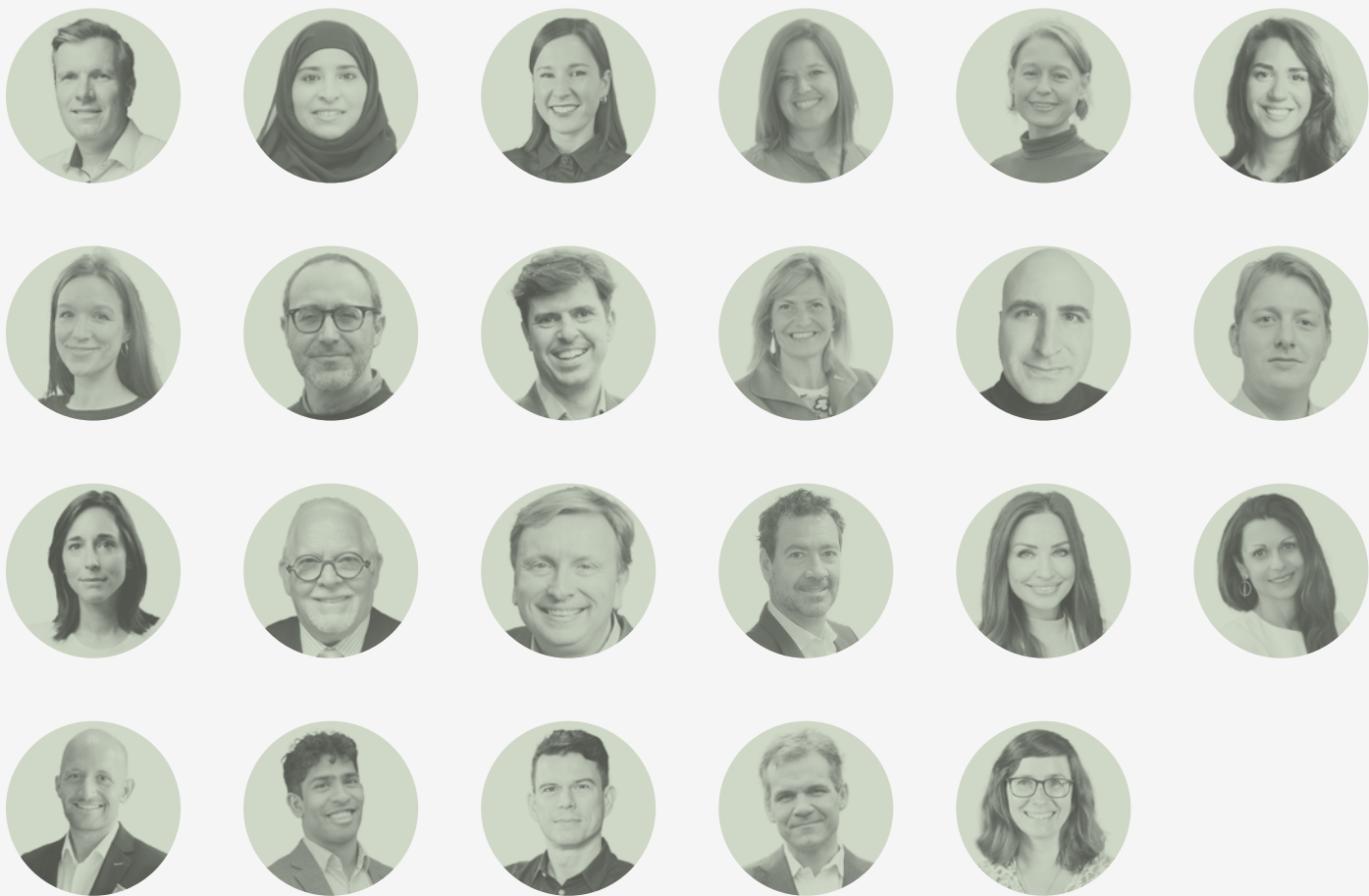


HYB25

Sustainability Tech Edition

Unlocking Smart & Sustainable Tech
Solutions for Hospitality



The Hotel Yearbook

Foresight and innovation in the global hotel industry

HYB



Hotel Yearbook 2025 Sustainability Tech Edition: A Summary

Hotel Yearbook 2025

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Here is a summary on what to expect from the Hotel Yearbook 2025 Sustainability Tech Edition.

Data-Driven Sustainability is leading the charge, enabling hotels to make informed decisions and enhance operational efficiency. **Agnes Pierce (Amadeus)** highlights the pivotal role of data-driven sustainability in the hospitality industry, where technology and improved data accessibility are seen as key by over a third of senior decision-makers for advancing environmental initiatives. Pierce discusses the challenge of data fragmentation and underscores the critical importance of standardized data.

Juliane Caillouette Noble (Sustainable Restaurant Association) emphasizes technology's pivotal role in sustainable operations, highlighting how digital tools can streamline processes and reduce environmental impacts. The article covers operational aspects around food waste reduction, energy efficiency, water conservation, and menu planning with one message: data is king.

Jessica Matthias (Sabre) showcases how AI and IoT can transform the hospitality industry into a more sustainable operation, enhancing both efficiency and guest experiences. This shift involves integrating technology throughout the guest journey, promoting data-driven sustainability from booking to check-out, while emphasizing the importance of ethical technology use.

Transitioning to Waste Management, **Marc Zornes (Winnow)** illustrates the significant advancements in AI-driven food waste tracking, demonstrating how cutting-edge technology can drastically reduce one of the industry's most substantial hidden costs. On this path, measurement is key as highlighted by **Brune Poirson (Accor)** who explores how Accor employs AI and partnerships with tech startups to significantly reduce food waste, reinforcing its commitment to sustainability by aiming for a 50% reduction by 2030. **Jeffery Smith (Six Senses)** discusses the urgent need for the hospitality industry, particularly within wellness tourism, to reduce plastic use and improve recycling practices. Highlighting health risks and environmental damage from plastics, he advocates for systemic changes rather than incremental efforts and showcase initiatives and resources aimed at eliminating unnecessary plastics, aligning with consumer expectations for sustainable travel.

Behavioural Change and Consumer Engagement are crucial in fostering sustainable practices. **Carlos Martin-Rios (EHL Hospitality Business School)** discusses leveraging AI for sustainability in hospitality, emphasizing its role in carbon management, circular supply chains, and waste reduction, while underscoring the need for strong leadership, training, and supplier collaboration to realize these benefits. **Pablo Pereira-Doel and Xavier Font (University of Surrey, UK)** study the use of technology and behavioral insights to boost water conservation in hotels. They explore how real-time eco-feedback systems in showers can significantly cut water usage by shaping guest behavior, emphasizing that combining smart technology with effective communication strategies enhances sustainability efforts and operational efficiency.

In Green Technology and Building Innovations, **Inge Huijbrechts (Radisson)** discusses green building principles, sustainable materials, energy-efficient systems, and advanced construction technologies such as passive design strategies and Smart Building Management Systems (BMS) transforming the built environment. **Glenn Mandziuk (World Sustainable Hospitality Alliance)** discusses the integration of smart technology and sustainable practices to mitigate the hospitality industry's environmental impact. He highlights AI in energy and waste management as critical to aligning industry operations with guest expectations for sustainability, advocating for a holistic approach that includes transforming corporate culture, nurturing partnerships, and engaging guests in responsible practices.

Similarly, **Muna Al Nahdi (Farnek)** highlights the role of technology in enhancing hotel sustainability. While many hotels implement various sustainability measures, the real challenge lies in verifying the depth and effectiveness of these initiatives. Data-driven approaches and benchmarking are crucial for assessing actual sustainability performance, ensuring that management strategies are not only about compliance or superficial actions but are genuinely impactful. This involves structured measurement, real-time data monitoring, and adhering to international standards to make a substantive difference in environmental conservation and social responsibility within the hospitality sector.

The conversation around Data, Standards and Certification is expanded by **Alina Arnelle (BeCause)**, who champions the need for uniform sustainability metrics outlining a centralized data platform to bridge fragmented practices and drive efficient, industry-wide environmental progress towards Net Zero by 2050. **Bijan Khazai (Hotel Resilient)** promotes a shift towards open, collaborative sustainability certification in hospitality, emphasizing transparency, inclusivity, and shared data to overcome the limitations of traditional schemes. Their model encourages continuous evolution and collective advocacy, providing actionable insights to address environmental risks effectively. Concurrently, **Lucy Eaglesfield (Lamington Group)** outlines its holistic approach to sustainability through its One Planet Living Strategy, aiming for net zero by 2030. They emphasize integrating health, circular economy, and net-zero practices into every development phase, from design to operation, showcasing innovation in creating sustainable and community-focused hospitality environments. That holistic approach is discussed in greater details by **Jens Sørensen (ClimateScore)** who explains the pivotal role of Life Cycle Assessment (LCA) in aligning the hospitality industry with the EU Green Claims Directive, emphasizing how it enhances operational transparency, compliance, and efficiency while meeting the sustainability demands of travelers and regulators.

Biodiversity and Environmental Protection take center stage as **Anne-Kathrin Zschiegner (The Long Run)** illustrates how technology, from AI to digital monitoring tools, can profoundly impact biodiversity management and elevate environmental standards across tourist destinations with examples of on-site application such as three-dimensional forest mapping.

Addressing Social Impact and Ethical Considerations, **Klaas Koerten (Hotelschool The Hague)** focuses on the complex relationship between automation and employment in hospitality, noting the unresolved tensions between technological promises and job quality. He advocates for practical technological solutions to enhance working conditions and mitigate staffing shortages rather than replace human labour. Similarly, **Greg Poirier (Audubon International)** evaluates the progression of sustainability in U.S. hospitality, emphasizing the underutilized potential of technologies like smart thermostats and recycling innovations. He identifies key challenges like short-term cost focus and maintenance issues but with optimism about overcoming these through improved management practices and engaging staff and guests in sustainability.

Lastly, in Strategic Leadership and Culture for Sustainability, **Danielle D'Silva (Booking.com)**, explains that tackling the sustainability challenges in travel involves supporting accommodation providers on their journey to sustainability by simplifying access to certification information and resources, and partnering with UN Tourism for free online sustainability courses, collectively aimed at making it easier for travelers to opt for sustainable options by increasing the accessibility and transparency of sustainability efforts in accommodations. Along similar lines, **Sally Davey (Travalyst)** emphasizes the urgent need for the tourism industry to transition from discussion to action in sustainability, highlighting both the responsibilities and transformative potentials of the sector. Travalyst aims to democratize access to trusted sustainability data, facilitating informed decision-making by centralizing consistent, credible, and compliant information, starting with accommodations, to empower travelers and accelerate sustainable changes as we approach key future milestones.

And finally, **Alexander Lennart Schmidt (Hotelschool The Hague)** explains how Hospitality Business Schools are pivotal in managing the rapid digital transformation in the hospitality sector, serving as a critical bridge between emerging technologies and the enduring human-centric nature of the industry. These institutions are shifting from traditional education models to innovation hubs, spearheading the integration of digital tools like AI and robotics with the traditional hospitality ethos through real-world testing and strategic partnerships, thereby ensuring future professionals can effectively meld technology with essential human interaction.





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