



## ESG real estate insights

### Global perspectives on sustainability and climate



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# Executive summary

Environmental, social and governance (ESG) issues are at the top of the agenda in the real estate industry—and they are here to stay.

In recent years, the impact of ESG in the real estate industry has become significant and has moved to the top of executive board agendas. From regulation, reporting, strategic planning, operations, valuation, data management and more, it is becoming imperative for real estate players to proactively address ESG throughout their business.

Across the market, we are now seeing well-defined sustainability standards and frameworks emerging to provide more efficiency and transparency. Real estate players are also considering their relationship with nature to address climate issues and the “s” in ESG. Our ESG Real Estate Insights series offers insights from Deloitte member firms around the world to look at ways which real estate firms may want to consider managing ESG programs for results.

In this document you will find ten articles which look at key market themes to help real estate firms achieve results. We look at:

**Governance, reporting, and process** – Harnessing the power of integrated ESG reporting and striking a balance between stakeholder expectations and business objectives.

**Standards and frameworks** – Looking at due diligence and the impacts of the Corporate Sustainability Reporting Directive

**Profitability and cashflow** – Discovering the value in embedding sustainability into a real estate project by using it as an opportunity to generate new revenue that can directly improve the profitability from ESG initiatives. Developing strong business cases for commercial real estate owners and developers.

**Tax and the economy** – Breaking away from the linear and investing in the circular. Understanding global real estate as a key driver of growth, with positive spillover for socio-economic development through job creation productivity, and poverty alleviation.

**Challenges and opportunities** – Strategizing to identify, quantify and mitigate ESG risks and using differentiation as an opportunity for success.

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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A low-angle, upward-looking photograph of several modern skyscrapers with glass facades, set against a blue sky with scattered white clouds. The buildings are arranged in a way that creates a strong sense of height and perspective. A vibrant green abstract graphic, consisting of curved, overlapping bands, sweeps across the top and bottom corners of the image. A solid green rectangular box is positioned in the center, containing the title text in white.

# Governance, reporting, and process

# Governance in the real estate sector

## Addressing the G in ESG

Real estate (RE), like many sectors today, is likely experiencing increased stakeholder pressure to address environmental, social and governance (ESG) matters. But when it comes to the governance component of ESG management, RE companies could face a number of unique challenges. Given the variety of stakeholders and RE's unique positioning in both the business-to-business (B2B) and business-to-consumer (B2C) arenas, RE firms should work to strike a balance between stakeholder expectations and business objectives.

Various factors, such as: a regulated ecosystem, dependency on public sector authorities, increased impact on communities, multi-entity holding structures and their complex management—and more—can make developing and implementing environmental and social policies a complicated endeavor for RE companies. For example, waste treatment and disposal at construction sites may need to be managed differently in various geographies due to differing regulations and varying stakeholder expectations. Or labor relations and human rights may have a high level of variance in multi-site environments due to disparate human capital and retention practices.

This unique multi-stakeholder ecosystem can hold increased potential for both positive and negative impacts—and may require not only effective governance but a mature and developed capability to sense stakeholders and their needs. To do this, RE companies should build an ESG governance framework with trust at its center that can help them identify and address both the risks and opportunities that ESG could present.

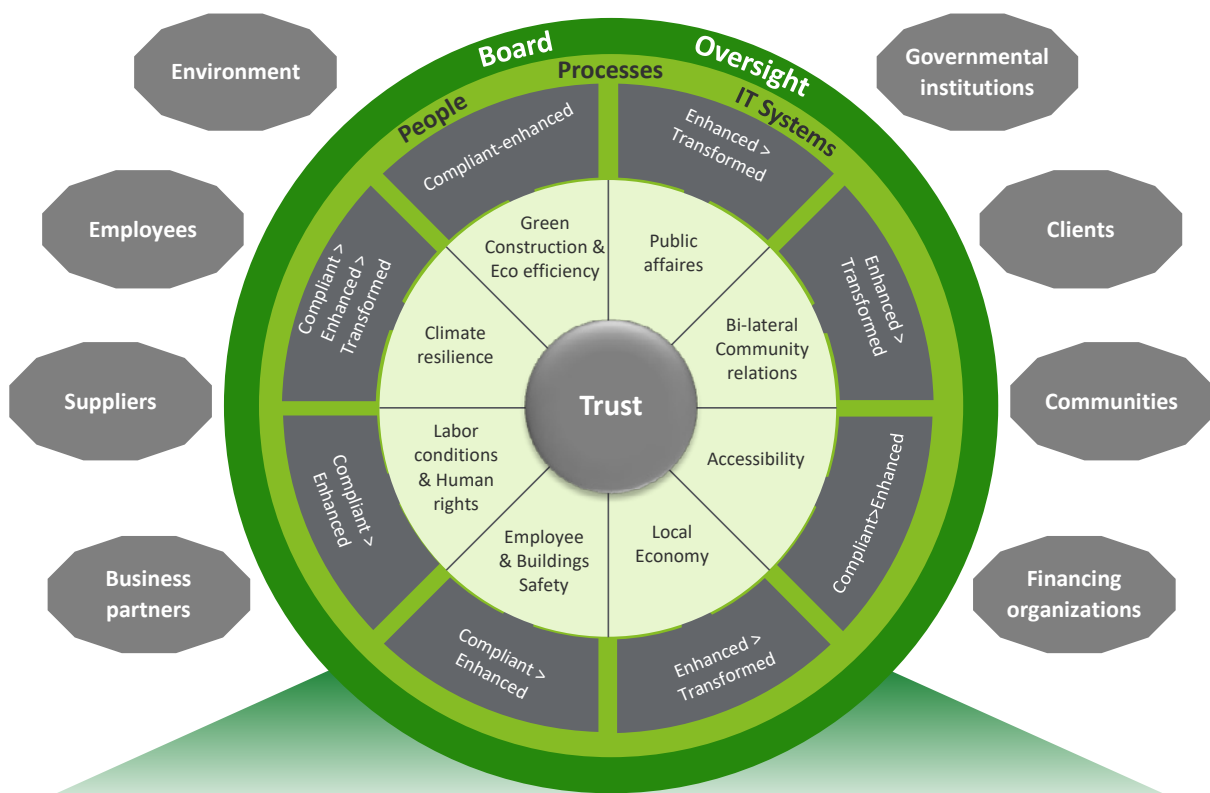
As part of this framework, RE companies should consider some of the most pressing ESG trends within the RE sector.

These may include:

- **Green construction and eco-efficiency:** Design and construction that can help minimizing the negative environmental impact, including across supply chains and the eco-efficiency of buildings
- **Public affairs:** The RE sector's increased interaction with both public and government institutions may require specific focus on the level of engagement and communication.
- **Bilateral community relations:** RE companies should engage with local communities at the earliest stages of design and construction to help minimize some of the negative impacts and disruptions as well as address the role RE companies can play in building communities.
- **Accessibility:** As one of enablers of buildings and infrastructure, RE should help to make equitable facilities accessible to all.
- **Local economy:** A sustainable supply chain can be a differentiator among RE players; promoting local partners can create a positive impact on both the environment and the community.
- **Employee and buildings safety:** RE companies should work to ensure the safety of employees and public during construction phases and as an integral quality of completed assets.
- **Labor conditions and human rights:** As a major employer and dealing with numerous social issues, the RE sector is may be in a position to respond address to labor and human rights pressures.
- **Climate resilience:** RE players should develop ability to anticipate, prepare for, and respond to the impacts, disruptions, and transition risks associated with climate change. Due to a high vulnerability of both employees and users to various climate related risks (such as temperature rise, sea level rise, flooding, and other).

## Real estate ESG governance framework

Building a sustainable and trustworthy real estate ecosystem



### ESG maturity model

Each major pillar of the framework is identified by the related maturity level of ESG governance.



#### Compliant

Meets different ESG regulation requirements, manages reporting related relevant data timely and accurately reports on required topics.



#### Enhanced

Accelerates ESG data, metrics and KPIs in defined business aspects and regularly includes ESG considerations in decision making processes.



#### Transformed

Invests in ESG as a competitive advantage and brand differentiator to support business growth. ESG is an integral part of doing business.

Successful management of these ESG trends can help improve trust among relevant stakeholders and given these trends can present both risks and opportunities, they should frequently appear on C-suite and board agendas. Boards should also seek out leaders with stakeholder relations management capabilities. By incorporating stakeholder relations into enterprise risk management and business strategy, organizations create a foundation for a company's governance of environmental and social initiatives.

Despite the complex and multi-dimensional matters the RE sector may face in fulfilling such ESG targets as outlined by the United Nations Sustainable Development Goals, the time to act is now. Boards and the C-suite should have a duty to manage the risks associated with ESG and develop governance Key Performance Indicators (KPIs) that can help reassure stakeholders that ESG efforts are being implemented and measured. With a marketplace increasing awareness of ESG, strategies that incorporate environmental and social matters with concomitant governance not only can help RE companies meet their business goals but also provide them with competitive advantage.

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# Empowering real estate players through integrated ESG reporting

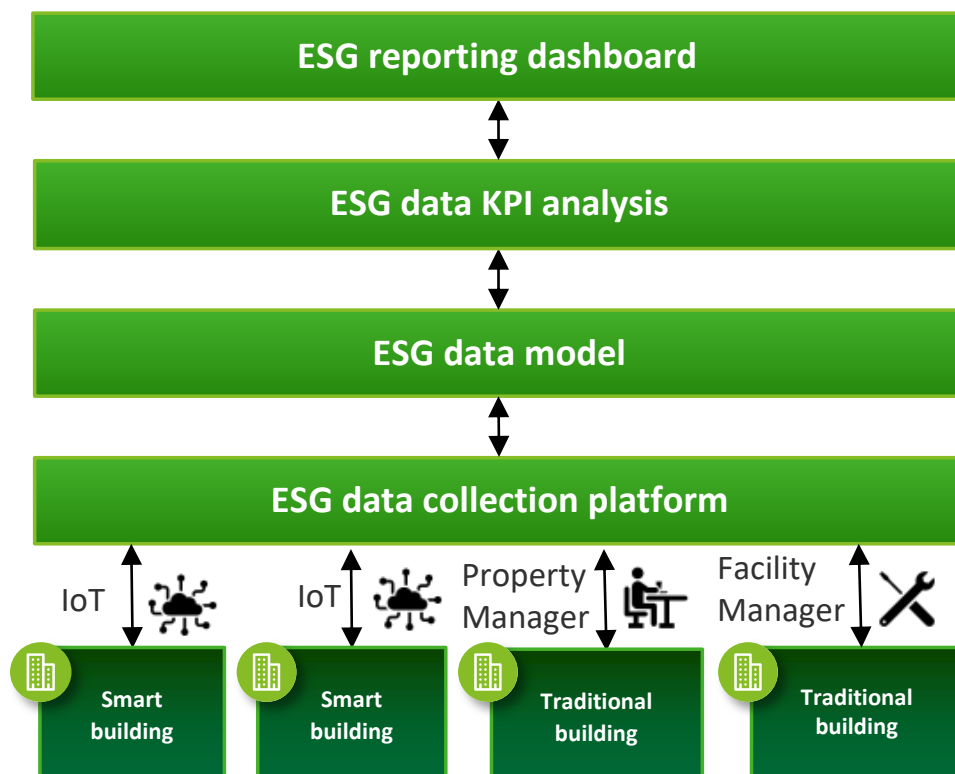
The world is increasingly recognizing the importance of environmental, social, and governance (ESG) factors in investment decision making, and the real estate industry is no exception. Real estate players, including asset managers, property managers, and fund managers, are beginning to realize that ESG considerations can have a significant impact on the long-term value of their assets.

One way real estate players can gain better visibility into ESG risks and opportunities is through integrated ESG reporting. This involves the disclosure of both financial and non-financial information, including ESG metrics and disclosures, in a single report. Integrated reporting helps real estate players to better understand and communicate the impact of their ESG performance on financial performance, and vice versa.

To achieve integrated ESG reporting, real estate players require robust ESG software and hardware tools that can help them gather, analyze, and report

on ESG data. Automated collection of ESG data can be achieved by IoT devices, gathering air quality data, utilities consumption, waste collection, connected with the building management system. The system can be integrated with an ESG software solution, which allows real estate players to streamline ESG reporting, improve data accuracy, and make better-informed ESG decisions. Without technology, usually a manual input from facility or property managers is required to acquire the initial data. In many cases assets, actors or companies, are operating in different jurisdictions with different regulations and standards –what is crucial is an integrated data management strategy for holistic data collection, harmonization, and aggregation. On the following page Figure 1 showcases usual set up with or without IoT and smart building management system in place:

Figure 1. Typical ESG reporting layers in real estate<sup>1</sup>





Utilizing technology for ESG reporting in real estate provides numerous benefits that can positively impact companies in various ways.

- 1. Efficient ESG data management and reporting:** increased ability to gather and monitor ESG data effectively, allowing for automated reporting processes. Having all ESG data in one place makes it easier to identify trends and patterns in the data. As a result, real estate companies can save valuable time and resources in gathering the data while ensuring accurate and up-to-date ESG reporting, as especially for real estate data aggregation is time-consuming.
- 2. Enhanced accuracy and transparency:** Switching to software-based ESG reporting can result in increased accuracy and transparency for real estate companies. This change allows for improved communication with investors and the ability to identify and track ESG risks and opportunities more efficiently.
- 3. Improved performance analysis:** By tracking and reporting on ESG data, companies can identify areas where they need to improve their environmental, social, and governance practices, benchmark their performance, and make more informed investment decisions. This ability to analyze performance thoroughly can lead to more targeted improvements and more informed decision-making.
- 4. Comprehensive asset valuation:** By combining ESG data with financial and other non-financial data, companies can take a more comprehensive approach to evaluating asset performance and analyze impact of ESG performance on asset and portfolio values.

## Choosing the right ESG technology

Real estate players must carefully consider their ESG reporting and monitoring needs when selecting an ESG software tool. The right ESG software tool will depend on a variety of factors, including the size and complexity of the real estate player's portfolio, the type of assets they manage, and their ESG reporting requirements.

When selecting an ESG software tool, real estate players should consider the following factors:

- 1. Define your ESG architecture and scope for the system to be selected:** The solution should respond to the strategy, vision and current set-up of the entity. Whatever the architecture, the different technology components should be as integrated as possible.
- 2. Data accuracy, reliability and scalability:** The software tool should be able to handle large volumes of data and ensure data accuracy, reliable and being able to accommodate the real estate player's growing portfolio.
- 3. Integration with existing systems:** The software tool should be able to integrate seamlessly with existing systems, including property management, reporting and accounting systems.
- 4. Accessibility:** The solution should be customized and useable for different type of users and geographies, SaaS solutions offering portal access are typically preferred.
- 5. Standardization and customization:** The software tool should offer balance between being customizable to meet the real estate player's specific reporting and monitoring needs while proposing some best practices and minimum level of standardization to leverage on the benefits of having a standard solution.

6. **Dashboarding and drill-down:** To be able to have a comprehensive view on the portfolio and be able to see how specific assets perform in comparison to others.
7. **Sandboxing:** The tool should offer a possibility to explore ESG KPI in a playground environment before promoting them in production, in addition to a report showcasing suggestions for improvement.
8. **Regulatory compliance:** The solution should be aligned, integrated and compliant with GRI, GRESB, CREEM, EU and Taxonomy criteria.

The key takeaway for real estate players in order to define the right architecture for an ESG tool, properly collect and control the quality of data and produce ESG reporting is to consider your whole ecosystem

while doing so –the stakeholders and assets that are contributing and their own requirements and acceptance for new solutions.

### Conclusion

In summary, there are various ESG software tools available for real estate players to streamline and enhance their integrated ESG reporting. These tools provide ESG data and analytics, risk management approaches, and sustainability reporting platforms that enable real estate players to make informed decisions that align with their ESG objectives. By leveraging these tools, real estate players can enhance their ESG performance, create value for their stakeholders, and contribute to a more sustainable future.

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A low-angle, upward-looking photograph of several modern skyscrapers with glass facades. The buildings are dark and reflect the sky. A bright green, curved graphic element with a white outline sweeps across the top and bottom corners of the image. A solid green rectangular box is positioned in the center, containing the text.

# Standards and frameworks

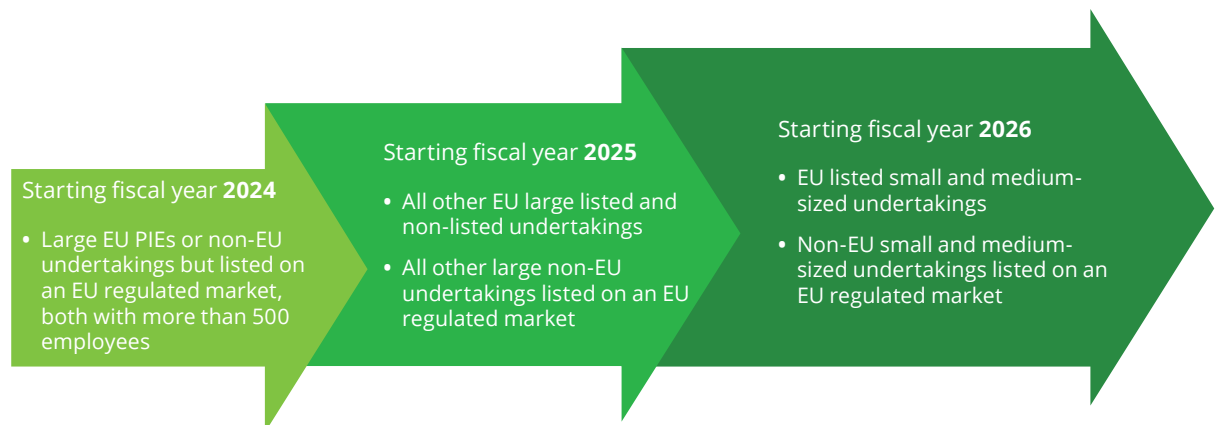
# Corporate Sustainability Reporting Directive—What is it all about for housing companies?

The CSRD imposes new legal requirements on companies for sustainability reporting. Housing companies in particular are facing a new major challenge. To master the upcoming tasks, companies should understand the CSRD as an initiator and meet the requirements using corresponding competencies, like methodical and data competences as well as project management skills.

The CSRD requires companies to disclose comprehensive information on environmental, social and governance issues. Its aim is to create transparency about impacts, risks and opportunities associated with the economic activities of companies in the European Union. The legally binding requirements for sustainability reporting are specified in the European Sustainability

Reporting Standards (ESRS), which were adopted from the EU end of July 2023. The basis of sustainability reporting according to CSRD is the strategic integration of processes and responsibilities. It sets the foundation for a sustainable economy and is a core component of the European Green Deal.

Figure 1: High level overview of effective dates of CSRD requirements (For more information, click [here](#))



Listed companies as well as non-listed large companies must comply with the CSRD. In Europe, approximately 50,000 companies are affected as of 2026, which together generate 75% of European turnover<sup>1</sup>.

Especially for non-listed companies, legally driven sustainability reporting is a new challenge. The

requirements present companies with major challenges. Not only in the collection of data, but also in the integration of relevant processes and the strategic alignment of the company. A special role in the transformation towards a sustainable economy and in the context of ESG is played by the real estate industry, especially housing. In hardly any other industry

the trade-offs between social and environmental sustainability are greater:

- More than ¾ of the energy used in the European housing stock is based on fossil fuels<sup>2</sup>
- Living space per capita in Europe is increasing, in Germany, for example, it has increased by 20% in the last decade<sup>3</sup>
- A global population of around 9.7 billion people is expected by 2050, with an additional 25% of all Europeans being over 65 years old<sup>4</sup>

These facts show that the demand for housing will continue to increase and Europe is coming with additional requirements from elderly people. At the same time, poverty (among the elderly, but also within certain other groups of the population) has been increasing, and some groups of people are not able to bear possible rent increases caused by energy-efficient renovations.<sup>5</sup>

The dilemma between social and appropriate housing as well as energetic modernizations in accordance with the 1.5-degree target seems almost impossible to solve due to its complexity and contradiction

### **What matters now and why CSRD is becoming an initiator of change in the real estate industry**

Apart from a few isolated regulations, the non-listed housing industry has hardly been exposed to such far-reaching regulatory requirements in the past as it is now facing because of the CSRD. The requirements focus on processes and strategy and require a high level of methodological competence in a dynamic environment. For this reason, it is essential to establish efficient structures and anchor them within the company. In addition to internal company efforts, cross-company collaboration is essential.

### **Methodical and data competence will be required**

Meeting the requirements of the CSRD leads to the challenge of identifying the various and sometimes contradictory stakeholder demands as well as defining the essential datasets and gathering the relevant information. Not only collecting these amounts of data but also processing them audit-proof is a major challenge for companies irrespective of whether they already prepared a sustainability reporting before or not. Methodical skills as well as data competence add up to the skills shortage and changing existing job profiles in the industry. Complexity increases if we include the needed skills to reach the set sustainability goals as this often means a high demand for modernization and respective technical, procurement and project management skills.

### **Conclusion**

The implementation of CSRD is process-driven and requires a high level of methodological as well as data competence. For the housing industry, a change towards a more data-driven and methodical way of working is taking place. Additional personnel with a different skill set are needed, which can only be obtained with an attractive corporate culture. To resolve the trade-offs between social, environmental and economic sustainability, politics and industry need to work collaboratively.

In order to master all the challenges, the housing industry should see CSRD as an initiator to set up a sustainable core business and organization to ensure the future success of the company. The responsibility is enormous and cannot be carried alone. It requires the cooperation of many different stakeholders, starting with the craftsman, to the contractor, to the politicians and of course the tenants. All stakeholders must tackle the next steps together because the pressing environmental and social goals cannot be reached in a singular effort.

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# Real estate sustainability due diligence

It is hard to imagine financial due diligence without well-defined financial accounting standards. With sustainability performance on the minds of investors and those that seek to attract them, the corollary is apropos; well-defined sustainability standards and frameworks are accelerating the path to a more efficient real estate investment market. Real estate market participants may have much to gain in learning the new “grammar” of Environmental, Social, and Governance (ESG) and incorporating it into their diligence programs.

Sustainability accounting standard setters are issuing new and converging standards and frameworks that can be used to assess sustainability performance. These new standards will likely increase the ability for both parties in a real estate transaction to communicate in a similar language. This maturation means that investors looking to better understand an investment’s sustainability performance, opportunity, and risk will be able to request information in alignment with its standard and framework of choice.

The rapid acceleration in the issuance of new and the convergence of existing ESG standards and frameworks has occurred against a backdrop of societal change, increased environmental regulation and risk, and reimagining of how real estate users live and work. These trends make the need for consistent, comparable metrics on which to communicate risk and opportunity more critical.

For managers seeking to raise capital, being able to furnish information on ESG factors in alignment with standards and frameworks may allow them to communicate that the information provided in diligence meets the boundaries, assumptions, and judgments expected from an investor. While judgments in accounting for ESG performance will persist, a mature standards and frameworks landscape should lead to greater transparency among negotiating parties. Those able to furnish this ESG information will likely have a

competitive advantage and thus a greater access to capital.

Here are a few examples of standards and frameworks and how they might provide a common language between negotiating parties.

## **Task Force on Climate-related Financial Disclosures (TCFD) and evaluating climate resiliency**

The TCFD was founded in 2015 by the Financial Stability Board. The TCFD framework provides organizations the recommended language to describe, among other matters, physical and transition risks from climate change. Disclosures prepared in accordance with this framework could, for example, assist a real estate fund in assessing its properties’ climate resiliency to physical risks such as extreme weather events. The TCFD provides objective measures, a common language, by which a preparer can measure and disclose this risk, information which may be useful in diligence.

## **Greenhouse Gas Protocol (GHG Protocol) and assessing the risk of carbon emissions limits**

The GHG Protocol was developed by the World Resources Institute and World Business Council for Sustainable Development in 1998 and is the most widely-respected accounting standard on measuring and managing carbon emissions.<sup>1</sup> The GHG Protocol is undergoing a modernization effort and is expected to be updated in 2023.<sup>2</sup> However, it remains in use today and is of particular importance to real estate, as jurisdictions globally have mandated reduction requirements on carbon emissions. In some jurisdictions, if those reductions are not met, real estate owners may be levied significant fines and penalties. For those involved in legal and regulatory due diligence on real estate investments, understanding the current state of carbon emissions through the common language of the GHG Protocol will likely be critical to being able to assess the future cash flow uncertainty from those investments.<sup>3</sup>

## Speaking a common language

The “grammar” (i.e., standards and frameworks) on sustainability will likely continue to evolve in an effort to meet the needs of investors. Leaders should consider engaging in a dialogue with those from which they seek to obtain ESG information or those to which they wish to provide ESG information. They should also identify which risks and opportunities are deemed most

relevant and leading standards and frameworks that give the most appropriate “grammar” to address those risks and opportunities. If both parties in diligence can have a mutual understanding on what standards and frameworks will be leveraged in information provided, the diligence process will likely be smoother and the assumptions underlying valuation, will likely be better known.

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A low-angle, upward-looking photograph of several modern skyscrapers with glass facades. The buildings are set against a blue sky with scattered white clouds. A prominent green abstract graphic, consisting of curved, overlapping bands, sweeps across the top and bottom corners of the image. A white curved line also follows the top edge of the green graphic.

# Profitability and cash flow

# How can ESG be profitable for real estate?

Despite increasing evidence of the benefits of environmental, social, and governance (ESG) initiatives, real estate companies continue to take a passive approach. A recent Deloitte Canada survey<sup>1</sup> reveals that commercial real estate owners are lagging in giving strategic importance to ESG efforts, even as tenants demand more ESG insights and services—and are willing to pay for them. And it could be that commercial real estate owners and developers may be missing an opportunity to generate new revenue via ESG initiatives and could directly improve profitability.

## **Making the case for ESG**

The real estate industry continues to receive increased empirical evidence about the benefits of smarter and greener buildings and investing in ESG initiatives. For instance, smartgreen buildings can help to reduce up to 30% of water usage, 40% of energy usage, and 10% to 30% of overall building maintenance costs.<sup>2</sup> Studies also show that smart-green buildings can provide 11.8% higher lease value with 5% to 35% higher sales value.<sup>3</sup>

According to a 2022 Deloitte Canada study, ESG performance is starting to have a measurable impact. The analysis of 250 real estate companies globally, found that in 2020 and 2021, a higher percentage of real estate companies exhibited an increase in returns and valuation when their ESG performance rose compared to when it fell. In other words, an improvement in ESG performance may be starting to show a positive correlation to returns and valuation.<sup>4</sup>

However, real estate companies appear to be focused on doing just enough in terms of resource efficiency and regular reporting to avoid loss of value, ensure compliance, and position themselves favorably in the market—instead of an active approach that considers

ESG as an opportunity and value generator. For instance, the Deloitte Canada survey<sup>5</sup> shows that over half of commercial real estate owners face challenges in organization-wide acceptance of having ESG drive enterprise value in the long term. Further, only 38% and 34% of owner respondents have or plan to have an ESG dedicated board member and a chief sustainability officer position, respectively.<sup>6</sup> And only 26% have a decarbonization strategy and emission reduction goals for 2030.<sup>7</sup>

## **Accessing untapped value**

The Deloitte Canada survey found that commercial real estate tenants are looking to prioritize the capture of environmental sustainability data as they reduce their carbon footprint and advance towards net-zero. And more than half of tenant respondents want to capture data on their energy and water consumption, waste management, and carbon emissions of the buildings they occupy.<sup>8</sup> Further, a majority of respondents are willing to share their ESG data with landlords and expect ESG transparency from landlords as well.<sup>9</sup>

This pursuit of data offers an opportunity for owners to provide diverse services, enabled by technology, that can help tenants in their ESG journey while generating new revenue for themselves. In fact, a majority of tenants are interested in new “as-a-service” models if provided by landlords. Fifty-six percent of tenant respondents are interested in “energy and water management-as-a-service” and are willing to pay for facilities such as onsite and renewable energy, water usage monitoring, and rainwater harvesting.<sup>10</sup> Forty percent of tenant respondents are also interested in “lighting-as-a-service” where they pay for lighting but not for fixtures.<sup>11</sup> In addition, owners can generate new income by aggregating and sharing data-backed insights

(data monetization) with tenants to help them make more informed decisions around resource usage and their carbon footprint.

Owners can also generate revenue by selling carbon credits, which they earn after reducing their carbon emissions or investing in initiatives around renewable energy and reforestation. And owners and developers can tap into different climate incentives, rebates, and funding programs offered by all levels of government. This can help offset some of the costs of investing in sustainability initiatives and contribute to the bottom line of real estate companies.

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#### Endnotes:

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#### Changing the mindset

The open secret to ESG profitability may lie in changing the mindset of real estate companies and considering ESG efforts as an opportunity to help improve operational efficiency, boost revenue, and increase valuation and returns. Real estate companies should evolve to leverage new technologies and business models around ESG initiatives to help make a stronger business case and remain relevant to their competition and stakeholders. For more detailed insights on helping to chart a profitable and revenue-accretive path across the real estate life cycle of design, build, and operate, please refer to Deloitte Canada's report on [the future of sustainable real estate](#).

# The sustainable (project) cashflow

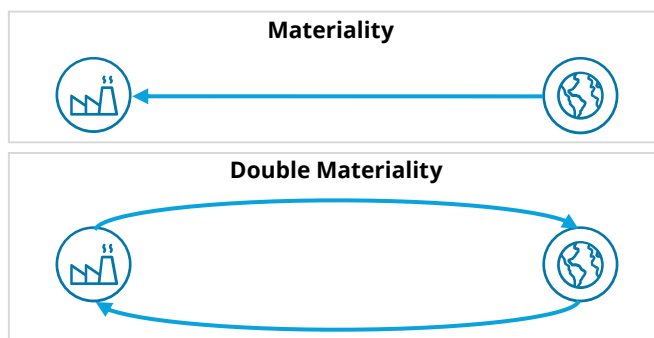
Green buildings, sustainable projects and sustainable communities are in high demand, and they often command higher property values. Intuitively, these last longer and do perform better with lesser need of resources. This implies that, whatever extra we spend in the phases of design and construction will be returned in the form of savings and positive ESG impacts in the phases of operation, and -here come circular economy- in the afterlife of the object.

Sustainability and efficiency are almost equivalent for real estate when it comes to assets: energy efficiency, sustainable materials, waste reduction, green livable spaces, circular economy, resilience to climate change and natural disasters, inclusivity and accessibility and other aspects that make a project ESG-compliant and consider its impact on local communities creating value by creating jobs and fostering economic activity.

All these aspects can directly transfer sustainability value into financial value for the project by projecting into the cashflow the environmental, social and governance (ESG) impacts of the project.

This is the base of the triple bottom line<sup>1</sup> theory, and the newly updated concept of double materiality.

Figure 1: Materiality vs. Double Materiality



**Source:** 'Double materiality': what is it and why does it matter?  
- Grantham Research Institute on climate change and the environment

## Considerations towards the cashflow of the real estate project, does ESG actually increase the inflows (add value to the real assets)?

When creating a cashflow for a real estate project we consider outflows related to the real estate title acquisition, design and permitting, construction, and the operational costs but, we should also consider the afterlife of the objects and the sometimes/someplace/ increasingly compulsory need to account for demolition and land remediation to return the estate (land) to the status prior to the development.

On the outflows, more sustainable objects are more efficient in the use of resources and have fewer operating expenses and maintenance costs. Also reducing potential penalties due to the lack of compliance with ESG-related regulations. Outflows related to energy cost could stabilize further when considering purchase power agreements (PPAs) which, with a certificate of origin from a renewable source, can also serve towards the decarbonization goals, thus meeting efficiency, sustainability, and risk objectives.

Insurance fees are another potential cost to cut as buildings and projects that incorporate resilient, adapted measures are better equipped to withstand natural disasters and climate change, reducing the risk of property damage and loss of income.<sup>2</sup>

On the inflows, "green" assets increase the capacity to generate income attracting environmentally conscious buyers and tenants willing to pay "green premiums" for properties that align with their values.<sup>3</sup> Tenant retention rates also improve in a healthier and more comfortable environment as tenants are more likely to renew their leases if they are satisfied with their living or working conditions.

EU Funds and governments' financial incentives for implementing sustainability measures, such as tax credits or subsidies, should also be accounted for.

Finally, lenders may offer lower interest rates or preferential terms for sustainable projects, even activating capital that, without sufficient disclosure of ESG impacts, would never consider real estate assets as an investment class.<sup>4</sup>

However, there may be additional costs associated with obtaining certifications or meeting sustainability standards, which can increase the cost of financing.

Overall, the increased outflows accounted for in the design and construction phases will be easily outnumbered by the reduced operating costs in the operational phase leading to increased cash flows and higher net operating income, which will increase the value of the property.<sup>5</sup>

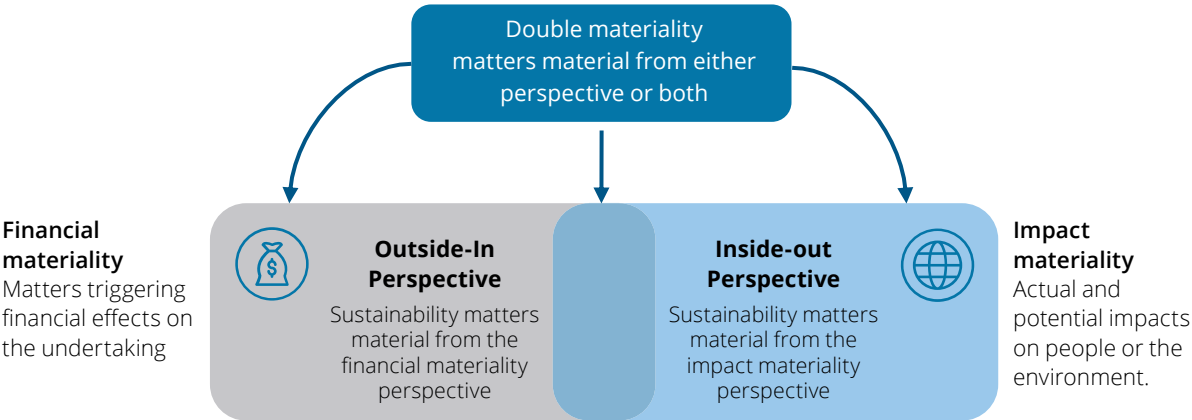
Companies that prioritize sustainability can enhance their brand image and attract environmentally conscious customers, investors, and employees. The “green” reputation of a company’s portfolio will create a positive brand image that will increase the goodwill value thus transferring direct value from the project to the company that promotes or owns the estate. This can translate into increased revenue and shareholder value, which can increase the value of the real asset.<sup>6</sup>

Even more value will kick in when/if divesting, with two components to consider: the increased net present value of the receivables and the residual value of the objects that can be increased by embedding circular economy solutions to all elements of the project: land plots being developed in a “reusable” way, construction and equipment elements being reusable or recyclable -modularity for circularity -to name the most evident. Everything to make the project more resilient and valuable by elongating the active life and capacity to produce income.

The value is perceived by all stakeholders in the value chain: workers, users, investors, communities, and suppliers. It is important to mention that “no action” is no longer an option: positive screening by conscious users and investors does activate “green premiums” and good reputation, at the same time we are already seeing negative screening imposing “brown discounts,” and even by rejecting projects that cannot show a minimum green value.

It is no longer about how much money you make but also about how do you make that much money.

Figure 2: Double materiality



Source: Deloitte, the Prague Stock Exchange and the EBRD

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## Endnotes:

1. Please read what the author formulated beyond and towards regeneration in [Elkington, John](#) (June 25, 2018). "25 Years Ago I Coined the Phrase "Triple Bottom Line." Here's Why It's Time to Rethink It". Harvard Business Review. Retrieved October 11, 2019.
2. The European Investment Bank (2019) highlighted the importance of resilience measures in real estate and infrastructure investments to reduce the risk of physical damage and loss of income from natural disasters. <https://www.eib.org/en/publications/investment-report-2019>. Also The Royal Institution of Chartered Surveyors has published various reports on the importance of building resilience to climate change in the real estate sector
3. The Green Building Council (2022) reported that buildings certified under the LEED program have shown a 4% increase in property value compared to non-certified buildings. <https://www.usgbc.org/articles/leed-builds-value-real-estate-investors-usgbc-los-angeles>. A study by The Bucharest University of Economics and the Vienna University of Economics and Business \*WU) (2016) found that green-certified buildings had a 16% higher asset value than non-certified buildings. [https://www.researchgate.net/publication/299764597\\_Is\\_the\\_higher\\_value\\_of\\_green\\_buildings\\_reflected\\_in\\_current\\_valuation\\_practices](https://www.researchgate.net/publication/299764597_Is_the_higher_value_of_green_buildings_reflected_in_current_valuation_practices). The Journal of Real Estate Finance and Economics published an article (2022) establishing how real estate portfolios with a higher sustainability score achieved higher returns than those with lower scores. [https://www.researchgate.net/publication/361357146\\_Sustainability\\_and\\_Private\\_Equity\\_Real\\_Estate>Returns](https://www.researchgate.net/publication/361357146_Sustainability_and_Private_Equity_Real_Estate>Returns)
4. The International WELL Building Institute (2020) reported that buildings certified under the WELL Building Standard had higher tenant retention rates. A survey by the US Green Building Council (2018) found that 81% of tenants in LEED-certified buildings were satisfied with their indoor air quality, compared to 66% in non-certified buildings. [U.S. Green Building Council. \(2021\). Research Anthology of Health-Promoting Building Strategies.](#)
5. A study by the US Department of Energy (2012) found that green buildings had an average energy savings of 24% compared to non-green buildings. [https://www.eia.gov/consumption/commercial/data/2018/pdf/green\\_buildings\\_cbecs.pdf](https://www.eia.gov/consumption/commercial/data/2018/pdf/green_buildings_cbecs.pdf). The World Economic Forum (2021) reported that energy efficiency measures in buildings could reduce operating costs by 20-30%. <https://www.weforum.org/agenda/2021/02/why-the-buildings-of-the-future-are-key-to-an-efficient-energy-ecosystem/>
6. The World Economic Forum' Future of Work website continuously reports how companies that prioritize sustainability have higher employee satisfaction and are more attractive to investors. <https://www.weforum.org/agenda/future-of-work>. A study by Harvard Business Review (2016) found that companies with a strong environmental and social performance had a higher market value and financial performance. [Social-Impact Efforts That Create Real Value \(hbr.org\)](#)

This article was originally published in July 2023 by Deloitte Central Europe.

A low-angle, upward-looking photograph of several modern skyscrapers with glass facades. The buildings are dark and reflect the sky. A bright green, curved graphic element with a white outline sweeps across the top and bottom corners of the image. A solid green horizontal bar is positioned in the center, containing the word "Economics" in white text.

# Economics

# Circular economy: Obligation of means or obligation of results?

The taxonomies that are springing up all over the world are undeniably the operational translations of what can be considered green by legislators. In Europe, if the description of secondary objectives (DNSH<sup>1</sup>) for construction activities is anything to go by, a newly constructed or renovated building can no longer be considered green if it does not take into account an ambitious objective in terms of the circular economy.

Part of the DNSH circular economy criterion reads as follows: “At least 70 % (by weight) of the non-hazardous construction and demolition waste [...] generated on the construction site is prepared for reuse, recycling and other material recovery, [...]”<sup>2</sup>

It now remains to be determined exactly what the words “prepared for” mean. Is it an obligation of result or an obligation of means? Do players actually have to prove that their waste has been recycled or simply show that they have sorted the outgoing flows?

## **Obligation of results:**

If this is indeed an obligation to achieve results, the service provider in charge of collection can provide its customer with a waste tracking slip, or even a consolidated report at the end of the worksite showing precisely how much was reused as is and how much was reprocessed by an appropriate channel to become a secondary raw material once again. The auditor’s job is clear<sup>3</sup>: they have to check that this objective has been achieved on a site-by-site basis.

## **Obligation of means:**

In the opposite case, if we are talking about an obligation of means, this would allow the construction companies to report certain projects as green, even in countries where the recycling channels are still in their infancy or even completely non-existent. This raises the question

of verification: how precisely can it be established that the outgoing flow is correctly sorted and prepared for reprocessing if there are no channels for it? And what can the auditor base their verification work on?

Although the new circular economy annex<sup>4</sup> sheds some light on the concept of “prepared for re-use<sup>5</sup>” or “recycling<sup>6</sup>”, the question remains.

If we are to believe the arsenal of regulations and strategic guidelines issued by the European Union on the subject (European Green deal, EU Construction and Demolition Waste Directive (2018/851/EU), the EU Circular Economy Action Plan or the EU Energy Performance of Buildings Directive (2010/31/EU)), combined with the “Levels<sup>7</sup>” tools found in the new taxonomy annex on substantial contribution to the circular economy; we would be moving towards an obligation of result. But in that case, why have you worded the criterion in this way? Why not instead write: “At least 70% (by weight) of the non-hazardous construction and demolition waste [...] generated on the construction site are reused, recycled” or “sent to appropriate material recovery channels”? We can certainly see in this the skillful hand of some, shall we say, “inspired” lobbyists.

In any case, if we consider that waste generation is one of the main environmental challenges the real estate and construction sector is facing, and that the scarcity of natural resources and energy means that we need to rebuild the city on the city and above all with the city (urban mining concept), then everything must be done to speed up the industrialization of secondary raw materials recovery processes. In this context, the obligation to achieve results must take precedence. There is no doubt that the players in developed countries have a responsibility to find technical solutions before deploying them more widely.



One might consider the timing ill-chosen, given the marked slowdown in sales speeds due to the rise of interest rates. On the contrary, this is the best time to break away from the linear and invest at last in the

circular. For some, this will be at least the main driver of their decarbonization; for others, it will be an essential condition for the survival of their business.

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### Endnotes:

1. Do No Significant Harm criteria (DNSH). To be able to report an activity as taxonomy aligned or green in Europe, one has to prove that its activity contributes substantially to one of six environmental objectives (e.g., substantial contribution criteria) and at the same time do no significant harm to the other five (e.g., DNSH criteria). If the activity fails to comply with one of these criteria, it cannot be reported as green.
2. [Annex to the Commission Delegated Regulation \(EU\) .../... supplementing Regulation \(EU\) 2020/852 of the European Parliament and of the Council by establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation and for determining whether that economic activity causes no significant harm to any of the other environmental objectives \(Page 170-171\)](#)
3. Depending on the country (Spain, for example) auditors already have to deliver assurance on taxonomy. With the CSRD coming into force more countries will make the issue of limited insurance compulsory as they translate the directive in their own regulations.
4. [Annex to the Commission delegated regulation \(EU\) .../... supplementing Regulation \(EU\) 2020/852 of the European Parliament and of the Council by establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to the sustainable use and protection of water and marine resources, to the transition to a circular economy, to pollution prevention and control or to the protection and restoration of biodiversity and ecosystems and for determining whether that economic activity causes no significant harm to any of the other environmental objectives and amending Delegated Regulation \(EU\) 2021/2178 as regards specific public disclosures for those economic activities \(Page 33\)](#)
5. Preparing for re-use means checking, cleaning or repairing recovery operations, by which products or components of products that have become waste are prepared so that they can be re-used without any other pre-processing. This includes, for instance, the preparation for re-use of certain parts of buildings like roof elements, windows, doors, bricks, stones or concrete elements. A pre-requisite for the preparation for re-use of building elements is usually the selective deconstruction of buildings or other structures.
6. Recycling means any recovery operation, by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes. It includes the reprocessing of organic material but does not include energy
7. [Level\(s\) indicator 2.2: Construction and Demolition waste and materials. User manual: introductory briefing, instructions and guidance \(Publication version 1.1\). Shane Donatello, Nicholas Dodd, Mauro Cordella \(JRC, Unit B.5\)](#)

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# Bricks and mortar improve lives and livelihoods: A look at the “S” in ESG in Africa

The development and operation of real estate—be it retail, office, industrial, housing, or mixed—and the associated value chain can have a profoundly positive impact on countries and local communities. In Africa, infrastructure development in general, and real estate development more specifically, can be a key driver of growth, with positive spill over for socio-economic development through job creation, productivity, and poverty alleviation.

After energy and power and transport projects, Deloitte analysis shows that real estate projects have been and continue to be an important sector within the infrastructure and capital projects landscape in Africa. Annually since 2016, one in five projects under development and valued at over US\$50 million has been in the real estate sector.<sup>1</sup>

However, beyond providing the much-needed physical infrastructure –be it residential, such as housing for Africa’s rapidly urbanizing population, or commercial and industrial for business, retail, industrial, and manufacturing activities—the positive socio-economic impact of real estate development is not always understood, nor quantified. And the focus is often predominantly on the negative environmental considerations and how to reduce them.

It is true that real estate development can have a negative environmental impact, whether from the materials used in construction, or the daily use of energy in operation. However, businesses and government have to balance environmental impact with the improvement of lives and livelihoods.

Much work has been and continues to be done to minimize negative environmental impact. Examples include utilizing the latest building technologies, “green building” ratings, and sustainable construction materials.

Green building practices and technologies will allow Africa to leapfrog the relatively more harmful industrial and building practices of the Global North over the past two centuries.

Every real estate development creates a myriad of jobs, directly in the build and indirectly in the supply chain, with associated opportunities around skills and enterprise development. The direct, indirect, and induced impacts on GDP, including taxes raised, jobs created on the project, and in the supply chain, as well as the multiplier effects from these jobs given the wage income of employees spent on other sectors, should not be downplayed. Real estate projects can stimulate the economy by creating a demand for other products and services, opening education opportunities for dependents, and reducing the burden on governments’ social security spend.

Localization of economic activity of real estate projects is crucial to ensure the socio-economic upliftment of the surrounding community, both during and after the project build phase. This requires a shared focus on longevity, as evidenced in mining communities, where local development continues after the end of life of a mine. A key consideration for stakeholders, such as governments, businesses, and communities, should thus be ensuring jobs and skills development after the infrastructure has been built.

After construction and once in operation, a real estate development can have a notable impact on community upliftment as new jobs are created and new services and amenities grow, including medical facilities, public transport, increased safety and security, and access to a stable supply of energy and water. Spillovers create additional opportunities and improve living conditions in the newly developed areas.

There are other often-overlooked impacts, such as on productivity of work: office buildings with good indoor air quality and more plants and greenery have been found to reduce absenteeism.<sup>2</sup>

Building users should demand more of the buildings they work and live in, given their material impact on health and wellbeing. Fostering this demand could lead to greater productivity and healthier living, stimulating economic output and lowering medical and health-related expenses in broader society.

While the World Health Organization (WHO) officially declared an end to the Covid-19 pandemic in May 2023,<sup>3</sup> Covid's impact on the real estate sector continues. Commercial real estate is still reeling from the move to hybrid or remote work which has made office space and new office development somewhat redundant: office vacancy rates in the second quarter of 2023 stood at

15.6% in South Africa, up from 11% in 2019 and down from more than 20% in 2022.<sup>4</sup> The retail sector has also been negatively impacted by ongoing pandemic-related economic challenges which have suppressed consumer demand in many markets. The stubbornly high vacancy rates in office and retail markets have had knock-on effects on jobs in the catering, facility management, security, and transport sectors.

As technologies to reduce the environmental impact of real estate development and operation continue to improve, and as real estate demand grows, the focus should be on how to use this infrastructure more smartly, to improve the lives and livelihoods of Africa's people. This will help drive the sustainable development of African economies and societies to create long-term and shared value for all, while minimizing negative environmental impacts.

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### Endnotes:

1. Deloitte analysis based on various editions of the Deloitte Africa Construction Trends report (2016-2021). See the most recent edition here: Deloitte Africa, 2022. [Africa Construction Trends Report 2021](#). March 2022
2. Over the years, numerous studies have found that office buildings, and specifically green buildings, have a direct positive correlation with worker productivity.
3. UN News, 2023. [WHO chief declares end to COVID-19 as a global health emergency](#), United Nations. 5 May 2023.
4. S. Jacobs, 2023. [Landlords lose R2.8 billion from Joburg office vacancies](#), Daily Investor. 7 July 2023; B. Nel, 2022. [Covid blues: South Africa's office vacancy rate soars to 20%](#), IOL. 18 October 2022.

This article was originally published in September 2023 by Deloitte South Africa.

A low-angle, upward-looking photograph of several modern skyscrapers with glass facades. The buildings are dark and reflect the sky. A bright green, curved graphic element with a white outline sweeps across the top and bottom corners of the image. In the center, a solid green rectangular box contains the text.

# Challenges and opportunities

# Charting a nature positive pathway for the real estate sector

Globally, nature loss is occurring at rates previously unforeseen, leading us to a sixth mass extinction event.<sup>1</sup> This is significant because all societies depend on nature—from the provision of goods such as water, food, fuel, materials and fibres, to less visible services such as fresh air, climate regulation, soil fertility, pollination, and social and cultural benefits. Indeed, it is estimated that more than 50 percent of global GDP is moderately or highly dependent on nature—meaning that accelerating nature loss presents significant risks to the economy.<sup>2</sup>

At the same time, we are seeing growing action on climate change and recognition of the links between climate and nature. Against this backdrop, global and national landscapes are shifting us towards a less extractive relationship with nature.

**The real estate sector will, by necessity, feature prominently in this shift.**

Natural resources and systems are relied upon across the real estate value chain -from sourcing of building materials in the construction stage, to provision of water and energy during

building operations, long-term flood and storm protections for buildings, and tenant enjoyment of green spaces for social or health purposes. The sector is therefore highly exposed to the deterioration of natural environments across the globe.

Alongside these dependencies, the sector also impacts heavily upon nature and is estimated to be responsible for approximately 30 percent of global biodiversity loss.<sup>3</sup> Impacts include resource consumption, land clearing, habitat loss, waste production, greenhouse gas emissions, and the creation of the heat island effect in urban spaces. With urbanization continuing globally, the sector's impacts on nature are set to increase.

Many in the sector have long taken nature-related issues into consideration. However, the combination of growing sectoral dependencies and impacts, accelerating nature loss, and increasing recognition of the importance of nature to our society and economy, means the real estate sector is now at a critical juncture: either continue with the status quo, or reconsider its relationship with nature.

Whereas the former path will likely see increased challenges, the latter opens the possibility for increased business resilience, reduced costs, improved access to capital, green premiums, and reputational benefits. We are already seeing players differentiate through innovations such as low-carbon or recycled materials, sustainable design, and use of green spaces and revegetation. But there is more that can be done.

**So, what can real estate organizations do to move towards nature positive?**

A key first step is to better understand how we interface with nature. To this end, there is growing momentum behind nature-related assessments and disclosures. This is reflected in the emergence of government-led initiatives such as the Global Biodiversity Framework (agreed by 187 countries in December 2022) and market-led initiatives such as the Taskforce for Nature-related Financial Disclosures (expected to issue its final recommendations in September 2023).

Increasingly, real estate organisations will be expected to take four key steps:

- 1. Assess** your nature-related impacts, dependencies, risks and opportunities, starting with priority aspects of your value chain
- 2. Commit** to managing your identified impacts, dependencies, risks and opportunities, for example

through setting science-based nature targets at either location or portfolio levels

3. **Transform** your operations and strategy in-line with nature commitments, and embed nature-related considerations in risk and governance processes
4. **Disclose** publicly your approach to nature, in-line with emerging industry standards and frameworks.

In taking the above steps, real estate organisations should bear in mind some key guiding principles:

**Nature should be considered across the real estate value chain.** While many organisations already factor nature into their direct operations, a more holistic approach that considers sites, surrounds and supply chains is required.

**A shift in mindset is required**, from viewing nature as a set of compliance-related issues, to an interconnected system upon which business success depends.

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#### Endnotes:

1. World Wildlife Fund, "What is the sixth mass extinction and what can we do about it?," <https://www.worldwildlife.org/stories/what-is-the-sixth-mass-extinction-and-what-can-we-do-about-it>
2. "Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy," World Economic Forum. 2020. [https://www3.weforum.org/docs/WEF\\_New\\_Nature\\_Economy\\_Report\\_2020.pdf](https://www3.weforum.org/docs/WEF_New_Nature_Economy_Report_2020.pdf)
3. "Accelerating action for biodiversity: what the built environment sector needs to do," 2 November 2021. GRESB. <https://www.gresb.com/nl-en/accelerating-action-for-biodiversity-what-the-built-environment-sector-needs-to-do/>

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**Nature is connected to other sustainability issues**, in particular climate, health and wellbeing, and community engagement (including with indigenous groups). Identifying linkages across issues will help to take advantage of synergies and navigate trade-offs.

**Collaboration will be key to addressing the global nature crisis.** To affect meaningful change across real estate, governments, businesses, and non-profits will need to work together –recognising the joint challenges and benefits associated with the transition to nature positive.

Reversing nature loss is not an option but an imperative. For the real estate sector, it will be critical to long-term resilience, and organisations who move quickly will set themselves apart from their competitors.

# The spectre of stranded assets— risk or opportunity?

With an increasingly recognized and demonstrable connection between ESG credentials and the risk profile of real estate assets, numerous value and performance influencing drivers are now impacting market activity and exposing the risk of stranding.

The impact of climate change on real estate asset resilience—and therefore value and performance potential—is accelerating at pace. Accordingly, it is critical that investors and wider stakeholders develop strategies to identify, quantify and mitigate the “value at risk” of real estate asset portfolios through effective stewardship strategies.

## **Stranded assets and their causes**

The recent International Panel on Climate Change (IPCC) ‘Synthesis’ report emphasized the increased risk of stranded assets, if near term climate change mitigation and adaptation action is not taken. The term ‘stranded assets’ typically describes assets that have experienced “unanticipated or premature write-downs, devaluations, or conversion to liabilities.”<sup>1</sup> Stranding risks are often associated with climate change impacts and regulatory changes. However, in the context of the real estate market, a wider array of evolving stakeholder expectations needs to also be considered.

The exposure of real estate assets to physical climate change challenges such as heat stress and flooding risks, is driving the development and implementation of adaptation strategies to address asset resilience. This inevitably poses challenges regarding the prioritization and justification of capital investment into assets and long-term asset management decision making. However, the IPCC made it clear that “Deep, rapid and sustained mitigation actions would reduce future adaptation costs and losses and damages, enhance sustainable

development co-benefits, avoid locking-in emission sources, and reduce stranded assets and irreversible climate changes.”<sup>2</sup>

Whilst adaptation is a key part of managing risk from climate change, the regulatory landscape is also tightening rapidly, such that decarbonization pathways are now a key component of asset “transition” risk management. Reducing energy use and cutting carbon emissions of assets is critical to mitigating the risk of stranding. Whilst resulting energy efficiency will be of benefit from a “total occupancy cost” perspective, it is the adjustment to risk premia through reduced exposure to transition risk and evolving stakeholder demand that are likely to deliver greater financial impact—optimizing occupier appeal and the ability to secure finance in respect of such assets.

Transition risks are a key stranding threat—both where the trajectory of regulatory change is clear, but particularly so where the detail of impending legislative change remains unknown. Minimum Energy Efficiency Standards (MEES) in the UK market is such an example—UK government policy requires all commercial real estate assets to achieve a minimum EPC B rating by 2030; a significant percentage of UK office stock failing to comply with that requirement by that deadline would risk a corresponding percentage of UK office stock becoming unlettable. Similarly, ESG related compliance requirements in the EU are also mounting, with reforms to the Energy Performance of Buildings Directive (EPBD) aiming to drive rapid renovation across underachieving EU building stock. Asset owners and investors need to have strategies in place to both monitor exposure of existing assets to changing regulations as well as address such risks during any acquisition due diligence process.

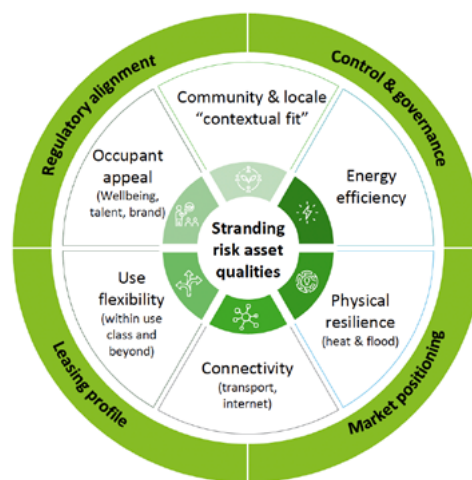
### Navigating the regulatory landscape

The Global Real Estate Sustainability Benchmark (GRESB), the Carbon Risk Real Estate Monitor (CRREM) and the Partnership for Carbon Accounting Financials (PCAF) have joined forces to provide investors and banks with technical guidance to measure and report financed emissions from real estate. The aim is to bring a standard methodology (including clear definitions) to the value chain. This technical guidance, which launched in March 2023, aims to help the value chain in the real estate sector effectively monitor, report, and set targets, accelerating the use of forward-looking analytics to manage transition risk and ensure regulatory alignment.

### Stranding risks are multifaceted

Evolving stakeholder expectations, flexibility and an asset achieving the right “contextual fit” within the real estate community are factors aligned to the broader ESG agenda that are equally important from a stranding risk perspective. Evolving occupier demands are driving landlords to provide real estate assets with attributes beyond energy efficiency (such as flexibility, wellbeing, and connectivity) as a means to attract/retain the best talent and as an outward demonstration of their brand. The result is that real estate assets that are unable to offer such credentials are exposed to risks such as cash flow interruption, weaker occupier covenants, and reduced liquidity. As noted in Deloitte’s London Office [Summer 2023 Crane Survey](#), mitigation strategies such as retrofitting and refurbishment are gaining momentum as a means to address such risks and take advantage of the polarization in occupational requirements.

Figure 1: Diagram depicts the multifaceted nature of asset stranding



### Managing impact and value

The impact of stranding is felt across all asset classes with financial stress (or distress) felt through accelerated value erosion, cash flow loss/disruption, reduced liquidity, and heightened capex needs. Increased management burden, more challenging (and expensive) financing potential and reputational risk are also symptomatic of stranding.

Asset-specific and portfolio-wide diagnostic exercises are now a critical component of the management process to identify stranding risk exposure; followed swiftly by scenario testing to provide an assessment as to the potential scale of impact and the timing over which it could be felt. Adopting such an overt and explicit approach should enable mitigation strategies to be established, and ultimately enable informed decisions to be made which seize the opportunities that inevitably emerge during times of such change.



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### Endnotes:

1. Smith School of Enterprise and the Environment, 2014.
2. IPCC, 2023.

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