

Innovative Kitchen Technology:

How a reusable packaging program transformed a university's sustainability and savings



It's no secret that foodservice operations run on very thin margins. Costs at every turn have to be monitored closely to ensure success and longevity, and in a time when costs for virtually everything are on the rise, operators are wise to look for innovative solutions. On top of monitoring spending, operators are also focusing more on sustainability practices to ensure they are in line with consumer priorities.

The standard suite of kitchen management tools and platforms that have served foodservice operations for decades are coming up short, however, leading many to look for products and services that meet today's challenges better. At Vanderbilt University, Vanderbilt Campus Dining is leading the charge for sustainability standards, and is working to set the high using cutting-edge technology across their organization. Through a partnership with Topanga, they have been able to increase efficiencies, boost student sustainable, implement engagement and packaging programs that benefit everyone—all while saving money on food packaging. And, looking ahead to the 2024-2025 academic year, the savings are about to multiply Vanderbilt collaborates with Topanga to launch its

newest product, StreamLine—an Al-powered food waste mitigation program.

The ReusePass program and Vanderbilt's implementation and expansion

Topanga.io is an enterprise foodservice technology company whose mission is to prove that sustainability can drive positive environmental and economic benefits for businesses.

Its flagship ReusePass program leverages track-and-trace technology to create a 1:1 container tracking system. The web app for ReusePass allows students to rent reusable containers and track when and where to return them, all while giving them



insight about their individual and community impact when doing so. Topanga leverages rapid scanning and RFID tracking, enabling passive container scanning and creating effortless and highly accurate data capture.

With Topanga's ReusePass program, students can use RFID-enabled reusable containers for their meals. RFID ensures there is no added labor required for scanning containers in, and eliminated human error improves container tracking and bolsters a frictionless experience for students. All of this data is rolled up into an operator dashboard, allowing program managers to see where their reusable inventory is across locations, understand expected to-go transactions and see their ROI from launching a reuse program.

In 2019, Vanderbilt eliminated the use of single-use water bottles, and has since been working on other sustainability initiatives. "Sustainability is one of our core values," said Jeff Weissinger, Vanderbilt's Assistant Director of Campus Dining. "It's really in everything that we're doing."

With that in mind, the university started working on a reusable packaging program, but initially experienced minimal student engagement and low return rates on the containers, necessitating a shift in approach. In Fall 2023, Vanderbilt

launched ReusePass as an optional program in three residential dining locations, replacing the former program. Students were given a three-day return window with a \$5 late fee for containers. In its early days, the return rate was 91%.

After seeing great initial results and hearing positive feedback from students and operators alike, Vanderbilt expanded the program, launching it in retail dining concepts.

Topanga is an API-based solution that easily integrates with mobile ordering platforms such as Grubhub and other kitchen management tools. Before pursuing an integration with Vanderbilt's mobile ordering platform, Topanga focused on creating a service design to optimize the operational and student flow of mobile ordering and gather data to inform long-term planning.

Broad student participation leads to cost and waste savings

In the program's first year on campus, the reusable return rate was 98%, and 5,565 students signed up for the program—76% of undergrads. On average, students used two to three ReusePass rentals per week, with overall rentals totaling 5,800 reusable transactions per week. All told, the cost savings for the first year were an estimated \$38,970 (based on a 40-cent single-use cost-per-unit and \$2.50 reusable container cost-per-unit).





Beyond cost savings, the ReusePass program saved 94,636 single-use containers from going to a landfill and prevented nearly 10,000 pounds of waste. Future plans for the Reuse-Pass program include expansion to additional dining locations, introducing more packaging types to support full menu coverage (including hot cups, cold cups and salad bowls) and more.

Topanga and Vanderbilt plan to build on the success with Reuse-Pass and launch Topanga's newest product suite, StreamLine.

"Vanderbilt's partnership with Topanga aligns perfectly with our commitment to sustainability and reducing waste. Their innovative technology and shared vision for a greener future make them the ideal collaborator to enhance our reusable container program. This partnership also provides an opportunity to further our technology and efforts in addressing food waste. Participating in the beta test and design of Streamline is extremely important and exciting," Weissinger said.

Beyond powering reusable packaging programs that are viable long-term, one of Topanga's greatest assets to Vanderbilt was the transparency and valuable insights that their data platform provided. That's what got Vanderbilt excited to rollout Topanga's newest food waste mitigation product that aims to deliver on the same promise as ReusePass: seamless user experience that delivers verifiable impact and cost-savings.

StreamLine is an Al-powered food waste management suite that offers a fresh take on the existing providers by integrated automated item recognition, a low-touch user experience, and actionable data. Topanga partnered with Vanderbilt throughout the design process, working with key kitchen stakeholders and observing daily operations to create a solution that was designed not just to solve problems, but also to seamlessly integrate into existing kitchen workflows and tech stacks.

The ease of use of Streamline is exactly what we needed! Our staff is being asked to do more with less and don't have a ton of time to interact with our systems. Streamline has improved the validity of our data" said Weissinger. From both a cost and a sustainability perspective, the program was a resounding success, and future plans include implementing StreamLine from Topanga, a product aimed at managing and mitigating food waste. "ReusePass has allowed us to not only look at our Retail operations, but it's also enabling us to maintain a 99% return rate—and we're not stopping there. We're now looking to expand this program further across our campus. Next on the agenda: a container for our new Brick Oven pizza operation.

University and commercial foodservice opportunities

Topanga's ReusePass and StreamLine suite gives university and noncommercial kitchen operators across industries the ability to cut costs and waste at the same time, all while providing diners and operators with easy-to-use products and seamless experiences. As costs continue to rise—and as consumer interest in sustainability becomes a higher priority—foodservice operators are likely to begin offering reusable programs and doubling down on food waste management at a higher rate. Topanga's ReusePass program is currently live on more than 40 college campuses, and is currently launching with senior living, healthcare systems and corporate office environments.

Learn more about Topanga's suite of reusable program platforms and find out how to implement it at a university level.

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