

Measurement & Evaluation Panel Session

Eric Ricaurte, CEO

Greenview

Presented at: GSTC Conference 2024



GREENVIEW

- **Founded in 2008**
- **Headquartered in Singapore and the US with 30 team members**
- **Instrumental role in sustainability measurement, criteria, benchmarking, methodologies, and collaboration for our industry**
- **Serving clients of all sizes and locations globally**



**Corporate
Consulting &
Advisory**



**Software and
Data
Intelligence**



**Industrywide
Initiatives
&
Methodologies**

Corporate Consulting & Advisory



ESG Strategy & Governance

Design effective frameworks and strategic approach, with accompanying governance structures



Program Design & Implementation

Develop and roll out programs at company and portfolio down to property level



GSTC Certification Support

Support with training, best practice, ongoing and step-by-step support



Target Setting

Support and modeling of environmental performance targets, social goals, SBT and Net Zero plans

Data, Reporting, and Software

 Greenview Portal



Greenview Portal

Carbon Emissions Inventories

Risk Assessments

Global ESG Policy Tracker

Reporting and Disclosure

Leading sustainability management system software as a service for properties and portfolios

Preparing GHG inventories, assurance support, end-to-end data custodians, Scope 3

In-depth biodiversity, water, climate, and socio-economic assessments

Identify, interpret, and keep updated on ESG policies globally

Guiding and preparing sustainability reports, ISSB, GRESB, DJSI, CDP, and more

Greenview Developed Many of our Industry's Methodologies

Hotel Carbon Measurement Initiative (HCMI)

Results	
Total CO2e for reporting period	1,616.64 tCO2e
Total guestrooms carbon footprint	1,212 tCO2e
Total meetings carbon footprint	404 tCO2e
Carbon footprint per occupied room on a daily basis	24.2 kgCO2e
Carbon footprint per area of meeting space (1 sqm/sqft) on an hourly basis	0.1 kgCO2e
CO2 emissions for a specific client:	
Number of room nights for client	75
Amount of meeting space occupied by client	100
Duration of client's meetings	10 Hours
Client's rooms carbon footprint	1,819 kgCO2e
Client's conference carbon footprint	81 kgCO2e
Total client's carbon footprint	1,900 kgCO2e

- Energy consumption
- Outsourced areas
- Outsourced laundry
- Refrigerants
- Mobile fuels

NET ZERO METHODOLOGY FOR HOTELS

2ND EDITION • JUNE 2023

HOTEL SUSTAINABILITY MANAGEMENT SYSTEM

GLOBAL TOURISM PLASTICS INITIATIVE

PLASTICS MEASUREMENT METHODOLOGY FOR ACCOMMODATION PROVIDERS

NET ZERO CARBON EVENTS

A Net Zero Roadmap for the Events Industry

November 2022

2021

Hotel Waste Measurement Methodology v1.0

Hotel Sustainability Basics

Greenview Leads Many Hotel Industry Initiatives

Hotel Footprinting Tool

GREENVIEW Hotel Footprinting Tool

Calculate Footprint | Who Uses the Data | FAQs | Contact Us

Other Greenview Software & Tools: Greenview Portal, Connell Hotel Sustainability Benchmarking Index, Sustainability Risk & Opportunity Assessments

Hotel Footprinting Tool

Allows you to calculate the carbon footprint of your hotel stay or meeting anywhere in the world, using real data supplied by the industry's global benchmarking index – the Connell Hotel Sustainability Benchmarking (CHSB) Index 2023

- PICK A LOCATION**
Select a specific location from the map or use the search field.
- SELECT OPTIONS**

All Hotels	Square Meters
Rooms occupied	1
Meeting space	50
Meeting duration	2

Country level report

- GET THE RESULT**

If you are representing a company and would like to integrate data from this tool into your system or require more information on the data set and analysis, please contact us at info@greenview.sg.

Heat Map of Carbon Emissions per Room Night (kgCO₂e)

- Very Low (14 - 64)
- Low (65 - 216)
- Medium (217 - 287)
- High (288 - 512)
- Very High (513 - 1023)

Logos: HILTON, DIAMONDROCK HOSPITALITY, Horwath HTL, HYATT, Marriott INTERNATIONAL, RADISSON HOTEL GROUP

HOTEL OWNERS FOR TOMORROW



CHSB



GREENLODGING TRENDS

Sustainable Hospitality Alliance

GREENVIEW

Destination Water Risk Index

2nd edition, March 2023

NetPositive Hospitality

str ECOLAB

The Destination Water Risk Index (DWRI) is a joint initiative of Greenview, the Sustainable Hospitality Alliance, STR, a CoStar Group Company and Ecolab.

Greenview has served over 100+ companies to-date across its full offering of services

Advisory and implementation

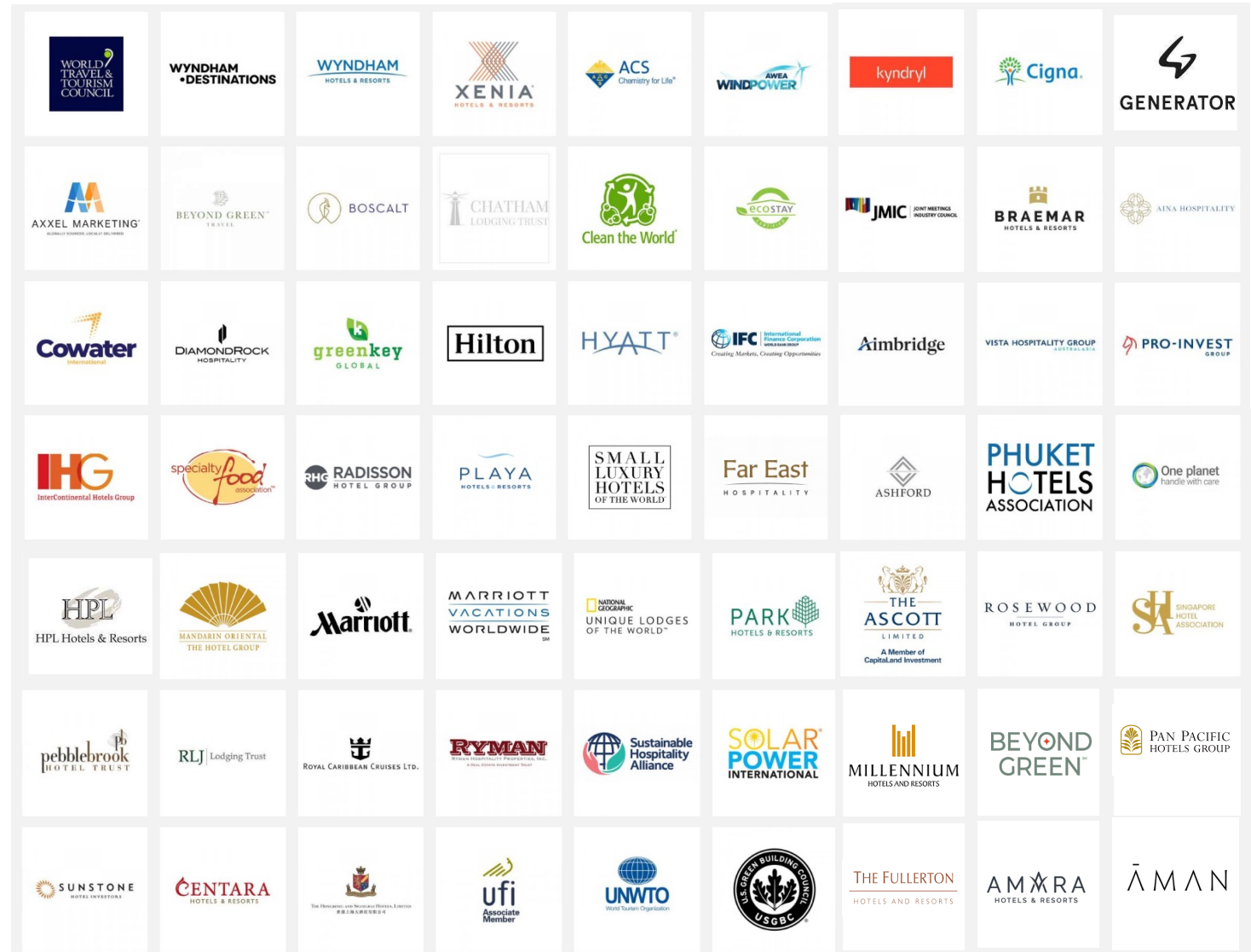
- ESG Strategy & Governance
- Program Design & Implementation
- GSTC Certification Support
- Target Setting
- Greenview Portal: the leading hotel sustainability software

Data analytics and intelligence

- Carbon Emissions Inventories
- Risk Assessments
- Global ESG Policy Tracker
- ESG Due Diligence Support

Industrywide Initiatives

- Sustainability Benchmarking
- Net Zero Hotel Methodology
- Green Lodging Trends Report
- Hotel Sustainability Basics
- Hotel Footprinting Tool



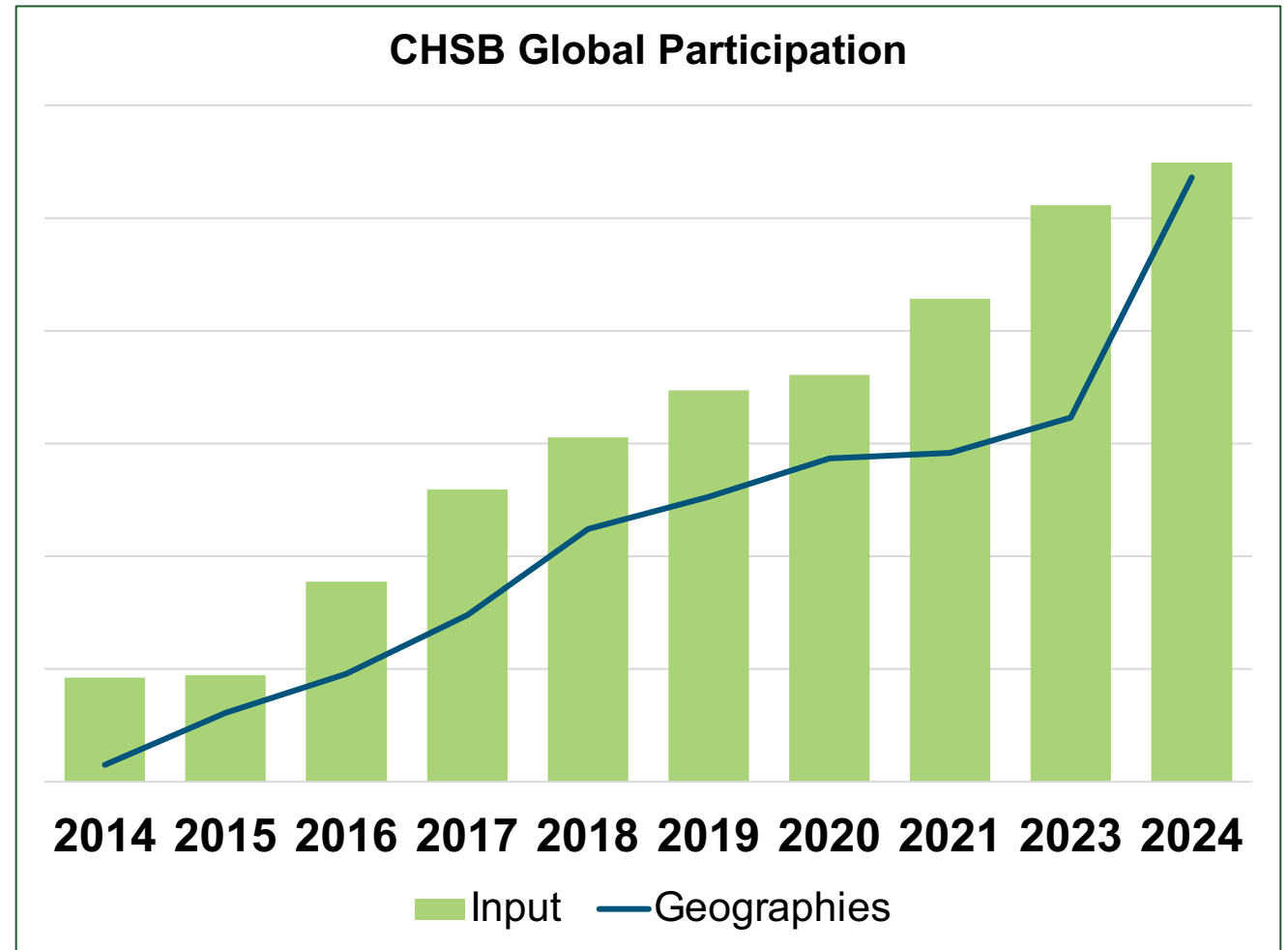
More Hotels Are Measuring, but Face Challenges

Rising interest among companies, datasets have grown significantly

- Regulation and customer demand driving adoption
- Ongoing data quality issues
- Capacity building for measurement

Step 1: Get a system

Step 2: Realize need for support with invoices & data validation/comprehension

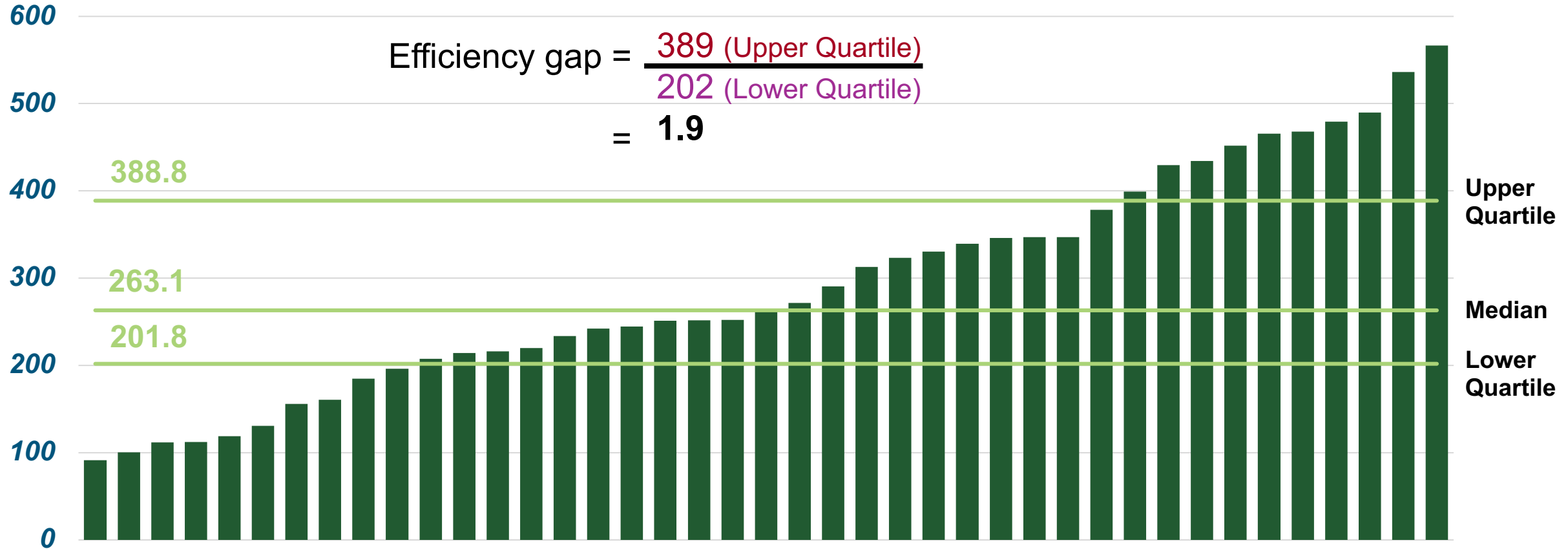


SINGAPORE HOTEL ENERGY USAGE (2023)

Individual hotel Energy Usage (kWh) per Square Meter



Full Service Non-resorts Outsourced Laundry



Source: Horwath HTL Asia Pacific Hotel Industry Survey 2024

Energy Efficiency Gap is a Global Trend

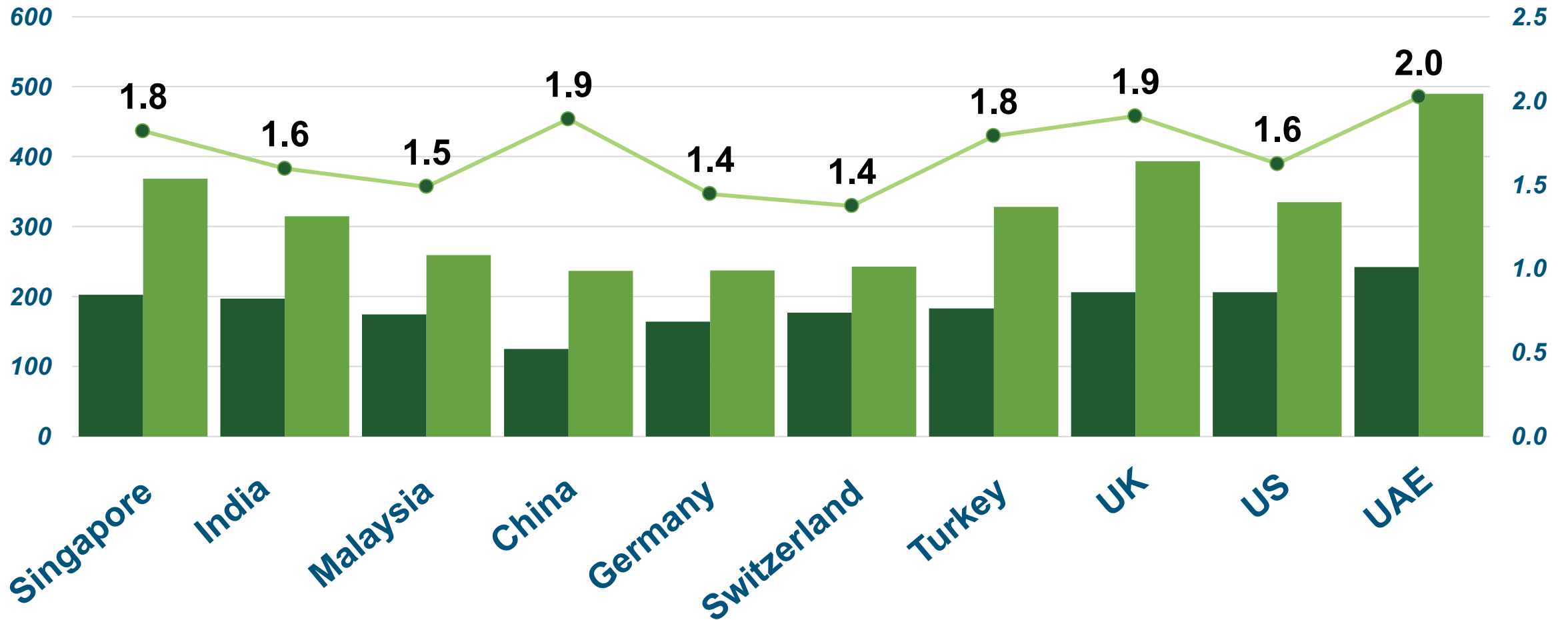
Upper & Lower Quartile Ratio of Hotel Energy Usage per Square Meter (kWh) (2022)



Full Service NonResort, Offsite Laundry

Source: CHSB2024 (2022 data)

Lower Quartile Upper Quartile Efficiency Gap

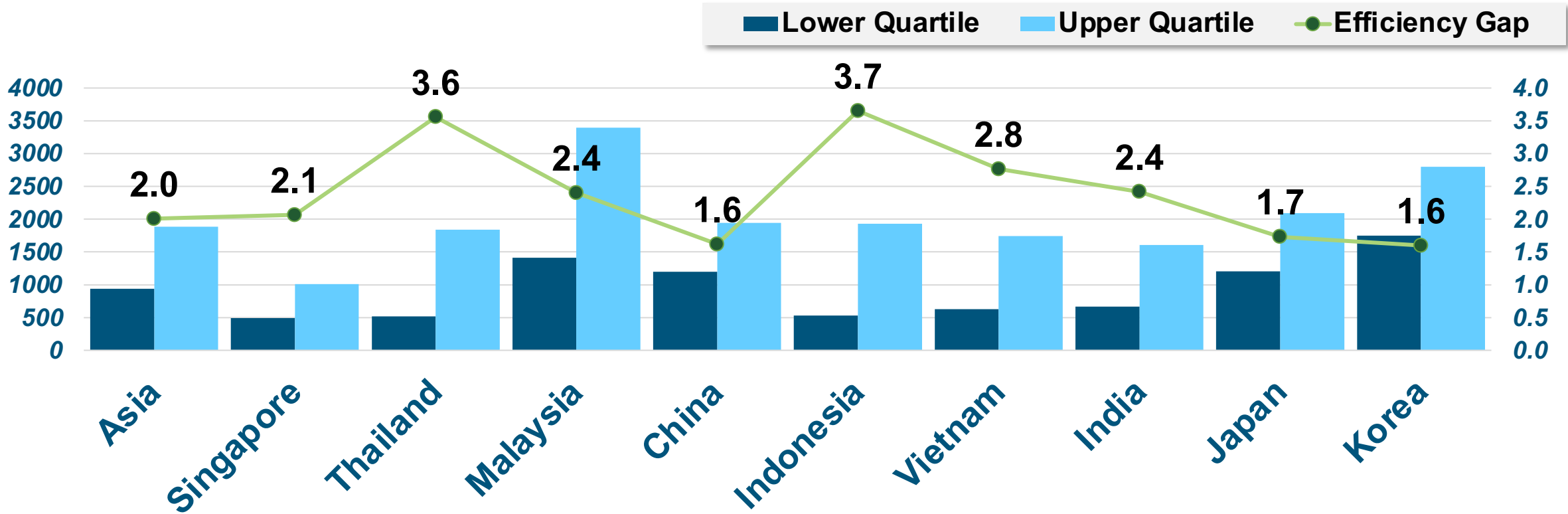


Water Efficiency Gap is a Global Trend (Asia Countries)

Upper & Lower Quartile Ratio of Hotel Water Usage per Occupied Room (L) (2022)



Full Service NonResort, Onsite Laundry



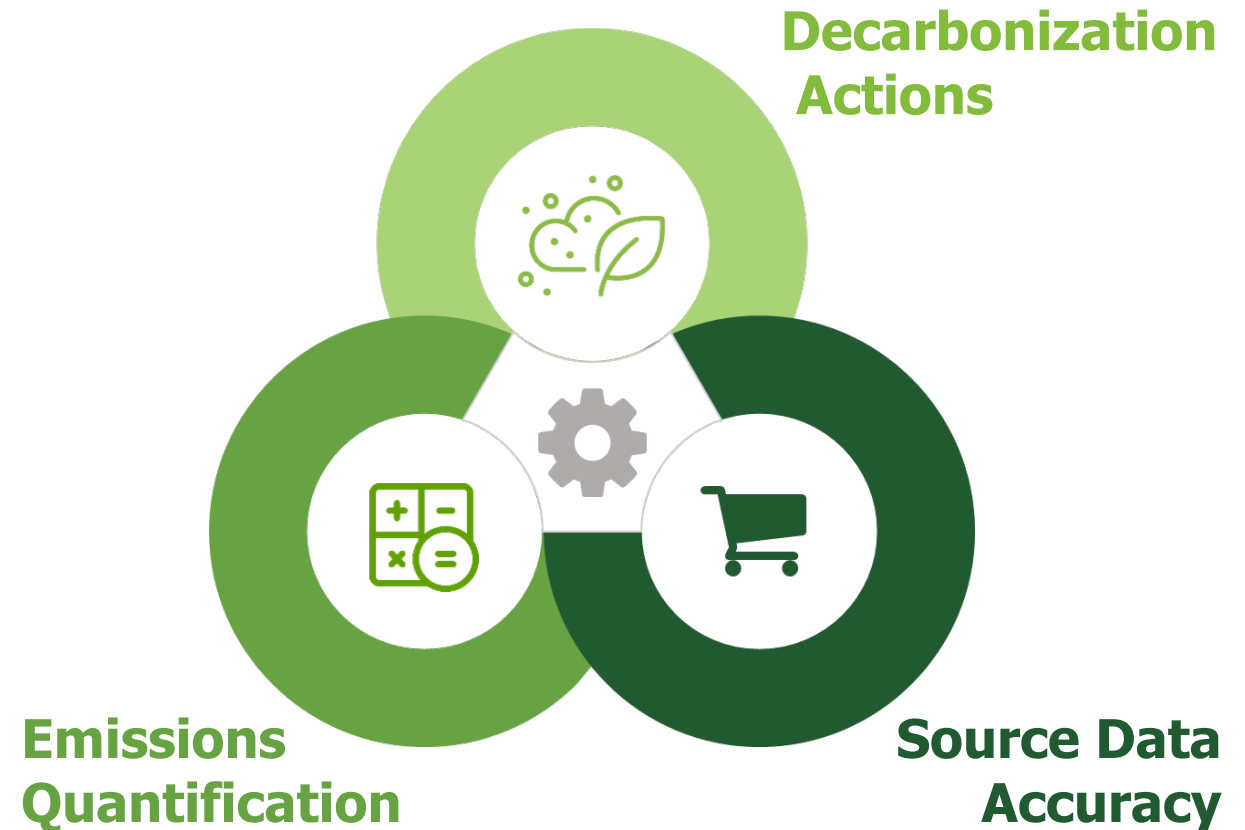
Source: CHSB2024 (2022 data)

Measurement Needs are Evolving: Scope 3

Greenview's Three-pronged Approach





Common Scope 3 Emissions in a Hotel:

- Outsourced laundry
- Downstream waste
- Upstream emissions from food, services, equipment
- Transport of guests within the destination (not owned)
- Embodied carbon of the building
- Employee commuting, business travel







Measurement Needs are Evolving: Biodiversity


Impacts on Biodiversity

-  Ecosystem Degradation
-  Species Loss
-  Disease and Invasive Species
-  Scarcity of Key Natural Inputs
-  Pollution
-  Climate Change
-  Unsustainable Sourcing


Risks

-  Policy and regulatory Changes
-  Disruption to Guest Activities
-  Reputational Risk
-  Increased Procurement Costs


Regulatory frameworks





**Taskforce on Nature-related
Financial Disclosures**





**Convention on
Biological Diversity**



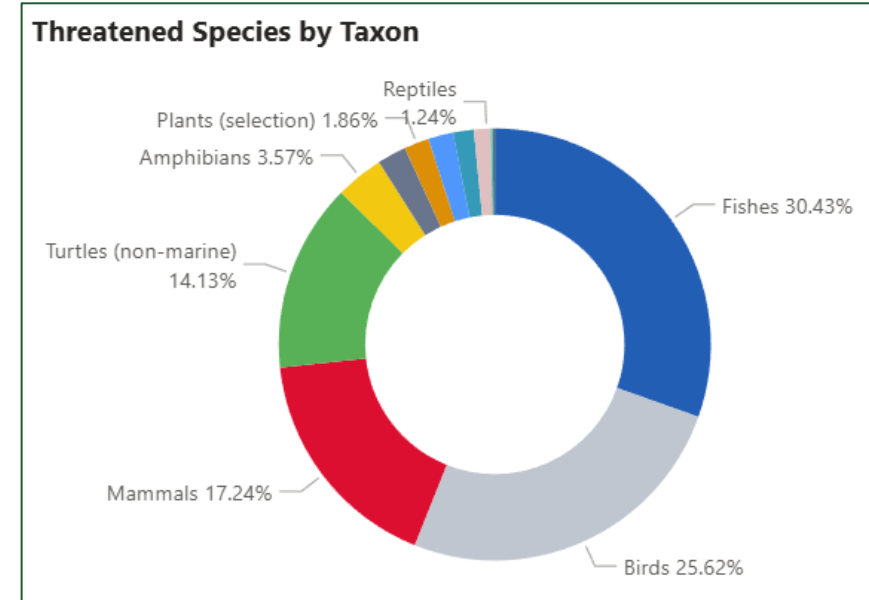




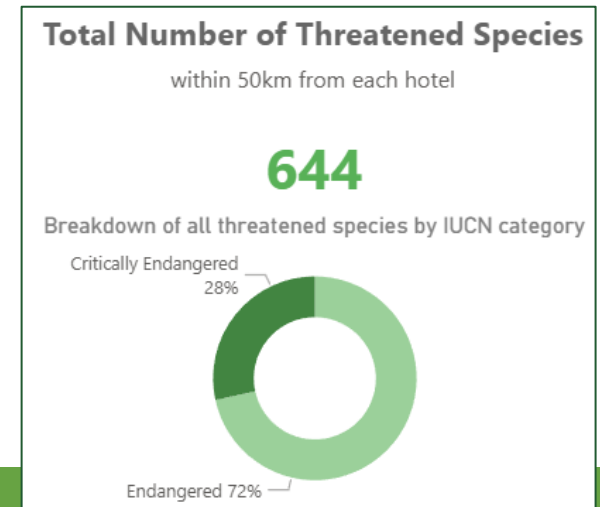




Using Biodiversity Data for Action



Guidance for properties in coastal areas: source sustainable seafood, promote responsible fishing practices, support protection of marine protected areas (MPAs) through staff and guest engagement



Measurement Needs are Evolving: Food Waste

Food Waste - Nexus of Key Sustainability Issues



Guest Perception



Food and Agriculture
Organization of the
United Nations

Regulations
& Reporting



Operational
Cost Savings



Carbon
Emissions



Biodiversity



Social
Equity

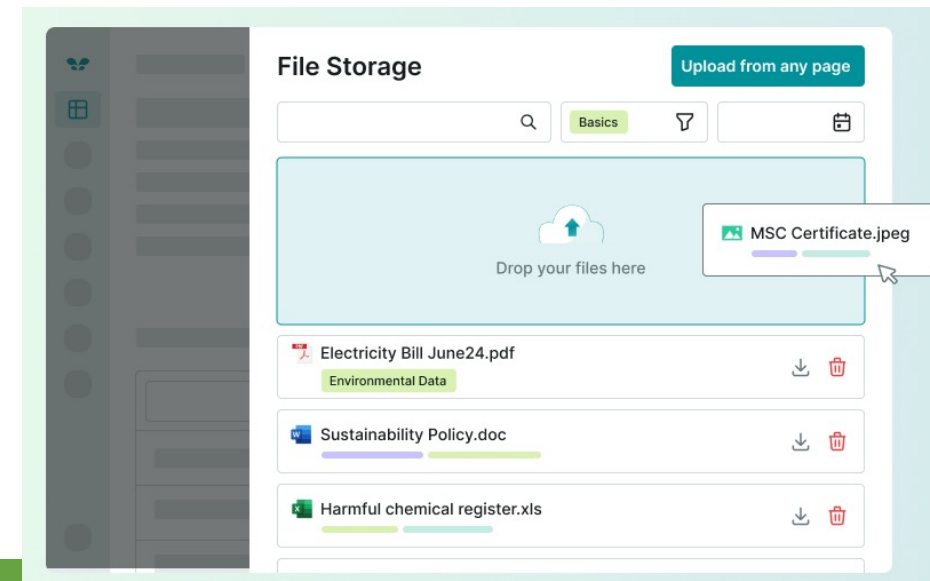
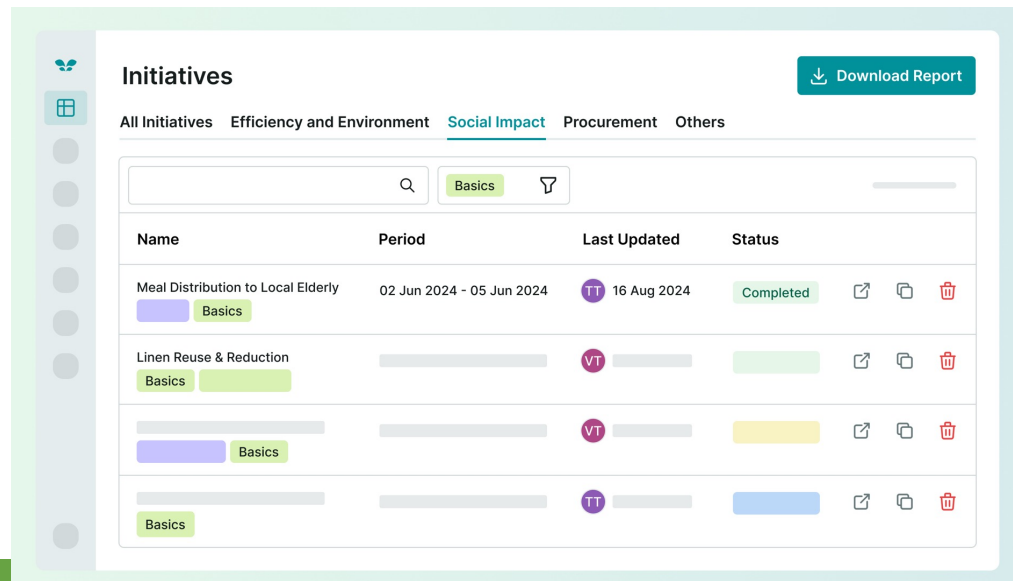


Measurement + Evaluation = Documentation

The Importance of Documentation

- Drivers of measurement for hotels: Assurance, Verification and Evaluation
- Addressing sustainability data management needs through documentation:
 - **What** is measured?
 - **How** was it measured?
 - **Where** did it come from?

 Greenview Portal



Challenges Occur when Evaluation Criteria Differs from Measurement Criteria

1. Discrepancies exist between summary criteria and satisfactory outcomes
2. Discrepancies exist between various auditors/companies
3. Be informed on how your data will be evaluated
4. Engage auditors to understand audit/verification processes in advance

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