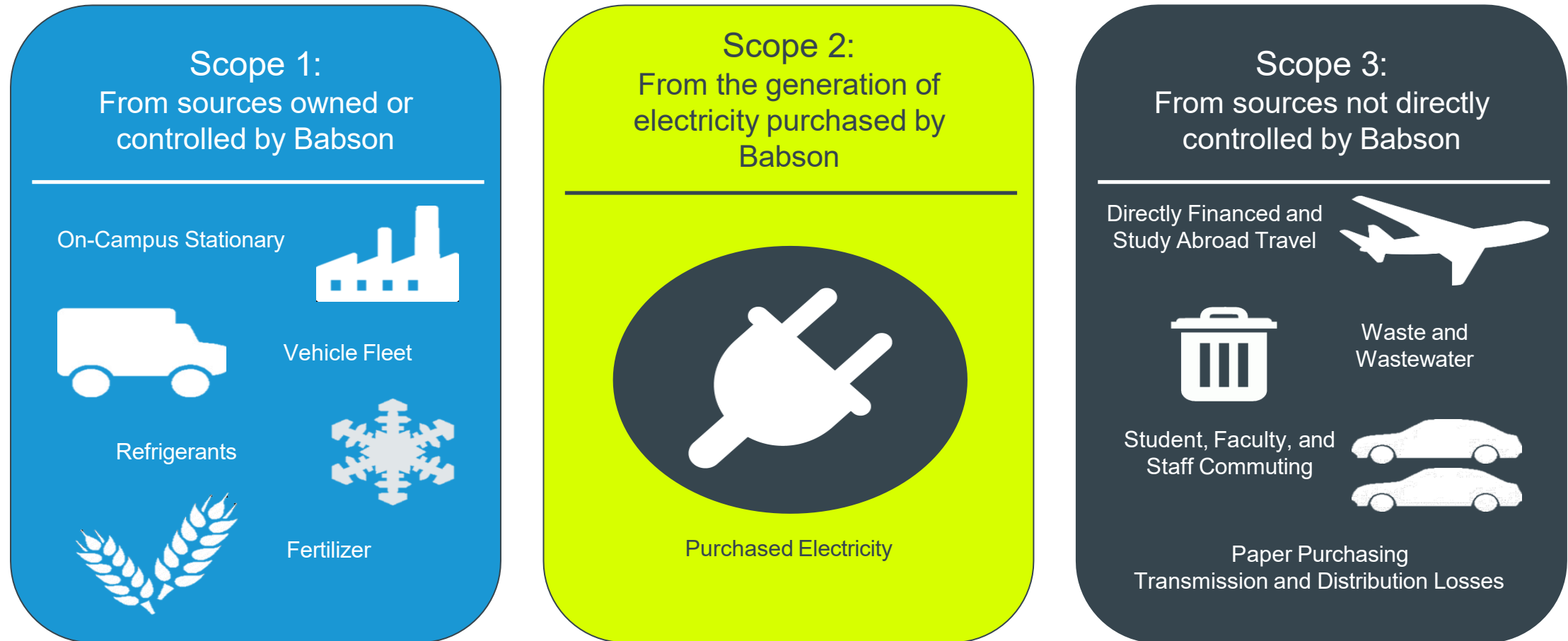




Babson College FY25 Sustainability Presentation

Presented by: Victoria Vasile & Diana Menser

What is Included in a Greenhouse Gas Inventory?



Increasingly Difficult to Track, Control and/or Mitigate

Two Ways to Normalize Emissions for Consumption

GHG Emissions per 1,000 GSF EUI Adjusted



Stresses intensity of operations.

$$\frac{\text{Gross GHG Emissions}}{\text{EUI Adjusted GSF}} \times 1,000$$

GHG Emissions per Weighted Campus User

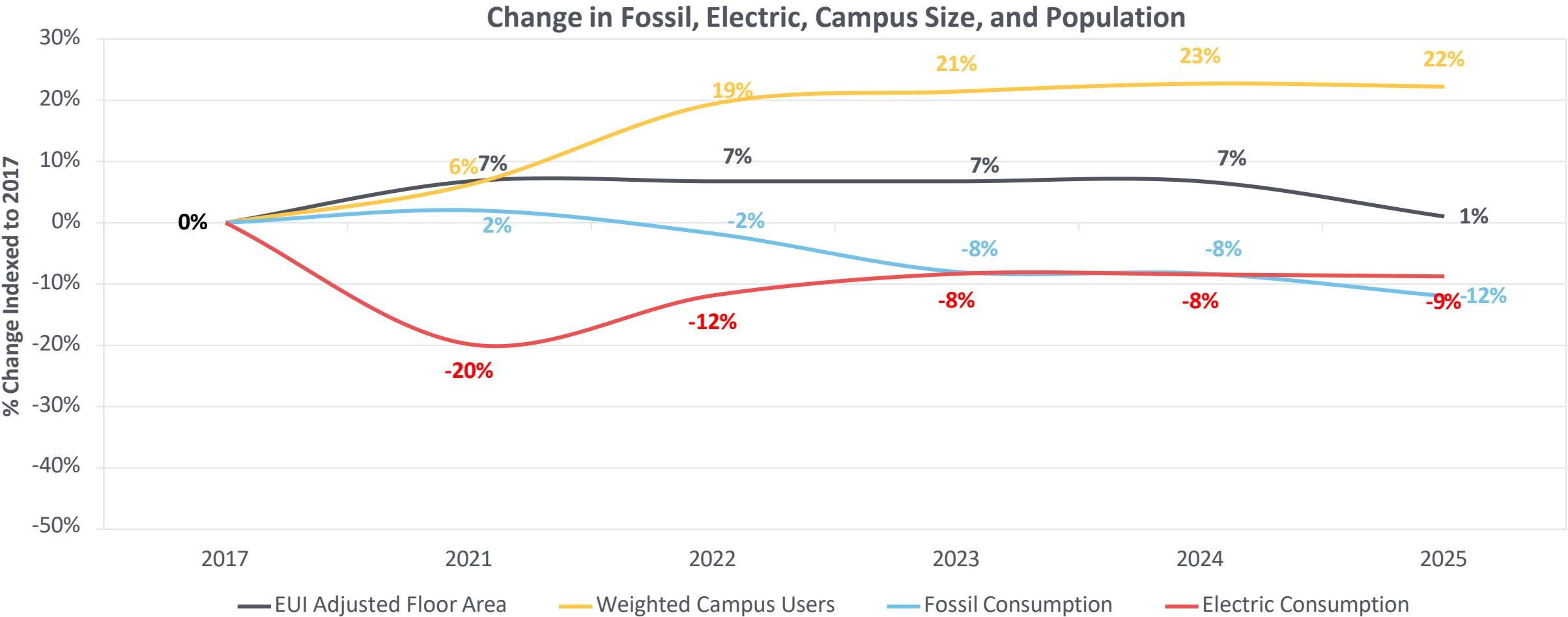


Stresses efficient use of space.

$$\frac{\text{Gross GHG Emissions}}{\text{Weighted Campus User}}$$

Increase in Population; Decrease in Utility Consumption and GSF

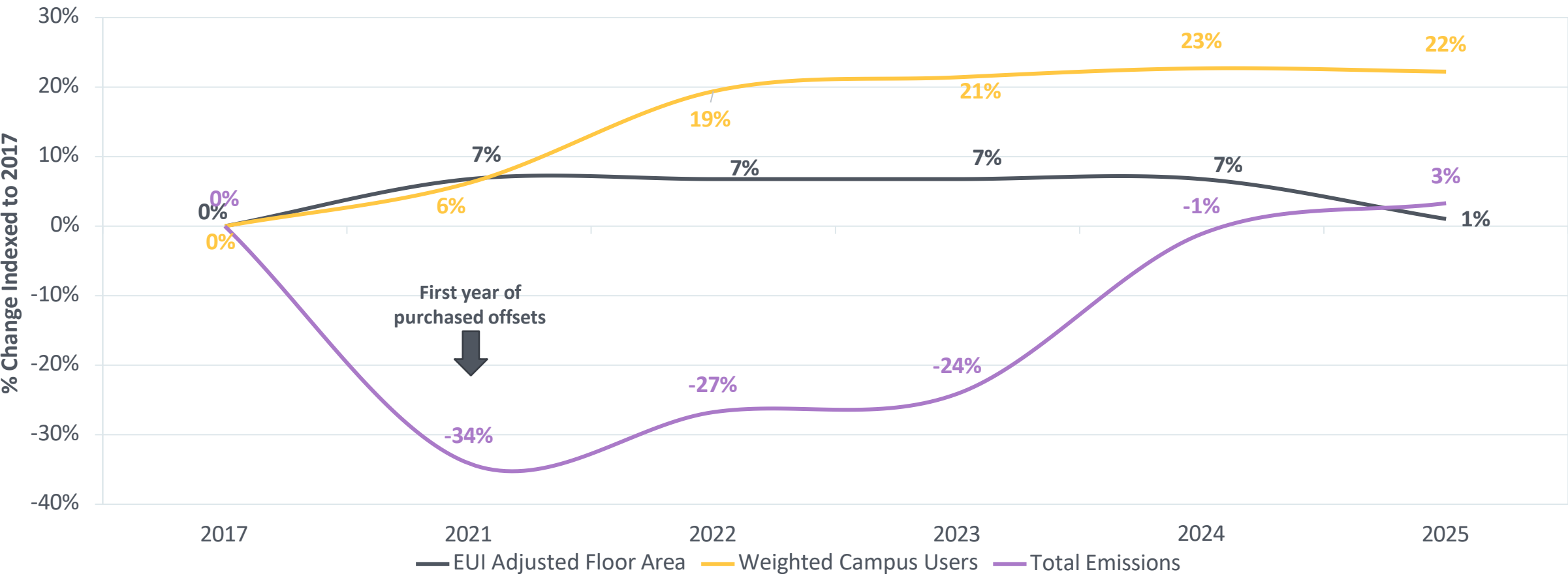
Through strategic energy management, utility consumption has decreased compared to 2017



Emissions Have Increased 3% Indexed to 2017

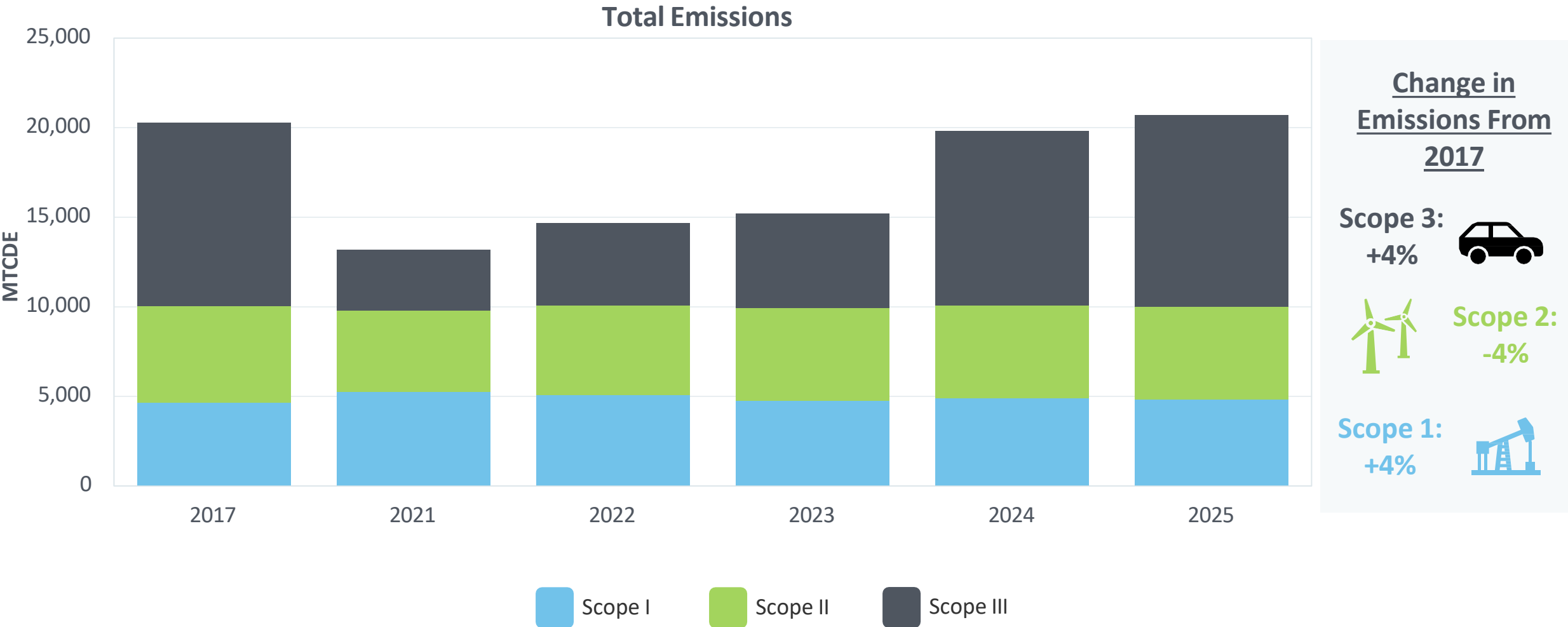
Babson emissions returning to 2017 levels, primarily due to Scope 3 other travel

Change in Total Emissions, Campus Size, and Population



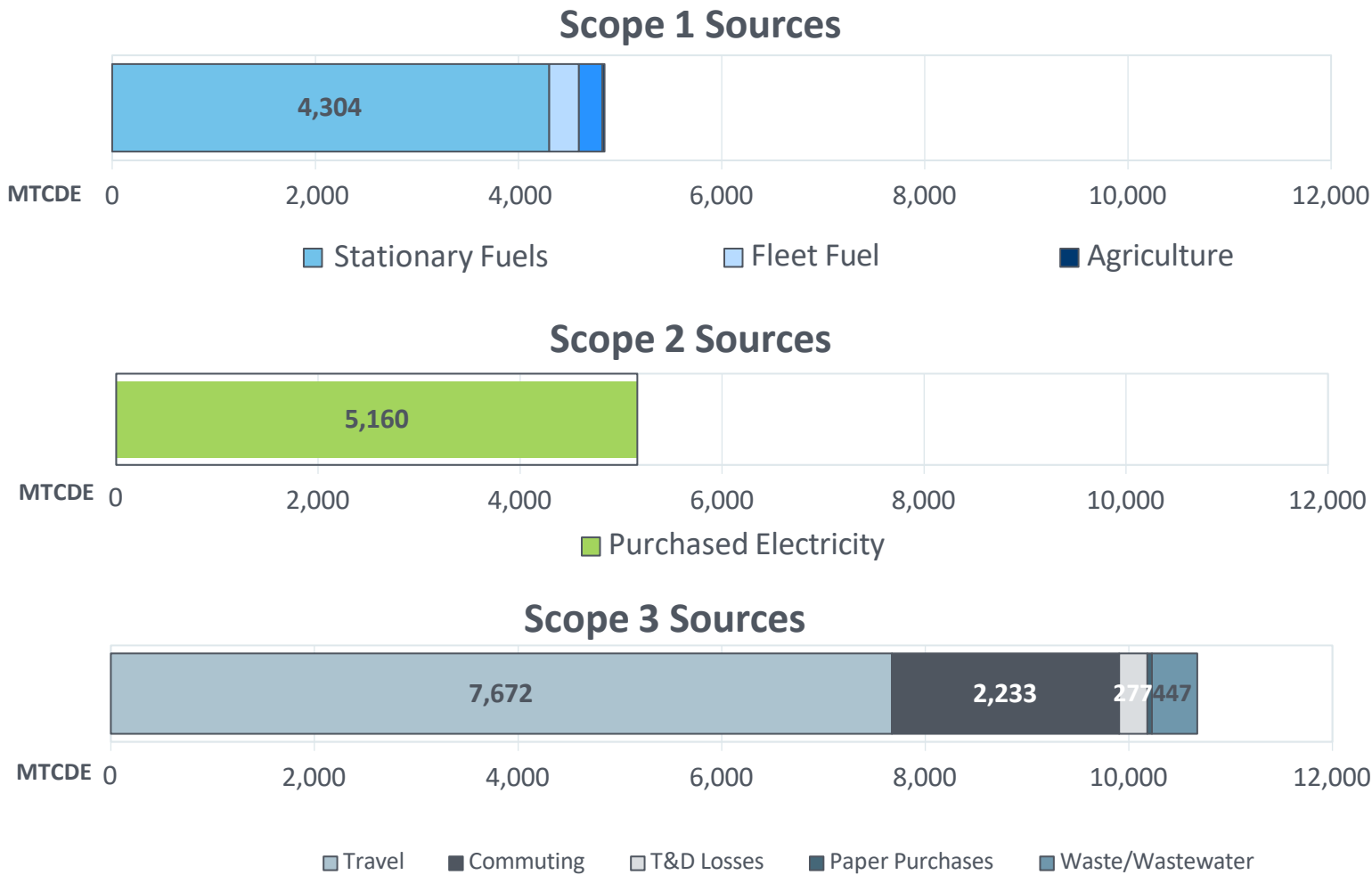
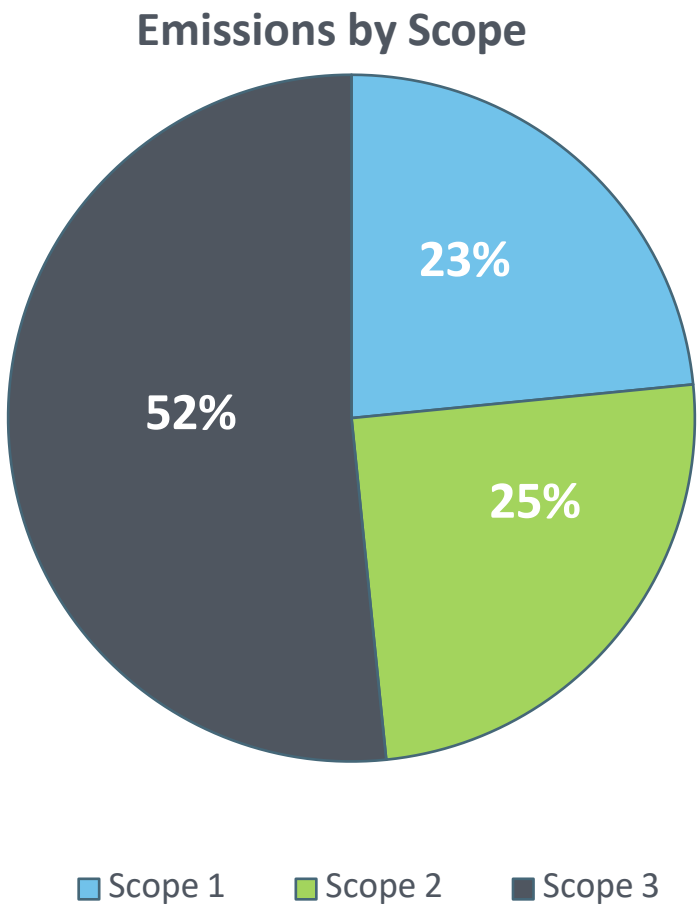
Steady Increase in Scope 3 Emissions Back to 2017 Levels

Scope 1 and 2 emissions holding steady from 2024; increase is driven by scope 3 other travel



2025 Total Emissions Profile at Babson

Babson's 2025 emissions total **20,680 MTCDE**

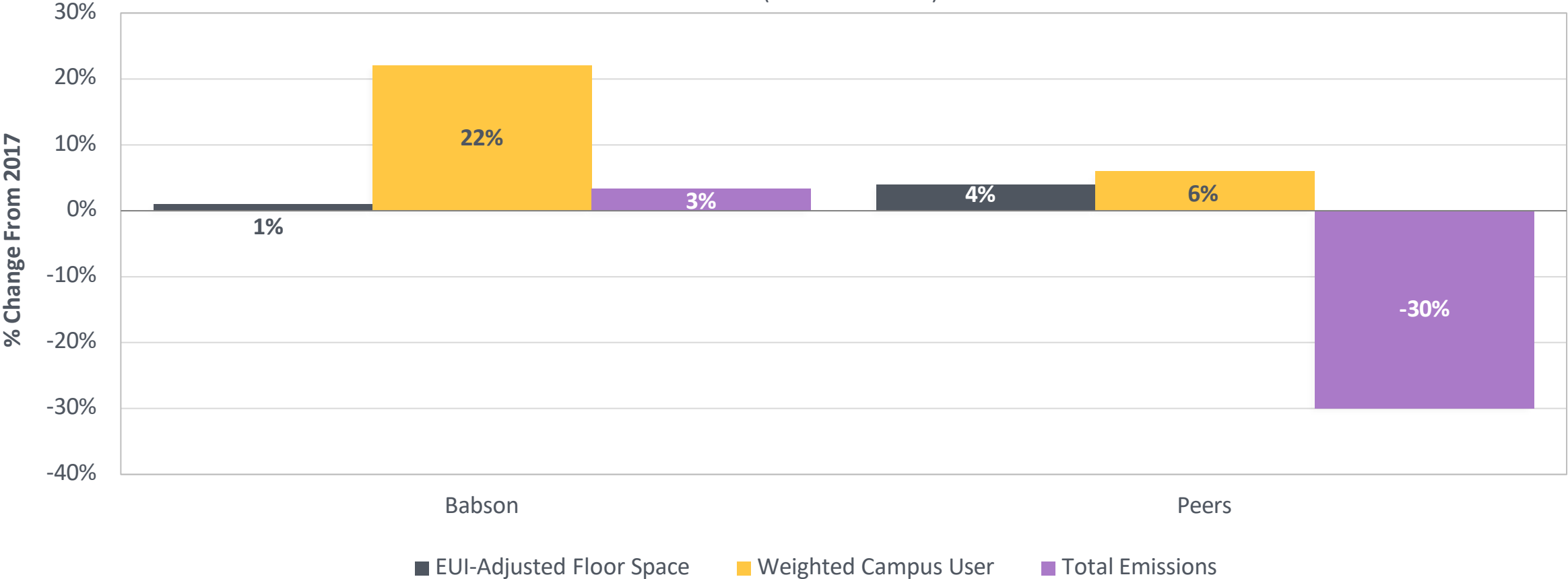


Sustainability Benchmarking

Babson Has Experienced More User Growth Compared to Peers

Despite growth in campus footprint and campus users, Babson has increased total emissions by only 3%

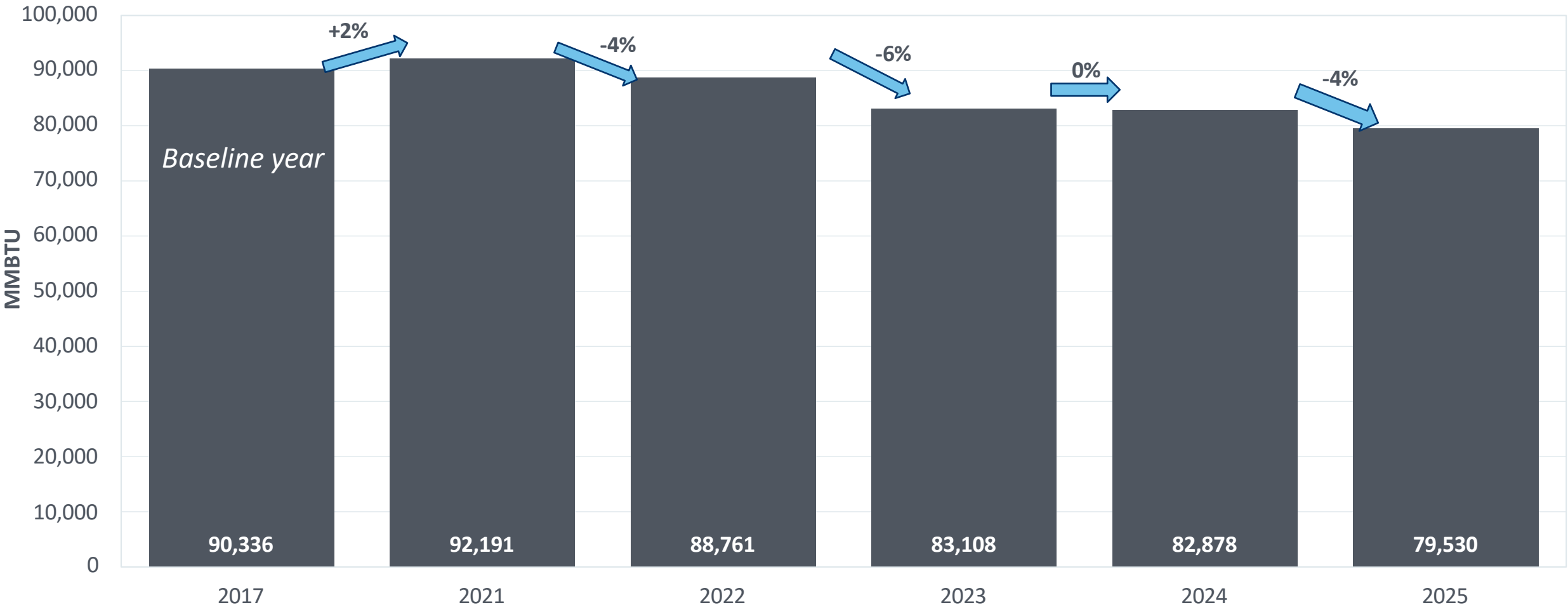
Campus Footprint, Users, and Emissions Trending v. Peers
(Indexed to 2017)



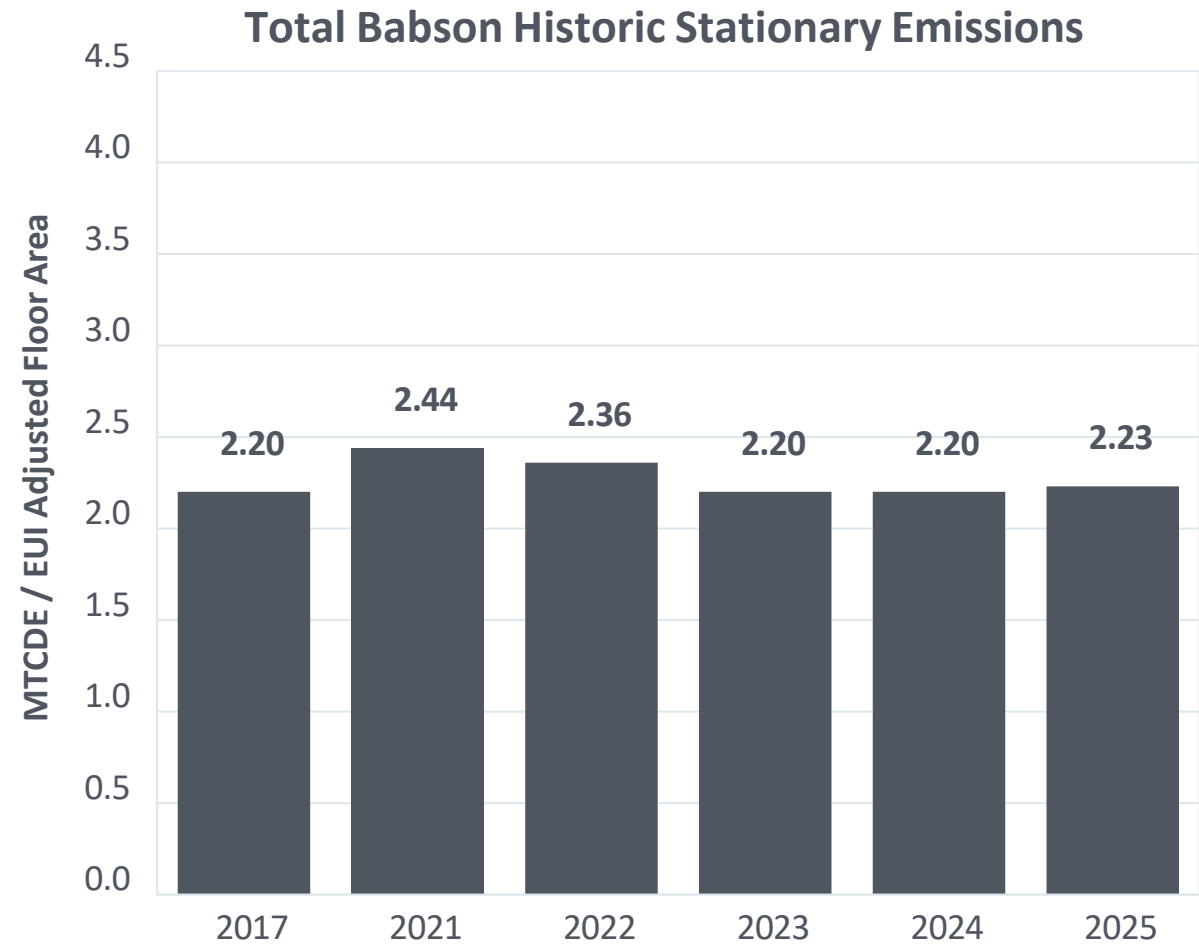
Scope 1 Emissions Profile

Natural Gas Consumption Has Decreased By 12% From 2017

Scope 1 Stationary Fuel Consumption

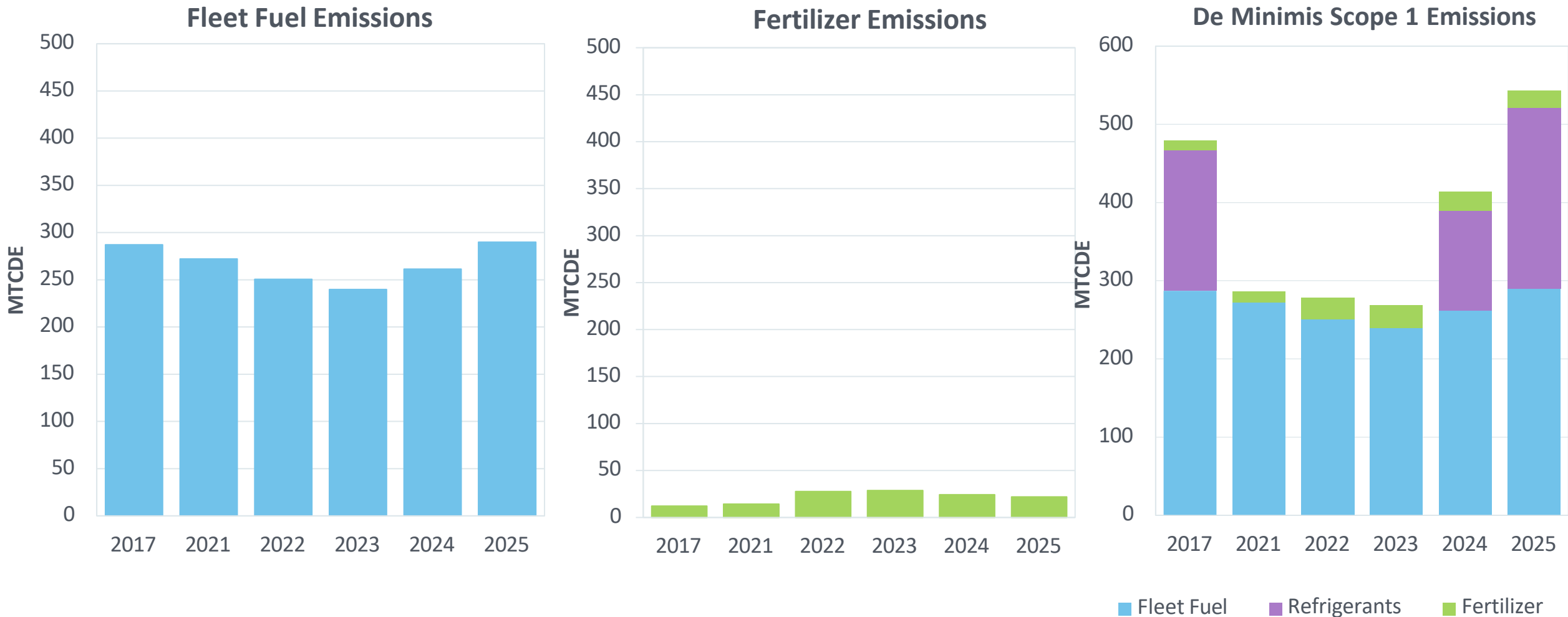


Stationary Emissions at Babson Align with Peer Average



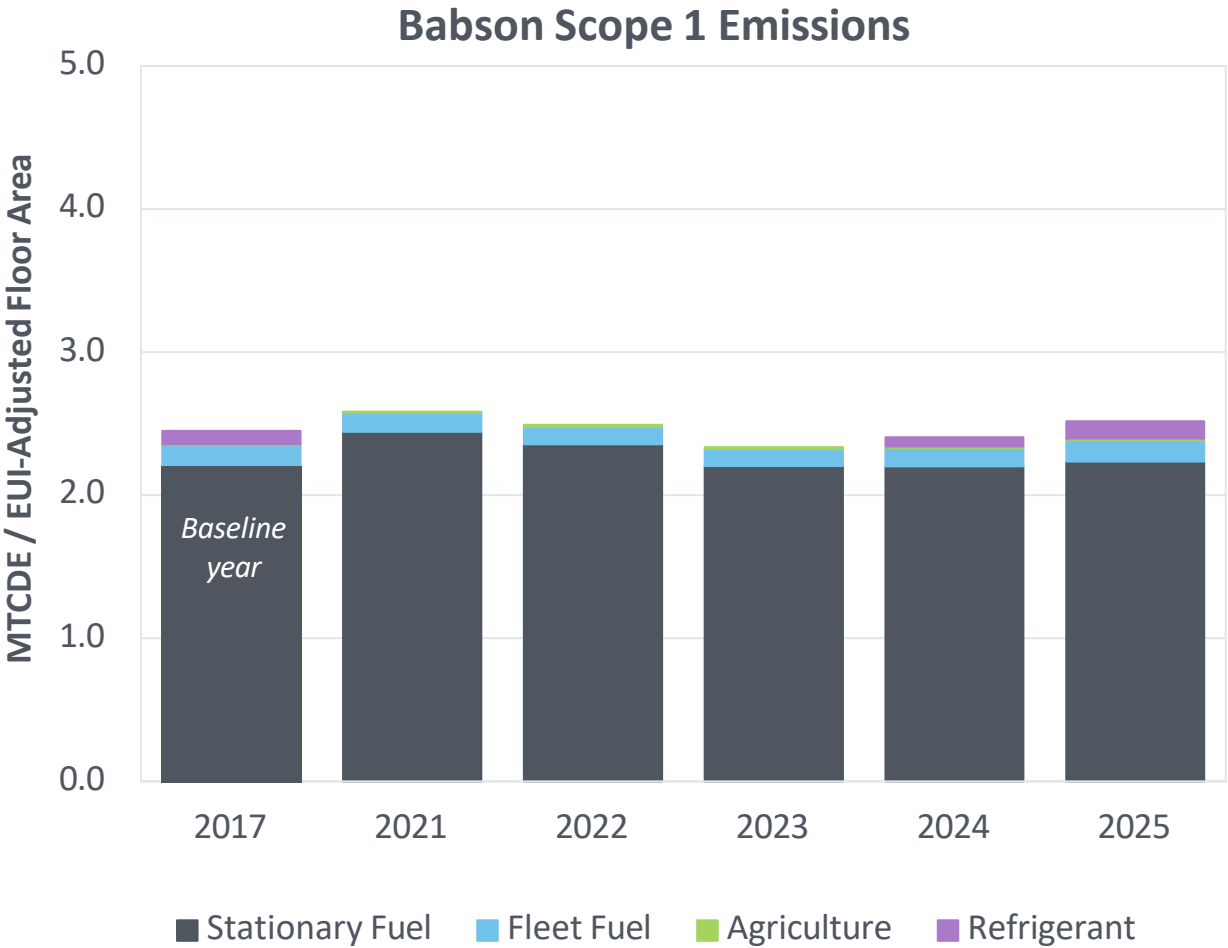
Scope 1 De Minimis Emissions Increases by 13% in 2025

Refrigerant data is the main driver of increase in de minimis scope 1 emissions



Scope 1 Summary: 2025 Emissions

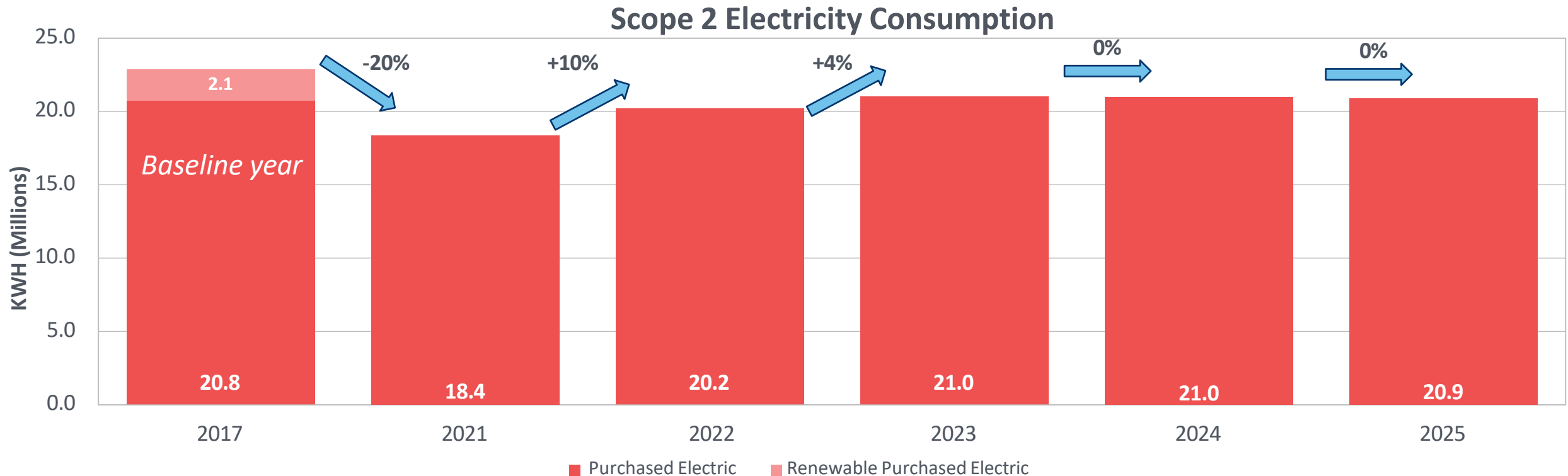
Prioritization of mechanical investments will continue to be necessary to lower Babson's emissions



Scope 2 Emissions Profile

Electric Consumption Plateaus Since 2023

Babson decreases consumption 9% since 2017



Energy (from 2025 Climate Action Plan)

Goal: Identify opportunities and install solar PVs

Goal: Implement energy dashboard for campus for streamlined reporting

Goal: Promote and advocate programs that encourage energy conservation

The campus receives most of its power from offsite sources. Babson is in the process of retrofitting existing buildings with more energy efficient systems, thereby decreasing the carbon intensity of each facility. There is plenty of opportunity for every person on campus to contribute toward reaching these goals through everyday behaviors like turning off computers, lights, and other equipment when not in use.

Aligning Babson Utility Consumption With State Regulations

Babson On Track with Massachusetts Executive Order

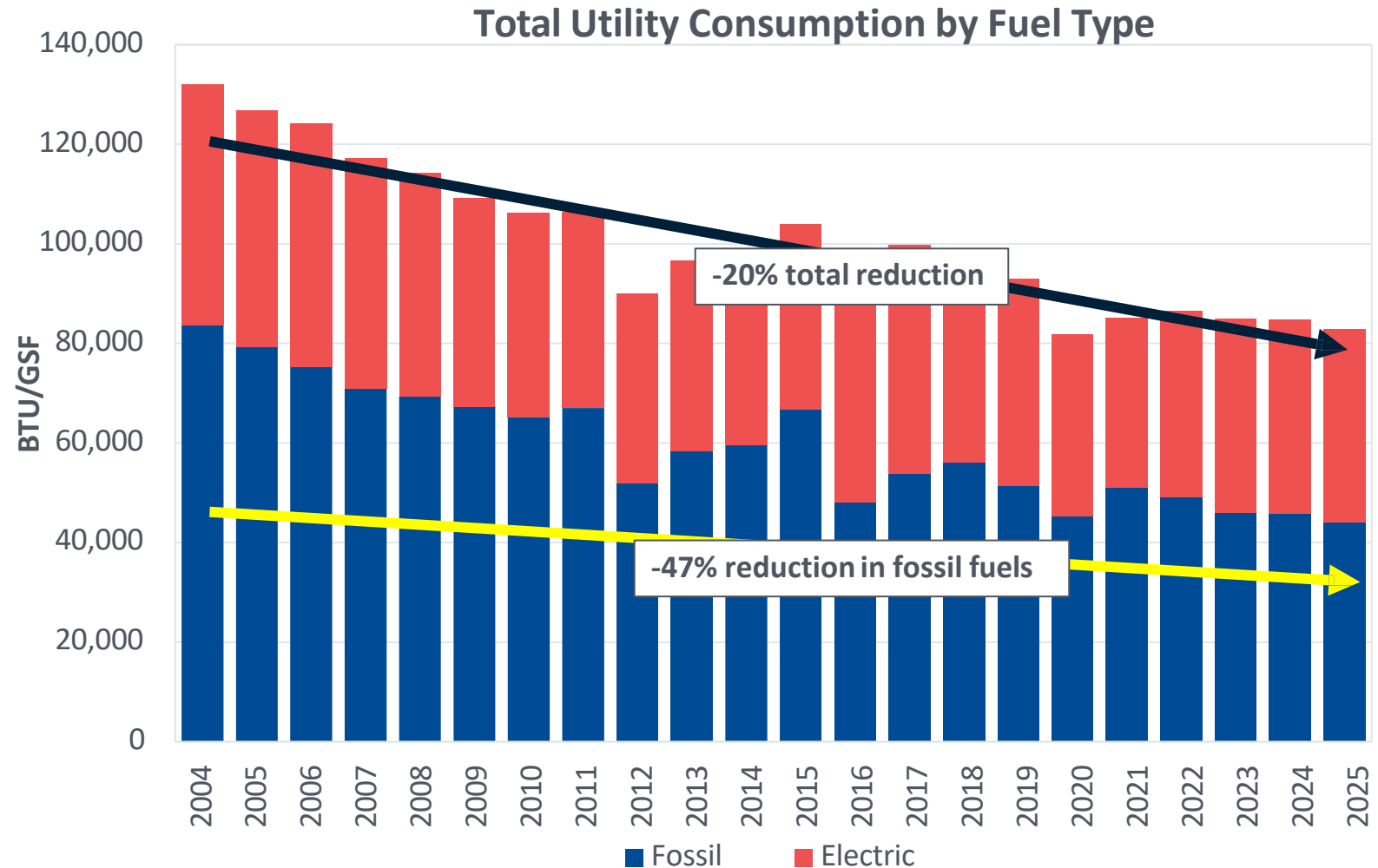
Babson is surpassing the total emission reduction needed by 2025

Massachusetts Executive Order No. 594 *Leading By Example: Decarbonizing and Minimizing Environmental Impacts of State Government*

Agencies as a whole, and to the greatest extent feasible, individually, shall meet or exceed the following fiscal year targets where applicable:

1. Reduce emissions from a 2004 baseline associated with the burning of onsite fossil fuels at buildings and in vehicles:

1. 20% in 2025
2. 35% in 2030
3. 60% in 2040
4. 95% in 2050

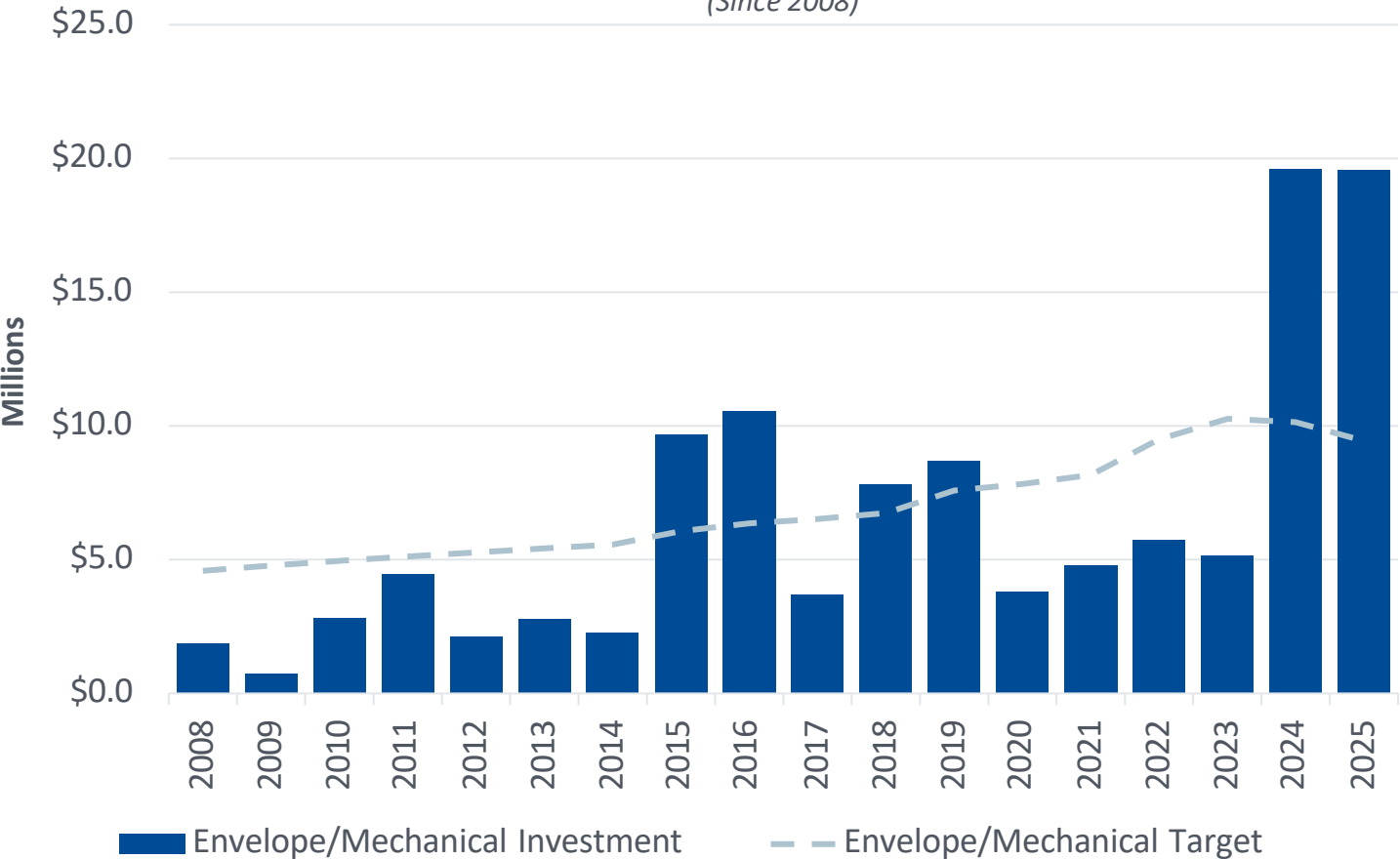


Investments Should Target Envelope/Mechanical Systems

Heating and cooling fuels are responsible for 46% of total emissions at Babson in 2025

Envelope & Mechanical Target Funded

(Since 2008)



Examples of Envelope & Mechanical Decarbonization Capital Strategies:

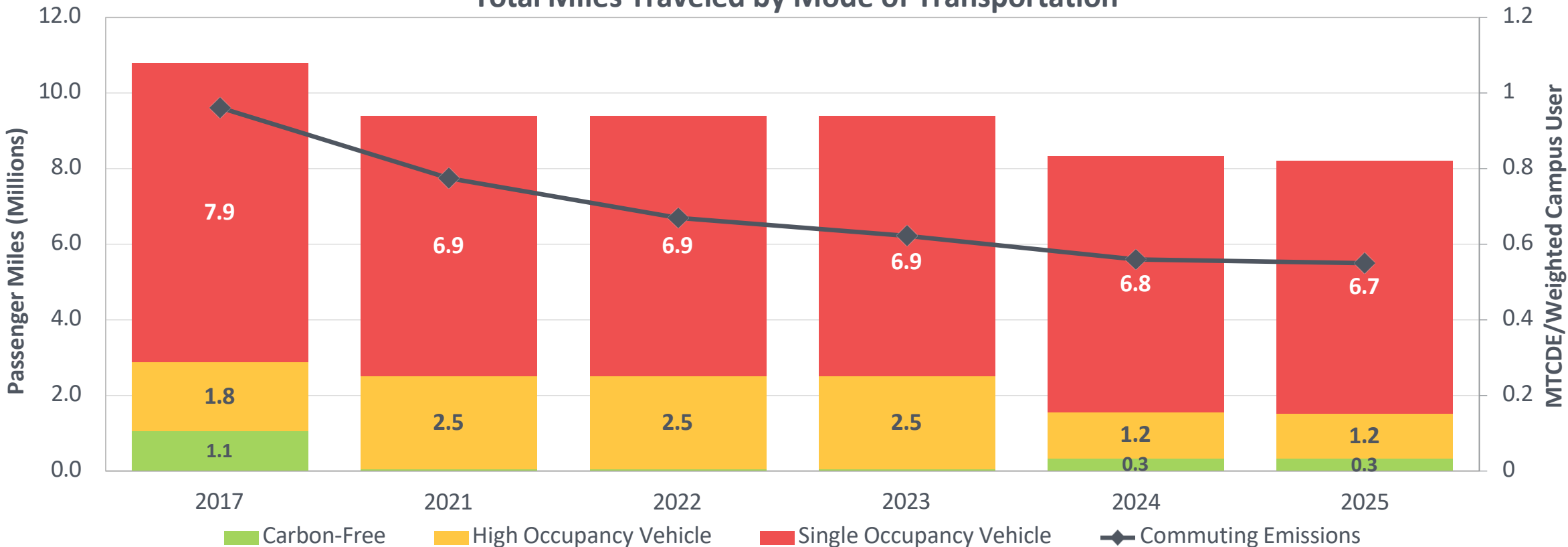
- **Envelope:**
 - Air seal exterior penetrations
 - Add insulation to walls and roofs
 - Window replacement and storm windows
- **Electrification of Energy End-Uses and Supply:**
 - Heating electrification: boiler or furnace to heat pump
 - Cooling electrification: absorption chiller to electric chiller
 - Water heating electrification: natural gas to heat pumps
 - Cooking electrification: ovens, griddles, fryers
- **Heating, Ventilation, Air Conditioning and Refrigeration:**
 - Enhanced energy recovery ventilation
 - Convert constant air volume to variable air volume
 - Demand controlled ventilation
 - Refrigeration retrofits and controls
- **Water heating:**
 - Water conservation retrofits

Scope 3 Emissions Profile

Commuting Survey Distributed in March of 2025

Carbon-free increases in most recent commuting survey while total passenger miles decreases since 2017

Total Miles Traveled by Mode of Transportation

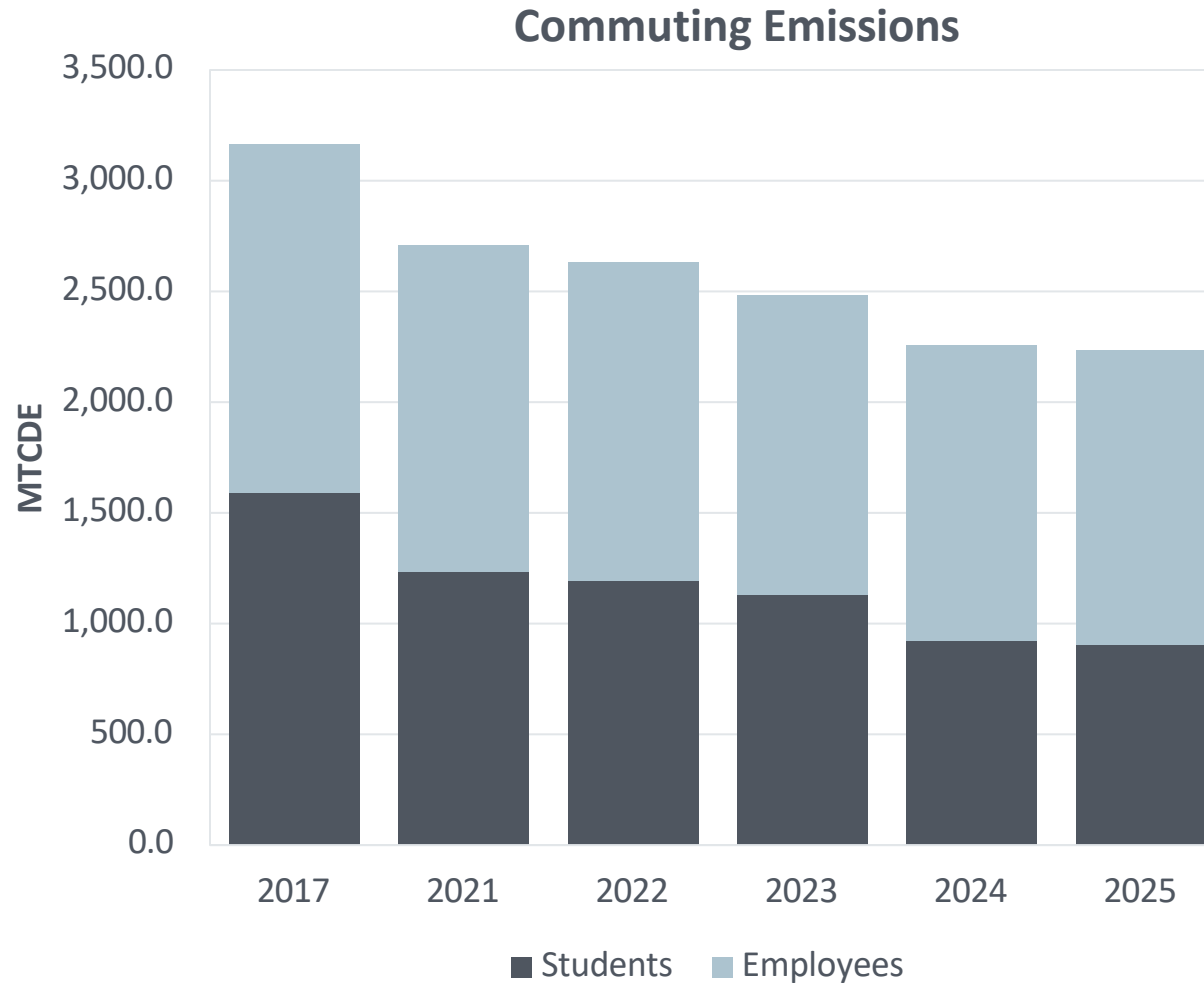


Commuting (from 2025 Climate Action Plan)

Many faculty, staff, and students are choosing alternative transportation and those who drive alone are increasingly choosing fuel-efficient cars. New federal fuel-efficiency standards are making it easier to find vehicles that save on gas and reduce carbon emissions. The more people who choose carpooling, vanpooling, public transit, walking, or biking as a means of getting from one place to another, the greater those reductions will be. Babson will promote public transportation, biking, walking, and electric vehicle use.

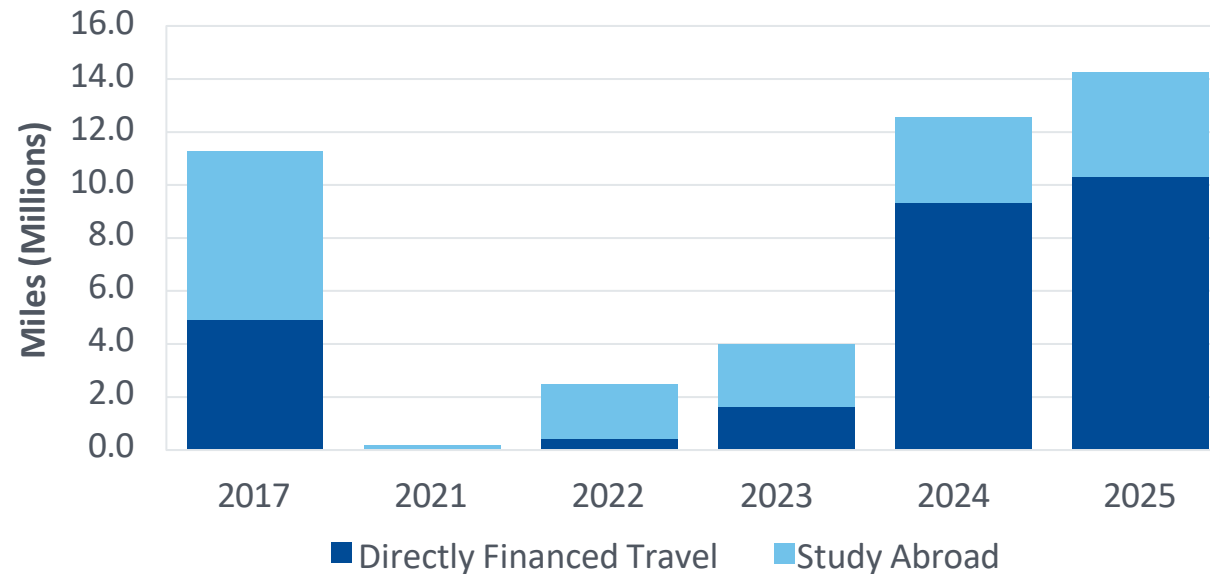
Commuting Emissions Decrease 29% From 2017

Combined with Babson's urban location and increased carbon-free commuting, emissions have decreased



Travel Emissions 26% Higher Than 2017 Levels

Air Travel Miles by Type

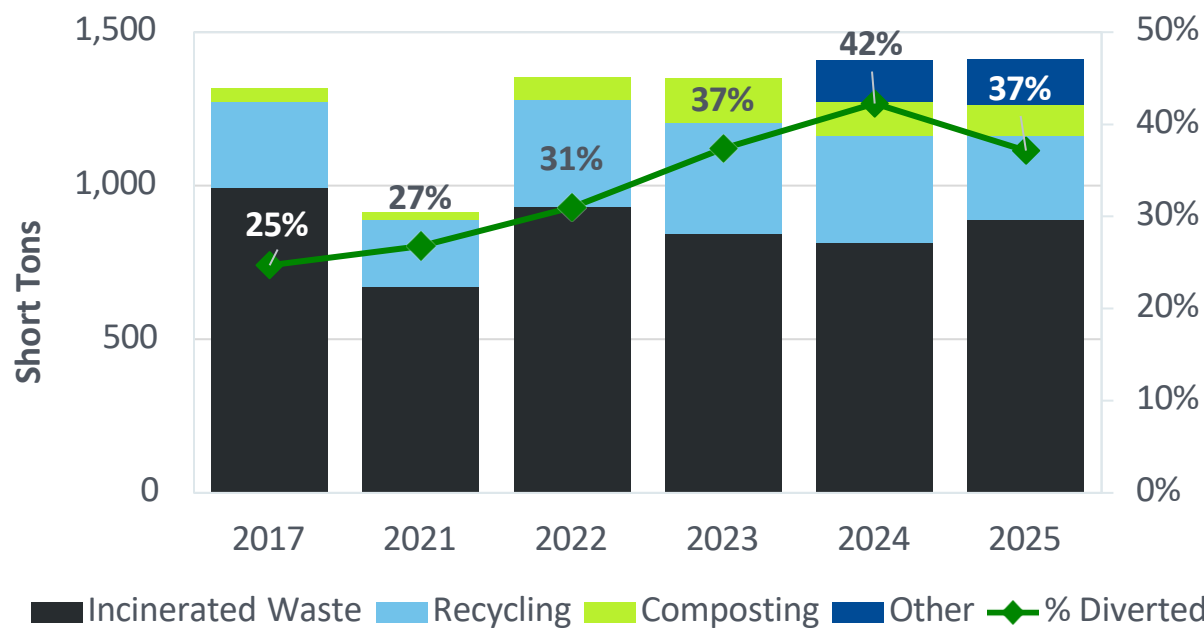


Air Travel (from 2025 Climate Action Plan)

Whereas the College has control over its energy infrastructure and some influence on commuting behaviors, it has little effective control of air travel emissions. Given the College's goal of being globally connected, restricting air travel would hinder important College work. Faculty travel for research, students study abroad, athletes fly to competitions, and staff travel to conferences; all of which support College functions.

Incinerated Waste Decreases 11% Since 2017; 37% Diverted

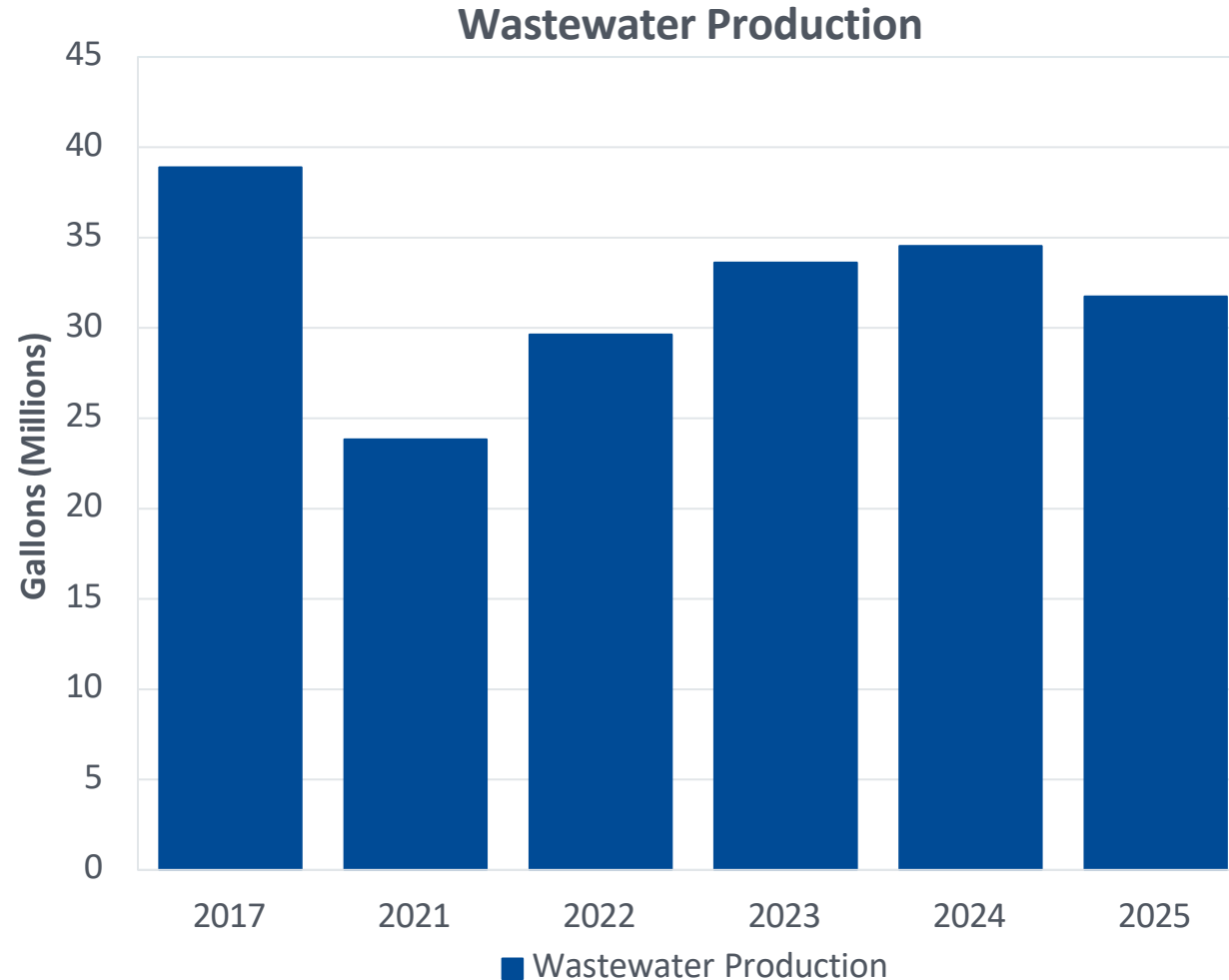
Total Waste Production and Diversion



Waste (from 2025 Climate Action Plan)
Goal: Explore expansion of composting program for the College
Goal: Reduce solid waste year over year
Goal: Expand education and programming across campus that highlights reducing waste
The College has greatly expanded recycling and composting efforts over the past decade and sends remaining solid waste to landfills that capture and destroy methane, a potent greenhouse gas. Looking ahead, the campus can achieve carbon neutrality in this category by getting more recyclable and compostable materials in their correct receptacles and reducing the total amount of solid waste (including recyclable, compostable, and landfill waste) generated.

Wastewater Has Decreased 18% Since 2017

Begin prioritizing water conservation retrofits to ensure future wastewater production does not increase further



Babson is Purchasing 53% Less Paper Since 2017

Purchasing increased from 2024



Concluding Comments

Concluding Comments

Identifying Current State:

Since 2017, Babson's campus footprint has grown 1% while population has increased 22%. Babson emissions have increased 3% from the baseline year. Continued increase within travel has led to a redistribution of Babson's emission levels leading to Scope 3 accounting for 52% of the 2025 emissions profile.

Progress Towards Emissions Reduction

Babson on track to exceed Massachusetts Executive Order 594. Fossil consumption has decreased 47% and electric consumption 20% between 2004 and 2025.

Reducing Emissions – On Campus Strategies:

Heating and cooling campus buildings comprise 46% of Babson's greenhouse gas emissions profile in 2025. Continue targeting capital investments into energy intensive building systems to buy down on deferred maintenance and overall utility consumption on campus.

Continuous Improvement of Data Collection and Tracking:

We will look to distribute another campus-wide commuting survey for our 2026 analysis which will continue to allow for better tracking of time spent traveling to and from campus. Maintaining high participation rates is crucial, as it ensures the information collected is comprehensive, and allows for informed decisions on sustainability initiatives moving forward.

Questions & Discussion