

Zero Waste at the Mercedes Benz Stadium

In 2017 the Mercedes Benz Stadium opened in Atlanta Georgiaⁱ. It was a replacement for the well-known Georgia Dome. The new stadium sought the designation of a Zero Waste facility as part of a wider commitment to running a more sustainable venue. Indeed, the Mercedes Benz was the 1st pro sports stadium to be TRUE certified at Platinum Level. What did this commitment to sustainability entail and why was that adopted?

The Mercedes Benz Stadium

Located in the heart of Downtown, Mercedes Benz Stadium is one of the marquee attractions in the city of Atlanta. Arthur Blank, co-founder of The Home Depot and owner of the Atlanta Falcons, Atlanta United, and the Mercedes Benz Stadium, believed that building a one-of-a-kind stadium would make Atlanta a top prospect to host major national and global eventsⁱⁱ. He thought this would benefit the city economically by allowing those who come visit Atlanta to see all the city has to offer. This would also allow visitors to learn about the rich history in Atlanta, specifically pertaining to the Civil Rights Movement.

Blank is a strong believer in making decisions that have a greater purpose than just providing financial gain. He wanted to make sure that the fan experience is always top of mind at Mercedes Benz Stadium. This is why concession prices at the stadium are around 40-45% cheaper than prices at other stadiumsⁱⁱⁱ. This could be viewed as a risky move considering that NFL teams can see up to \$2 million in concession sales per game, however, the decision actually proved to have benefits for all involved. ^{iv}Surveys administered by the NFL found that fans ranked Mercedes Benz Stadium concessions #1 in quality, value, speed of service, and variety.^v And while the fans are pleased with their side of the experience, Mercedes Benz Stadium revenues also improved as there was a

10% increase in fans who showed up to games early, and spending per fan increased by 16% compared to the Georgia Dome.

While the Atlanta Falcons, who have not made the playoffs or had a winning record since 2017, have been struggling in recent years, they still ranked 13th out of 32 NFL teams in fan attendance with an average of 69,583 fans per game in the 2022 season^{vi}. Atlanta United, who have been one of the premier MLS teams since they were founded in 2017, had the highest average attendance out of all 28 MLS teams in 2022 with an average of 47,116, which was almost 12,000 more fans on average than second place Charlotte FC^{vii}.

In addition to Falcons and Atlanta United games, Arthur Blank's dream of hosting major events in Atlanta has come true with Mercedes Benz Stadium playing host to concerts for global superstars like Taylor Swift, as well as major sporting events such as the Super Bowl and College Football National Championship. Perhaps the biggest event of all will come when Mercedes Benz Stadium will be one of the host locations for the 2026 FIFA World Cup (soccer). With that kind of international exposure, it will be a prime opportunity for Mercedes Benz Stadium to shine as a representation of the city of Atlanta, as well as an inspiration for the future of building sustainable sports and entertainment venues.

Mercedes Benz Stadium: A Leader In Sustainability

LEED Certification

“we set a goal of achieving the highest LEED rating because it was the right thing to do for our city and the environment and with this achievement, we have a powerful new platform to showcase to the industry and to our fans that building sustainably and responsibly is possible for a venue of any type, size and scale.” - Arthur Blank

LEED (Leadership in Energy and Environmental Design) certification is administered by US Green Business Council through its Green Business Certification Inc. (GBCI)^{viii}. The goals of LEED are:

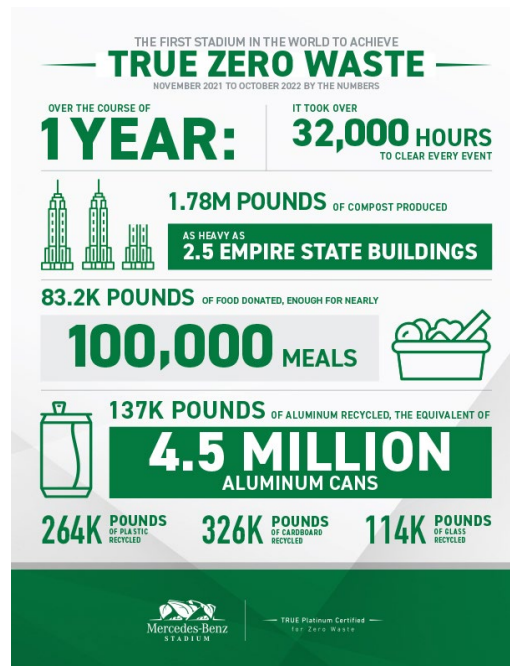
- Reduce contribution to global climate change
- Enhance individual human health
- Protect and restore water resources
- Protect and enhance biodiversity and ecosystem services
- Promote sustainable and regenerative material cycles
- Enhance community quality of life

To this end there are four levels of certification from basic certification to the more advanced levels of Silver, Gold, and Platinum (highest). Gaining the certification and levels requires amassing points based upon the buildings features. From the very start the Mercedes Benz Stadium was designed with sustainability in mind, which greatly helped with its success in this area.

Zero Waste Status

The stadium achieved Zero Waste status by having 90% or more of waste get composted or recycled instead of going to landfills. This is notable given the provide food and drinks to over 3 million fans every year.

Figure 1. Mercedes Benz Stadium Commitment to Zero Waste



Practices implemented by Mercedes Benz Stadium:

- Using supply chain items made from recyclable and compostable materials.
- Leveraging a 6,000-square-foot resource recovery room (R3) to reclaim, sort, and divert materials from landfill. Such a facility was needed for sorting the waste and was designed into the plans from the inception of the stadium.
- Sustainability education and engagement programs for fans, associates, and the stadium's food and beverage partners.
- Recycling and compost bins were added to every stadium suite by August 2022. The design of the receptacles encouraged appropriate recycling, i.e. generally only recyclable items fit through the slot to the recycling bins.

The impact of the program went beyond lowering waste. Some of the reclaimed materials even had value which was used for the public good. For every 3 million cans recycled at Mercedes Benz Stadium, a home in ATL is built through partnership with Habitat for Humanity.

Partnerships to Achieve Zero Waste

A stadium needs partners to achieve zero waste status. Mercedes Benz Stadium

Gainesville Waste and Recycling/Waste Eliminator

The waste eliminator service offered by the partner offered recycling, disposal, and environmental solutions^{ix}.

CHaRM

The stadium works with the Center for Hard to Recycle Materials in Atlanta^x. This dealt with any atypical items, e.g., office printers, that could not be composted with the rest of stadium's non-recyclable materials.

Second Helpings Atlanta

Mercedes Benz Stadium also partnered with Second Helpings Atlanta to donate unused food from the stadium to provide meals directly to the Westside Atlanta community. To date, more than 250,000 pounds of food have been donated to Second Helpings Atlanta, creating over 208,000 meals for Atlanta residents in need^{xi}.

Beyond Zero Waste

The commitment to a reduced environmental impact was shown through the stadium's embrace of renewable energy. The Mercedes Benz Stadium is designed to use renewable energy sources to reduce electrical use by 29%^{xii}. It has 4,000 solar panels which generate 1.6M Kilowatt-hours of power, which is the equivalent of powering 9 Atlanta Falcons games, 13 Atlanta United matches, or 160 households in Atlanta with renewable energy. This reduces energy requirements limiting greenhouse gas emissions and providing renewable energy for the Georgia Power electrical grid.

This was reflected in the design of the stadium. Mercedes Benz Stadium's "Window to the City" allows fans to get a great view of the ATL skyline, but it also allows for enough natural light that stadium functions can be performed on non- event days with minimal lights turned on. The stadium uses LED lighting which lasts 10 times longer and uses 60% less energy than traditional lighting

Alternative Transportation:

Mercedes Benz Stadium is centrally located in Atlanta. This encourages use of public transportation with 2 MARTA (train) stations located within a ¼ of a mile of the stadium^{xiii}.

There are 250 bike racks around Mercedes Benz Stadium, and they partner with Atlanta Bicycle Coalition (ABC) to provide free bike valet services for all Atlanta Falcons games and Atlanta United matches. Mercedes Benz Stadium is located adjacent to the Westside PATH; an off-road trail for pedestrians and cyclists connecting the stadium to Centennial Park, Georgia Tech, and the Westside Atlanta Beltline.

The parking lots at the stadium provide EV charging stations and can charge up to 48 EVs simultaneously

Urban Garden and STEAM

As part of the LEED Platinum design, Mercedes Benz Stadium installed an edible landscape and an onsite urban garden to create a biological ecosystem within a built environment^{xiv}. This featured soil regeneration in the urban garden. The plan is to grow their own food in doing so utilizing the compost generated by prior event's activities in the Mercedes-Benz Stadium urban garden.

The stadium team have also established a STEAM (science, technology, engineering, arts and mathematics) based curriculum for grades 3-12 that meets the Georgia Department of Education's Georgia Standards of Excellence (GSE) criteria and focuses educational efforts on science, technology, engineering, art, and math. STEAM program pairs a tailored stadium tour with a classroom curriculum that teachers can incorporate into their lesson plans pre and post stadium tour, and interactive activities at Mercedes-Benz Stadium allow students to see STEAM disciplines applied directly to the stadium environment.

Sharing Best Practice: The Zero Waste playbook

To encourage other stadiums to adopt similar procedures the sustainability team at the Mercedes Benz created a “zero-waste playbook”. This contained advice to help other stadiums lower the waste that they produce. They also have extended an offer of materials/ counseling to assist other stadiums.

What Next?

What could the Mercedes Benz Stadium do next on its sustainability journey? What have been the benefits of its commitment to sustainability, have there been any negatives?

Endnotes

- ⁱ Mercedes-Benz Stadium, The Stadium Guide, <https://www.stadiumguide.com/mercedes-benz-stadium/>, accessed March 29th, 2023
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- ^{iv} Thomas Barrabi, Fox Business, “NFL stadiums reinvent concessions stands to protect fans, leaving some workers on sidelines”, <https://www.foxbusiness.com/sports/nfl-stadium-safety-concessions-vendors-coronavirus>, accessed April 19th, 2023
- ^v The New York Times, “In Atlanta, Concessions Prices Go Down and Revenue Goes Up”, <https://www.nytimes.com/2018/01/25/sports/football/nfl-concessions.html>, accessed April 19th, 2023
- ^{vi} ESPN, <http://www.espn.com/nfl/attendance>, accessed April 7th, 2023
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- ^x About CHaRM, <https://livethrive.org/charm/>, accessed April 8, 2023
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- ^{xiii} Mercedes Benz Stadium, “Alternate Transportation”, <https://mercedesbenzstadium.com/sustainability/alternate-transportation/>, accessed April 19th, 2023
- ^{xiv} Mercedes Benz Stadium, “Urban Garden and STEAM”, <https://mercedesbenzstadium.com/sustainability/urban-garden-and-steam/>, accessed April 19th, 2023