

CIRCULAR ECONOMY BUSINESS CASE STUDIES IN SOUTHEAST ASIA



Hyatt Regency Bangkok Sukhumvit

 Bangkok Thailand Tourism www.hyatt.com/hyatt-regency/en-US/bkkhr-hyatt-regency-bangkok-sukhumvit Analysis period: 2022-2025

Smart Solutions for Energy Efficiency and Food Waste Minimisation

Business Spotlight

The five-star Hyatt Regency Bangkok Hotel offers luxury accommodation, a variety of meeting venues, diverse dining and wellness facilities in the heart of Bangkok on Sukhumvit Road.

Going beyond Hyatt's corporate sustainability commitments, this hotel has successfully pioneered Artificial Intelligence (AI)-driven smart solutions, in particular for minimising food waste from breakfast buffets and reducing energy use for cooling function rooms and indoor public spaces. AI innovations generate significant cost savings while cutting food waste, energy consumption and associated greenhouse gas emissions.

The Hotel has also adopted industry best practices in waste segregation and management, and forged partnerships with local farmers, responsible suppliers, and community groups to increasingly prioritise sustainable sourcing, including cage-free eggs, seafood certified by the Marine Stewardship Council (MSC), and organic rice. As a result, the Hotel is now well positioned to meet growing market demand from sustainability-conscious travellers and organisers of meetings, incentives, conferences and exhibitions (MICE).

 **Keywords**

Food waste, Energy efficiency

 **Innovation**

Operations, Resource efficiency, Resource circularity



Analysis of Hyatt Regency Bangkok Sukhumvit

Context and baseline

Bangkok ranks as one of the world's major tourist destinations, attracting visitors from leisure, business, health and other related travel markets. In 2025, Bangkok claimed the title of the world's most visited city with over 30 million international arrivals.¹ Led by the hotel sector, tourism is a major driver for Bangkok's economy and employment, but it also contributes significantly to the city's urban waste generation and substantial demand on energy and water resources.

Launched in 2018, the five-star Hyatt Regency Bangkok enjoys a prime central location for both business and leisure travellers on the city's bustling Sukhumvit Road. The hotel features 273 luxury guest rooms, along with three distinctive dining venues, a suite of function rooms, and wellness facilities, blending Thai tradition with modern, world-class hotel services and amenities.

The Hyatt Regency Bangkok Sukhumvit operates under Hyatt's global sustainability framework that began in 2006 with Hyatt Earth, focused on reducing the operational resource footprint. In 2011, this evolved into Hyatt Thrive, focused on linking community engagement with economic development. In 2021, Hyatt launched World of Care², setting ambitious 2030 goals across key areas: addressing climate change and energy, water conservation, waste minimization and circularity, and responsible food sourcing. Specific global targets include:

- lower absolute Scope 1 and Scope 2 greenhouse gas (GHG) emissions by 27.5% from a 2019 baseline
- achieve a 50% reduction in food waste sent to landfill or incineration by 2030 compared to 2019
- increase responsible sourcing across key categories (e.g. sustainable seafood, organic rice, and other commodities)
- enhance commitments to biodiversity protection, social inclusion, and animal welfare.

The Hyatt Eco Track was established as an online platform for collecting key environmental and sustainability data across all Hyatt properties. This facilitates data-driven continuous improvements in all the company's properties.

The Hyatt Regency Bangkok Sukhumvit has adopted property-level commitments that align with and exceed Hyatt's global World of Care 2030 targets. These include:

- reduce annual energy-use by at least 3% every year from 2019
- reduce food waste 25% by 2024 and 50% by 2030 from the 2019 baseline
- source 100% cage-free eggs and egg products by the end of 2025
- encourage each staff member to contribute at least four hours per year on community support work.

Hotel Regency Bangkok partnered with technology providers to address two key challenges: high breakfast buffet' food waste and inefficient management of cooling loads in function rooms and public areas. To complement these efforts, the hotel improved procurement and operation practices to minimise and better segregate waste while increasing the use of sustainably sourced produce.

Innovation

Hyatt Regency Bangkok Sukhumvit has adopted a range of innovations combining smart technology with established best practices. A key example is the 2023 introduction of Lumitics³, an AI-enabled food-waste tracking and minimization solution. The solution captures real-time data on kitchen waste without disrupting kitchen workflows. Scraps are discarded into the device, which uses image-recognition to identify and measure each component. This process enables precise adjustments to food preparation based on actual demand, minimises overall food waste from over-preparation, and allows safe repurposing of edible items. Remaining scraps are collected daily by pig farmers for use as animal feed.

Smart energy management: In 2022, the hotel installed BeezFM⁴, a Singapore-developed smart-building energy management system, which integrates sensors and advanced-control algorithms to connect the chillers with the heating, ventilation, and air conditioning (HVAC) system. This setup dynamically optimises energy use by aligning chiller output with real-time occupancy levels and ambient conditions across function rooms and public areas of the hotel.

1 According to Euromonitor International's latest 'Top 100 City Destinations Index': <https://www.bangkokpost.com/thailand/general/3159768/bangkok-crowned-worlds-most-visited-city-in-2025-with-30-million-arrivals>

2 <https://www.hyatt.com/world-of-care/en-US/caring-for-the-planet>

3 <https://lumitics.com/>

4 <https://www.beez-fm.com/>



Waste minimisation: The hotel has significantly reduced waste generation by switching to digital signage, installing refillable water stations, adopting reusable service ware, implementing linen-free event setups, using bulk condiments, and establishing a waste-segregation system aligned with ISO 20121 sustainable event management standard.⁵ Moreover, single-use plastic toiletries containers in guest rooms have been replaced with larger, refillable, bottles.

Procurement for circularity: The hotel prioritises local and sustainable sourcing by procuring organic rice directly from Thai farmers, 100% cage-free eggs from a certified local supplier, and seafood certified by the Marine Stewardship Council (MSC) for wild-caught fish and the Aquaculture Stewardship Council (ASC) for farmed seafood. Guests also benefit from eco-friendly paper products and refillable amenities.

Repurposing: Used coffee grounds are transformed in-house into natural body scrubs distributed to event attendees, creating an in-house circular product example. In partnership with SCG Packaging and Dow Chemicals, the hotel recycles PET plastic bottles into yarns to make staff uniforms and aprons, while multi-layer plastics are turned into pavement blocks that are being used on the hotel property.

Circular Economy impact

These innovative technologies and industry best practices advance the circular economy by improving resource efficiency – particularly in energy, food and materials – and by enabling effective recovery of residual waste streams through third-party partnerships, thereby demonstrating resource circularity.

Food waste reductions: Breakfast food waste per cover dropped from 25 g per cover (for 1,124 covers) in March 2023 to 14 g (for 4,849 covers) in October 2025 – a 44% reduction. Since introducing the smart devices in March 2023, the cumulative value of the

food discarded as scraps decreased by October 2025 by approximately THB 313,000 (EUR 8,380) representing a 59% cost saving.

Energy savings: The BeezFM system contributed to an 15% reduction in electricity consumption per room-night between 2022 (131 kWh/ room-night) and 2023 (111 kWh/room-night), a saving that is highly impacted by increased hotel occupancy following the end of the Covid19 pandemic during 2022. Encouragingly, electricity consumption per room night again decreased by 3% in 2024 and a further 11% in the first 10 months of 2025. This enabled cumulative savings of approximately THB 7,230,000 (~ EUR 193,000), during January 2024 to October 2025.

Water efficiency: Sensor faucets, low-flow aerators, and eco-friendly wastewater treatment systems have reduced consumption while improving operational efficiency. Water usage per guest (including in-house restaurant and event attendees), fell from 0.3336 m³ in 2024 to 0.3301 m³ in 2025, a 1% annual reduction.

Sustainable and responsible procurement: By the end of 2025, the hotel had procured over 700 kg of organic rice directly from local farmers in Buriram since the beginning of 2024. Sustainable seafood sourcing reached 48% from certified sustainable sources – a fourfold increase from 2019 – while 100% of the eggs were sourced from cage-free farms.

Furthermore, the hotel has substantially reduced event-related waste by eliminating single-use plastics, introducing bulk condiments, and adopting linen-free event set ups. Hotel teams also work closely with suppliers to minimise packaging, promote the reuse and sharing of delivery crates, and encourage the adoption of higher sustainability standards.



5 <https://www.iso.org/standard/86389.html>

Business and market impact

The Hotel has reported that its sustainability credentials have strengthened its competitive edge in the MICE (Meetings, Incentives, Conferences, and Exhibition) market. Group room nights reportedly surged by 200% from 2022 to 2024, driven in large part by pent-up post-COVID-19 demand and, to a lesser extent, by the hotel's strong sustainability reputation. However, this sharp spike reversed in 2025 due mainly to global economic and political challenges as well as unfavourable exchange rates.

In addition, the Hotel has achieved substantial operational cost savings through energy efficiency measures. Electricity consumption per room night decreased by 3% in 2024 (compared to 2023) and a further 11% in the first 10 months of 2025. This enabled cumulative savings of approximately THB 7,230,000 (\approx EUR 193,000), during January 2024 to October 2025.

Moreover, the hotel has achieved a 44% reduction in breakfast food waste per serving, alongside minimised event and room-level waste generation. None of these measures has involved substantial capital expenditures.

Stakeholders

In addition to partnering with organic farmers and responsible suppliers, the hotel actively supports underprivileged youth and persons with disabilities through career training and internship programmes. Every year, more than 30 participants join vocational development and employment initiatives in collaboration with the hotel through a partnership with the Asia-Pacific Development Center on Disabilities and local schools. Three of these programme participants have since secured employment at the Hyatt Regency Bangkok Hotel as a chef, a mechanic, and a cleaning maid.

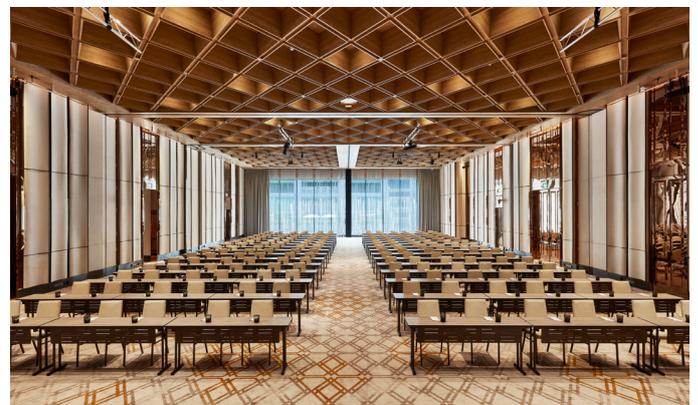


Implementation

Despite their overall success, the initiatives implemented by Hyatt Regency Bangkok Sukhumvit faced early challenges. The energy-saving BeezFM system initially caused temperature fluctuations, leading to guest complaints. The Lumitics food-waste tracking system required staff to adopt new procedures to train the AI on various food ingredients. Suppliers were initially concerned about the added requirements, but adapted relatively quickly. Adopting ISO sustainable event management standards has since helped standardise practices and keep progress on track.

Takeaways

The Hyatt Regency Bangkok Sukhumvit illustrates how circular economy practices were beneficially implemented into the operations of a luxury hotel and its events without requiring a significant capital investment. Smart control technologies enabled substantial reductions in food waste and energy consumption, which in turn deliver measurable operational cost savings. Involving the hotel's suppliers and making design changes in event management are direct methods for promoting sustainability in food supply and reducing waste generation in hotel operations.





Funded by
the European Union

Acknowledgements

This business case study was prepared for the ASEAN Circular Economy Business Alliance (ACEBA) within the framework of the Technical Advisory project: [Mobilising Business Action for Circular Economy in the ASEAN countries](#) under the EU SWITCH-Asia Policy Support Component for the sole purpose of documenting and analysing business experiences with circular economy. ACEBA is an ASEAN-centric and business-led initiative that fosters business leadership and action on circular economy in Southeast Asia. ACEBA is an initiative of ARAIBA Sdn Bhd, a not-for-profit business organization that promotes responsible and inclusive business, in collaboration with national business membership organizations and with technical advisory of the EU SWITCH-Asia Policy Support Component.

This business case was produced by Saengroj Srisawaskraisorn (national expert, Thailand) and reviewed by Rene Van Berkel and Thomas Thomas (regional experts and ACEBA co-convenors) on the basis of information provided and validated by Hyatt Regency Bangkok Sukhumvit, Thailand.

Disclaimer

The content of this publication is the joint responsibility of Hyatt Regency Bangkok Sukhumvit, Thailand and the expert team. This publication does not constitute an endorsement of Hyatt Regency Bangkok Sukhumvit, Thailand by the European Union nor any of the partners of the SWITCH Asia Policy Support Component, nor necessarily reflect their views.



www.aceba.co



info@aceba.co



www.switch-asia.eu



EU SWITCH-Asia Programme
[@EUSWITCHAsia](https://www.facebook.com/EUSWITCHAsia)



SWITCH-Asia
[@SWITCHAsia](https://twitter.com/SWITCHAsia)



SWITCH-Asia Official
[@switch-asia-official](https://www.linkedin.com/company/switch-asia-official)