



GREEN GAINS UNLOCKING COMMERCIAL REAL ESTATE VALUE THROUGH

A COMPREHENSIVE ANALYSIS OF THE IMPACT OF SUSTAINABILITY ON OPERATIONS, ASSET VALUE, AND INVESTMENT DECISIONS WITHIN THE CHINESE MAINLAND

SUSTAINABILITY

NOVEMBER 2025



Better never settles

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O1 Executive Summary

This report, Green Gains: Unlocking
Commercial Real Estate Value Through
Sustainability, aims to explore how
sustainability influences operational
performance, asset value, and investment
decisions within the commercial real estate
(CRE) sector on the Chinese mainland. It
provides a comprehensive examination of key
Environmental, Social, and Governance (ESG)
drivers, policy frameworks, market trends,
and benchmarking tools such as the GRESB
with the goal of equipping stakeholders with
actionable insights for navigating a rapidly
evolving sustainability landscape.

Key findings reveal that sustainability is increasingly driving demand, performance, and resilience in CRE. Green-certified buildings are associated with lower operating costs, stronger tenant retention, and higher valuations – particularly in Tier 1 cities. ESG-aligned investment strategies are gaining traction, supported by green financing mechanisms, government incentives, and growing regulatory requirements.

Benchmarks like GRESB are playing a pivotal role in standardising ESG reporting, guiding capital allocation, and fostering transparency.

Recommendations include embedding sustainability into asset design and retrofits,

adopting PropTech for real-time energy management, aligning ESG reporting with GRESB metrics, and engaging stakeholders across the real estate value chain. These practices not only enhance financial and operational performance but also improve risk management and market competitiveness.

In summary, the relationship between sustainability and real estate performance is becoming increasingly direct and measurable. Sustainable practices are no longer peripheral – they are central to long-term value creation. As the Chinese mainland advances toward its dual-carbon goals, commercial real estate players who proactively integrate ESG principles will be best positioned to thrive in a decarbonising economy.

02 Introduction

In the context of commercial real estate, sustainability refers to the integration of environmental, social, and governance (ESG) principles throughout the lifecycle of a building – from design and construction to operation and eventual redevelopment. It encompasses energy efficiency, resource conservation, occupant well-being, ethical governance, and resilience to climate risks.

Sustainability is increasingly important in the commercial real estate sector due to growing regulatory mandates, (such as national pledges to max out carbon emissions before 2030 and realise carbon neutrality by 2060), investor scrutiny, and tenant expectations. Buildings are responsible for a significant share of energy consumption and carbon emissions, positioning the built environment as both a challenge and an opportunity in the transition to a low-carbon economy. As cities across the Chinese mainland pursue ambitious climate goals, sustainable real estate has become a critical enabler of national and local development strategies.

This report, *Green Gains: Unlocking Commercial Real Estate Value Through Sustainability*, provides a comprehensive analysis of how sustainability impacts operational performance, asset value and investment decisions within the Chinese mainland market. It examines key ESG drivers, benchmarks such as GRESB, sector-specific trends, challenges, and emerging opportunities. The aim is to equip investors, developers, and occupiers with actionable insights for aligning real estate strategies with long-term sustainability and financial performance goals.



03 **The Business Case** for Sustainability

Market Demand for Sustainable Commercial Real Estate Buildings

Demand for sustainable commercial real estate on the Chinese mainland is steadily rising, driven by a convergence of regulatory, investor, and occupier pressures. Although the market is still maturing, sustainable assets are increasingly recognised as sources of long-term value, risk mitigation, and competitive differentiation.

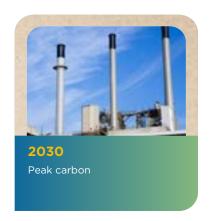
Key Drivers of Demand

Several forces are accelerating the adoption of sustainable practices in the commercial real estate sector:

/// Policy Mandates:

As mentioned previously in the Introduction, the Chinese mainland's national commitments to peak carbon emissions before 2030 and achieve carbon neutrality by 2060 have brought sustainability to the forefront of real estate development and asset management strategies (Figure 1).

Figure 1: Carbon neutrality goals - The Chinese mainland







Defined as those nations with a GDP per capita of between US\$20,000 per year and US\$40,000 per year*

Source: Cushman & Wakefield Research

Investor Expectations:

Both domestic and international institutional investors are integrating ESG criteria into their investment frameworks – particularly relevant for core and core-plus strategies where long-term resilience and compliance are paramount.

/// Corporate Occupier Requirements:

Multinational corporations (MNCs) and leading Chinese firms increasingly seek green-certified buildings to align with global ESG frameworks. Certification systems such as the Leadership in Energy and Environmental Design (LEED) certification system, the Building Research Establishment Environmental Method (BREEAM), the WELL Building Standard (WELL), the Chinese mainland's Three-Star Green Building Rating system, and the Regenerative, Environmental, Sustainable, and Equitable Targets (RESET) certification system are becoming standard tenant requirements (Figure 2).

Figure 2: The Chinese mainland - Selected available green building certifications

The Chinese Mainland - Selected Available Green Building Certifications

China 3-Star System - National green rating (1-3 stars) for energy, water, materials, and environment

China Healthy Building - Focuses on air quality and occupant health

Green Eco-District - Evaluates sustainability at the urban or community level

China WELL-like Standard - Local wellness-focused standard for building performance

LEED (U.S.) - Global benchmark for sustainable, energy-efficient buildings

WELL (U.S.) - Prioritises health, comfort, and wellness in design and operations

BREEAM (UK) - Comprehensive sustainability assessment from design to use

RESET (Singapore) - Focuses on real-time monitoring of indoor environmental quality

EDGE (IFC) (U.S.) - Promotes affordable, resource-efficient green building in emerging markets

Source: Cushman & Wakefield Research



The potential for reduced energy costs, improved tenant satisfaction, and longer lease terms is motivating landlords to invest in sustainable upgrades and technologies.

Sectoral Insights



In the office sector, green building certifications are becoming essential differentiators in both leasing and investment markets. Occupiers are prioritising buildings with advanced heating, ventilation and air conditioning (HVAC) systems, smart lighting, enhanced indoor air quality, and water and waste efficiency. Premium rents and improved tenant retention are increasingly observed in top-tier cities where certified green office stock is available.

Industrial and Logistics:

The industrial sector is experiencing strong demand for environmentally friendly facilities. Warehouses equipped with solar panels, rainwater harvesting systems, green roofs, and energy-efficient technologies are favoured by third-party logistics providers, e-commerce firms, and pharmaceutical companies. Leading developers are embedding ESG standards into new development pipelines.



In retail, sustainability is manifesting through the use of ecofriendly materials, energy-efficient design, and biophilic features such as rooftop gardens and vertical greenery. Rising consumer awareness – particularly in Tier 1 cities – is encouraging retail landlords to adopt sustainable operational practices and rethink tenant curation strategies.

Challenges and Constraints

Despite growing momentum, several structural barriers remain:

/// High Retrofit Costs:

Upgrading older buildings to modern ESG standards requires significant capital, which can be a deterrent – particularly in Tier 2 and 3 cities.

/// Unrealised Green Premiums:

While green buildings in prime locations may attract higher rents and valuations, as noted in the Office sector analysis, this trend is not yet consistent across secondary markets.

/// Data Transparency:

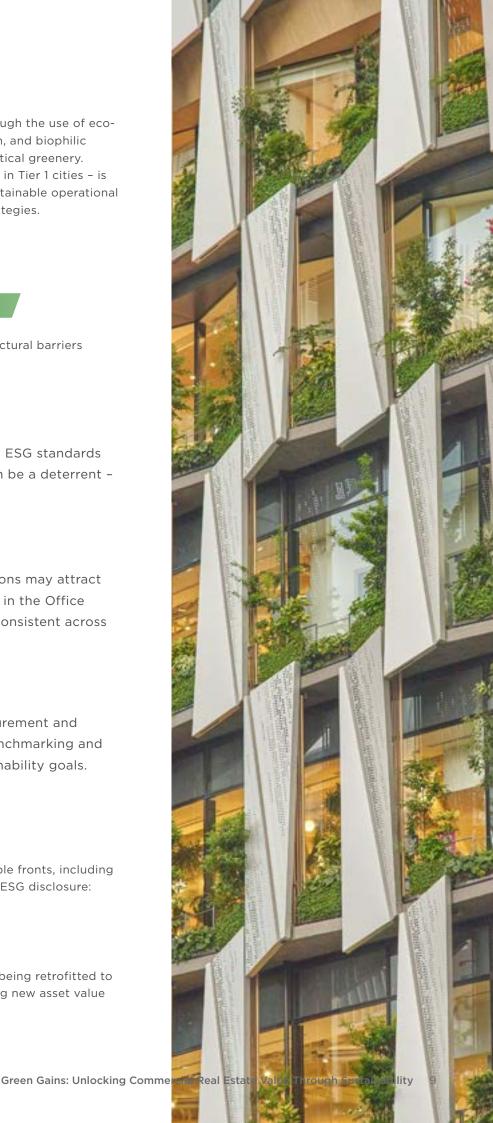
Inconsistent ESG performance measurement and reporting practices limit effective benchmarking and hinder progress on asset-level sustainability goals.

Opportunities Ahead

Opportunities are emerging across multiple fronts, including asset repositioning, green financing, and ESG disclosure:

/// Asset Repositioning:

Older buildings in prime urban areas are being retrofitted to meet sustainability benchmarks, unlocking new asset value and extending lifecycle viability.



/// Green Financing Instruments:

As will be discussed further in later sections, green bonds, sustainability-linked loans, and government incentives are becoming increasingly accessible, supporting sustainable development and energy retrofitting projects (Figure 3).

Figure 3: Chinese mainland real estate - Available green financing instruments

Green Financing Instruments - Chinese Mainland Real Estate

- Green Bonds: For certified green buildings; aligned with PBoC & NDRC guidelines
- Green Loans: Bank loans for green-certified developments (e.g. LEED, China 3-Star)
- Sustainability-Linked Loans: Loan terms tied to ESG performance (e.g. energy use, emissions)
- Green REITs: Public REITs investing in green infrastructure; supported by CSRC
- Green ABS: Securities backed by leases or cash flow from green buildings
- Government Subsidies: Local incentives for green certification and retrofits
- Transition Finance: Funding to convert high-carbon buildings to green standards
- Carbon Credit Revenue: Income from energy-efficient operations in carbon trading schemes

Source: Cushman & Wakefield Research

/// GRESB and ESG Reporting:

An increasing number of asset managers on the Chinese mainland are engaging with global frameworks such as GRESB to meet the requirements of international capital and strengthen reporting transparency.

Role of ESG (Environmental, Social, Governance) in Commercial Real Estate

The integration of ESG principles is reshaping the CRE landscape across the Chinese mainland. Amid growing policy momentum and rising stakeholder expectations, ESG is evolving from a compliance obligation into a strategic value driver.

Environmental (E): Green Compliance and Carbon Goals

As referenced earlier regarding policy mandates, the Chinese mainland's dual-carbon targets – to peak carbon emissions before 2030 and reach carbon neutrality by 2060 – have placed the built environment under increased scrutiny (Figure 4). Buildings account for roughly 40% of urban energy consumption, making energy efficiency, renewable energy integration, and performance optimisation critical priorities.

Figure 4: An outline of the Chinese mainland's dual-carbon targets

Dual-Carbon Targets - The Chinese Mainland

Carbon Peak by 2030

- Achieve peak CO₂ emissions before 2030
- Focus on energy transition, industrial upgrade, and transport electrification

Energy Mix Shift

- Reduce reliance on coal
- Increase share of non-fossil energy to -25% by 2030 and -80% by 2060

Industrial & Urban Impact

- Push for green buildings, smart infrastructure, and lowcarbon zones
- Focus on heavy industry decarbonisation (steel, cement, etc.)

Carbon Neutrality by 2060

- Achieve net-zero CO₂ emissions by 2060
- Major investments in renewable energy, carbon capture and green technologies

Policy Framework "1+N" Policy System: Central guidelines plus sectoral/local action plans

Incorporates ETS, green finance, and mandatory ESG disclosure

Global Collaboration

- Commitment under Paris Agreement
- Partnering on clean tech innovation and green finance mechanisms

Source: Cushman & Wakefield Research

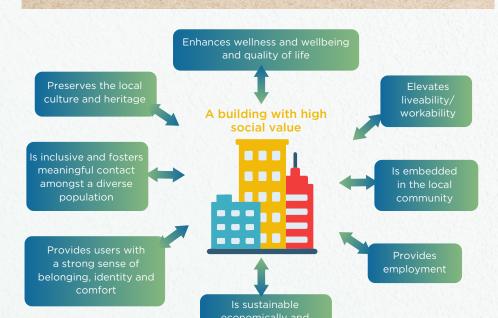
In Tier 1 cities like Shanghai and Beijing, new office and industrial developments increasingly seek LEED, WELL, or Three-Star Green Building certification. Retrofitting older stock is also gaining traction, particularly in central business districts. Smart building systems – such as IoT-enabled HVAC and lighting controls – are being widely adopted to reduce emissions and enable real-time environmental performance tracking.

Social (S): Wellness, Liveability, and Talent Retention

The "social" pillar of ESG is growing in importance as occupiers, particularly MNCs and leading domestic firms, look for workplaces that support health, well-being, and productivity (Figure 5).

Figure 5: Commercial real estate social value - Selected outcomes

Selected Outcomes - Commercial Real Estate Social Value



Features such as natural lighting, enhanced indoor air quality, communal spaces, and biophilic design are becoming standard in both new builds and repositioning projects. Developers are also incorporating community infrastructure such as green public spaces and cultural amenities - into mixed-use schemes to foster inclusive urban environments. These attributes are increasingly critical for talent attraction and retention, especially in innovation hubs like the Yangtze River Delta and the Greater Bay Area.

Source: Cushman & Wakefield Research

Governance (G): Transparency, Reporting, and Risk Management

Governance in CRE is evolving in response to both regulatory reform and the growing presence of global capital. ESG-aligned funds and the Chinese mainland's emerging real estate investment trusts (REITs) are facing increasing pressure to report under global frameworks such as GRESB and the Task Force on Climate-related Financial Disclosures (TCFD) (Figure 6).



Figure 6: TCFD explained

Core Elements of Recommended Climate-Related Financial Disclosures

Governance

The organisation's governance around climate-related risks and opportunities

The actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning

Risk Management

The processes used by the organisation to identify, assess, and manage climaterelated risks

Metrics and Targets

The metrics and targets used to assess and manage relevant climate-related risks and opportunities

Source: PRI, Cushman & Wakefield Research

Transparency in supply chain practices, ethical operations, and sustainability-linked financing is steadily improving. Green bonds and sustainability-linked loans, as mentioned in the Green Financing Instruments section, are gaining popularity, enabling developers and asset managers to finance ESG-aligned projects while enhancing accountability.

ESG as a Strategic Imperative

As ESG becomes more deeply embedded across the real estate value chain on the Chinese mainland, stakeholders – from investors and developers to occupiers and policymakers – are aligning strategies with long-term sustainability and compliance goals. ESG is no longer peripheral; it is central to asset performance, risk management, and future competitiveness. As regulatory frameworks mature and awareness grows, ESG integration will define the resilience and market value of commercial real estate portfolios on the Chinese mainland.

Regulatory and Policy Drivers

The Chinese mainland's push toward sustainability in the CRE sector is underpinned by a robust and evolving framework of regulations, policies, and standards at both national and local levels. These initiatives support the country's broader ambitions to peak carbon emissions before 2030 and achieve carbon neutrality by 2060 – commonly referred to as the "Dual Carbon" goals, as previously mentioned in the Business Case section.

National Climate Commitments and Long-Term Strategies

The Chinese mainland's 14th Five-Year Plan (2021-2025) integrates green development into economic and urban planning. It promotes energy-efficient buildings, renewable energy adoption, and green finance tools. The Action Plan for Carbon Dioxide Peaking Before 2030, issued by the State Council, sets sector-specific targets – such as reducing energy use in buildings and supporting green retrofits.

Green Building Codes and Certifications

The Chinese mainland continues to update its green building standards, including:

Evaluation Standard for Green Building (GB/T 50378-2019):

Mandates the use of energy-efficient materials, water conservation systems, good indoor environmental quality, and smart building technologies.

/// Three-Star Green Building Rating System:

A domestic certification system that is increasingly aligned with international benchmarks like LEED and BREEAM, as referenced earlier in the discussion of corporate occupier requirements.

Several municipalities — including Beijing, Shanghai, and Shenzhen — have made green certification mandatory for new commercial and public buildings, with growing support for retrofitting older properties.

Building Energy Efficiency Regulations

Standards such as the Design Standard for Energy Efficiency of Public Buildings (GB 50189) enforce minimum performance benchmarks for commercial buildings. Smart energy management systems are also being promoted - particularly in large office and retail buildings - to enhance consumption monitoring and control, building upon the operational efficiency advantages noted previously.

ESG and Corporate Disclosure Requirements

Although still developing, ESG disclosure is gaining traction. The China Securities Regulatory Commission (CSRC) has proposed ESG reporting guidelines, and leading stock exchanges in Shanghai and Shenzhen have introduced voluntary frameworks. These encourage greater transparency and accountability in real estate operations and investment, complementing the governance principles discussed in the ESG section.

Incentives and Green Finance

Local governments are offering a growing array of incentives - including tax breaks, subsidies, and streamlined permitting - for projects that meet green development criteria. At the same time, green bonds and sustainabilitylinked loans, as mentioned in the Business Case section, are playing an increasingly central role in financing sustainable buildings and retrofits.

City-Level Low-Carbon Programmes

Pilot initiatives such as low-carbon cities and near-zero energy buildings (nZEBs) are being tested in leading urban clusters like the Yangtze River Delta and the Greater Bay Area. These programmes are not only proving grounds for advanced sustainability practices but also blueprints for broader policy rollout (Figure 7).

Figure 7: Near-zero energy buildings - Key points

Near-Zero Energy Buildings (NZEBs) - Key Points

Definition

Buildings with extremely low energy demand, largely met by renewable sources on-site or nearby

Core Features

- High-performance insulation and airtightness
- Smart energy systems and efficient HVAC
- Passive design strategies (natural light, ventilation)

Energy Sources

Solar PV, geothermal, heat pumps, and energy storage integration

- Lower operating costs and carbon emissions

- green building codes

- Key to achieving city- and district-level carbon targets

Source: Cushman & Wakefield Research

Together, these regulatory and policy drivers form a comprehensive framework that is accelerating the transition to sustainability across the Chinese mainland's commercial real estate sector. From national climate pledges and building codes to green finance mechanisms and ESG reporting requirements, the policy landscape is evolving rapidly. For developers, investors, and asset owners and managers, aligning with these mandates is no longer optional but essential – both to ensure compliance and to remain competitive in a market increasingly shaped by sustainability imperatives. With green development now a central pillar of economic strategy on the Chinese mainland, commercial real estate players that proactively embed sustainability into their operations, design, and investment decisions will be best positioned to unlock long-term value, mitigate risk, and contribute meaningfully to the nation's carbon neutrality goals (Figure 8).

Figure 8: Selected sustainability regulatory and policy drivers on the Chinese mainland



The Action Plan for Carbon Dioxide Peaking Before 2030.



Green Building Codes and Certifications

Evaluation Standard for Green Building (GB/T 50378-2019).

Three-Star Green Building Rating System.



Building Energy Efficiency Regulations

Design Standard for Energy Efficiency of Public Buildings (GB 50189).



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Source: Cushman & Wakefield Research



Incentives and Green Finance

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04

Sustainability Factors Impacting Real Estate Performance

The integration of sustainability into CRE is no longer a niche or optional undertaking - it is a fundamental driver of asset performance. As ESG expectations from investors, regulators, and occupiers continue to evolve, sustainability factors are becoming decisive in shaping market competitiveness and long-term value creation. This is especially evident on the Chinese mainland, where national policies, urban planning priorities, and the rise of domestic green finance are accelerating the shift toward sustainable buildings.

This section unpacks the key sustainability factors directly impacting real estate performance: energy efficiency and operational cost savings; occupancy rates and tenant satisfaction; asset valuation and capitalisation rates; risk mitigation and resilience; and access to green financing and incentives - with particular emphasis on their implications for the commercial property market on the Chinese mainland.

Energy Efficiency and Operational Cost Savings

Energy consumption remains the largest operating expense for commercial buildings, particularly in the Chinese mainland's dense, vertical urban environments. As noted in the Regulatory and Policy Drivers section, according to the Ministry of Housing and Urban-Rural Development (MOHURD), buildings in general account for more than 20% of the country's total energy use, and this share is projected to rise without decisive intervention (Figure 9).

Figure 9: A typical Shanghai Grade A office building - Energy usage breakdown

Energy Use in a Typical Grade A Commercial Office Building - Shanghai

HVAC Systems (40-50%)

 Largest energy consumer – for cooling, heating, ventilation, and air filtration due to Shanghai's humid climate

Lighting (15-25%)

 High usage from overhead LED or fluorescent lighting, especially in large open-plan areas and common zones

Office Equipment (10-15%)

Computers, monitors, printers, servers, and other plug loads in tenant spaces and shared areas

Elevators & Escalators (5-10%)

Energy-intensive during peak hours in high-rise towers; regenerative systems becoming more common

Water Heating & Pumps (3–5%)

 For restrooms, kitchens, and mechanical systems (cooling towers, water supply)

Standby Power & Miscellaneous (3-5%)

 Security systems, emergency lighting, charging stations, and IT infrastructure

Source: Cushman & Wakefield Research

Energy-efficient design and retrofitting significantly reduce operational costs. Technologies such as high-efficiency HVAC systems, LED lighting, smart metering, and real-time energy monitoring can cut energy usage by 20-40% depending on the baseline (Figure 10). For example, many buildings in Shanghai and Shenzhen that implemented intelligent building management systems saw a payback period of less than five years due to energy savings alone.

Figure 10: Select ways a typical Grade A office building in Shanghai can become more energy efficient

Enhancing Energy Efficiency in Grade A Office Buildings - Shanghai

Smart HVAC Systems

 Install energy-efficient chillers, variable speed drives, and occupancy-based controls to optimise cooling/ heating loads

LED Lighting & Smart Controls

 Replace outdated lighting with LED systems and motion/daylight sensors to reduce unnecessary usage

Building Automation Systems (BAS)

 Use intelligent systems to monitor and control energy use in real time, improving overall building performance

High-Performance Glazing & Insulation

 Upgrade windows and facade materials to reduce heat gain/loss and improve thermal comfort

Green Certifications & Energy Audits

 Adopt LEED, RESET, or China 3-Star standards; conduct regular audits to identify sayings opportunities

Tenant Engagement & Green Leasing

 Promote energy-saving behavior and include sustainability clauses in lease agreements

Renewable Energy Integration

 Use rooftop solar panels or purchase green electricity to reduce carbon footprint

Efficient Equipment & Appliances

 Choose Energy Label-certified office and building equipment to lower plug loads Moreover, the Chinese mainland's "dual carbon" goals have catalysed both regulatory and market momentum for energy performance improvements. The introduction of green building evaluation labels such as the Chinese mainland's Three-Star rating system, and convergence with global certifications like LEED and BREEAM (as discussed in the Business Case section), has provided a clearer framework and incentive for energy-efficient buildings.

Multinational tenants and increasingly Chinese corporates, especially those with ESG commitments, are beginning to request energy data disclosure during lease negotiations, highlighting how operational efficiency is becoming a market differentiator.

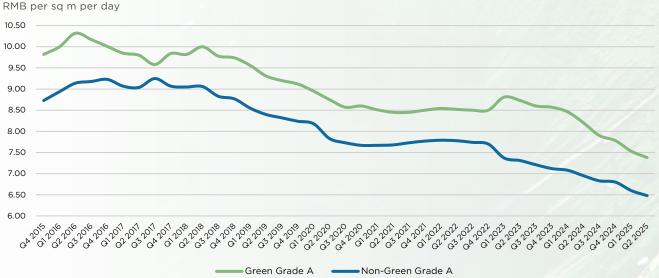
Occupancy Rates and Tenant Satisfaction

Buildings that prioritise sustainability tend to attract and retain tenants at a higher rate than their conventional peers. This correlation is driven by three interrelated factors: growing tenant demand for ESG-aligned space, enhanced indoor environmental quality, and reputational benefits.

On the Chinese mainland, the office leasing market has become highly tenant-driven amid a structural oversupply. As a result, landlords with sustainable features - such as low-volatile organic compound (VOC) materials, advanced air filtration, abundant daylight, and flexible workspace layouts - have a competitive edge. Tenants increasingly view these features not as luxuries, but as baseline expectations for employee health, productivity, and wellbeing.

Evidence from leasing data in Shanghai's Grade A office market shows that occupancy rates and rentals are consistently higher in green-certified Grade A buildings compared to non-certified stock (Figure 11). Post-pandemic health awareness has further intensified demand for smart air quality systems and contactless technologies, both of which are aligned with sustainability goals.

Figure 11: Compared – The average Shanghai green Grade A office rental and the average Shanghai non-Green Grade A office rental (Q4 2015 to Q2 2025)



Source: Cushman & Wakefield Research

Tenant satisfaction and retention, crucial metrics for stable cash flow, also trend higher in green buildings. Enhanced comfort, energy transparency, and alignment with corporate values foster longer lease durations and reduced turnover. In the Chinese context, where real estate decisions are increasingly made at regional HQ or group level, the ability to meet ESG targets at the site level directly supports portfolio-level goals.

Asset Valuation and Cap Rates

Sustainable assets increasingly command a premium in both capital markets and valuation exercises. This is driven by investor appetite, anticipated future regulatory compliance, and operational performance.

While cap rate compression for green buildings is more widely documented in mature markets such as Europe or Australia, similar trends are emerging in Chinese mainland Tier 1 cities. Institutional investors – especially insurance companies, domestic funds, and international institutional investors – are beginning to assign higher value to buildings with clear ESG credentials, particularly when aligned with GRESB or domestic equivalents.

For example, recent office transactions in Beijing

and Shanghai suggest that certified green buildings can achieve 5-10% higher valuations per sq m than comparable uncertified stock. The logic is clear: reduced operating costs, lower vacancy risk, and future-proofed design contribute to higher net operating income (NOI) and lower perceived risk, thus supporting tighter cap rates.

Moreover, the Chinese mainland's regulatory momentum – such as mandatory energy audits for large public and commercial buildings, and requirements for new government buildings to meet green standards (as outlined in the Policy Drivers section) – is pushing the market to reflect sustainability attributes more transparently in valuation. Appraisers are beginning to incorporate life cycle costing and environmental performance indicators into asset assessments.

Risk Mitigation and Resilience

Climate-related risks, both physical and transitional, are becoming increasingly material for real estate investors and developers. Rising temperatures, urban heat island effects and extreme weather events, pose significant threats to real estate assets (Figure 12).

Figure 12: Commercial real estate and climate risk

Climate Risks to Commercial Real Estate

Physical Risks

Flooding, storms, wildfires

Direct damage and business disruption

Heatwaves & rising temps

• Increased cooling costs, material degradation

Sea level rise

• Threat to coastal assets and infrastructure

Water stress

Limited availability for cooling and operations

Transitional Risks

Stricter regulations

• Carbon caps, energy codes, retrofit mandates

Market pressure

Tenants and investors demand green buildings

Financial impacts

• Higher insurance costs, risk of stranded assets

Tech shifts

• Obsolete systems, costly upgrades to stay compliant

Reputational risk

Poor ESG performance can hurt brand and value

Source: Cushman & Wakefield Research

Sustainable buildings are better equipped to withstand these challenges. Design features such as flood-resilient basements, efficient insulation, reflective roofing, and integrated water management systems reduce exposure to environmental hazards. During recent typhoon and flooding events in southern China, resilient buildings sustained lower damage costs and downtime, protecting income streams.

Resilience also extends to reputational risk. Properties that fail to meet evolving environmental standards may face "brown discounts" in rent and valuation or become stranded assets requiring costly retrofits (Figure 13). On the other hand, assets that proactively exceed compliance thresholds are more likely to benefit from government incentives and avoid punitive measures.

Figure 13: Real estate "brown discounts" explained

Understanding "Brown Discounts" in Real Estate

A "brown discount" refers to the reduced market value of properties that do not meet modern sustainability or energy efficiency standards

Key Drivers

- Higher Operating Costs due to inefficient energy, water, and waste systems
- Regulatory Risks from tightening environmental laws and carbon taxes
- Reduced Tenant Demand as occupiers increasingly seek green-certified, ESG-aligned spaces
- sustainable assets

- Lower resale prices and reduced access to green

Growing divergence in valuation between greencertified ("green premium") and non-certified ("brown

tightens under Dual Carbon goals, brown discounts are becoming more pronounced in Tier 1 cities like Shanghai

Source: Cushman & Wakefield Research

For developers and owners, this also aligns with the Chinese mainland's emerging taxonomy for climaterelated financial disclosures. As frameworks like the China Green Bond Endorsed Project Catalogue and the People's Bank of China's (PBoC) green finance guidelines (referenced in earlier sections) become more rigorous, sustainable assets will increasingly be favoured by investors seeking long-term, resilient returns.

Access to Green Financing and Incentives

Green finance is playing an increasingly central role in unlocking real estate value. On the Chinese mainland, the proliferation of green bonds, sustainability-linked loans, and ESG-themed funds has created new channels of capital for qualifying projects.

Developers and asset owners that meet energy efficiency or certification benchmarks can secure preferential interest rates, longer loan tenures, and access to broader pools of domestic and international investors. For instance, many banks on the Chinese mainland, including the Industrial and Commercial Bank of China (ICBC) and Bank of China, offer green building loans at reduced rates, contingent upon certification or emissions reduction performance (Figure 14).

Figure 14: Bank of China - An example of a green building loan programme

Bank of China's Green Building Loan Programme

Purpose

 Finance or refinance environmentally sustainable projects, including green buildings, to support China's dual carbon goals

Loan Types

Offers term loans and revolving loans tailored for green projects

Eligibility Criteria

 Projects must align with the Green Loan Principles, focusing on areas such as energy efficiency, renewable energy, pollution prevention, and green buildings

Green Mortgage Incentives

 In certain regions, BOC provides mortgage rate discounts (e.g., 0.05% p.a. for two years) for properties certified under recognised green building standards

Sustainability-Linked Loans (SLLs)

 BOC offers SLLs where loan terms are tied to the borrower's achievement of predefined sustainability performance targets (SPTs), promoting continuous improvement in ESG metrics

Governance and Oversight

 A three-tier governance structure ensures robust ESG risk management, with dedicated teams overseeing the evaluation and monitoring of green finance initiatives

Market Leadership

 As of mid-2024, BOC's domestic green credit balance reached RMB3.67 trillion, marking a nearly 40% yearover-year increase, positioning it as a leader in green finance among Chinese mainland banks

Strategic Alignment

 These loan programmes are integral to BOC's broader strategy to facilitate a low-carbon economy and support sustainable development in alignment with national and international ESG standards

Source: Cushman & Wakefield Research

According to the China Green Bond Market Report 2023, in that year, building project-related green debt with Use of Proceeds (UoP) financing on the Chinese mainland originated from three sources - financial corporates, government backed entities, and non-financial corporates (Figure 15). The inclusion of building projects in green financing frameworks - including those eligible under the Belt and Road Initiative's green finance guidelines further emphasises real estate's strategic importance.

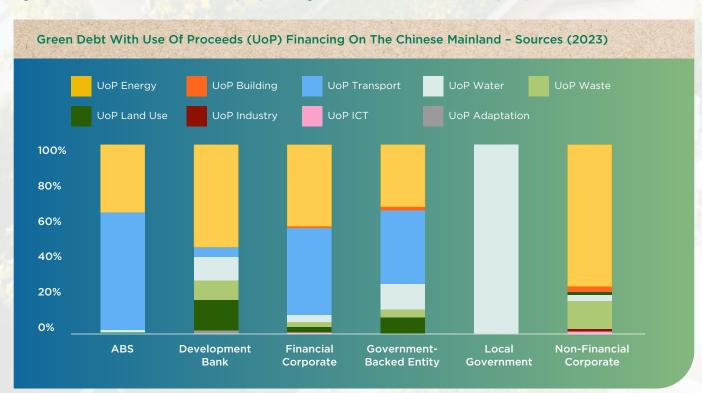


Figure 15: Green debt with Use of Proceeds (UoP) financing on the Chinese mainland - Sources (2023)

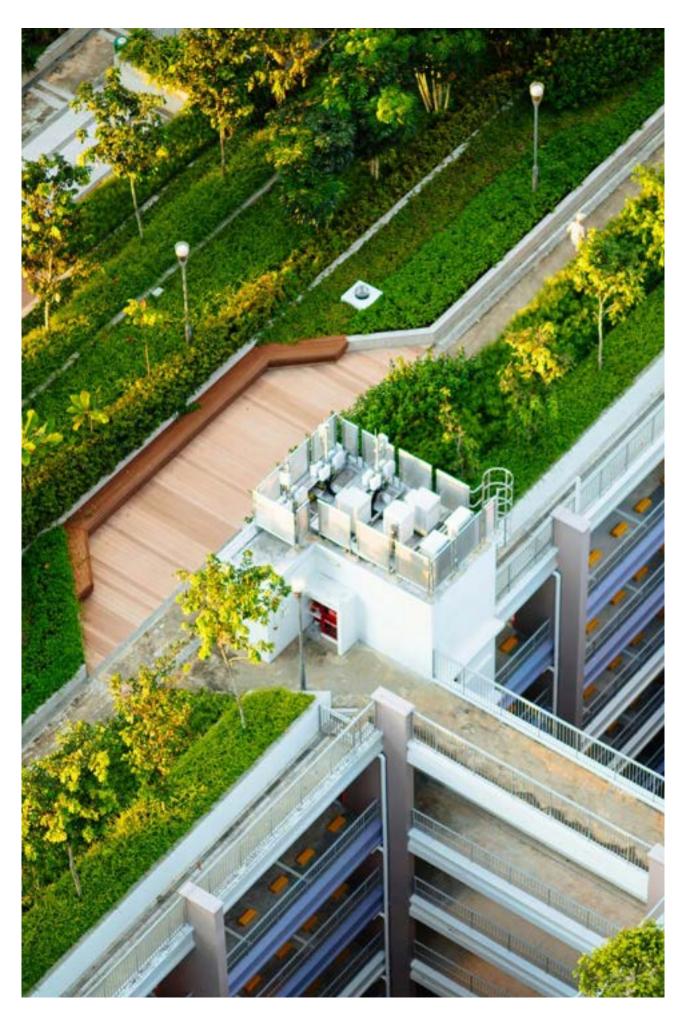
Source: Climate Bonds Initiative, Cushman & Wakefield Research

In addition, local governments offer subsidies and tax rebates for buildings that achieve Three-Star or LEED Gold certification. Pilot cities like Shenzhen, Chengdu, and Hangzhou have launched dedicated green building funds to support retrofitting and new construction.

This creates a virtuous cycle: buildings with strong sustainability credentials not only reduce operating risk and enhance tenant appeal but also enjoy lower cost of capital and stronger financial resilience. In an era of rising financing costs and scrutiny over real estate leverage, this differential is becoming more material.

The sustainability imperative is reshaping the commercial real estate landscape on the Chinese mainland. Far from being a cost centre, sustainable practices are now core to asset performance and strategic advantage. Buildings that embrace energy efficiency, improve tenant experience, and anticipate climate and regulatory risks are already seeing tangible financial and operational benefits.

As investor standards, government regulation, and tenant expectations continue to evolve, the ability to quantify and communicate sustainability impacts on real estate performance will be essential. For stakeholders across the value chain - developers, landlords, occupiers, financiers - sustainability is not just about doing good. It is about doing well by doing right.



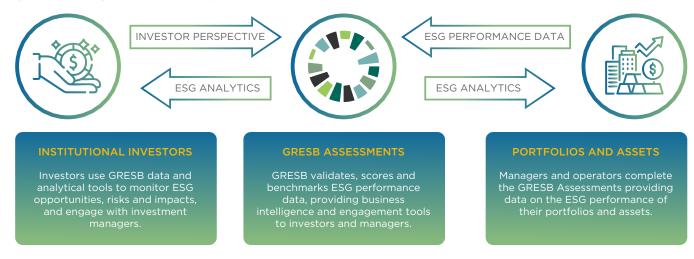


05 **GRESB**

Overview of GRESB and its Significance in the Commercial Real Estate Industry

GRESB is a leading global standard for evaluating the ESG performance of real assets, including commercial properties. Established in 2009, GRESB provides a rigorous framework for assessing sustainability practices across real estate portfolios, offering a consistent and comparable basis for investors and asset managers to evaluate ESG integration Figure 16).

Figure 16: Providing actionable and transparent ESG data to financial markets



Source: GRESB, Cushman & Wakefield Research

As referenced in earlier discussions about ESG reporting, GRESB's influence on the commercial real estate industry has grown significantly, becoming a key benchmark for sustainability, transparency and performance. It is widely used by institutional investors to assess the ESG credentials of property funds and listed real estate companies. By aligning with global reporting standards such as the TCFD, IFRS and the United Nations (UN) Sustainable Development Goals, GRESB enables market participants to identify ESG leaders, mitigate risks, and pursue opportunities that align with long-term value creation.

How GRESB Scores Influence Investment Decisions and Property Performance

GRESB scores are increasingly used by capital providers and investors to inform capital allocation decisions. A higher GRESB score often signals strong ESG management and operational efficiency, making assets or funds more attractive to responsible investors. Conversely, lower scores may signal potential risks, such as regulatory non-compliance or poor environmental performance, which can affect asset valuation and access to financing – building upon the green financing concepts discussed in previous sections (Figure 17).

Figure 17: GRESB Scoring – The Standing Investment Benchmark (Management and Performance) and the Development Benchmark (Management and Development)



Source: GRESB, Cushman & Wakefield Research

In addition to influencing investor decisions, GRESB participation can directly enhance property performance. The benchmarking process encourages continuous improvement in areas like energy and water efficiency, carbon reduction, tenant engagement, and health and wellbeing – all of which contribute to better occupancy rates, reduced operational costs, and stronger long-term returns, as evidenced in the Sustainability Factors section.

Trends and insights from recent GRESB reports

Recent GRESB reports highlight several notable trends shaping the commercial real estate sustainability landscape. Some of these trends include:

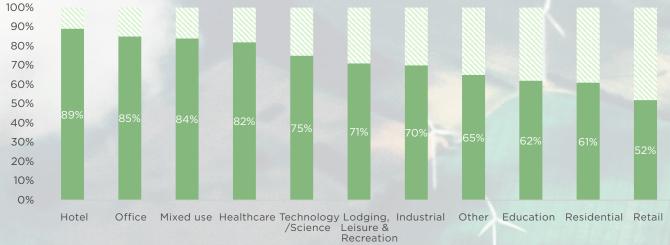
Rising Participation and Transparency:

A record number of entities participated in the 2025 GRESB Real Estate Assessment, reflecting the growing importance of ESG reporting and transparency in investment markets.

Decarbonisation Pathways:

An increasing number of property owners are committing to science-based targets and net-zero strategies. GRESB data shows improvements in energy use intensity and carbon emissions reduction across leading portfolios - aligning with the Chinese mainland's dual-carbon targets mentioned throughout this report (Figure 18).

Figure 18: Reported energy consumption percentage by property sector (Global averages) (2023)



GRESB's Carbon Footprint Dashboard fills in the gaps of your carbonfootprint using GRESB's Estimation Model

Source: GRESB, Cushman & Wakefield Research

Social and Governance Metrics:

There is growing attention to social impact and governance practices, with more firms reporting on diversity, equity, and inclusion (DEI), stakeholder engagement, and ESG risk management frameworks.

Asia-Pacific Momentum:

GRESB participation across the Asia-Pacific region, including the Chinese mainland, continues to rise, indicating a regional shift toward sustainability-led investment strategies that complements the market trends identified earlier.

GRESB's evolving benchmarks not only drive sectorwide accountability but also provide a strategic roadmap for commercial real estate stakeholders seeking to future-proof assets and unlock long-term value through sustainability.





06 **GRESB** - In a Little More **Detail - Quantifying** the Impact



Why GRESB?

As introduced in the previous GRESB overview section, GRESB scoring is a systematic way to evaluate and compare the sustainability performance of real estate entities. It was developed to simplify complex sustainability data, differentiate companies based on material performance, and provide the flexibility to evolve with changing industry standards.

Simplification is at the core of GRESB's approach. The GRESB Assessment collects data across roughly multiple indicators, each with multiple metrics and hundreds of data points. These cover a wide range of topics – from climate resilience and energy use to waste management and stakeholder engagement. To make this vast and varied information usable, GRESB aggregates the data into a single 0-100 score, along with sub-scores for specific categories. This process, known as data reduction, inevitably loses some detail, but makes the information interpretable and actionable for investors and managers. Without scoring, stakeholders would be overwhelmed by the sheer volume and diversity of raw data.

Scoring involves both art and science. The "art" lies in setting the goals and values that guide the assessment – such as identifying what matters most to sustainability performance and investment risk. This includes determining how much weight to give each indicator, a process governed by the GRESB Foundation and its Standards Committee. The "science" involves selecting appropriate metrics, defining measurement methods, and using statistical techniques to combine data accurately and fairly. Together, this art and science make it possible to produce meaningful summaries of sustainability performance.

Differentiation is another essential function of scoring. Just like a student's final grade reflects their overall performance in various assignments, a GRESB Score reflects how well an organisation manages sustainability across different aspects. A high score (e.g., 90) represents robust policies, strong data coverage, and evidence of improvement over time. A low score (e.g., 10) highlights significant gaps. Importantly, independent research shows a positive correlation between higher GRESB scores and better financial returns, reinforcing the relevance of these scores to investment decision-making. While large score differences are meaningful, smaller ones (1–5 points) may not be.

Flexibility is a third key strength of the GRESB scoring system. As sustainability practices, technologies, and expectations evolve, GRESB updates its metrics to stay relevant. For example, how renewable energy or climate risk is assessed may change over time, but the overall scoring framework remains stable. This allows comparability across years while accommodating innovation and regulatory shifts. Additionally, while GRESB provides standard weights for consistency, users can also apply custom weights to reflect their own values and priorities, enabling personalised analysis without losing the underlying structure.

GRESB scoring provides a practical, credible, and evolving framework for assessing sustainability in real estate. It simplifies complex data, meaningfully differentiates performance, and offers the flexibility needed to stay relevant in a fast-changing world. Though not perfect, GRESB scores are a valuable tool for aligning sustainability performance with investment insights.

The Value Beyond

While it is best known for its annual scores, the GRESB system does much more - it structures and validates complex sustainability data, facilitates secure and consistent data collection, and supports effective reporting and benchmarking.

At the heart of the GRESB process are its performance metrics and indicators, which form the raw material for scoring and reporting (Figure 19). These metrics span ESG topics such as energy and water use, greenhouse gas emissions, waste management, governance structures, risk management, and stakeholder engagement. The use of clearly defined and publicly available indicators helps establish common ground for sustainability performance measurement across diverse asset types and regions.

Key Dates for GRESB Reporting - 2025

April 1st July 1st September 1st October 1st Final results Submission Preliminary Assessment deadline release portal opens Results

Source: GRESB, Cushman & Wakefield Research

Figure 19: GRESB reporting and dates (2025)

A key innovation in the GRESB system is the use of technology to enable systematic data collection. For organisations managing large or complex real estate portfolios, traditional data gathering via spreadsheets and emails is inefficient and error prone. GRESB's platform allows users to enter data into a centralised, secure interface that simplifies the process, improves data consistency, and enforces access and security controls. This digital infrastructure supports greater accuracy and accountability across reporting organisations.

(for participants only)

Validation and correction processes are central to ensuring high data quality. Sustainability data is inherently complex, and variations in definitions, interpretations, and reporting methods can lead to errors. GRESB runs a detailed validation process each year that flags thousands of mistakes, omissions, or inconsistencies. Participants are given opportunities to correct these issues, leading to more complete and accurate submissions. Although not flawless, this process significantly improves the credibility of the resulting data and insights.

Once validated, the data is processed and returned to participants and investors through benchmarking and reporting tools. The annual Benchmark Report provides a comprehensive overview of an organisation's performance compared to its peers. Meanwhile, tools like the GRESB Data Exporter allow for detailed data downloads - facilitating customised analysis, portfolio reviews, and internal reporting. The challenge of consolidating complex, multi-layered information into usable formats is met by technology that organises and flattens data for practical application.

While the scoring system simplifies performance into a 0-100 scale, GRESB acknowledges that real-world sustainability is nuanced. The score aggregates performance across environmental, social, and governance pillars, with sub-scores offering more detailed insight. Importantly,



GRESB scores are not static - they are updated annually to reflect evolving industry best practices and stakeholder priorities. This ensures the benchmark remains relevant and aligned with global ESG trends.

Perhaps most significantly, the GRESB process adds value beyond the score. It helps organisations and investors speak a common ESG language, improves transparency, and supports better decision-making. Research has shown that higher GRESB scores often correlate with stronger risk-adjusted financial returns, reinforcing the business case for sustainability.

GRESB provides a comprehensive, technology-enabled system to measure, validate, and benchmark sustainability performance. It offers a common standard, enhances data quality, and delivers actionable insights – ultimately helping the real estate industry improve ESG outcomes and align with responsible investment principles.

GRESB's Worth

A key strength of GRESB is its flexibility. As sustainability practices evolve – such as increased focus on embodied carbon or new energy procurement methods – GRESB can update indicators without overhauling the entire scoring system. This structure ensures long-term comparability while adapting to changing industry norms. Additionally, while GRESB applies standard weights to indicators, it allows for potential customisation, enabling different stakeholders to apply their own value frameworks using the same base data.

Beyond scoring, GRESB delivers value through its reporting infrastructure (Scoring Figures). Its platform enables centralised, secure data collection at scale, eliminating the inefficiencies of manual data sharing via emails and spreadsheets. GRESB also performs extensive data validation, identifying thousands of annual errors and omissions, which are corrected before final scoring. This improves data quality and ensures reliable benchmarking.

Finally, GRESB's annual Benchmark Reports and Data Exporter tools help users analyse, compare, and interpret performance across portfolios and peer groups. Looking ahead, GRESB aims to evolve its standards in line with emerging ESG themes and continue supporting academic and market research linking sustainability to investment outcomes.

In essence, GRESB simplifies, differentiates, and evolves ESG assessment – providing investors with actionable insights grounded in credible, structured data.



07 **GRESB** - Case Study -Sustainability in Action

China Central Place's GRESB Integration to Benchmark and Enhance ESG Performance

The real estate sector on the Chinese mainland has increasingly focused on ESG metrics as a way to measure and improve sustainability practices. China Central Place in Beijing stands as a prime example of how integrating GRESB can result in remarkable improvements in ESG performance. Through its strategic use of GRESB criteria, China Central Place has enhanced the sustainability of its landmark urban complex, which includes three Grade A+ office buildings and a shopping centre podium. By continuously improving its ESG practices, China Central Place has effectively demonstrated its leadership in environmental responsibility and sustainable urban development.

Overview of the Subject Property

Entity: China Central Place, Beijing **Location:** Chaoyang District, Beijing

GRESB Participation: 2025 Real Estate Assessment GRESB Advisory Agency: Cushman & Wakefield

China Central Place, Beijing's participation in the GRESB 2025 assessment was pivotal in showcasing its sustainability performance. In its first year of participation, it achieved a "Five-Star Rating" – the highest GRESB rating – and was named the "Global Industry Leader" in the Mixed-Use Complex Category. China Central Place's outstanding performance was particularly notable in areas such as internal

management, performance, and mixed-use properties, securing top positions globally and regionally in these key categories. The recognition also included the Green Star designation, underscoring its commitment to sustainability.

This milestone was the latest in a series of accolades for China Central Place, which had already earned certifications such as LEED Platinum, as well as other green building, and carbon neutrality certifications. The GRESB results added to China Central Place's growing reputation as a leader in sustainable development, marking the tangible benefits of its long-term ESG strategy.

Systematic Practice: From Green Concepts to Tangible Results

China Central Place's ESG efforts began with a clear vision during the planning stages of its development, integrating the guiding principles of green, smart, and shared spaces. This vision materialised through continuous technological innovations and intelligent upgrades. A major component of this is the in-house Intelligent Operations Centre (IOC) platform, which leverages advanced technologies such as high-definition digital machine vision and sensor networks to monitor and manage critical environmental indicators, including water, electricity, and waste recycling.

The results of these initiatives are significant:

100% Green Electricity: As of 2024, China Central Place operates entirely on green electricity, sourcing over 40 million kWh annually.

Carbon Emission Reduction: These efforts have led to a reduction in carbon dioxide emissions by more than 24,000 tons, the equivalent of planting approximately 1.3 million trees.

These measurable and verifiable achievements are key factors that supported China Central Place's success in GRESB, reinforcing its position as an industry leader in sustainability.

Ecological Co-construction: From Corporate Responsibility to Industry Leadership

China Central Place, Beijing has gone beyond individual corporate efforts to foster a wider movement within the industry. By launching the China Central Place ESG Ecological Joint Action Initiative, it has transformed the concept of sustainable development from a corporate responsibility into a shared community goal. This initiative has seen active participation from over 80% of its tenants, including high-profile companies like Johnson & Johnson, Tesla, and Deutsche Bank, all of whom are involved in related sustainability activities.

China Central Place's leadership extends beyond its own operations and tenants. It is actively involved in shaping the future of sustainable development in the real estate sector, contributing to the creation of industry standards such as the Evaluation Criteria for Net-Zero Operations and Carbon Neutrality in Commercial Buildings. Moreover, China Central Place has made efforts to replicate its success in other locations, with projects underway in cities like Suzhou and Nanjing. These efforts serve as models for high-quality, sustainable urban development and reinforce China Central Place's commitment to industry-wide leadership in ESG practices.



08

GRESB

- In a Little More **Detail - Investor** and Stakeholder Perspectives on the Chinese mainland

As the Chinese mainland advances its carbon neutrality goals and deepens its commitment to green finance, institutional investors and key stakeholders are placing greater emphasis on ESG-aligned real estate investments. Within this evolving landscape, GRESB has gained increasing relevance as a standard for evaluating and comparing sustainability performance across real estate portfolios and assets across the region.

Institutional Investor Expectations Regarding Sustainability

Institutional investors operating on the Chinese mainland – including domestic asset managers, insurance companies, and global capital allocators – are progressively integrating ESG criteria into their investment mandates. The Chinese government's policy direction toward peak carbon by 2030 and carbon neutrality by 2060, as previously outlined in the Regulatory and Policy Drivers section, is influencing investor behaviour, with greater demand for transparency around environmental performance, energy use, and regulatory compliance. GRESB participation is seen as a signal of institutional quality and ESG readiness, especially among foreign investors assessing Chinese mainland-based funds and projects.

Role of GRESB in Investment Decision-Making

GRESB plays an increasingly strategic role in shaping investment decisions in the commercial real estate market on the Chinese mainland. As the ESG data landscape matures, GRESB assessments provide a consistent and credible benchmark to evaluate how assets and portfolios manage sustainability risks and opportunities. Many international investors use GRESB scores as part of their due diligence when deploying capital into Chinese real estate markets, particularly in gateway cities such as Shanghai, Beijing, and Shenzhen. For domestic firms seeking to attract cross-border capital, a strong GRESB performance can enhance credibility and support capital raising efforts, building upon the financial value proposition discussed in earlier sections.

Insights on Green Bonds, Sustainable Finance, and ESG-Driven Strategies

The Chinese mainland is now the world's largest issuer of green bonds, with real estate and infrastructure projects accounting for a growing share of issuance. The integration of GRESBaligned key performance indicators (KPIs) into green bonds and sustainability-linked loans is gaining traction, particularly among developers and asset managers seeking to align financing terms with ESG outcomes. GRESB metrics - such as energy intensity reduction and tenant engagement - are increasingly referenced in sustainable finance frameworks. ESG-driven investment strategies on the Chinese mainland are further bolstered by national standards such as the Green Building Evaluation Label (GBEL) (Figure 20) and the China ESG disclosure guidelines, creating a dynamic interplay between global benchmarks like GRESB and local regulatory tools that was noted in previous policy discussions.

Figure 20: The Green Building Evaluation Label

The Green Building Evaluation Label (GBEL)

The GBEL is a green building certification programme that assesses projects based on six criterion:

- Land
- Energy;
- Water
- Resource/material efficiency
- Indoor environmental quality, and
- Operational management

The programme uses a three-star rating system, with Three-Stars being the uppermost attainable rating level, followed by Two-Stars and One-Star.

Source: Cushman & Wakefield Research



09 **GRESB** - In a Little More **Detail - Challenges** and Barriers

In adopting any sustainability real estate asset performance system, there are always challenges to face and GRESB is no exception.



Capital Expenditure and Payback Period Concerns

One of the most significant barriers to GRESB adoption and broader ESG implementation in commercial real estate is the financial outlay required for sustainability upgrades. Initiatives such as green building certifications, energy-efficient retrofits, and smart technologies often involve upfront capital investment. For many investors, developers and landlords, especially in cost-sensitive or low-rent submarkets, the uncertainty surrounding return on investment and lengthy payback periods can deter action. While

GRESB scoring rewards these long-term commitments, the near-term financial pressure can be a deterrent – particularly for smaller investors, developers and landlords with limited cash flow or access to green finance. Having said this, however, as noted throughout this report, ESG promotion within the real estate industry on the Chinese mainland is still front and centre and nearly all significant investors, developers and landlords in the region are pressing ahead with ESG implementation and achieving their set ESG goals.

Regulatory Inconsistencies Across Countries/ Regions

GRESB operates on a global framework, but regulatory landscapes vary significantly – country to country or region to region. Sustainability policies are evolving rapidly across the globe, yet enforcement and standards can still differ at the country/regional level. These inconsistencies complicate ESG strategy alignment for portfolios spanning multiple countries or regions. For investors, developers and landlords who operate a real estate portfolio at the global level, they

may struggle to implement a uniform sustainability programme that meets both local compliance requirements and GRESB's global benchmarks.

Moreover, the lack of standardised ESG reporting or green building codes country to country or region to region creates additional complexity in aligning with GRESB indicators, despite the progress noted earlier in Chinese mainland-specific policies.

Measurement and Reporting Difficulties

GRESB places strong emphasis on data transparency, third-party validation, and year-over-year performance tracking. However, reliable ESG data collection and reporting remains a persistent challenge in the commercial real estate sector in some countries or regions. In addition, many properties around the globe lack the digital infrastructure or metering capabilities to track energy, water, and waste metrics at the granular level required by GRESB. Additionally, inconsistencies in data formats, gaps in tenant-related consumption data, and difficulties in obtaining third-party certifications or audits can limit scoring potential in some countries or regions around the globe. The challenge is compounded for global portfolios that include older assets or those managed by multiple stakeholders, even as tools like GRESB's Data Exporter (mentioned in the Quantifying Impact section) aim to address these issues.

Looking Ahead

Despite these challenges, the value proposition of GRESB participation – including improved access to capital, stronger risk management, and enhanced asset performance as demonstrated in previous case studies – continues to drive adoption across the Chinese mainland and globally. As sustainability reporting standards mature and technologies for data collection improve, many of these barriers are expected to diminish over time, supporting the broader industry transition toward more sustainable real estate practices that aligns with the Chinese mainland's national carbon goals.



10

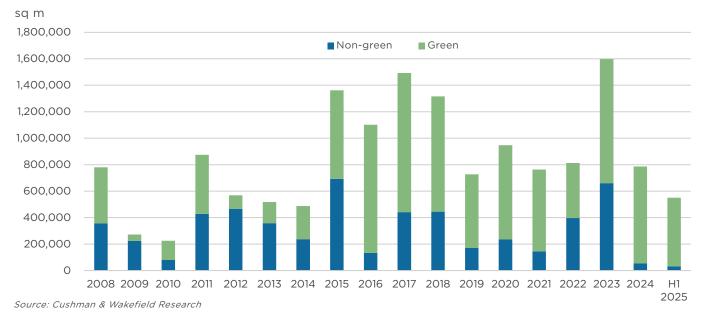
Sustainability and Real Estate Asset Performance -**Best Practices** and Strategic Recommendations

Enhancing asset performance through sustainability is no longer optional - it is a strategic imperative for investors, developers, and occupiers alike (Figure 21). The following best practices and strategic recommendations highlight how sustainability can be embedded into real estate operations to drive long-term value, reduce risks, and align with global ESG standards, building upon the market insights and case studies presented throughout this report.

Figure 21: Green buildings coming to the fore on the Chinese mainland in recent years

Shanghai Grade A Office Supply - Green and Non-green GFA (2008-H1 2025)

Over recent years, the majority of newly completed supply in the Shanghai Grade A office market has come with an associated green building standard certification.



Implement Sustainable Design and Retrofit Strategies

As demonstrated in the CITIC Capital and CR Land case studies, integrating sustainability into building design and retrofit programmes delivers measurable benefits in energy savings, tenant satisfaction, and asset valuation. New developments should be planned with sustainability in mind from the outset, leveraging certifications such as LEED, WELL, and the China Green Building Label to ensure high performance standards that align with the policy frameworks discussed in the Regulatory Drivers section.

Best practices include:

- Upgrading to energy-efficient HVAC and LED lighting systems;
- Installing water-saving fixtures (Figure 22) and improving thermal insulation;
- Using recycled or locally sourced materials during renovations, and;
- Adopting modular and adaptive design principles to support future flexibility.

Figure 22: Water consumption in commercial office buildings



These measures not only reduce operational costs but also enhance tenant comfort and contribute to higher occupancy rates, as evidenced in the Sustainability Factors analysis.

Source: Cushman & Wakefield Research

Leverage PropTech for Real-Time Energy **Management**

The use of PropTech solutions enables real-time monitoring and management of building performance, facilitating proactive decision-making. Smart building technologies - such as IoT-enabled sensors, cloudbased platforms, and Al-powered analytics - allow operators to optimise energy usage, reduce waste, and identify maintenance issues before they escalate, addressing several of the measurement challenges noted in the GRESB Barriers section.

Key strategies include:

- Deploying building management systems (BMS) (Figure 23) for centralised control;
- Implementing predictive analytics to forecast energy demand, and;
- Using digital twins to simulate building performance scenarios.

Figure 23: A simple BMS



Source: Cushman & Wakefield Research

Develop Comprehensive ESG Reporting Frameworks Using GRESB Metrics

As emphasised throughout the GRESB sections, transparent and standardised ESG reporting is essential for attracting responsible capital. GRESB provides a widely adopted framework for evaluating ESG performance, and aligning internal strategies with GRESB metrics enhances credibility while allowing for meaningful benchmarking.

Recommendations include:

- Aligning internal ESG KPIs with GRESB's key dimensions;
- Instituting robust data collection and validation processes;
- Integrating GRESB results into risk management frameworks, and;
- Using reporting outputs to communicate achievements.

Engage Stakeholders in Sustainable Initiatives

Sustainability requires collaboration across the value chain – from owners and managers to tenants, suppliers, and communities. Effective engagement can accelerate adoption and reinforce brand value, as shown in both the CITIC Capital and CR Land case examples.

Best practices include:

- Implementing green leases (Figure 24) with shared sustainability commitments;
- Partnering with ESG-aligned suppliers and vendors;
- Conducting regular tenant sustainability workshops, and:
- Publishing annual ESG impact reports.

Figure 24: Selected advantages of green leases for commercial building tenants



Source: Cushman & Wakefield Research

Implement a Roadmap

For market participants seeking to operationalise these recommendations, the following phased approach could be adopted:

Assessment Phase (Months 1-3):

- · Conduct portfolio-wide ESG gap analysis;
- Benchmark against GRESB standards and peer performance, and;
- Identify quick-win opportunities.

Planning Phase (Months 4-6):

- Develop tailored sustainability roadmaps for each asset class;
- Secure executive buy-in and allocate resources, and;
- Establish cross-functional implementation teams.

Execution Phase (Months 7-18):

- Prioritise high-impact retrofit projects;
- Deploy PropTech solutions across the portfolio, and;
- Initiate stakeholder engagement programmes.

Monitoring Phase (Ongoing):

- Track performance against GRESB indicators;
- Verify results through third-party audits, and;
- · Continuously refine strategies.

Conclusion

The business case for sustainable real estate on the Chinese mainland has never been stronger. By implementing these best practices – from strategic retrofits and technology adoption to comprehensive GRESB-aligned reporting – industry participants can future-proof their assets, meet evolving stakeholder expectations, and capitalise on the growing market preference for sustainable properties. As the regulatory environment continues to evolve and sustainability performance becomes increasingly tied to financial outcomes, these strategies will prove essential for maintaining competitiveness in the rapidly transforming real estate market on the Chinese mainland.



11 **Future Outlook**

The landscape of sustainable real estate is evolving rapidly, driven by a convergence of regulatory mandates, investor demands, technological advancements, and climate commitments. As sustainability becomes a defining pillar of asset value and performance, forward-thinking strategies will be critical to remaining competitive in a decarbonising world, building upon the market trends and case studies presented throughout this report.

Trends in Sustainable Development and Net-Zero Commitments

A growing number of governments, cities, and corporations have pledged to achieve net-zero emissions, setting a new benchmark for the real estate industry. This shift is reshaping both new development and asset management strategies, as evidenced by the policy developments discussed in the Regulatory Drivers section:

- Carbon neutrality is increasingly embedded in project lifecycles from design and construction to operations and eventual deconstruction;
- Embodied carbon is emerging as a key concern, prompting greater use of low-carbon materials (Figure 25) and life cycle assessments, and;
- On-site renewables, electrification of building systems, and deep retrofits are becoming standard pathways to achieving net-zero targets.

Figure 25: Selected building construction materials and advice on how to reduce embodied carbon



Source: Cushman & Wakefield Research

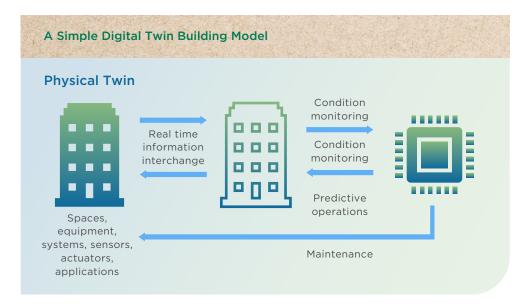
In the Chinese mainland, policies such as the national dual carbon goals and green building mandates are accelerating this transition, particularly in core Tier-1 and Tier-2 city markets where we've observed the strongest adoption of sustainable practices.

Role of AI, Data Analytics, and Digital Twins in Sustainability Management

Technology will play a transformative role in enabling smarter, faster, and more accurate sustainability decisions. As the volume and complexity of ESG data grows, real estate stakeholders are turning to advanced tools that build upon the PropTech solutions highlighted in our Best Practices recommendations:

- Al-powered analytics can identify inefficiencies, forecast performance trends, and recommend operational improvements;
- Digital twins (Figure 26) virtual replicas of physical assets allow real-time simulations to test sustainability scenarios, improve energy flows, and manage systems proactively, and;
- Automated ESG dashboards integrate data across portfolios, ensuring timely, transparent reporting and compliance with evolving standards.

Figure 26: A digital twin building model



These technologies support predictive, datadriven management while addressing many of the measurement challenges noted in the GRESB Barriers section.

Source: Cushman & Wakefield Research

Evolving GRESB Methodologies and Market Expectations

GRESB continues to refine its assessment frameworks to keep pace with market dynamics and stakeholder expectations. Future updates are expected to emphasise:

- · Greater alignment with global disclosure standards such as TCFD, the International Sustainability Standards Board (ISSB), and the EU Taxonomy (Figure 27);
- More rigorous verification processes to improve data quality and reduce greenwashing, and;
- Deeper focus on impact metrics, including carbon intensity, biodiversity, social value, and resilience.

Figure 27: In brief - The International Sustainability Standards Board (ISSB) and EU Taxonomy

The International Sustainability Standards Board (ISSB) and EU Taxonomy Explained

- Global baseline for sustainability-related disclosures
- Focus on investor-relevant ESG information, aligned with IFRS
- Initial standards: IFRS S1 (general) and S2 (climate-

- Defines technical screening criteria across key sectors
- Supports EU Green Deal and sustainable finance goals

Source: Cushman & Wakefield Research

* Note: The ISSB's IFRS S1 and S2 standards, effective from January 2024, establish a global baseline for sustainability-related disclosures: IFRS S1 sets out general sustainability reporting requirements, while IFRS S2 focuses specifically on climate-related risks and opportunities. Together, GRESB and the ISSB standards help align real estate sustainability reporting with broader investor expectations, enhancing transparency, comparability, and accountability.

As demonstrated in our case studies, investors are increasingly using GRESB scores not only as benchmarks, but also as tools for risk pricing and capital allocation. This evolution will require market participants to adopt a more integrated, forwardlooking approach to ESG management - where sustainability is embedded into strategy, culture, and financial planning.

The Path Forward for Chinese Mainland Real Estate

Looking ahead to 2026 and beyond, we anticipate several key developments that will shape sustainable real estate on the Chinese mainland:

Regulatory Acceleration:

- Stricter enforcement of building energy codes;
- Expansion of mandatory ESG disclosure requirements, and;
- New incentives for carbon-neutral developments.

Financial Innovation:

- · Growth of sustainability-linked financial products;
- More sophisticated green financing mechanisms, and;
- Increased integration of ESG factors into valuation models.

Market Differentiation:

- Widening performance gap between sustainable and conventional assets;
- Emergence of "brown discount" pricing for non-compliant properties, and;
- · Increased tenant preference for healthy, efficient workplaces.

Technological Integration:

- · Widespread adoption of smart building technologies;
- · Development of blockchain solutions for ESG data verification, and;
- Advanced modelling of climate physical risks.

The organisations that will thrive in this evolving landscape are those taking proactive steps today to align their portfolios with these emerging trends. By building upon the best practices outlined in this report and maintaining focus on long-term sustainability performance, real estate stakeholders can position themselves at the forefront of the green building revolution on the Chinese mainland while delivering superior risk-adjusted returns.



12 **Key Takeaways**

- Sustainability has become a central driver of performance, resilience, and value in commercial real estate across the Chinese mainland. Green buildings are increasingly linked to higher occupancy rates, rental premiums, operational cost savings, and stronger asset valuations.
- Regulatory momentum anchored by the Chinese mainland's dual-carbon goals

 combined with investor and occupier expectations, is accelerating ESG adoption.

 Green certifications, energy efficiency measures, and wellness-focused design are
 now competitive necessities, not optional enhancements.
- Benchmarks like GRESB provide a credible, standardised framework for measuring and improving ESG performance. Participation in such frameworks enhances transparency, supports access to green finance, and strengthens investor confidence.
- While challenges remain particularly around retrofit costs, data transparency, and regulatory inconsistencies market leaders are overcoming these barriers through targeted strategies, PropTech solutions, and stakeholder engagement.
- Ultimately, sustainability is not just about risk mitigation or regulatory compliance; it is a strategic differentiator. Real estate stakeholders who embed ESG into their core operations and investment decisions will be best positioned to unlock longterm value, attract responsible capital, and remain resilient in an evolving market landscape.

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Cushman & Wakefield is a Global Partner of GRESB.



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