Scope 3 Analysis and Planning Project Executive Summary

April 2025

OFFICE OF CAMPUS SUSTAINABILITY

About this Project

The Scope 3 Emissions Analysis and Planning Project laid the groundwork for U-M to fulfill its commitment to establishing Scope 3 goals by the end of 2025.

In partnership with Buro Happold Consulting, the project:

- Performed a gap analysis of U-M's Scope 3 data and sequenced steps to improve the data
- Developed a methodology and strategy for ongoing Scope 3 inventory tracking
- Engaged 350+ U-M community members to understand their priorities
- Defined strategies for ongoing Scope 3 management and impact

Building on prior work by the President's Commission on Carbon Neutrality, and in alignment with Vision 2034 and Campus Plan 2050, this project charts a path to set and implement Scope 3 goals.

While these recommendations are not officially adopted by U-M, they serve as valuable insights to guide goal development and implementation.

Action Steps

Scope 3 emissions, spanning our entire value chain, are critical to U-M's sustainability objectives. We recognize the importance of an **iterative, focused approach** that leverages our unique strengths and aligns with our institutional priorities.

Our strategy begins with identifying key starting points and gradually expanding our efforts, acknowledging that attempting to tackle everything simultaneously is neither feasible nor effective.

Our philosophy centers on setting **actionable goals** that demonstrate measurable progress and build our capacity over time.

Priorities include:

- Set actionable goals in targeted Scope 3 categories by the end of 2025
- Improve data and publish a baseline inventory
- Assess and build capacity to implement Scope 3 measures
- Develop educational initiatives to help U-M community members understand their impact and opportunities to reduce Scope 3 emissions

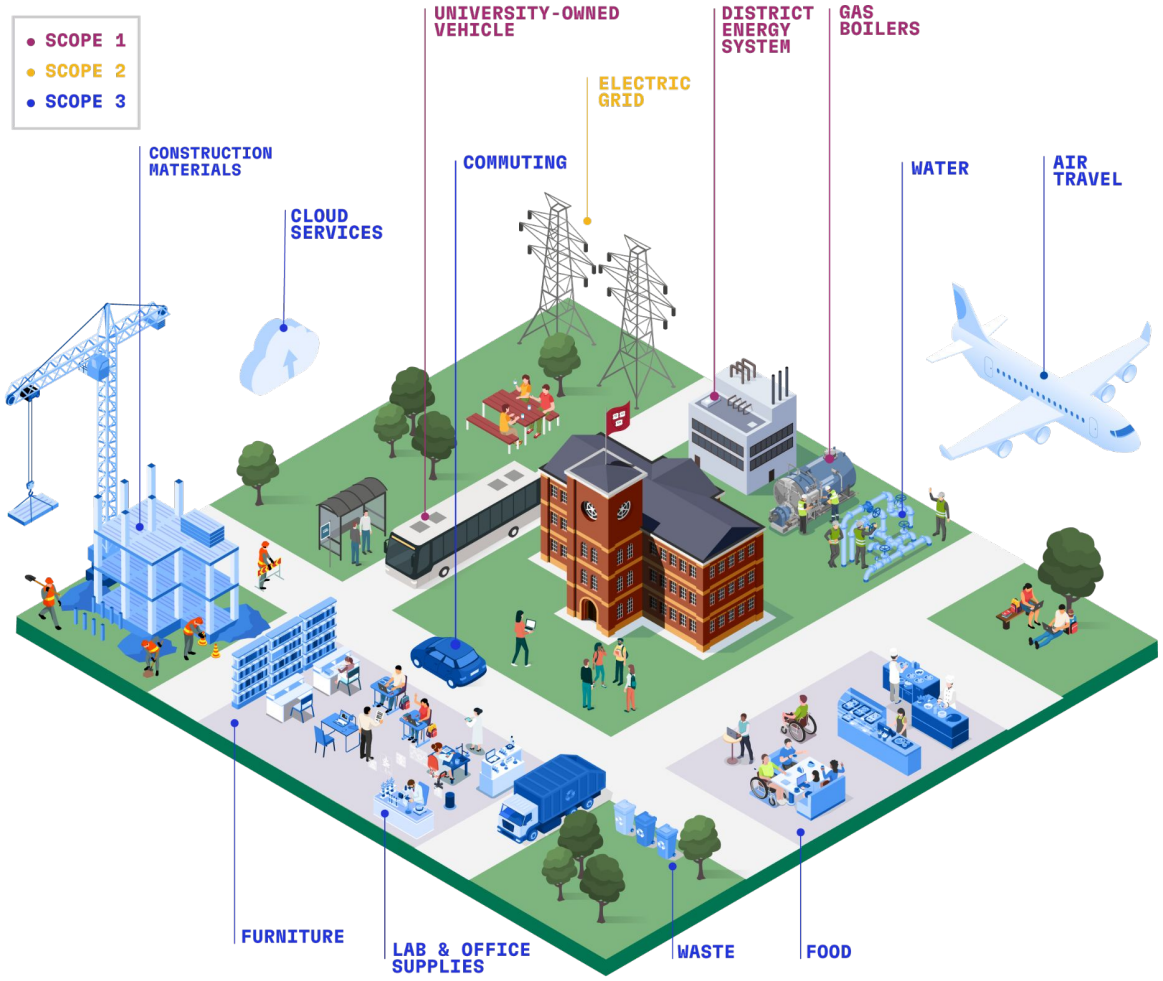
Project Learnings

The following slides present foundational Scope 3 emissions information provided by Buro Happold and summarize the pre-decisional recommended strategies for each category.

Emissions Categorization & Accounting Protocol

The **Greenhouse Gas Protocol** (GHGP) is the standard for carbon accounting. GHGP classifies an organization's GHG emissions into three "scopes" for tracking and reporting:

- **Scope 1:** Emissions generated directly onsite, from sources owned or controlled by the organization (i.e., fuel, natural gas)
- **Scope 2:** Emissions generated indirectly through the purchasing of energy delivered to site (i.e., electricity)
- **Scope 3:** Emissions generated indirectly upstream and downstream in an organization's value chain (i.e., construction, travel, purchasing, waste, etc.)



Graphic: Harvard University

Scope 3 Categories

CURRENTLY APPLICABLE TO U-M

Purchased Goods & Services

Capital Goods

Fuel & Energy Related Activities

Commuting

Waste Generated In Operations

Business Travel

Leased Assets

FUTURE INCLUSION

Investments

U-M is pursuing a net-zero endowment by 2050 to support a low-carbon economy and will evaluate associated Scope 3 reporting protocols in 2026.

NOT APPLICABLE TO HIGHER ED

End of Life Treatment of Sold Products

Franchises

Transportation & Distribution

Processing of Sold Products

Use of Sold Products

Category Definitions

Purchased Goods & Services

Purchased products such as furnishings, office supplies, IT equipment, and food.

Commuting

Transportation of students, faculty, and staff between home and the university.

Waste Generated In Operations

Disposal and treatment of waste generated by the university.

Capital Goods

Building equipment and materials such as concrete and steel.

Business Travel

Transportation for university-related activities in third-party vehicles.

Fuel & Energy Related Activities

Extraction, production, and transportation of fuels consumed.

Leased Assets

Operation of buildings that are leased by the university.

U-M Scope 3 Boundary

Campuses

- Ann Arbor*
- Dearborn
- Flint

U-M Health

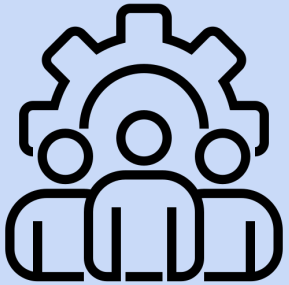
- Ann Arbor

Future Inclusion in Boundary

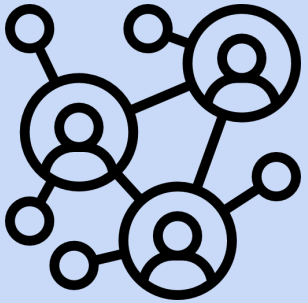
- Sparrow
- West

* Includes Athletics, Student Life, and all other Ann Arbor-affiliated units and properties.

Stakeholder Groups for Scope 3 Recommendation Development



Project Team
Day-to-day project contacts reviewed deliverables regularly and gave overarching feedback to inform engagement sessions and recommendations.



Working Groups
Co-created data & impact recommendations based on discovery and feedback sessions. There were 7 total working groups across campuses.

Advisory Council
Three sessions held over course of project to keep key stakeholders informed and understand Scope 3 priorities.

Community Engagement
Conducted in-person and virtual sessions and a survey to gather student, faculty, and staff feedback and priorities.

Stakeholder Feedback

Feedback was solicited comprehensively across the University of Michigan community at Ann Arbor, Flint, and Dearborn campuses and in the University of Michigan Health system.

More than 350 people provided feedback via in-person and virtual workshops, offline reviews, working groups, and surveys.

Feedback informed pre-decisional recommendations, prioritization, and critical needs to enable implementation.

Themes Emphasized by Open House Feedback

- The need to **emphasize human rights and equity** in solutions with metrics in place to measure these impacts.
- Strong desire for greater **transparency in Scope 3 emissions**, with suggestion to explore the **creation of an emissions dashboard.**
- **Sustainability awareness campaigns and engagement efforts** can help spur cultural shifts for both students and staff.
- Flint and Dearborn campuses lack sufficient infrastructure and **resources to implement sustainability and operational programs.**

Open House Feedback on Priority Areas of Focus

Interest in exploring low-carbon buildings, with focus on materials delivery and construction processes.

Sustainable food initiatives are successful on Ann Arbor campus and can be adapted for other campuses.

Purchased goods & services identified as area with opportunity to create impact through procurement policies & making sustainable products default.

Need for **expanding waste infrastructure & improving waste programming across campus**, and **emphasizing impact of responsible purchasing**.

Strong **desire for low-carbon commuting & travel solutions**, such as improving bus system, incentivizing carpooling, & requiring train over air travel when possible.

Prioritization Summary – Momentum

Results from voting exercises conducted to gain input from students, staff, and U-M leadership.

Where does the University of Michigan have existing momentum?

Advisory Council	In-Person Town Hall	Survey	Virtual Town Hall
1. Food	1. Food	1. Renewable Energy Shift	1. Food
2. Waste	2. Renewable Energy Shift	2. Waste	2. Renewable Energy Shift
3. Purchased Goods – Decarbonize IT & AI	3. Waste	3. Food	3. Waste

- **Sustainable food initiatives have been successful** on Ann Arbor campus and U-M has opportunity to build on this progress with **expansion of programs to additional Ann Arbor units and Dearborn and Flint campuses.**
- U-M has momentum with waste initiatives — for example, increasing waste diversion on the Ann Arbor campus from 26% in FY06 to 37% today despite a 34% increase in square footage — and can continue emphasizing **circular economy practices that inform purchasing decisions.**
- **U-M will reach net-zero Scope 2 emissions by early 2027**, which will reduce emissions from Leased Assets and Fuel & Energy-Related Activities categories.

Prioritization Summary – Leadership

Results from voting exercises conducted to gain input from students, staff, and U-M leadership.

Where should the University of Michigan show leadership?

Advisory Council	In-Person Town Hall	Survey	Virtual Town Hall
1. Commuting	1. Purchased Goods – Decarbonize IT & AI	1. Renewable Energy Shift	1. Commuting
2. Capital Goods	2. Capital Goods	2. Purchased Goods – Local Economy	2. University Travel
3. University Travel	3. Commuting	3. Commuting	3. Purchased Goods – Local Economy

- Strong **desire to expand low-carbon commuting options** across all stakeholder groups, with recognition that Dearborn and Flint will require additional infrastructure considerations.
- **Tackling embodied carbon from construction and supporting the local purchasing are areas of opportunity** for U-M to demonstrate sustainability ambition as it continues to renovate and grow the campus.
- **Decarbonizing IT equipment and AI services** is an area of interest for students and staff which impacts the Purchased Goods category and is a growing consideration in Scope 3 accounting.

Critical Needs & Key Considerations

To enable successful program implementation, University of Michigan stakeholders and the Buro Happold team identified a variety of critical needs. U-M should consider how to address these critical needs to accelerate implementation.

- **Consider Bandwidth Limitations Across Teams:** Develop a phased implementation approach that accounts for existing circumstances and builds capacity over time. Consider creative ways to invest more resources into Scope 3 data analysis and initiatives, including student internships and capstone project opportunities.

- **Enable Education & Collaboration:** Significant progress is being made across various departments at U-M for Scope 3 (food, waste, etc.). There is a desire for greater sharing of best practices and resources across departments as well as with the Flint and Dearborn campuses. Setting up clear lines of communication is crucial for implementation across various departments.

Critical Needs & Key Considerations Continued

- **Consciously Include Flint & Dearborn:** The Flint and Dearborn campuses, while resource-limited, show a strong enthusiasm for active participation in U-M sustainability initiatives. Ann Arbor is excellently positioned to serve as a hub for emissions analysis, establishing best practices and sharing insights with Flint and Dearborn. It's important to consider how programs can be developed and customized to meet the unique needs and contexts of the Flint and Dearborn campuses.

- **Inform In-Flight & Future Initiatives:** Scope 3 initiatives intersect with plans for transportation, housing, design & construction and broader sustainability ambitions across the U-M ecosystem. As these transformative plans unfold, the Scope 3 Analysis and Planning Project strategies should serve as a guiding reference to ensure that Scope 3 considerations are seamlessly integrated into our decision-making processes.

Data Review | Key Insights

Across all categories, **data is predominately spend-based**. While this is suitable for emission estimations, collecting **activity data for key products** as possible will **increase the ability to reduce emissions.**

Purchased Goods and Services is a category with extensive spend data. The university should **prioritize getting more activity data** for **select purchasing categories** to improve emissions tracking.

The area where the university has the **highest level** of both **influence and impact** on emissions reductions is **capital goods (construction)**, aligning with increasing standards for **embodied carbon measurement.**

Waste, while not usually a major source of emissions, **is highly visible** and could be prioritized given **pollution and environmental justice considerations.**

Fuel & Energy Related Activities and **Leased Assets** are relatively low priorities for initial action because they have a **small impact** on overall emissions and low visibility.

Commuting methodology is currently comprehensive, but measures can be taken to **improve response rate** and **achieve more representative data.**

Strategies Under Evaluation

The following slides present preliminary strategies for enhancing data quality and reducing emissions across each Scope 3 category. These strategies have been distilled from technical reports provided to U-M by Buro Happold. While not yet officially adopted by U-M, these strategies offer valuable insights to inform goal development and implementation. A more comprehensive update is expected this fall.

Pre-decisional Strategies for Capital Goods

Capital Goods refers to building equipment and materials such as concrete and steel.

- Establish a baseline using estimates based on spend data (and more specific data for projects >$100M) and develop streamlined data capture processes.
- Initially, focus on large (>$10M) and medium ($3M-$10M) capital projects to make the greatest impact.
- Evaluate the feasibility of standardizing Life Cycle Analysis and Life-Cycle Cost Analysis processes, formats, and requirements.
- Implement guidelines to reduce embodied carbon (emissions associated with materials and construction of a building) by prioritizing renovations, designing for flexibility, and selecting low-carbon materials. Standardize training for stakeholders to integrate these practices into design and construction.

Pre-decisional Strategies for Purchased Goods and Services

- Establish a robust baseline using spend-based calculations and aligning with Environmentally-Extended Input-Output emission factors.
- Integrate data collection capabilities within procurement systems, leverage tools for emissions accounting, and clarify sustainable purchasing definitions to enhance data accuracy and supplier accountability.
- Prioritize engagement with suppliers who represent significant portions of spend, particularly in high-emission categories.

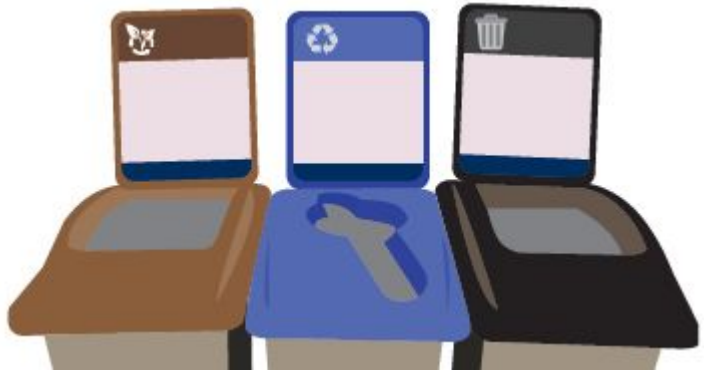
Pre-decisional Strategies for Food

- Close priority data gaps by working with suppliers across campuses to collect food procurement data, then establish the baseline inventory.
- Engage vendors to improve data quality, focusing on larger suppliers first, while ensuring alignment with efforts to support smaller local vendors.
- Focus on continuous process improvements, including adapting best practices across all campuses and implementing steps to reduce emissions and food waste in in healthcare settings without compromising patient care.

- Set ambitious, transparent food sustainability goals aligned with industry coalitions (such as National Association of College & University Food Services) and extend these goals to include all relevant units.

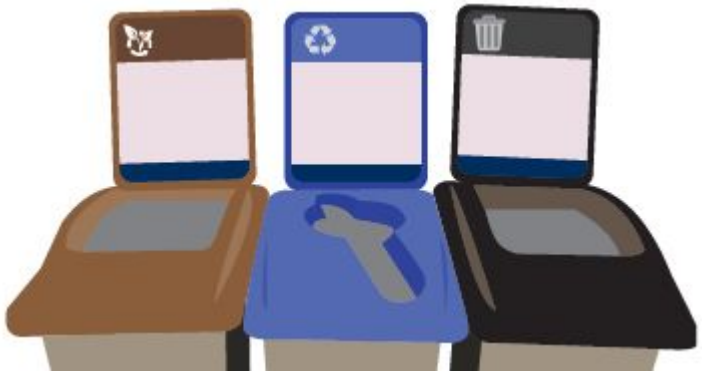
Pre-decisional Strategies for Waste – Ann Arbor, Dearborn, Flint

- Document and standardize waste data collection processes across campuses, then calculate baseline inventory.
- Continue to conduct regular waste audits at Ann Arbor. Share insights and results across campuses to enhance behavioral change efforts and drive upstream waste minimization.
- Enhance educational programming to promote waste reduction practices, with a particular focus on developing programming and awareness at the Flint and Dearborn campuses.
- During contract negotiations, engage waste vendors to ensure that emissions and environmental justice concerns are tracked, limited, and steadily improved.



Pre-decisional Strategies for Waste – Healthcare

- Establish baseline emissions and document data management best practices at Ann Arbor, then standardize waste data collection and tracking at other healthcare campuses including Sparrow and West.
- Standardize monthly or quarterly assessments of waste totals to identify anomalies, address data gaps, and benchmark against industry metrics.
- Develop an engagement program, set specific waste reduction goals, and collaborate with stakeholders to implement operational changes to reduce waste.
- Update standard operating procedures to include best practices for waste diversion and reduction, creating a toolkit for consistent application across healthcare campuses.



Pre-decisional Strategies for Commuting

- Use Sustainability Cultural Indicators Program (SCIP) survey results to calculate baseline commuting emissions.
- Analyze commuting trends across different demographics to inform targeted awareness campaigns and establish goals like increasing public transit use, reducing parking permits, and enhancing pedestrian infrastructure.
- Develop a strategic mobility and transportation plan that facilitates lower-emission commuting by addressing specific transportation needs for each campus, factoring in regional partnerships and infrastructure improvements such as expanded transit options and EV charging stations.

Pre-decisional Strategies for University Travel

- Increase data granularity to improve emissions calculations, centralize travel data, and create a baseline inventory.
- Starting July 1, 2025, all flights must be booked through Collegiate Travel Partners (CTP). Develop strategies and processes to ensure thorough data collection and enhance the management of travel costs and emissions.
- Conduct trends analysis to identify major emissions impacts, set reduction goals, and encourage sustainable choices through incentives and training.
- Explore the feasibility of expanding emissions calculations to include voluntary categories like visitor and student travel to further understand and influence U-M's travel-related carbon footprint.

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Pre-decisional Strategies for Leased Assets and Fuel and Energy-Related Activities

- Confirm utility payment structures for leased properties and calculate baseline Scope 3 emissions.
- Prioritize direct metering to provide detailed energy use data and inform impactful energy conservation measures.

- Develop a Tenant Fit-Out Guide to standardize sustainability practices and engage property management to enhance energy efficiency and waste reduction.
- Plan for the energy needs and evaluate viability of procuring renewable energy for leased data centers.