engagement from community stakeholders — student sustainability initiative interns and student organizations — has resulted in this VUR including concrete examples of progress, specific metrics on environmental sustainability, and a more clearly articulated purpose for the Sustainability Initiative. Through thematic programming and direct community engagement, the Sustainability Initiative will continue this dialogue with students, staff, and faculty.

Summer Undergraduate Research Fellowships (SURF)

To connect students with faculty to conduct research that helps achieve the Global Goals, the Sustainability Initiative partnered with the Office of Undergraduate Research and Scholar Development (OURSD) to create SURF-Sustainability Awards. OURSD funds experienced undergraduate student-researchers conducting 8-10 weeks of full-time research in Pittsburgh through SURF, a selective program that requires an application with a research proposal and a letter of recommendation from the faculty research mentor. In fall 2023, the Sustainability Initiative and OURSD created five additional SURF-Sustainability Awards to provide research funding for projects in summer 2024 that contribute to three or more Global Goals.



→ Sustainability Initiative interns meeting with Pamela Horn, director of Cross-Platform Content at Cooper Hewitt, Smithsonian Design Museum, a member of the University Libraries' Dean's Advocacy Council, and a CMU alumna



Hunt Library, which houses the Sustainability Studio ←

Practices

Many organizations, committees, and student groups are committed to practices that further progress on the Global Goals. In this year's VUR, we are highlighting key partnerships to demonstrate the many ways that the CMU community is contributing to the Global Goals. Additional information about work toward environmental, social, and economic sustainability practices can be found in the Tableau practices dashboard on our website. This information can help inspire new collaborations and future projects. Each partnership was mapped to three Global Goals with the recognition that they may be relevant to many others.

If you have a question about the analysis or would like your efforts to be included, please contact us at sustainability@cmu.edu. We also welcome suggestions for partnerships.

The Center for Student Diversity and Inclusion

Diversity and inclusion have a singular place among the values of Carnegie Mellon University. The Center for Student Diversity and Inclusion actively cultivates a strong, diverse and inclusive community capable of living out these values and advancing research, creativity, learning and development that changes the world. The Sustainability Initiative partners with the Center for Student Diversity and Inclusion through joint programming, trainings, and peer engagement to ensure this central aspect of sustainability is front and center in our efforts.

The Center offers resources to enhance an inclusive and transformative student experience in dimensions such as access, success, campus climate, and intergroup dialogue. Additionally, the Center supports and connects historically underrepresented students and those who are first in their family to attend college in a setting where students' differences and talents are appreciated and reinforced.



Students participating in an event for the FIRST Together program, which enhances the overall success of first generation college students at CMU

Green Practices

CMU’s Green Practices program advances environmental sustainability efforts across all aspects of university operations and support services, while offering programming that fosters a campus culture of sustainability. One commitment that Green Practices leads is to measure the university’s progress in the environmental, social, and economic aspects of sustainability by participating in the Sustainability Tracking, Assessment & Rating System™ (STARS) program. STARS is a transparent, self-reporting framework for colleges and universities to measure their sustainability performance. CMU has completed five reports, most recently earning a Gold rating.

To fill a need for peer-to-peer sustainability education and to provide a means to support student-run campus sustainability projects, Green Practices and Sustainability manager Deborah Steinberg established and supervises the SEED (Sustainability Education + Empowerment = Doing) Leadership program with the mission to build a network of sustainability-literate student leaders capable of empowering and educating peers about

sustainability issues. Each academic year, SEED leaders choose a project to implement and then educate their peers on that effort and its impacts.

Green Practices also runs the Scotty Goes Green (SGG) certification programs that provide the CMU community with resources and guidance on making sustainable choices and taking sustainable actions, with the Global Goals incorporated into the certification process. Green Practices and the Sustainability Initiative partner on a range of activities and events throughout the year and collaborate and consult on individual efforts to ensure all aspects of the Global Goals are considered in programming and initiatives.



Materials Science & Engineering Sustainability Task Force

Recognizing the benefits of engaging with the Global Goals, the chair of the Department of Materials Science & Engineering established a Sustainability Task Force with faculty, staff, a Presidential Postdoctoral Fellow, and Sustainability Initiative Communications and Outreach intern Aleena Siddiqui (also a Materials Science & Engineering student) to identify and determine how the department could employ this framework to

advance their sustainability objectives. Sustainability Initiative director Alexandra Hiniker and Green Practices and Sustainability manager Deborah Steinberg are members as well. The Sustainability Task Force will spend the spring 2024 semester developing a set of recommendations for the chair to consider implementing in fall of 2024.



Costa Rica Study Abroad

The Sustainability Initiative engaged with the Department of Modern Languages to partner with the Monteverde Institute in the Puntarenas region of Costa Rica to offer a summer study abroad and experiential learning program in summer 2024. The Monteverde Institute (MVI) is a world-renowned center of study founded in 1986 and dedicated to sustainable environmental practices and community engagement. Costa Rica is one of the most bio-diverse countries in the world, and moreover lauded as a model for its progressive environmental

practices. This program offers an invaluable opportunity for students to learn first-hand about sustainability and environmental stewardship, while also learning Spanish and about Costa Rican culture. As part of the program, students learn about the Global Goals and the role that Costa Rica plays in making the world more sustainable for all.



The Center for the Arts in Society

The Center for the Arts in Society (CAS) “Dinner and a ...” events are programming aimed at building intellectual and creative community for and around scholars who have been forced to relocate to Pittsburgh because their work and lives are under threat by repressive regimes. The Sustainability Initiative supported CAS to host nine events in support of the three threatened scholars who are currently part of the CMU community: eight “Dinner and a Movie” events featuring films from Afghanistan (curated and hosted by Habib Sorosh, a CMU Scholar at Risk and Visiting Researcher of Afghan Cinema and Drama) and Syria (curated and hosted by Reem Alghazzi, an Artist Protection Fund Fellow in residence at CMU’s Department of English) and one “Dinner and a Reading” event featuring Algerian writer Anouar Rahmani, a research scholar in CMU’s Department of Modern Languages.



CAS Dinner and a Movie event hosted by Reem Alghazzi (center) ←



The Wilton E. Scott Institute for Energy Innovation

To highlight the connection between sustainability and energy innovation, the Sustainability Initiative partners with the Wilton E. Scott Institute for Energy Innovation in a range of ways, such as displaying the winning research posters from Energy Week in the Sustainability Studio and illustrating how they are linked to the relevant Global Goals. The Scott Institute addresses the world's most pressing energy challenges by enabling collaborative research, strategic partnerships, policy outreach, entrepreneurship, and education. The Scott Institute supports impactful work that strives to optimize resources and reduce environmental consequences associated with energy production and use, with the understanding that energy and social equity issues are deeply interconnected, and society can benefit with improved energy access.

CMU's participation in the Conference of the Parties (COP28) to the UN Framework Convention on Climate Change (UNFCCC) was facilitated by the Scott Institute. During the COP28 in 2023 held at Expo City, Dubai in the United Arab Emirates, CMU representation included Arthur Hamerschlag Career Development Professor of Engineering and Public Policy and Scott Institute Faculty Fellow Paulina Jaramillo, assistant professor of Civil and Environmental Engineering and Engineering and Public Policy and Scott Institute faculty fellow Destenie Nock, assistant professor of Civil and Environmental Engineering David Rounce, Scott Institute executive director Daniel Tkacik, and Jake Loosarian, co-founder and CEO of Gecko Robotics, a startup from CMU.



David Rounce at COP28



Panel discussion on "Revisiting SDG7: Challenges and Opportunities," at COP28

The Steinbrenner Institute Sustainability Symposium

The Steinbrenner Institute for Environmental Education and Research was established in 2004 and seeks to change the way the world thinks and acts about the environment, with a mission to facilitate connections and coordinate new research initiatives, promote and help build the strengths of our environmental research centers, support development of educational materials to build climate fluency across CMU's educational units, and advance emerging and interdisciplinary interests in environmental education and research. To that end, the institute's annual symposium began in 2016 as an Earth Day event and is an opportunity for both undergraduate and graduate students at CMU to showcase projects

and research of theirs that relate to sustainability in some way. The 2023 symposium saw around 30 student projects of various disciplines with topics like waste management, algal emissions, and equitable urban infrastructure. Winners of the symposium's travel awards Morgan Newman, Architecture, and Andrew Jones, Civil & Environmental Engineering and Engineering and Public Policy, were asked to display their posters and present their work at an event in the Sustainability Studio, inviting conversations about the central role that equity plays in sustainability.



EcoCampus Initiative at Carnegie Mellon University in Qatar

As part of the EcoCampus initiative, led by the Foundation for Environmental Education (FEE), Carnegie Mellon University in Qatar (CMU-Q), a Qatar Foundation partner university, launched an initiative to implement Global Goals at the campus. EcoCampus includes students, staff, and faculty members at CMU-Q and will touch every aspect of campus life. The aim is to earn CMU-Q an FEE EcoCampus green flag designation, with a specific focus on three main areas: food equity, climate change, and campus waste management.



The commitment was celebrated in March 2023 during a visit from the Sustainability Initiative director to learn more about CMU-Q's activities and to share what was happening on the Pittsburgh campus. Over the course of 2023, CMU-Q continued to document the process, and will build on these efforts in 2024 by incorporating the Global Goals into their ongoing efforts.



CMU-Q students speaking to the EcoCampus team ←

Heinz Diversity, Inclusion, Climate, and Equity (DICE) Sustainability Internship

The Sustainability Initiative partnered with the Diversity, Inclusion, Climate, and Equity (DICE) team at the Heinz College of Information Systems and Public Policy to underscore the central role that equity plays in sustainability. DICE has sponsored two Heinz Liaison intern positions at the Sustainability Initiative. While the interns are free to focus their work on whichever Global Goals interest them, they also support DICE’s mission of

pushing the university community toward inclusion and equity. Bethel Endawoke served as the inaugural DICE Sustainability intern in spring 2023, and Cristina Goeller joined the team in fall 2023, serving as a key advisor to shape our DICE efforts.



School of Architecture Sustainability Scavenger Hunt

In spring 2023, the Sustainability Initiative created a Sustainability Scavenger Hunt for anyone interested in participating to identify how the spring 2023 School of Architecture Public Programs: Extractivism addressed the Global Goals, and culminating in the School of Architecture symposium titled “Architecture’s Ecological Restructuring.” The event brought together six distinctive voices to speculate on continuous excavations that reveal architecture’s destructive socio-environmental impact. Participants discussed social demands and inequalities and how to better engage with nature, challenging traditional frameworks and building new forms of thinking. The invited speakers include some leading voices in the field — Rania Ghosn (Massachusetts Institute of Technology), Margarita Jover (Tulane University), Sylvia Lavin (Princeton University), Fadi Masoud (University of Toronto), Antoine Picon (Harvard University), and Neyran Turan (University of California, Berkeley).



“Architecture’s Ecological Restructuring” symposium

Regionalizing the Global Goals

DISCOVER (Defining Intersectional Sustainability to Collaboratively Optimize for a Vibrant and Equitable Region) is a group of nonprofits and government agencies working in Southwestern Pennsylvania to localize the Global Goals. Spearheaded by Sustainable Pittsburgh in partnership with a number of regional conveners, the network builds beyond data and measurement, creating a shared, inclusive framework for measuring progress, coordinating communications, and driving interventions toward regional sustainability outcomes and policies. As a member of the Steering Committee, Sustainability Initiative director Alexandra Hiniker advises DISCOVER on localizing the Global Goals based on her experience leading efforts for New York City and CMU.

Both a measurement project and a network of organizations, DISCOVER's goals include embedding equity into the work, inspiring cross-sector conversations, collecting key data, and helping to inform policy decisions. DISCOVER also aims to create a model process for regionalizing the Global Goals, which has not yet been done in the United States.

In addition to the Steering Committee, DISCOVER has convened four cross-sector working groups focusing on environment, equity, health, and infrastructure. Each group is assigned three to four Global Goals to address, and they work to establish regional targets and data points. In partnership with the Western Pennsylvania Regional Data Center, they help coordinate data information. The working groups then start the process of finding individual stories and building shared narratives to foster connections and create more systemic thinking across the region.

In addition to Hiniker providing technical expertise, the Sustainability Initiative hosts meetings on the CMU campus that also include students who want to learn from communities and support their efforts. In summer 2023, Hiniker and Sustainability

Pittsburgh executive director Joylette Portlock traveled to New York City to present DISCOVER's work at an Organisation for Economic Co-operation and Development (OECD)-Lumina Foundation side-event during the High-level Political Forum — an event mobilizing an international network of experts and policymakers to discuss opportunities and challenges to achieve the Global Goals.



Sustainability Initiative director Alex Hiniker (left) and Sustainable Pittsburgh Executive Director Joylette Portlock (right) presenting at the OECD-Lumina Foundation side event during the High-Level Political Forum in New York City

The Rockefeller Foundation Bellagio Convening

Since 2020, Sustainability Initiative Steering Committee co-chair Sarah Mendelson has convened senior human rights scholars and practitioners to explore how to teach and train human rights differently using the Sustainable Development Goals. In May 2023, she led an in-person strategic convening at The Rockefeller Foundation’s Bellagio Center. The stated purpose of the strategic convening was to take the work to the next level by co-creating a community of practice dedicated to growing the next generation of human rights experts, activists, practitioners, and scholars through education about and research on the Sustainable Development Goals. Another purpose was to co-create a plan to accelerate action on this nexus of human rights and the Global Goals. For three days in May, leaders from CMU — including Helen and Henry Posner, Jr. Dean of the University Libraries Keith Webster and associate dean of Digital Infrastructure Sayeed Choudhury — joined Mendelson and senior scholars from the University of Pittsburgh, Oxford, University

of Southern California, Occidental College, University of Connecticut, Northeastern University, Georgetown University, Columbia University, University of Pretoria as well as representatives from the Los Angeles Mayor’s office, the United Nations Office of the United Nations High Commissioner for Human Rights, the World Justice Project, and the Association of Commonwealth Universities. Participants included lawyers, political scientists, engineers, and data scientists. Most had spent decades working on human rights. They left Bellagio with an action plan that they are currently working to implement over the next year and beyond. The plan includes workshops in May and June 2024 to be held in collaboration with the Center for Sustainable Development at the Brookings Institution where Mendelson is also a non-resident senior fellow.



Network Engagement

In addition to engaging with partners across CMU’s campuses, the Sustainability Initiative contributes to discussions about sustainability and the Global Goals as a member of the Academic Consortium on Climate, Environment, and Sustainability Solutions (ACCESS), the Association for the Advancement of Sustainability in Higher Education (AASHE), the Association of International Education Administrators (AIEA), the American Association of Colleges and Universities (AAC&U), the International Sustainable Campus Network (ISCN), NAFSA: Association of International Educators, and the Network of Schools of Public Policy, Affairs, and Administration (NASPPAA). In summer 2023, the Sustainable Development Solutions Network USA

(SDSN USA) invited Provost James Garrett and CMU to be co-chairs. The provost accepted and requested Distinguished Service professor and head of CMU’s Heinz College, Sarah Mendelson, in DC be the representative. Mendelson traveled to New York City during High Level week to participate in SDSN’s global convening.



UN Foundation Resource Guides for U.S. Universities to Engage with the Sustainable Development Goals

To support and engage with other post-secondary institutions addressing the Global Goals, Sustainability Initiative director Alexandra Hiniker partnered with the United Nations Foundation to develop a series of brief resource guides. While the guides were developed with United States universities in mind, the overarching points are applicable to any post-secondary institution.

The first guide poses three key questions and provides resources for institutions to help answer them:

1. Why and for whom are we choosing to engage with the Global Goals?
 - Determine the purpose of engaging with the framework, including identifying key stakeholders and how they will benefit from engaging with this framework.

2. Where and how do we already work toward the Global Goals?
 - Review your institution's courses, research and operations to determine where there are existing activities as well as opportunities to do more.

3. What is our plan to implement the Global Goals at our university?
 - Based on these findings, develop and implement programming for your institution to help achieve the Global Goals.

This introductory guide is complemented by three additional short guides focusing specifically on education, research, and operations and includes a range of options for institutions to take action. They can be found on the resource page of the Sustainability Initiative website.

Feedback, engagement, suggestions, and questions are welcome. The most important point of all is that we can only achieve these 17 ambitious goals by working together across institutions.



Student Sustainability assistants help attendees sort their waste during a home football game for the GameDay Football Zero Waste Touchdown Challenge

AMERICAN LEADERSHIP ON THE SUSTAINABLE DEVELOPMENT GOALS

Resource guide for U.S. universities to engage with the Sustainable Development Goals

The Sustainable Development Goals (SDGs) are the world's shared plan to address global challenges across social, economic, and environmental dimensions by 2030. Adopted by all countries in 2015, the SDGs emerged from the most inclusive and comprehensive negotiations in United Nations history and have inspired people from across sectors, geographies, and cultures. Achieving the Goals by 2030 will require heroic and imaginative effort, determination to learn what works, and agility to adapt to new information and changing trends. The 2030 Agenda explicitly recognizes the critical role that academia plays in achieving this ambitious global effort.

But how do higher education institutions engage, especially when the SDGs cover so many topics and were designed to be a framework for countries, not universities? Public and private universities of all sizes across the United States have already begun adapting the framework to the university context. This resource guide is informed by their experience and strategies as they apply the SDG framework across their campuses and in their communities.

This guide provides an overview of the three key questions for U.S. universities to answer as they begin their SDG journey. This is not an endorsement of any particular approach mentioned but rather a menu of options for universities to consider in order to meet their unique needs.

- 1.) **Why and for whom are we choosing to engage with the SDG framework?** Determine the purpose of engaging with the SDGs, including identifying key stakeholders and how they will benefit from engaging with this framework.
- 2.) **Where and how do we already work towards the SDGs?** Review your institution's courses, research, and operations to determine where there are existing activities as well as opportunities to do more.
- 3.) **What is our plan to implement the SDGs at our university?** Based on these findings, develop and implement programming for your institution to help achieve the Sustainable Development Goals.

This guide is a part of a series of guides for U.S. universities interested in engaging the SDGs. The full series can be found [here](#).

Produced by Alex Hiniker, Director of Sustainability Initiatives, Carnegie Mellon University. Support for this publication was provided by the UN Foundation as part of [American Leadership on the Sustainable Development Goals](#).

To view the resource guides, visit cmu.edu/sustainability



Conclusion and Next Steps

The Sustainability Initiative will continue reporting on the work CMU is doing to move the world forward in a sustainable way. We have dashboards and reports, websites and analyses. As a university, the ultimate goal is to facilitate ongoing collaboration, support further advances, and create greater engagement within and beyond CMU to help achieve the Global Goals. We look forward in particular, given the role that CMU has historically played in helping create and establish the field of machine learning and artificial intelligence, to exploring how recent and rapidly evolving advancements in AI can benefit the advancement of the Sustainable Development Goals. This shift from analysis to action guides our work as we move forward.

The university affirms its ongoing commitment on Climate Action by accelerating our transition to net zero emissions related to direct Scope 1 emissions, indirect Scope 2, and indirect Scope 3 emissions by July 1, 2030. We will advance campus climate action in line with the Presidents' Climate Leadership commitments, developing goals and actions needed to fulfill the intention of the commitments.

We will administer the measuring engagement survey to the CMU community in the 2024-2025 academic year to update our baseline assessment of sustainability at CMU and develop objectives for future engagement. Recognizing that there are many groups across campus interested in surveying our community, and that in general there is survey fatigue, we are making every effort to ensure our plans are complementary to other surveys across campus to ensure the broadest possible participation by all relevant stakeholders.

In terms of thematic programming, we will focus on enhancing programming to create more meaningful participation across CMU's campuses, continuing to build a community centered on connecting individuals and organizations with seemingly disparate work.

Additionally, by increasing the number of participants at events and broadening the scope of events to introduce the CMU community to new sustainability-related topics, we will promote interdisciplinary dialogue that is more visible and accessible.

Overall, we seek to increase faculty engagement, strengthen our outreach to student groups, and identify additional opportunities to highlight efforts undertaken by CMU staff that contribute to the Global Goals. Building on outreach to identify how CMU faculty across departments are contributing to the Global Goals through faculty research, we will ensure that every department has been briefed on the Global Goals and is informed about opportunities for engagement that are relevant to their priorities. We will enhance existing efforts to incorporate a sustainability lens into courses and educational programs, and provide additional support for CMU educators to tailor the Global Goals to their needs. To demonstrate the many ways that CMU community practices are contributing to the Global Goals, we will strengthen existing partnerships and facilitate new ones that demonstrate the breadth and depth of the CMU community's commitment to making the world more sustainable for all.



Staff attending the Sustainability Studio Grand Reopening

Acknowledgements



→ Sustainability Initiative team from left to right: Cristina Goeller, Aleena Siddiqui, Camden Johnson, Alexandra Hiniker, Keith Webster, Phidor Kong, and Purva Bommireddy (not pictured: Ishwrya Achuthan Geetha)

We extend our heartfelt gratitude to the entire Carnegie Mellon University (CMU) community for your enthusiastic engagement with the Sustainability Initiative in 2023. Your collective efforts significantly contributed to our shared goal of fostering a more sustainable future for all.

To the students, faculty, staff, and community partners who actively participated in sustainability projects, your dedication has driven positive change on our campus and beyond, inspiring us all.

Thank you to everyone who provided feedback on the Voluntary University Review. Your insights have shaped our approach and enhanced our sustainability initiatives.

Sustainability Initiative Steering Committee

Alexandra Hiniker

Director, Sustainability Initiative

Steven Guenther

University Engineer and Assistant Vice President of Facilities Management and Campus Services

Sarah Mendelson

Distinguished Service Professor of Public Policy and Head of Heinz College in Washington D.C.

Keith Webster

Helen and Henry Posner, Jr. Dean of the University Libraries and Director of Emerging and Integrative Media Initiatives

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Junior, Civil and Environmental Engineering, and Statistics and Machine Learning, College of Engineering

Ishwrya Achuthan Geetha *Data Analytics Intern*

Masters of Science (2023), Civil and Environmental Engineering, College of Engineering

Cristina Goeller *Heinz College DICE Intern*

Masters Student, Public Policy and Management, Heinz College

Camden Johnson *Thematic Programming Intern*

Junior, Chemistry, Mellon College of Science

Phidor Kong *Research Intern*

Masters Student, Public Policy and Management, Heinz College

Aleena Siddiqui *Communications and Outreach Intern*

Sophomore, Materials Science and Engineering and Environmental and Sustainability Studies, College of Engineering, MCS Interdisciplinary, Dietrich College of Humanities and Social Sciences

Glossary

AAC&U – American Association of Colleges and Universities

AASHE – Association for the Advancement of Sustainability in Higher Education

ACCESS – Academic Consortium on Climate, Environment, and Sustainability Solutions

AIEA – Association of International Education Administrators

ASK – Assessment of Sustainability Knowledge

CAS – Center for the Arts in Society

CMU – Carnegie Mellon University

CMU-Q – Carnegie Mellon University in Qatar

COP28 – Conference of the Parties to the United Nations Framework Convention on Climate Change

DICE – Diversity, Inclusion, Climate, and Equity

DISCOVER – Defining Intersectional Sustainability to Collaboratively Optimize for a Vibrant and Equitable Region

FEE – Foundation for Environmental Education

GHG – Greenhouse Gas

ISCN – International Sustainable Campus Network

NAFSA – Association of International Educators

NASPPAA – Network of Schools of Public Policy, Affairs, and Administration

OECD – Organisation for Economic Co-operation and Development

OURSD – Office of Undergraduate Research and Scholar Development

S3 – CMU's Student Services Suite

SCCELN – Student-Centered Community Engagement and Learning Network

SDGs – Sustainable Development Goals

SDSN USA – Sustainable Development Solutions Network United States of America

SEED – Sustainability Education + Empowerment = Doing

SGG – Scotty Goes Green

SIMAP – Sustainability Indicator Management and Analysis Program

STARS program – Sustainability Tracking, Assessment & Rating System™

SURF – Summer Undergraduate Research Fellowships

UN – United Nations

UNFCCC – UN Framework Convention on Climate Change

VUR – Voluntary University Review

