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Sustainability Tech Edition Unlocking Smart & Sustainable Tech Solutions for Hospitality



The Hotel Yearbook Foresight and innovation in the global hotel industry

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Smart Tech Meets Sustainability: The Future of Hospitality

Smart Sustainability

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The Hospitality industry stands at a pivotal crossroads. As one of the world's most vibrant and economically significant sectors, it contributes approximately 10% of global GDP and employs millions worldwide. However, this industry is also a significant driver of resource consumption and carbon emissions, making sustainability not just an ethical imperative but a strategic necessity. The convergence of smart technology and sustainable practices offers a transformative path forward, empowering hotels, resorts, and other players in the sector to thrive while safeguarding our planet.

At the World Sustainable Hospitality Alliance (the Alliance), we are leading the industry towards Net Positive Hospitality, most recently having demonstrated this through our partnership with UN Tourism, ensuring alignment of ESG frameworks across the sector. As the leading global charity that unites Hospitality companies, we work with our value chain, and strategic partners to tackle pressing challenges impacting the planet, people, and places worldwide. Our aim is to ensure that the Hospitality industry contributes positively to destinations, embodying the principle of giving back more than it takes. Smart technology plays a key role in the majority of our strategic partners' products and services, showcasing how valuable technology is within our industry for advancing sustainability.

THE CASE FOR SMART AND SUSTAINABLE SOLUTIONS

Hospitality's environmental footprint is considerable. Energyintensive operations, extensive water usage, and substantial waste generation highlight the need for a paradigm shift.

Simultaneously, guest expectations are evolving. Today's travelers are more environmentally conscious than ever, with a growing preference for sustainable and tech-forward experiences. A report revealed that 81% of global travelers believe sustainable travel is important, and 73% are more likely to choose accommodations implementing sustainable practices.

This dual pressure from operational demands and customer requests, sets the stage for smart, sustainable solutions to play a transformative role. By leveraging innovative technologies, Hospitality businesses can reduce costs, improve operational efficiency, and deliver experiences that align with modern values.

THE ROLE OF TECHNOLOGY IN SUSTAINABLE HOSPITALITY

1. ENERGY EFFICIENCY THROUGH AI

Energy consumption is one of the largest contributors to the sector's carbon footprint. Smart energy management systems, powered by AI, can optimize energy use across properties.

For example, AI-powered platforms analyze usage patterns to forecast energy needs and suggest further efficiencies. These systems not only decrease emissions but also cut costs—a win-win for businesses and the environment. Case studies from major hotel brands demonstrate the potential. Marriott International, for instance, has implemented these types of systems across its properties, resulting in significant reductions in energy use and utility costs.

2. WATER MANAGEMENT INNOVATIONS

Water scarcity affects billions globally, and the Hospitality sector must take its role seriously. Advanced technologies like smart water meters and low-flow fixtures can help businesses monitor and reduce water consumption.

Additionally, water recycling systems are gaining traction, particularly in luxury resorts and large urban hotels. These systems capture and treat greywater from showers and sinks for reuse in landscaping or cooling systems, minimizing the strain on freshwater resources.

3. WASTE REDUCTION THROUGH DIGITAL SOLUTIONS

Waste is another critical issue for the sector, encompassing food, plastics, and general refuse. Technology offers solutions at every stage of the waste management cycle.

Al-driven inventory management systems can predict demand more accurately, reducing food waste in hotel kitchens. Similarly, apps like Too Good To Go or OLIO connect hotels with local communities to redistribute surplus food, ensuring it doesn't go to waste.

For non-organic waste, smart recycling bins equipped with sensors can track waste levels and ensure timely disposal or recycling. These systems also generate data that businesses can use to refine their sustainability strategies.

BEYOND TECHNOLOGY: CREATING A HOLISTIC APPROACH

While technology is a critical enabler, it cannot operate alone. A truly sustainable Hospitality operation requires a holistic approach encompassing culture, partnerships, and education.

1. EMBEDDING SUSTAINABILITY INTO CORPORATE CULTURE

Leadership must prioritize sustainability as a core value, embedding it into every level of the organization. This includes training staff on best practices, establishing green committees, and setting clear, measurable sustainability goals. Our Net Positive Hospitality Academy plays a crucial role in driving transformative change within the industry. It equips the sector with knowledge, tools, and training programs to accelerate sustainability.

2. PARTNERING FOR PROGRESS

Collaboration is essential for scaling solutions. Partnerships with technology providers, local Governments, and non-profits can amplify impact. For example, working with renewable energy suppliers or waste management companies can streamline the implementation of green initiatives.

Organizations like the Alliance act as platforms for knowledge sharing, helping the industry collectively accelerate its sustainability journey towards Net Positive Hospitality.

3. EDUCATING AND ENGAGING GUESTS

Guests are crucial stakeholders in sustainability efforts. By educating them on the environmental impact of their choices and offering convenient options for eco-friendly behavior, hotels can create shared responsibility.

Interactive apps and in-room displays can showcase a property's sustainability metrics, such as water saved or carbon offset. Loyalty programs can also incentivize ecoconscious actions, such as reusing towels or selecting green transportation options.

THE BUSINESS CASE FOR SUSTAINABILITY

Smart and sustainable technology solutions are not just good for the planet—they're good for business. Cost savings from energy and water efficiency, increased revenue from ecoconscious travelers, and enhanced brand reputation are just a few of the tangible benefits.

Moreover, sustainability initiatives align with investors' growing emphasis on ESG criteria. A commitment to sustainable practices can open doors to funding opportunities and strengthen relationships with stakeholders.

THE ROAD AHEAD

The Hospitality industry has a unique opportunity to lead the global shift toward a sustainable future, one that is giving back more than it takes. By embracing smart technology and creating a culture of innovation, businesses can set a powerful example of environmental stewardship while delivering exceptional guest experiences.

The road ahead requires bold action and collaboration. I am optimistic about the industry's ability to rise to this challenge. Together, we can unlock the full potential of smart and sustainable solutions, ensuring a vibrant and resilient future for Hospitality and the planet.



Looking to find out more?

Visit the Hospitality Net World Panel

In the **Sustainability in Hospitality** World Panel, over 90 industry experts share their insights, solutions, and strategies to help the industry navigate growing environmental and societal challenges.

Sustainability Gives Hotels An Edge In The War For Talent. Or Does It?

How can sustainability be communicated beyond clichés and greenwashing?

Hotel Sustainability: Top 3 Technologies to Implement in 2020

Who makes hospitality sustainability happen: Governments, Industry, Consumers?

Climate Emergency And The Hospitality Industry: Are We On Track?



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