

# 2022 Voluntary University Review of the Sustainable Development Goals



**Carnegie Mellon University**  
Sustainability Initiative

With the third Voluntary University Review of the Sustainable Development Goals, Carnegie Mellon University (CMU) continues to expand and evolve its process in response to the stated needs of our community, taking stock of progress and informing plans for the coming year.



**September 2022**

CMU opens the Sustainability Studio in Hunt Library

**February 2022**

INTERSECT@CMU Conference on the Global Goals

**May 2021**

Global Goals focus groups with the CMU community

**September 2021**

CMU publishes second Voluntary University Review

**January 2022**

CMU transitions Executive Fellow to Director of the Sustainability Initiative and Provost issues six new charges

**January 2021**

CMU data science students create open-source materials for the Global Goals

**September 2020**

CMU publishes world's first Voluntary University Review

**May 2020**

17 Rooms Event with Zoom meetings for the CMU community on each of the 17 Global Goals

**September 2019**

CMU Provost Jim Garrett launches the Sustainability Initiative and establishes the Sustainability Steering Committee and the Advisory Council

**January 2020**

CMU hires an Executive Fellow for the Sustainability Initiative

**February 2020**

Global Goals Knowledge, Attitude, and Practice survey of the CMU community



# Opening Statement

Dear Colleagues and Community Members,

On behalf of Carnegie Mellon University's (CMU) Sustainability Initiative, we are pleased to share with you the 2022 Voluntary University Review (VUR).

This third annual VUR allows us a moment to reflect on our university's collective commitment to sustainability. As the first university to not only conduct a VUR, but also to publish open-source materials for others to use and adapt, our leadership is setting a new standard for sustainability efforts in higher education.



When CMU launched the Sustainability Initiative in September 2019, we committed to advancing the [Sustainable Development Goals \(SDGs\)](#) in our education, research and practices. Environmental protection, social equity and economic justice — these are the themes around which we have devoted our efforts. The global pandemic and its disproportionate effect on underserved communities has only reinforced the importance of the Sustainable Development Goals, driving us to engage with these topics with a renewed sense of urgency.

Three years after its launch, our community remains more dedicated than ever to advancing this essential work and we are excited to announce the next evolution in its growth.

In Fall 2022, the Sustainability Initiative found a permanent home in our University Libraries, including a dedicated space for the CMU community to connect, collaborate and help achieve the Global Goals. Located in Hunt Library, the [Sustainability Studio](#) is a centralized space to share successes, identify opportunities for improvement, communicate progress, and learn from others. The Sustainability Initiative has been a long-standing priority of the Provost that is now overseen by the Helen and Henry Posner, Jr. Dean of the University Libraries Keith Webster. As the destination for intellectual inquiry and collaboration across disciplines, the University Libraries is a fitting home for this space and the initiative. Alexandra Hiniker, Director of the Sustainability Initiative, will continue to lead these efforts as a member of Dean Webster's leadership team.

Innovative solutions and creative partnerships have marked this year in the Sustainability Initiative, and we look forward to expanding the opportunities to advance change inside our community and with others outside of CMU. We remain committed to galvanizing an inclusive program and optimistic about the contributions that CMU can make through our research, education and practices to ensure a more sustainable world for all. We offer our sincere gratitude to the students, faculty and staff who contributed to this VUR. Our profound appreciation goes to the Sustainability Initiative's Steering Committee and Advisory Council for their leadership and commitment to this work. The Sustainable Development Goals are for everyone and, when it comes to sustainability, progress requires our joint commitment.

A handwritten signature in black ink, appearing to read 'JHG'.

James H. Garrett, Jr.  
Provost and Chief Academic Officer,  
Carnegie Mellon University

A handwritten signature in black ink, appearing to read 'Keith Webster'.

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

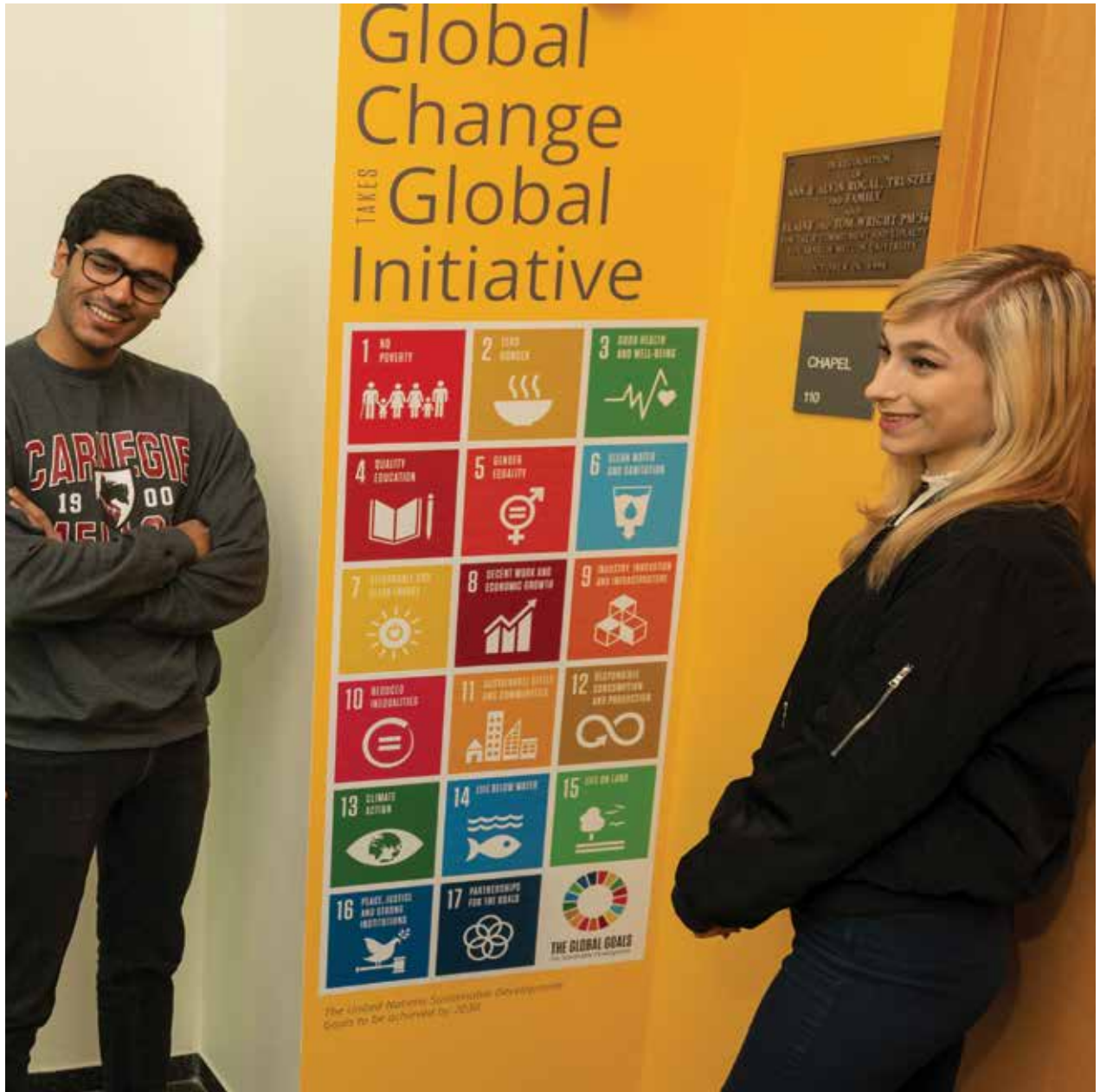


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Sustainability Initiative

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# Background



The Sustainable Development Goals, also known as the SDGs or the Global Goals, were adopted by all countries during the United Nations (UN) General Assembly in September 2015 and run through December 2030. The Global Goals came together following input from millions of people around the world and provide a framework to discuss and take action on issues of shared concern.

In September 2019, CMU Provost Jim Garrett committed to aligning the university's education, research, and practices to the Global Goals.

In 2020, CMU became the first university in the world to publish a Voluntary University Review, presenting a snapshot of how our education, research, and practices were contributing to the Global Goals at that time. CMU's second VUR was published in 2021, kickstarting the transition to an online format in response to feedback from students, faculty, and staff recommending that CMU data collected and mapped to the Global Goals be interactive and updated on a regular basis, rather than presented in a static report once a year.

## **Recognizing progress made towards the initial six charges established in 2019, the Provost approved six new charges in 2022 for the Sustainability Initiative:**

- Measure engagement with sustainability at CMU using the Global Goals;
- Convene Global Goals-themed events that bring together students, staff, and faculty to learn, explore, and develop collaborations;
- 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;
- 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;
- Develop and disseminate engaging communications about the Global Goals in education, research, and practices at CMU including through the annual VUR; and
- Create opportunities to develop, inspire, and support Cohort 2030 global citizens at CMU.

In this VUR, we provide an overview of our progress since publication of the 2021 VUR, highlight new developments, and identify priorities for the coming academic year.

# Progress



## The Sustainability Studio

In September 2022, CMU opened the Sustainability Studio at Hunt Library, marking a major milestone in sustainability efforts across the university.

Through focus groups and surveys, one key recommendation from students, faculty, and staff was to establish a physical presence to help connect people and actions across the range of Global Goals. The Sustainability Studio is a first-of-its-kind space at CMU to connect, discuss, and collaborate across disciplines in order to help advance the university’s commitment to the Global Goals.

The Studio hosts office hours with university sustainability experts, monthly Open Studios focusing on subsets of the Global Goals, and ad hoc programming to bring campus members together to talk about their work and how it is relevant to sustainability.





## Working Groups

To help advance progress on the newly-established charges, CMU's Sustainability Advisory Council established three new working groups to address climate action, measure engagement with sustainability, and develop thematic programming.



To advance transparency and participation, the Climate Action Working Group will develop comprehensive recommendations to identify short- and long-term opportunities that will 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 co-chair of the Sustainability Steering Committee.



Building on the 2020 survey and the 2021 focus groups conducted with CMU students, faculty, and staff, the measuring engagement working group will establish a baseline set of criteria to measure engagement with sustainability at CMU using the framework of the Global Goals and will periodically conduct reassessments to evaluate progress and guide programming.

The Working Group is chaired by Sustainability Advisory Council member Shannon Foster, Senior Research Designer and Coordinator of Assessment in the Office of Institutional Research and Analysis.



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

The Working Group is chaired by Sustainability Advisory Council member Peter Scupelli, Associate Professor of Design, Director of the Learning Environments Lab, and Visiting Professor at Politecnico di Milan.

# Education

CMU aims to integrate the Global Goals across our educational efforts so that students emerge from their time at the university as educated global citizens who will contribute to making the world more sustainable for all. To do so, we help students identify courses inside and outside of their college that are relevant to their interests, bring together instructors with like-minded students and peers to enhance their educational objectives, and enable administrators to assess how CMU’s courses are contributing to knowledge about sustainable development.



Building on the 2020 manual course mapping and the 2021 open-source course mapping tools created by data analytics students, CMU continues to develop the automated course-tagging tool by incorporating it into Elements and asking for additional feedback from instructors and students, further refining keywords and engagement strategies, and presenting the information on a semester-by-semester basis. You can view our fall 2022 course mapping [here](#). If you have questions about the course mapping, please contact [sustainability@cmu.edu](mailto:sustainability@cmu.edu).

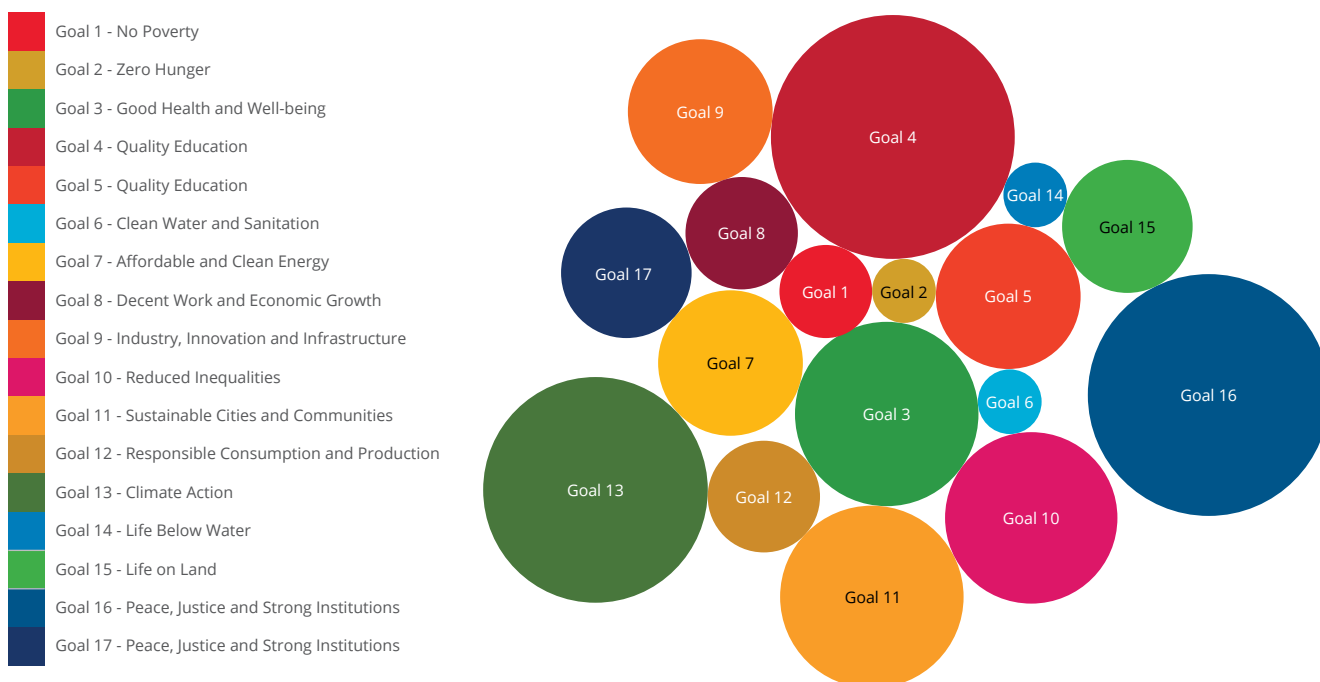
**Figure 1:** Bar graph demonstrating how the “Design Ethics & Social Justice in Architecture (62104)” course description relates to the Sustainable Development Goals



Additionally, CMU is identifying ways to incorporate the Global Goals into ongoing activities to enhance existing educational initiatives. For example, Dietrich College of Humanities and Social Sciences launched a community engagement fellowship, and Sustainability Initiative Director Alexandra Hiniker serves on the advisory committee in order to incorporate the Global Goals into the program. CMU faculty are also encouraged to incorporate the Global Goals into their experiential learning Capstones.

# Research

## Sustainable Development Goals (SDG)



**Figure 2:** 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.

CMU employs the Global Goals to identify and connect researchers at CMU and beyond so students can find research opportunities with professors outside of their college, faculty can identify complementary research partners and highlight how their work is relevant to broader sustainability efforts, and external partners, including funders, can find potential collaborators.

In the past year, this effort included working with CMU faculty concerning the option to designate their top Global Goals on their Elements profiles, and also how to use the automated tools in Dimensions. The Libraries team created an automated Tableau to centralize this information and provide an overview of how faculty address the Global Goals, and faculty now have the option to display their top Global Goals on their main profile in Elements.

Additionally, together with Libraries and the Center for Shared Prosperity, the Sustainability Initiative has hired Taiwo Lasisi to serve as a Council on Library & Information Resources (CLIR) Postdoctoral Data Fellow to link community engagement, sustainability, and data using the framework of the Global Goals.

# Practices

CMU created a tool for people to find out how the university's operations are contributing to the Global Goals. The operations mapping developed for the 2021 VUR has been updated and will be incorporated into the overarching university dashboard so that the CMU administration can visualize how their operations are contributing to sustainability, potentially identifying gaps and opportunities to improve sustainability efforts.



As a member of the Student-Centered Community Engagement and Learning Network, Sustainability Initiative Director Alexandra Hiniker strategizes how to embed the Global Goals and community engagement into the student experience. Hiniker and Debbie Steinberg, Green Practices and Sustainability Manager, presented “Collaborative Community Decision Making” at the first annual Civic Engagement Student Summit on campus on November 6, 2022.

Increasingly, students are exploring Global Goals through their various social change efforts. During the Fall Day of Service on Saturday, October 1, 2022, students volunteered at Pittsburgh community-based organizations whose work aligns with the Global Goals. Trained student site leaders led pre-project discussions and post-service reflections tying the non-profits' mission and the day's work to the Global Goals. Additionally, the civic engagement student staff in Partners Allied in Civic Engagement (PACE) partnered on the Campus Race to Zero Waste last year and have focused their educational programming squarely on the Global Goals, with a focus on responsible consumption throughout academic year 21-22 and food insecurity in academic year 22-23.

# Engagement

As a member of the Association for the Advancement of Sustainability in Higher Education (AASHE), the International Sustainability Campus Network (ISCN), the Network of Schools of Public Policy, Affairs and Administration (NASPAA), the Sustainable Development Solutions Network (SDSN), and the University Global Compact (UGC), CMU representatives have shared their knowledge and experience through panels and webinars hosted by these networks. CMU representatives also presented at events hosted by the Association of International Education Administrators (AIEA), the Association of American Universities Data Exchange (AAUDE), the Canadian Bureau for International Education (CBIE), the Network of Schools of Public Policy, Affairs, and Administration (NASPAA), and United Nations Academic Impact (UNAI).

CMU faculty engaged with the National Academies of Sciences, Engineering, and Medicine's Workshops and Final Report on *Operationalizing Sustainable Development to Benefit People and the Planet* which highlights the work of CMU on the Global Goals.

In addition to receiving an AASHE STARS Gold ranking, AASHE recognized CMU for our building performance and Voluntary University Review.

On September 15, 2022, Ambassador Sarah Mendelson, distinguished service professor of public policy, head of Carnegie Mellon University's Heinz College in Washington, D.C., and co-chair of CMU's Sustainability Initiative, testified on the Global Goals and how they relate to recovery from the COVID-19 pandemic before the House Foreign Affairs Subcommittee on International Development, International Organizations and Global Corporate Social Impact.

To engage the local community, Sustainability Initiative Director Alexandra Hiniker serves as a member of the steering committee of DISCOVER (Defining Intersectional Sustainability to Collaboratively Optimize for a Vibrant and Equitable Region), which builds beyond data and measurement, creating a shared, inclusive framework for measuring progress, coordinating communications, and driving interventions toward regional sustainability outcomes and policies using the framework of the Global Goals.



# Sustainability Snapshots



## **Support from The Rockefeller Foundation and the Packard Foundation**

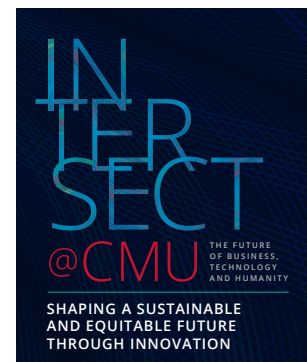
What Impact are Covid 19 Relief and Recovery Efforts Having on Social Justice and Equity Gaps? As summer study and a capstone project, Ambassador Sarah Mendelson, Heinz students and in partnership with a number of universities and thought partners including the UN Foundation, assessed social justice gaps using open data sets in Pittsburgh, Atlanta, and Toronto. This work addressed a number of the Sustainable Development Goals (SDGs) and was supported by The Rockefeller Foundation, through grants to CMU, as an outgrowth of the Brookings Institution and The Rockefeller Foundation Flagship “17

Rooms” exercise. With support from the Packard Foundation, in May 2022, the students presented their findings at a workshop held in The Hague on the margins of the World Justice Forum. What has emerged as critical from this work is the need for more disaggregated data by race and gender as well as the need for more transparency in the distribution of Covid relief and recovery packages. In short, this work reflects a more unjust rather than just recovery. This project also involves the creation of a Community of Practice with colleagues from around the world exploring best practices in how to teach and partner with the next generation, Cohort 2030, on social justice and human rights using the SDGs and disaggregated data. That work will also be highlighted in a forthcoming edited volume and a convening at The Rockefeller Foundation’s Bellagio Center in 2023.

**INTERSECT@CMU** On February 10-11, 2022, CMU hosted the fourth INTERSECT@CMU Conference, focusing on the Global Goals and the actions we must take to ensure that the next generation will live on a more sustainable planet. Launched in 2018, INTERSECT@CMU is a cross-campus endeavor designed to convene thought leaders from within and beyond the CMU community to explore the implications of a broad topic in our rapidly changing world.

During the conference, speakers and panelists centered equity in their discussions about urgent issues facing our planet as they relate to cities and infrastructure; peaceful, just and inclusive societies; climate action; and resilient and inclusive economies. There were 1,425 attendees across all seven events, which included four panels and three high-profile keynotes, complemented by two student spotlights.

Altogether, there were 24 speakers, including representatives of all seven colleges as well as Libraries and CMU Africa together with 14 external partners. The keynote speakers included CMU alumnus, trustee and former co-CEO of Salesforce Keith Block, who was introduced by the Dean of Heinz College of Information Systems and Public Policy, Ramayya Krishnan, The Rockefeller Foundation’s Senior Vice President for Innovation, Zia Khan, who was introduced by Provost Jim Garrett, and the Deputy Secretary of the U.S. Department of Energy David Turk, who was introduced by President Farnam Jahanian.





**Scopeathon** To complement INTERSECT, the Sustainability Initiative partnered with the Block Center, Metro21: Smart Cities Institute, and the University of Pittsburgh Graduate School of Public and International Affairs (GSPIA) and its Center for Analytical Approaches to Social Innovation (CAASI) to organize Scopeathon for Social Good. Scopeathon, which took place April 1-2 at Hamburg Hall, brought together some of Pittsburgh's nonprofit leaders, data scientists, and university students for the benefit of local communities.

Participants learned how to use data science to understand a problem, determine goals and tradeoffs, identify actions that can be taken, review available data, and plan an analysis while keeping ethical issues in mind.



**Shapetopia** CMU Entertainment Technology Center students created [Shapetopia](#), a virtual city where the players are new mayors who partake in policy decisions — limited only by their resources — to discover how sustainable choices weave together to affect the quality of life in a society, using the framework of the Global Goals.

## Next steps



Through the Sustainability Initiative's base in University Libraries, CMU will employ the Global Goals to amplify our efforts to address environmental protection, social equity, and economic justice. The three Working Groups will convene throughout the year in order to establish plans for taking action on climate, measuring engagement with sustainability, and creating thematic programming, producing recommendations in spring 2023 for implementation. This effort will include taking stock of how the Sustainability Studio is enriching and meeting the needs of our community, and further mainstreaming the CMU sustainable development tools into CMU systems so that students, faculty, and staff feel empowered to create a more sustainable world for all.

## **Sustainability Advisory Council**

Chadi Aoun – CMU-Qatar

Nina Baird – College of Fine Arts

Silvia Borzutzky – Heinz College

Christa Cardone – Office of the Provost

Don Coffelt – Facilities Management and Campus Services

Gbemi Disu – CMU-Africa

Neil Donahue – Steinbrenner Institute, Mellon College of Science, College of Engineering

Ed Dunlea – Mellon College of Science

David Dzombak – Faculty Emeritus

Pam Eichenbaum – Office of the President

Shannon Foster – Institutional Research and Analysis

Steven Guenther \* – Facilities Management and Campus Services

Alexandra Hiniker \* – University Libraries

Tae Wan Kim – Tepper School of Business

Taiwo Lasisi – University Libraries

Vivian Loftness – College of Fine Arts

Sarah Mendelson \* – Heinz College

Hannah Morin – VP of Campus Affairs, Graduate Student Assembly

Elizabeth “Lib” Rosemeyer – Office for Institutional Equity and Title IX Expansion

Edmund Russell – Dietrich College

Peter Scupelli – College of Fine Arts

M. Shernell Smith – Center for Student Diversity and Inclusion

Deborah Steinberg – Facilities Management and Campus Services

Madeleine Timko – Director of Sustainability, Student Government President’s Cabinet

Daniel Tkacik – Wilton E. Scott Institute for Energy Innovation

Liz Vaughan – Student Leadership, Involvement, and Civic Engagement (SLICE)

Keith Webster \* – University Libraries

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University Reviews and  
to access the links in  
this document, visit

[cmu.edu/VUR](http://cmu.edu/VUR)