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2024 ESG in real estate insights

Global perspectives on sustainability and climate

Introduction

Executive summary

As the real estate sector continues to grapple with the mounting pressures of climate change, social inequality, and corporate governance, the importance of environmental, social and governance (ESG) matters have never been more profound. Many real estate firms are planning energy efficiency retrofits to reduce their carbon footprint, but face challenges such as financial constraints, building limitations, and legal obligations. Real estate players must overcome these challenges and meet ESG demands to create competitive advantages throughout their entire value chain.

In this document you will find ten articles which can help real estate firms navigate the entire ESG landscape effectively to achieve results. We will cover:

Portfolio transformation – Looking at how to transform your real estate portfolio, in line with current and future sustainability requirements to maintain competitiveness and operational efficiency.

Regulation and risk – Navigating the complexities of ESG regulation and managing the associated risks. Learning that the economic benefits can outweigh the regulatory obligations.

Sustainable behaviors – Uncovering the global behaviors which are being adopted to help shape the future of businesses, cities, and communities. Looking at generative design tools which move us toward a sustainable and prosperous future.

Sustainable investments – Understanding how ESG factors are shaping investor intentions. Detailing how investors are increasingly focused on generating positive social and environmental impacts as well as financial return.

We hope you find this publication insightful, and we would be delighted to have a conversation with you about what these insights may mean for your organization.

Kind regards,

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Portfolio transformation

Amplifying real estate sustainability impact through generative design

Real estate developers are facing unprecedented pressure from stakeholders for moving the needle on sustainable development as buildings contribute to 42% of emissions, globally.[1] Investors are moving swiftly to decarbonize their portfolios. Tenants are demanding healthier and more sustainable spaces. And regulators are tightening the codes on buildings and emissions.

Approximately 64% of the buildings' emissions are from building operations and 36% are from embodied carbon.[2] By 2035, embodied carbon emissions could likely be over half of the emissions from the built environment.[3] Developers need to improve operational efficiency, optimize material usage, and minimize rework and waste. They also need to improve planning accuracy and be nimble to adapt with future changes in development plans, regulatory requirements, and environmental standards. Across the building lifecycle, design is a critical stage for enabling a more sustainable future and holds the greatest potential for emissions reduction and overall project savings.[4]

Urban planning and development faces multiple challenges

Modern urban development involves balancing a myriad of factors such as density, infrastructure, sustainability, and economic viability. Traditionally, the feasibility and design process has been manual and time consuming, especially with real estate developers and government authorities pursuing different goals and objectives.

Developers need to consider the quality of life for residents, including access to daylight, open spaces, and amenities. Developers, architects, and planners also need to collaborate and design urban neighborhoods that are not only efficient but also sustainable and equitable.

Generative design tools can help developers to amplify sustainability impact while achieving financial success

Today's generative design tools can integrate financial and utility models into the design process. This includes estimating energy use, waste management, and the potential for rooftop solar installations, ensuring that projects meet sustainability goals throughout their development. Generative design tools, augmented with advanced geospatial capabilities, offer a cutting-edge approach to key real estate development areas such as pre-emptive scenario planning, climate risk assessment, forecasting and innovation.

1. **Pre-emptive scenario planning:** Generative design tools can revolutionize pre-emptive scenario planning by enabling developers to visualize and evaluate multiple design scenarios efficiently. This allows developers to anticipate potential challenges and opportunities, making informed decisions that optimize for long-term success by balancing economic goals with environmental sustainability and quality-of-life improvements. For example, in a mixed-use development project, developers can simulate various configurations to pre-emptively address issues such as overcrowding, insufficient natural light, and inadequate recreational areas, ultimately creating more livable and sustainable urban environments.
2. **Climate risk assessment:** Climate change poses significant risks to real estate investments, from rising sea levels to increased frequency of extreme weather events. Developers can now analyze factors such as flood zones, heat islands, and wind patterns to understand the potential impacts of climate change on their projects. This proactive approach allows them to incorporate resilient design features, such as elevated

structures in flood-prone areas, green roofs to mitigate heat island effects and robust building materials to withstand severe weather. Additionally, these tools can provide ongoing estimates of energy use and sustainability metrics, ensuring that projects align with both local regulations and global environmental standards.

3. **Forecasting:** Accurate forecasting is crucial for the long-term viability of commercial real estate projects. Integrated financial and utility models can enable precise forecasting of costs and resource needs. By simulating various design scenarios, developers can predict financial outcomes, including construction costs, operational expenses and potential revenue streams. For instance, a developer planning a new office complex can forecast the financial impact of different design choices, such as the inclusion of energy-efficient systems or renewable energy sources. These forecasts help developers create economically viable projects that also meet sustainability goals, reducing the risk of unforeseen expenses and ensuring a strong return on investment.

4. **Innovation in design and development:** By leveraging machine learning and geospatial analysis, today's generative design tools encourage creative and innovative design solutions that balance aesthetic appeal with functional efficiency. Developers can evaluate a wide range of design options quickly, empowering them to experiment with unconventional ideas and optimize for both performance and sustainability.

The time to act is NOW!

As the real estate industry continues to navigate the complexities of the 21st century, generative design tools are indispensable for shaping a sustainable and prosperous future. By enabling pre-emptive scenario planning, comprehensive climate risk assessment, accurate forecasting, and fostering innovation, developers can create resilient, sustainable and economically viable urban developments. With time running out to meet energy-efficiency, decarbonization, and greenhouse gas emissions-reduction goals, real estate companies must act now to implement net-zero standards by leveraging generative design.

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Business solutions spread from real estate ESG certifications: Japan's thriving trend in solving ESG issues/strengthening business by acquiring real estate ESG certifications

Introduction:

In recent years, there has been a growing trend of foreign companies choosing to move their bases to Japan due to several factors: notably, geopolitical risks, rising labor costs overseas, and the ongoing depreciation of the yen. Foreign/global companies relocating to Japan seek real estate certification with high-level environment, social and governance (ESG) targets, not only at offices but also at production sites.

Starting the end of March 2023, Japanese government required approximately 4,000 listed companies in Japan (including foreign companies listed in Japan) to disclose non-financial information at the end of the fiscal year. Non-financial information contains a variety of information and covers a wide variety of environmental, social and governance aspects. Companies need to respond to this need not by just formality but by considering why sustainability is important to their business and what they should disclose based on their strategy. They also need to respond to the constantly evolving sustainability disclosure rules and standards: such as International Sustainability Standards Board (ISSB), the European Commission's Corporate Sustainability Reporting Directive (CSRD), and a climate disclosure proposal by the United States Securities and Exchange Commission (SEC).

ESG integration in the realm of real estate is relevant not only to the real estate and construction industries, but also to companies that possess their own office buildings, production sites, and raw material procurement points. As such, ESG awareness in the context of real estate is an extremely important part of any industry. Various companies alike need to properly address non-financial disclosure requirements for real estate.

The importance of real estate ESG certification is related to economic advantages such as improved asset value and higher rents. In fact, several studies have confirmed that obtaining real estate ESG certification has these advantages.[1] This move shows the importance of ESG in the real estate sector and the trend is steadily making progresses. A related survey is underway in Japan, and ESG real estate certification is becoming established as the de facto standard for real estate quality and economic superiority.[2] Thus, ESG-friendly property ownership provides direct value to companies that handle real estate.

The dominant real estate ESG certifications in the world, such as BREEAM and LEED, have already exist in a few decades, and they have their reasons to be in the mainstream even in this fast-changing era. First, they have considered the real estate process as the Life Cycle Assessment idea from the beginning, which fits to the mounting interests in the embodied carbon considerations and nature-positive mindsets. Second, the emphasis on human health and welfare are paid more attention in business recently and these certifications have considered the human well-being consistently with other concerns. Last but not the least, their governance framework aligns the growing trend in the recent project management: namely, iterative process and interdisciplinary collaborations.

Many a man has known that these real estate ESG certifications are already de facto standard for the quality of the real estate in most of the countries. Therefore, people might wonder why on earth Japan is now magnifying on this. There are some explanations for Japan's uniqueness. First, Japanese building have taken care of extra concerns on other quality standards than ESGs, due to the country's disaster-prone nature: frequent earthquakes and tsunamis, flooding, and heavy snows in some areas. Second, there have been several domestic real estate ESG certifications which are dominant, as the country that the real estate business is mainly domestic industry: CASBEE[3], DBJ Green Building[4], and BELS[5].

Deloitte Tohmatsu Group has a long-standing experience and knowledge on selecting appropriate real estate ESG certifications, whether domestic or international, as a part of the clients' business strategies. We are ready to support the client to acquire as well as renew the target certifications in response to their needs. We treasure the following three features in advisory services. To permeate ESG concepts internally and externally through the maintenance of certification is the first strategy our team can provide. To seize the control of the eco-labels specified in these certifications in order to create the de facto standardization and regulation in their strength areas within the industry is other strategic way. Moreover, our team can assist clients by effectively use the certifications to form a robust sustainability brand.

Consequently, in Japan, the era of strategic use of Real Estate ESG certifications has just begun, and the areas teem with tremendous potential.

Table 1: Outline of the advisory menu on the real estate ESG certifications by Deloitte Tohmatsu Group

Advisory Menu		(1) Establishment of ESG concepts both inside and outside the company by maintaining certification	(2) Business development using standard/regulation formation	(3) Building a sustainability brand by using certification
Outline		Thorough enforcement on ESG activities for each and every employee with correct ESG values and disseminating information outside the company	Support clients for expanding their ESG-related areas of strengths and winning de facto standards and regulations within the client's industry	Building a robust sustainability brand by strategically obtaining certifications that are highly recognized worldwide
Examples		Various general constructors that have the certified buildings as their HQs	TOTO's advisory to USEPA on "WaterSense" Eco label	Tokyo Group's LEED ND developments
Division of roles	Client	Identification of the department in charge of the organization	Recognition of their strengths in the target certification	Recognition of their strengths/ brand image
	Client	Building a collaborative structure within the company	Building a collaborative structure within the company	Building a collaborative structure within the company
	Client	Acquisition of various types of ESG data	Acquisition of various types of ESG data	Acquisition of various types of ESG data
	Deloitte	Preparation of procedural documents for maintaining certification	Holding workshops to certify areas of strength, and supporting the operation of PMO within the organization	Holding internal workshops for recognition of areas of strengths and its brand image
	Deloitte	Support for building an internal organization (workshops, enlightenment seminars, etc.)	Selecting/setting up occasions for presentations at international conferences	Support for PMO operations within the organization
	Deloitte	Implementation of employee questionnaires required when maintaining various certifications	Lobbying for the central government and business organizations	Effective press release material preparation
	Deloitte	Proper dissemination of the mass media on the clients' efforts on ESG issues	Formulation of the activity materials	Choosing a method of promotion for client's brand image

Advisory Menu	(1) Establishment of ESG concepts both inside and outside the company by maintaining certification	(2) Business development using standard/regulation formation	(3) Building a sustainability brand by using certification
Deliverables	Documents to be submitted to the certification institutes	Presentation manuscripts at international conferences	Brand concept manuscript
	Questionnaire results and analysis documents	Presentation manuscripts at lobbying activities	Domestic marketing support
	Textbook for employee's awareness workshops	Formulation of materials for publications on the web	International marketing methodology guidebook

See figure 1 for iteration process as shown in LEED® and figure 2 for multidisciplinary as shown in LEED®.

Figure 1: Iteration process as shown in LEED®

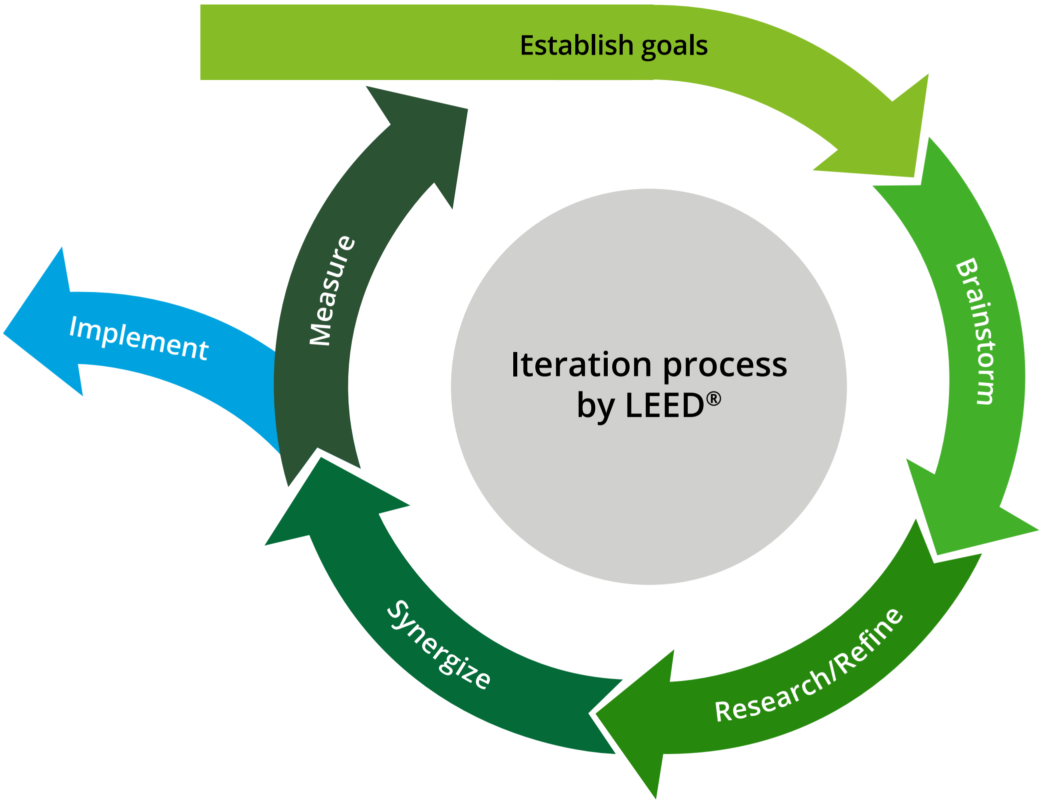

Figure 2: Multidisciplinary as shown in LEED®

Reference: USGBC®

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4. Abbr. Development Bank of Japan Inc. ("DBJ") Green Building Certification
5. Abbr. Building-Housing Energy-efficiency Labeling System. ZEB (Zero Emission Building) certification is identified under BELS.

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Sustainable portfolio transformation

How do we transform our real estate portfolio to align it with the current and future sustainability requirements of the market?

The management teams of many companies worldwide face this question daily, and sometimes it is difficult to successfully deal with all the factors that are included within sustainability. There is, however, a roadmap being adopted by some of the most advanced players to achieve this.

Some key aspects that must be considered from the inception are the following: (i) we must consider not only the current needs but also the future needs, in the medium and long term, (ii) all the actions that are designed and implemented must be measurable and auditable, (iii) as it is not possible to satisfy the demands of all components of sustainability, we have to focus of the transformation of our real estate portfolio on the more relevant matters being decarbonization one of the key pillars in Real Estate.

Based on previous examples, a transformation process should follow these steps:

1. **Internal analysis:** Carry out an internal analysis of the current situation of your portfolio, self-criticize and be realistic with the state of your properties, know the current performance of your portfolio. This 'as-is' will serve as a baseline for the analysis of the future evolution of the project.
2. **External analysis:** Including regulations, peers and best-practices. This external analysis will allow you to have a clear picture of what good looks like in relation to the topic, allowing you to make the best decision in subsequent stages. In addition to the current and future regulatory requirements of the region where your portfolio is located, in this phase it is recommended to rely on organizations and standards that are international and independent, such as: United Nations (UN), Organization for Economic Cooperation and Development (OECD), International Energy Agency (IEA), World Economic Forum (WEF), Global Reporting Initiative (GRI), EU Taxonomy for sustainable activities from the European Commission, Greenhouse Gas Protocol, World Green Building Councils, British Research Establishment, among others.
3. **Strategy and action plan issuing:** Develop a corporate strategy, which includes action plans for each of the properties in your portfolio, outlining key workstreams to follow in order to transform them. These action plans must be realistic and executable, and will include a capital expenditure (CapEx) plan, a detailed calendar, key performance indicators (KPIs) for monitoring and the responsible party for each one of the tasks.
4. **Action plan execution:** In line with what was planned in the previous phase. It is expected that this phase will require years of work and must have an associated annual CapEx plan.
5. **Transformation:** Once the planned action plans have been executed, the sustainable portfolio transformation will have been successfully carried out! At this moment it will be necessary to define the new 'as-is' of the portfolio. Since the transformation process will have taken some years of work, it is likely that it will be necessary to start the portfolio transformation process again to adapt it to new requirements that may have risen and to guarantee its correct alignment with the market criteria that are relevant to our company.

In line with what is stated, the sustainable portfolio transformation process is a long and demanding journey, but completely necessary to be able to maintain company competitiveness and assets in the market, maximizing their value and liquidity, managing and minimizing risks related to sustainability, and increasing its resiliency. Hence, successfully allowing your company and its assets to remain competitive and operational.

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Regulation and risk

The management of transitional climate risks

In the context of environmental, social and governance (ESG) and sustainability in the real estate industry, a major focus is currently placed on the energy performance of properties and their respective carbon dioxide (CO2) balances. This often happens because of regulatory mechanisms such as the EU Energy Performance of Buildings Directive (EPBD) or CO2-pricing, as well as changing demand patterns, particularly in the office sector.

What many market participants may not be aware of is that these regulations and market changes should be explicitly captured and analyzed as climate risks in a systematic climate risk analysis. These risks are known as transitional climate risks. Transitional climate risks are risks resulting from the transition to a more sustainable economy. These risks do not arise from direct physical impacts of climate change (physical climate risks), but from the societal, political, technological, or economic changes stemming from efforts to fight climate change. Physical climate risks directly affect the structure and operation of properties, including acute risks from weather events such as storms or floods, as well as chronic ones that manifest, for example, in long-term and permanent changes in rainfall patterns or number of heat days per year.

On the contrary, transitional climate risks include:

1. **Regulatory risks:** New environmental laws and regulations may require investments in 'greener' technologies and building materials. Stricter emissions regulations may require older, energy-inefficient buildings to be modernized.
2. **Market risks:** Demand for energy-efficient buildings and those with a small CO2 footprint is increasing. Properties that do not meet these requirements will lose market value.
3. **Technological risks:** The development of new, sustainable building technologies could require the modernization of existing properties. For example, buildings without modern heating and cooling systems based on renewable energy could lose competitiveness.
4. **Reputational risks:** Real estate companies that do not take sufficient measures to reduce their environmental footprint could lose prestige. Investors and tenants could migrate to more sustainable competitors.

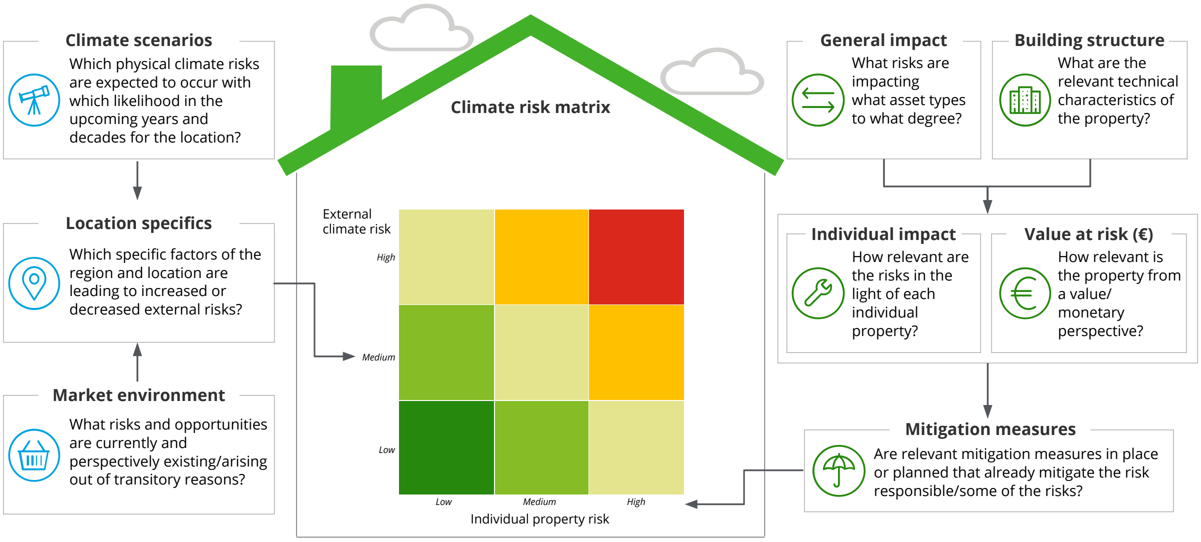
The economic relevance of these transitional risks should be indisputable. Nevertheless, many investors and investment managers deal with individual points in isolation, such as a specific regulation, like the national legislation on the rentability of non-sustainable offices in the Netherlands or residential properties with a poor energy efficiency grade in France. This approach tends to react to individual risks as they arise, rather than acting proactively and strategically.

Strategic management of transitional climate risks as a competitive advantage

The more complex the portfolio (in terms of usage types, regions, and tenant structures), the more challenging the systematic management of physical and transitional climate risks gets. However, a concrete analysis of the physical and transitional risks and opportunities will be required for most companies in the future due to the requirements of the Corporate Sustainability Reporting Directive (CSRD – required in the 'climate change' standard ESRS E1).

Companies should not see this analysis as a burdensome documentary obligation but should use it to align their portfolios to gain competitive advantage in the future. Figure 1 shows a simplified representation of the interplay between external (physical and transitional) climate risks and the individual portfolio. Specifically, the risks relevant to the portfolio must be identified and assessed according to regions and types of use, so that their relevance can then be validated on an individual object level. Ultimately, relevant adaptation measures (e.g., construction measures, insurance strategies or even divestments) and time points are derived. This analysis is also essential for positioning the future acquisition strategy on economically sustainable feet.

Figure 1: Simplified illustration of a climate risk matrix for real estate portfolios



While there are various professional providers for physical climate risks that evaluate the portfolio against the 28 climate risks defined in the EU taxonomy, this task is often more difficult for transitional risks. In the first step, existing and already announced regulatory interventions should be recorded at continental, national, federal and sometimes even municipal level, and evaluated for relevance. It is important to look at the potential impact of regulations that have been announced but are not yet in force, to avoid slipping back into short-term problem-solving instead of a long-term strategic perspective. Other risks such as rental and marketing risks, as well as opportunities for optimization through new technologies, should be continuously analyzed and evaluated by portfolio management. Thus, understanding the changing market requirements is crucial. Real estate companies should regularly conduct market analyses to become familiar with technological innovations and understand the preferences of tenants and investors. This often also includes the need for education of employees, who should regularly be trained in new requirements and sustainability issues to ensure understanding within the company at an operational level.

Conclusion: Economic benefits outweigh regulatory obligations

Companies of all kinds - but particularly real estate companies - should familiarize themselves with their portfolio climate risks from a financial self-interest perspective and implement strategic decisions based on them. Transitional climate risks pose a complex challenge but are essential to ensuring a realistic risk profile of their investments in the medium to long term and thus also the stability of the investors' returns. Therefore, climate risk analysis should not be 'checked off' as a regulatory obligation, but rather should be established as a key planning, steering and controlling element within the portfolio and risk management.

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Unravelling the CSRD: Navigating sustainability challenges and opportunities in the real estate sector

The EU's Corporate Sustainability Reporting Directive (CSRD), introduced to enhance transparency on sustainability efforts, is set to leave a lasting impact on the real estate sector. This article delves into key implications, highlighting challenges and opportunities for organisations operating within this dynamic field.

The impact of CSRD on real estate

The real estate industry holds the power to both negatively and positively impact the environment and communities with which it interacts. From the generation of greenhouse gas emissions by buildings, to the resource consumption during construction – numerous sustainability aspects need to be addressed.[1]

Organisations will need to scope which entities and structures meet the threshold requirements in line with CSRD. These entities are obliged to include sustainability information in their management report.

Undertakings should consider that the reporting deadline is swiftly approaching, with different timelines based on company size, turnover, and balance sheet. Large EU public interest entities are required to start reporting in 2025 for the 2024 financial year, followed by large EU undertakings in 2026 for the 2025 financial year, EU Small and Medium Enterprises (SMEs) in 2027 for the financial year 2026, and non-EU parent companies in 2029 for the 2028 financial year.

These companies must assess their status regarding significant ESG issues, establish ambitious and traceable goals, map their value chain, engage with both internal and external stakeholders and gather all necessary data for reporting. Moreover, the information will require mandatory assurance to ensure accuracy and information reliability,[2] it is crucial for companies to begin the preparation in order to ensure a smooth and successful reporting process.

Key challenges and opportunities for CSRD implementation in the real estate field

The implementation of the CSRD in the real estate sector poses significant challenges that must be addressed to ensure compliant reporting. It is important to note that even parties not directly in scope, may still be indirectly affected, to provide sustainability related information to affect entities they interact with, such as subsidiaries, suppliers, or customers.

A significant addition brought by the Directive is the introduction of the Double Materiality Assessment (DMA). Organisations will need to evaluate and disclose not only disclose the impact on environment and society of their operations, but also the financial impact of social and environmental issues on their company balance sheet. This requires a robust consideration of risks, impacts and opportunities. For the real estate sector, topics can relate to pollution, climate change mitigation characteristics of buildings, biodiversity and ecosystem consideration during the construction phase, information on health and safety of workers in the construction sites, tenant wellbeing.

Real estate companies need to identify and map significant business relationships across their value chain for CSRD compliance. Challenges include the complexity of operations and determining the organisation's extent, both upstream and downstream. Overcoming these, requires investment in resources, stakeholder engagement, and integration of sustainability principles into core business phases like leasing or sale operations, and the management of properties.

Additionally, monitoring and collecting data for reporting on ESG indicators such as energy consumption and social impact demands robust data management systems. The data must also meet adequacy standards to undergo assurance processes. For this reason, it is crucial to develop solid processes and controls that ensure accuracy and reliability of the information used.

Another important aspect of the CSRD is the development of a transition plan for climate change mitigation, including the goal of limiting global warming to 1.5°C[3] and the consideration of biodiversity, ecosystems and principal adverse impacts in their strategy and business model. In particular, the real estate sector is currently responsible for 40% of the global CO2 emissions.[4] With increasing pressure from stakeholders and the public, developing a pragmatic transition plan is imperative in this sector.

CSRD mandates the inclusion of calculations to determine the extent to which the organisation contributes to sustainable activities that have been defined under a common directory, the EU Taxonomy. There is high potential to showcase efforts under this in the real estate sector, thus ultimately enhancing visibility for investments.

The CSRD compliance journey is not only characterized by impacts and risks, but also by opportunities for real estate companies. For instance, it provides a valuable opportunity for firms to leverage reliable and standardized data, establishing a common understanding, and supporting well-informed decisions. Firms that embrace the evolutions can actively pivot toward a green transformation, identifying key sustainability topics for stakeholders, setting clear objectives, and measure progress. Furthermore, compliance with these standards can foster transparency and efficiency for the organisation and direct investments toward efforts. Aligning with the Directive principle helps companies minimizing risk, build trust among stakeholders and gaining a competitive hedge in the market.

Conclusion

In conclusion, while the CSRD brings complexities, it also yields opportunities to enhance current practices. Conducting a thorough materiality assessment, clearly defining a value chain, and establishing a realistic transition plan are essential to a successful adoption in this sector.

Real estate companies can ensure long-term value creation and enhance their competitiveness through integrating ESG considerations into decisions, thus contributing to a more sustainable and resilient future.

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Sustainable behaviors

ESG in giga-cities: Navigating trends, challenges, and opportunities

Introduction to ESG and giga-cities

Environmental, social and governance (ESG) factors play a pivotal role in shaping the future of giga-cities, defined as cities with a population exceeding 10 million. Here, we explore the challenges and opportunities posed by ESG practices, highlighting their profound impact on the sustainability and liveability of these urban giants. We look at why ESG considerations are not only beneficial, but absolutely vital for the sustainable development of giga-cities for city planners, businesses, and residents alike.

ESG factors in giga-cities

For giga-cities, ESG factors represent both challenges and opportunities:

- From an environmental perspective, these include significant issues in water and waste management due to the daily consumption and waste generation of millions of residents. Efficient and sustainable solutions are needed for waste reduction, recycling, and water conservation. Air quality is also a major concern due to high levels of traffic and industrial activity, which affect resident health and city liveability. Additionally, energy efficiency is crucial as these cities consume large amounts of energy, necessitating the promotion of renewable energy sources.
- From a governance perspective, the scale and complexity of giga-cities demand effective, transparent, and accountable leadership. Leaders must be able to make decisions that balance the diverse needs and interests of millions of residents, businesses, and other stakeholders. They must also be accountable for these decisions, providing transparency to ensure trust and confidence in their leadership.
- Whilst environmental and governance aspects are often highlighted in ESG discussions, the social component is equally critical. Giga-cities face significant challenges in providing affordable housing, quality education, and health care, and in addressing social inequality. These issues are not just about fairness but are vital for creating inclusive, equitable, and sustainable giga-cities. By addressing these issues, giga-cities can enhance residents' quality of life and ensure long-term sustainability.

> "The importance of ESG factors in shaping the future of our cities cannot be overstated."
>
> **Daniel Gribbin**, Director and ESG Lead, Deloitte Middle East

Such ESG factors can significantly influence the sustainability and liveability of giga-cities. High ESG standards can improve the quality of life for residents, attract investment, and enhance the city's reputation. Conversely, poor ESG performance can lead to environmental degradation, social unrest, and governance crises.

> "Implementing ESG practices is not without challenges, but the potential benefits make it a worthwhile pursuit."
>
> **Laura Jepson**, Partner, Deloitte Middle East

Challenges of implementing ESG practices in giga-cities

Implementing ESG practices in giga-cities is a complex task due to their vast scale and diverse stakeholders. The large population and physical size can make uniform changes challenging, while the variety of stakeholders, including residents, businesses, non-profits, and government entities, can complicate decision-making processes.

Despite these hurdles, the potential benefits make ESG practices crucial for giga-cities. High ESG standards can enhance residents' quality of life, attract businesses and investors, and enhance the city's resilience and sustainability. The focus should be on how to implement ESG practices most effectively, given these challenges and opportunities.

"Implementing ESG practices in giga-cities presents unique challenges due to their scale and complexity. However, these hurdles are not insurmountable and the rewards for overcoming them are considerable."
Mark Alan Smith,
Senior, Deloitte Middle East

Recent trends in regulations and standards

Across the globe, we are witnessing a rapid evolution of regulations and standards relating to ESG. Policymakers are not just acknowledging but actively emphasising the importance of ESG factors in ensuring sustainable development. This increasing recognition is driving a shift in policy-making, with a clear focus on creating regulatory environments that promote sustainable practices and mitigate environmental impact.

Global regulations and standards related to ESG are rapidly evolving, with policymakers actively emphasising their importance for sustainable development. Initiatives such as the European Union's Green Deal[1] and the United Nations' Sustainable Development Goals[2] are influencing the regulatory landscape for giga-cities. These cities are at the forefront of sustainability efforts, implementing initiatives like the 'smart city' concept, green building standards, and public-private partnerships. Technological solutions such as the internet of things, artificial intelligence, and blockchain are also being used to enhance urban services, analyse data, and create efficient and transparent systems, contributing to the evolution of ESG standards and practices in giga-cities.

What about the 'S' in ESG?

In the landscape of ESG considerations within giga-cities, while environmental and governance factors often take the spotlight, the 'S' (social aspects), hold a quieter but equally vital role. Social factors include a spectrum of issues from community well-being and inclusivity to labour standards, workplace safety and human rights. These elements are crucial in shaping the fabric of urban life, influencing how residents interact with their surroundings and how businesses operate within the cityscape.

Understanding these social dynamics is key to shaping the fabric of urban life where residents thrive, and businesses flourish responsibly. By delving into the 'S' in ESG, we uncover opportunities to forge stronger, more cohesive cities that prioritise people alongside planet and profit. This holistic approach not only enhances urban resilience but also sets the stage for sustainable growth and equitable development in our rapidly evolving urban landscapes.

Conclusion

In conclusion, ESG factors play a crucial role in shaping the future of giga-cities. While there are challenges in implementing ESG practices, the potential benefits in terms of improved quality of life, increased investment, and enhanced reputation make it an essential consideration for policymakers, businesses, and residents.

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Green leases are coming of age

Introduction

The growing adoption, of so-called 'green lease' clauses is seen as an integral means of driving sustainable behaviours, enabling data exchange and supporting the delivery of stated environmental, social and governance (ESG) ambitions and commitments. However, inevitably evolution in lease obligations requires careful navigation to achieve the desired outcome and support financial performance.

This article explores the adoption of green lease clauses, how they are influenced by legislation and the key implementation considerations.

Concept of green leases: Promoting ESG in lease agreements

Green leases are lease agreements that incorporate obligations specifically focused on sustainability. The purpose is perhaps self-evident - to legally bind a shared commitment between landlord and tenant to adopt and uphold specific and stated sustainable practices throughout the life of the lease.

The concept of green leases has been gaining traction for many years. Ten years ago, green leases predominantly focused on energy efficiency and waste reduction metrics. More recently, they have diversified to incorporate a much wider array of climate-related topics including data sharing, social impact and circular economy.

The UK-based Better Building Partnership (BBP) launched a responsible property management toolkit in June 2021, which proved a catalyst for embedding sustainability practices and has culminated in their subsequent introduction of a Green Lease Toolkit (in 2024) to further stimulate practical adoption. The online tool is an enabler, that outlines 10 areas which the BBP would expect to see covered in a lease to define it as 'green', with a dynamic approach as some variations are categorised as 'light', 'medium' and 'dark' green to accommodate users depending on their ESG maturity.

Figure 1, adopted from the BBP Green Lease Toolkit, illustrates how to incorporate 'recycling of waste', as an example, into a lease, with the considerations based on the tenant's ESG maturity level.

Figure 1. Adopted from the BBP Green Lease Toolkit[1]

Light green clause

Gearing up for your green lease journey

The landlord and tenant in respect of waste they produce must use reasonable endeavors to:

a. Minimise the amount of waste which is sent to landfill;
b. salvage as much waste as reasonably practicable; and
c. provide or procure (as the landlord) an appropriate waste segregation system and (as the tenant) ensure that waste is segregated in accordance with the system.

Medium green clause

Accelerating your green lease journey

Clauses identified in **a - c** including:

d. Work together using the data captured and shared under clause [c] to reduce the amount of waste that is sent to landfill and increase the amount of waste that is salvaged;
e. deal with waste in accordance with any waste policy in place; and
f. provide or procure (as the landlord) an appropriate waste segregation system which maximises the amount of waste that can be salvaged and (as the tenant) ensure the waste is segregated in accordance with the waste segregation system.

Dark green clause

Driving transformation with your green lease journey

a. The landlord and the tenant acknowledge their joint goal to achieve the waste salvage target.
b. The landlord must at all times maintain a waste policy and must make a copy of the waste policy available to the tenant each time it is updated.
c. The landlord and tenant in respect of waste they produce must use reasonable endeavors to:
   i. minimise the amount of waste sent to landfill;
   ii. salvage as much waste as reasonably practicable;
   iii. achieve the salvage target;
   iv. capture and promptly share with each other data relating to the amount of waste which is removed from the building, the amount of waste which is salvaged and the amount of waste which is sent to landfill;
   v. work together using the data captured and shared under clause c (iv) to reduce the amount of waste that is sent to landfill and increase the amount of waste that is salvaged;
   vi. deal with all waste in accordance with the waste policy; and
   vii. provide or procure (as the landlord) an appropriate waste segregation system which maximises the amount of waste that can be salvaged (which must as a minimum include the segregation of food waste, paper/cardboard glass and plastic) and (as the tenant} ensure that waste is segregated in accordance with the waste segregation system.

Market adoption

According to a report, globally, 34% of occupiers have already implemented green leases, while a further 40% plan to sign them by 2025. Investors, too, are acting, with 42% now having green lease clauses in place and an additional 37% looking to adopt them by 2025.

The Institute for Market Transformation (IMT) in the United States estimates that implementing green leases can help drive reductions in utility bills by up to 22%, or around 50 cents per square foot in US office buildings alone and if all leased office buildings had green leases, the US market could reap over US$3 billion in annual cost savings.[2]

Value impact

Whilst few stakeholders would question the laudable underlying intent and aspiration of green lease clauses, there is no escaping that any departure from conventional leasing norms and the imposition of additional obligations are typically seen as restrictive and onerous. In such cases it is normal to anticipate a negative impact on value, whether through discounted rental potential or heightened risk perception – as may be witnessed for example in the case of user or alienation restrictions. Arguably, the explosion in ESG-related legislation and regulation, coupled with the continued growth in reporting and disclosure obligations for all stakeholders, has enabled certain clauses to be viewed as 'enablers' and accordingly are overcoming this threat. Whether that be the UK's Minimum Energy Efficiency Standards regime, New York City's Local Law 97, Singapore's Carbon Pricing Act or the EU's Energy Performance of Buildings Directive, leases are evolving to at the very least accommodate such statutory obligations.

Implementation considerations for both landlord and tenant

In addition to aligning with ESG legislation, there are also many commercial considerations that need to be accounted for by both stakeholder groups, when considering the practicality of implementing green leases.

An important aspect is the availability and reliability of accurate data between the landlord and tenant. Due to the increased demand on emissions reporting, both parties must exchange utility data (such as energy, water, waste data) to ensure the utilities are monitored and measured. Therefore, enabling the evaluation of the building's ESG performance and alignment with the green lease. Sub-meters may need to be installed or data sharing pathways may need to be established.

The enforceability of green leases is becoming an increasingly important consideration. Stakeholders are seeking clarity on the legal enforceability of the clauses. The growing attention on enforceability reflects the need for clear and robust mechanisms to support the implementation and compliance of green leases.

Various court cases, including "Clipper Logistics Plc v Scottish Equitable Plc" in England, demonstrates how the courts approached the embedding of green lease terms during a renewal, and how to protect tenants against landlords who may attempt to offload sustainability liability.[3]

There is also a risk that green lease agreements may become viewed as onerous. A lease that typically contains more obligations may be perceived as burdensome, which, in turn could impact marketability and the attractiveness to potential tenants or investors. It is important to strike a balance to ensure the green lease clauses are within reason and aligned to industry standards. By demonstrating the benefits and value of sustainable practices, such as cost savings, improved environmental performance, and enhanced reputation, the marketability of green leases could be enhanced.

What's next for green leases?

Green lease clauses alone are not a panacea. As with any lease or contract negotiation, careful planning is required, and this is particularly critical in the adoption of green leases so that not just the positive ambitions are achieved but that they are done so in a way that also reinforces asset value resilience and financial performance.

How Deloitte are utilising green leasing in our occupied UK spaces

Elinor Huggett, Global Sustainability Leader – CoRe Real Estate

A challenge that we face as a global organisation is how to develop sustainability guidance that is both flexible enough to work across all our different geographies, and specific enough to drive meaningful change. This clearly involves constructively engaging with our landlords, particularly on topics relating to building performance. A key area of influence is our leasing agreements, but this is a complex and sometimes contentious area.

This is why we, Deloitte Global, have begun using the BBPs refreshed Green Lease Toolkit, as a framework and catalyst for sustainability conversations with our landlords. Our favourite things about the toolkit are:

- Flexibility: the inclusion of 'levels of green' and 'statements of intent' mean that although the legal drafting is designed for the United Kingdom, the intent can be applied globally.
- Clarity: the 10 'green lease essentials' should be included within any lease claiming to be green, but further topics are considered.
- Dynamism: the toolkit will be regularly updated to ensure it keeps pace with best practice and user needs.

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Leading by example: decarbonizing Deloitte's own offices

Buildings account for around 40% of global carbon emissions, and 80% of the buildings that will exist in 2050 already exist today.[1] Therefore, decarbonizing the built environment is an essential component of success in meeting the terms of the Paris Agreement.[2] As a global organization, with over 3 million square meters of office space, Deloitte must play its part in the net-zero transition. Our approach is aligned with industry best practice and commitments from the Science Based Targets Initiative, the Climate Group, and the World Green Building Council, and its key components are:

Eliminating fossil fuels

Deloitte is a signatory of the World Green Building Council's Net-Zero Building Commitment, meaning we are committed to occupy fossil fuel free buildings by 2030. Achieving this involves collaborating with our landlords to establish decarbonization plans for existing locations and including consideration of base build systems in the decision making relating to us taking new accommodation.

Embracing energy efficiency

As part of our science-based target, Deloitte is committed to reduce absolute scope 1 and 2 greenhouse gas emissions by 70% by 2030 against a 2019 baseline. In addition to our efforts to phase out fossil fuels (scope 1), we work closely with landlords and facilities management teams to reduce operational energy use. We have a suite of tools to embed energy efficiency, from fit out and briefing guidelines, through green lease clauses, to energy audit templates: these ensure energy efficiency is considered throughout the real estate lifecycle.

Powering with renewables

A second aspect of our science-based target is the transition to 100% renewable electricity by 2030. Alongside fossil fuel phase out and energy efficiency measures, this goal drives down our scope 2 emissions. Where we directly procure electricity, we strive to purchase the highest quality renewable electricity locally available, and where this falls within the landlord's remit, we work with them to embed a similar approach.

Reducing embodied carbon

The impact of our buildings extends beyond operational emissions, and by 2030 we also aim to significantly reduce the embodied carbon footprint of our real estate. Our internal tools include guidance on measurement and design strategies, prioritizing sustainable materials, and circular economy principles, and we evaluate the impact of design decisions through life cycle analysis on our major projects.

Collaborating with suppliers

A further component of our science-based target is a commitment to engage with 67% or our largest suppliers, by emissions, on development of their own decarbonization plans. In this way we are actively driving down our own supply chain emissions, as well as contributing to industry level decarbonization.

The strategy above is supported by internal subject matter experts, located in all different regions that Deloitte operates in. These teams develop and disseminate the internal tools and best practice guidance, upskill colleagues, collate global data, and actively participate in supplier engagement, project briefing, and real estate decision making, among many other things.

In the 2023 financial year Deloitte achieved a 79% reduction of scope 1 and 2 emissions in comparison to 2019, reduced its electricity consumption by 22% in comparison to 2019, procured 94% renewable electricity, and established multiple fossil fuel-free offices globally. These achievements, coupled with ongoing environmental performance audits, a growing portfolio of certified sustainable and healthy spaces, and a continuously educated workforce, solidify Deloitte's position as a leader in real estate sustainability.

Sydney office, Australia - 28,790m^2

For our new Sydney office, Deloitte Australia prioritized sustainability by choosing a deep retrofit of an existing building, avoiding the embodied carbon impact of a new construction. We considered a broad range of sustainability topics, leading to WELL, Green Star, and National Australian Built Environment Rating System certifications and ensuring the space benefits our people as well as the wider environment. The 'vertical villages' design has fostered a positive impact on our company culture by promoting connection and well-being. Breathtaking views, ample daylight, and stunning design all contribute to this positive effect. In technical terms, we have highly energy efficient systems, coupled with 100% renewable electricity supply. The smart, sensor linked building management system ensures performance is constantly being improved, as we settle into ways of working in our fabulous new space.

Deloitte University, Paris

The decision to build an entire new learning facility for the Deloitte EMEA region was not taken lightly, and of the many factors paramount to the project's success, sustainability was very high on the list. At the site selection phase, proximity to sustainable transport options was a key consideration, and sustainability was fundamental within design team briefing. The outcome is a really outstanding facility, with five separate sustainability certifications highlighting features including onsite renewable electricity production, use of the building as a materials bank, enhancement of local biodiversity, and a relentless commitment to visitor experience. The immediate response of everyone who has been lucky enough to visit so far has been 'wow' as they enter the natural light flooded welcome area. Here, they can touch down at one of the many seating options (all within the natural, healthy material palette of course), or perhaps head to the state of the art gym facility for a quick workout overlooking the lake (which is already home to a number of breeds of birds, as well as being part of the site's sustainable drainage systems), before enjoying a freshly cooked, healthy meal in the restaurant. What better way to set up our staff for success?

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Sustainable investments

ESG - A driving force behind investor intentions

Environmental, social, and governance (ESG) factors have gradually assumed a central role in shaping investors' intentions over the past few years, notably on what is 'shared value' and correct, sustainable, investment practices. This leads, through a correlated effect, to fund promoters shaping their asset management strategies, risk appetites and underwriting assumptions. Understanding how ESG has shaped investors' intentions is a proxy toward future expectations and understanding challenges deriving from a fluctuating market.

Investors' increased focus in generating positive social and/or environmental impacts alongside financial returns can be traced back to the launch of the United Nations Sustainable Development Goals and the United Nation's Climate Change Conference, COP21, both held in Paris in 2015, during which major commitments to reduce greenhouse gas emissions were made. Responding to their investees' expectations, many institutional investors, among which pension funds are well represented, have shown a commitment to incorporating ESG considerations into their investment decisions by becoming signatories to initiatives like the United Nations' Principles for Responsible Investment.

Since then, investors in the real estate market have increasingly reshaped their investment strategies and pushed for environmentally sustainable buildings that meet sustainability standards, resulting in the 'green building' trend. On top of the environmental impact, investments in such properties have proven to be a significant driver of returns as office life and urban habits changed accordingly. Not only limited to adapting buildings to a lower carbon imprint, but investors also look at affordability, inclusivity, and safety of the real estate assets in which they invest.

Asset managers have responded to this new demand from investors by developing innovative strategies aimed at meeting their investors' ESG considerations. These strategies range from the adoption of new rules, frameworks, and guidelines, to the employment of data and technology in setting key indicators and specific goals. Many investment funds have embraced comprehensive ESG integration into their investment structures and processes, incorporating ESG screening, in-depth ESG research, and active engagement with investees' on ESG topics.

Investors welcomed and actively relayed the European Union (EU) Action Plan on Financing Sustainable Growth, as it implied numerous regulatory adaptations including the EU taxonomy for sustainable activities and the implementation of the Sustainable Finance Disclosure Regulation (SFDR). Regulations welcomed and formalized the trend making it mandatory for funds to disclose their consideration of ESG factors in a more transparent manner, further exposing their potential impacts. However, if the SFDR has been designed to contribute to this objective by providing transparency to investors about the sustainability risks and the adverse impacts that such investments have on the environment and society, it seems that the market is expecting an improvement of the outcome of the SFDR classification and is willing to go beyond the pure labelling which is a good indicator of the involvement of the real estate industry in ESG matters.[1]

With the complement offered by the Corporate Sustainability Reporting Directive that ensures the transparency of the undertaking on their efforts to comply with the EU taxonomy and the upcoming Corporate Sustainability Due Diligence Directive that imposes companies to provide data and information on risks within their supply chain that are linked to human rights or environmental impacts, investors should have relevant information to assess their ESG risks, to develop their ESG investments and to verify whether their investments are aligned with their ESG strategy.

But we have only witnessed the beginning—reinforced by the new ESG regulatory framework, it can be expected that investors will go deeper in the monitoring of the impact investments, the ESG-risk management and compliance and will ask for an improved governance leading to more sustainable investment structures.

Looking ahead, with the combined effect of investors' appetite for ESG and sustainability performance, and the increase of the ESG regulatory framework, real estate market participants have a lot to gain from monitoring their exposure to changing regulations and keeping on adapting their ESG strategies and diligence programs.

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Building performance standards as a catalyst for investment

Policymakers around the globe are implementing building performance standards (BPS) that often require buildings to achieve specific performance targets for energy consumption and greenhouse gas emission reductions over their lifespan. Navigating an array of BPS across jurisdictions can present challenges and also opportunities to accelerate investments that promote energy savings, reduce emissions and maximize long-term returns.

As buildings account for nearly 30% of global energy consumption and their operations account for nearly 30% of global carbon emissions, regulators worldwide are intensifying their efforts to reduce these impacts through BPS.[1] Given the aging building stock and a heightened focus on the built environment in addressing climate change, the majority of BPS are becoming more stringent, with significant penalties for non-compliance.[2] The shift is prompting many real estate investors to re-evaluate the resilience of their portfolios.

By April 2024, 14 US state and local governments have enacted BPS, all of which either have or contemplate fines and penalties for exceeding prescribed thresholds.[3] Similarly, the EU's revised Energy Performance of Building Directive mandates substantial renovations and aims for a fully decarbonized building stock by 2050.[4]

Given the varied definitions, metrics, targets, and financial implications across jurisdictions, owners with extensive property portfolios likely face a complex challenge. Here's what owners5 can do to navigate this complexity:

1. **Perform a regulatory scan**
   While there is some commonality among BPS, each jurisdiction may prescribe its own timeline for compliance. After setting a baseline, establish a monitoring process for changes that could impact exposure.

2. **Identify fine and penalty methodologies and forecast exposure based on current and future state**
   Each jurisdiction has its own definitions and methodologies for measuring energy and carbon reduction goals within their BPS. Fines and penalties under BPS typically depend on a few key data points, including energy consumption, building type, age and size. Incomplete or inaccurate data could result in miscalculated risk. Many BPS methodologies mandate progressive reductions in emissions limits and energy use. In addition, the energy demand by building occupants can change over time. For example, the energy use of a building could vary significantly if occupants switch from using standard computers to high-processing power computers.

   While certain jurisdictions may seem unlikely to mandate BPS, the focus on climate has resulted in many fast-moving changes; being agile to understand and adapt to climate transition risk scenarios, such as those presented by BPS, is a market advantage. It may be important to employ dynamic modeling capabilities that can adapt to these changing circumstances.

3. **As applicable, evaluate lease provisions for impact**
   As a lessor or lessee, exposure may vary based on the specific provisions of the lease agreement. While most BPS target building owners, fines and penalties may be passed to tenants through lease agreements. While owners may find their risk mitigated during a lease period that enables pass-through, retaining and attracting new tenants with similar provisions may become increasingly difficult.

4. **Assess intervention strategies for actual or expected noncompliance**
   Many of the interventions that may be necessary to avoid fines and penalties could be capital intensive. Costs could be lessened through the pursuit of tax strategies, technologies such as smart buildings and digital twins, and co-investment cooperation between owners and tenants.

5. **Leverage compliance for marketplace differentiation**
   As tenants increasingly seek energy-efficient buildings for cost savings and/or to meet their own climate-related goals, owners may assess if compliance with BPS enables them to command a premium for this differentiated performance. In addition, those seeking to make investments in real estate, modeling potential exposure to BPS can inform capital allocation decisions to more resilient buildings. Despite the potential challenges of a localized and expanding BPS landscape, these regulations can serve as a significant driver for long-term investment in building performance. Long-term plans with a lifecycle lens that consider the entire asset portfolio are important in achieving compliance with BPS, decarbonization goals and higher returns on investments.

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