



Creating sustainable value
Real Estate and ESG



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Executive Summary

ESG takes center stage: How does this affect the real estate industry?

Regulators mandate it, investors demand it, society expects it: Sustainability has become a strategic imperative across industries. Considering the fact that buildings account for significant portion of energy consumption and CO₂ emissions in China, it comes hardly as a surprise that the real estate sector's climate impact is under scrutiny.

At the same time, astute ESG strategies also open up attractive new avenues for growth and value creation for the sector, and lead the way to an ESG-proof business. This report presents nine expert contributions in which industry and ESG specialists from Deloitte discuss the manifold implications and opportunities for an ecosystem of financiers: Financiers, owners, property developers, investors, REITs, facility and asset managers. A major topic of discussion is of course the evolving regulatory landscape, where China is surely an important actor as it pursues its goal of carbon neutrality by 2060. The first contributions in this report focus on the Sustainable Finance Disclosure and the real estate aspects of the China Green Deal. Looking at operational and strategic implications, experts also discuss ESG investment management strategy implementation, and challenges in ESG data management. A separate section is dedicated to the important ways in which ESG can act as a value driver for the industry. Furthermore, when weighing up ESG imperatives and opportunities, it is crucial to embrace a holistic perspective, as another contribution underlines. This perspective needs to include the "S" and the "G" in ESG as well as the "E": In addition to pressing environmental issues such as climate change, social and governance issues must not be neglected in order to work towards a truly sustainable strategy for real estate players. Further contributions discuss the increasing importance of green lease arrangements and the challenges of the decarbonization of real estate across the complete asset life cycle.

We wish you many interesting insights while reading and will be happy to answer any questions you may have.

Kind regards,

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Article #1

Sustainable Finance Disclosure

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Regulators, investors, stakeholders and the public in general are increasingly holding businesses accountable for sustainable practices. The growing relevance of sustainability issues is also driven by recent legislative developments which reflect the urgency to mitigate environmental risks related to climate change.

**Hong Kong
The Environmental, Social and Governance (ESG) Reporting Guide published by the Hong Kong Exchange and Clearing Limited (HKEX)**

The ESG Reporting Guide was first introduced in 2012 for voluntary disclosure of ESG information. In 2015, the HKEX made it mandatory through a phased approach such that disclosure of qualitative environmental and social information are mandatory starting January 1, 2016 and quantitative

environmental figures are mandatory starting January 1, 2017.

In light of the convergence of reporting standards globally, with the recommended framework by the Taskforce on Climate-related Financial Disclosures (TCFD) being the mainstream, HKEX further enhanced the ESG Reporting Guide in 2019 to introduce elements of ESG governance and climate change, as well as change all social key performance indicators (KPIs) from recommended disclosures to "comply or explain".

Going forward, the Green and Sustainable Finance Cross-Agency Steering Group, of which HKEX is a member, already announced the objective of mandating disclosures aligned with TCFD framework no later than 2025. The HKEX has already released a step by step guide on climate disclosures in Nov 2021 to support such initiative.

Disclosure requirements on Green or Environmental, Social and

Governance (ESG) Funds by the Securities and Futures Commission (SFC)

In order to prevent "Green Washing" in the capital market, the SFC published a circular in Apr 2019 to the management companies of SFC- authorised unit trusts and mutual funds to mandate the disclosures required in their offering documents, concerning aspects such as investment focus, strategies, associated risks, etc., no later than December 31, 2019.

In June 2021, the SFC further enhanced such disclosure standards by introducing additional disclosures on asset allocation, reference benchmark, etc., with effect from January 1, 2022. In addition to offering documents, Green or ESG Funds should also disclose through appropriate means such as annual reporting their policies and practices in ESG focus execution and attainment, due diligence, etc.

Requirements on Climate-related Risk Management and Disclosure of



Fund Managers by the Securities and Futures Commission (SFC)

Other than Green or ESG Funds, SFC also requires fund managers managing collective investment schemes to take climate-related risks in to consideration in their investment and risk management processes as well as make corresponding disclosures with effect from as early as August 20, 2022 for large funds. Fund managers are required to establish proper governance for climate matters, consider climate risk in investment management and incorporate climate risks into risk management framework.

Mainland China

A-share listed companies' ESG disclosure in Mainland China is primarily government-guided and policy-driven, with stock exchanges promulgating detailed guidance on implementation.

Neither Shanghai Stock Exchange (SSE) nor Shenzhen Stock Exchange (SESE) has mandatory requirements on climate change or environmental disclosure. SESE and SSE have issued guidance on listed companies' social responsibility in 2006 and 2008, respectively, requiring companies to shoulder social responsibility and encouraging disclosure of information about environmental and social responsibilities. On January 7 2022, SSE has amended several articles of the Rules Governing the Listing of Stocks on the SSE, requiring listed companies to proactively practice sustainable development, shoulder social responsibility, and step up biological and environmental protection efforts.¹ SSE also mandated that listed companies shall disclose information about social responsibility implementation.

Mainland Chinese regulatory bodies:

Below illustrates the evolution of Mainland China ESG information disclosure policies:

- In 2003, the Ministry of Ecology and Environment of the People's Republic of China (formerly known as State Environmental Protection Administration) required that corporations on the List of Seriously Polluting Enterprises defined by provincial environmental protection authorities should disclose information regarding its emissions and environmental protection measures.
- In the annual reporting standard and semi-annual reporting standard of listed companies issued by the China Securities Regulatory Commission (CSRC) in 2016, it stated that companies and its subsidiaries being defined as Key Pollutant Discharge Units by the environmental protection authorities should make mandatory disclosure for its environmental information according to relevant laws and regulations.
- In June 2021, the Ministry of Ecology and Environment of the People's Republic of China published the Plan for the Reform of the Legal Disclosure System of Environmental Information, with an aim to establish mandatory environmental information disclosure system by 2025. It required CSRC to revise the reporting standard of listed companies to include environmental information as mandatory disclosures, including in initial public offering (IPO) prospectus.
- In June 2021, the CSRC published the Standards for the Contents and

Formats of Information Disclosure by Companies Offering Securities to the Public No. 2-Contents and Formats of Annual Reports (2021 Revision) and Standards for the Contents and Formats of Information Disclosure by Companies Offering Securities to the Public No. 3—Contents and Formats of Semi-Annual Reports (2021 Revision). Comparing with the 2017 Revision, the 2021 Revision further defined the standards and formats for ESG information disclosure:

- Environmental: Requiring enterprises to disclose qualitative and quantitative emission information, and penalties arising from environmental problems during the reporting period; encouraging enterprises to disclose carbon reduction initiatives and the results achieved, thereby arousing attention on environmental production and carbon emission reduction.
- Social: Revising the disclosure requirement of "fulfilling its responsibilities in combating poverty" to "reinforcing poverty reduction, rural revitalisation, etc."
- Governance: introducing key stakeholder reputation and credit management, enhancing internal multi-dimensional monitoring and regular evaluation, thereby strengthening management of investor by enterprises.

On January 4, 2022, Ministry of Ecology and Environment released the Rules on the Format of Corporate Environmental Information Disclosure (effective from February 8, 2022). The Rules specifies the content and format of companies' annual/ interim environmental disclosure reports. The required items include: the enterprise's

environmental management; production, management and emission of pollutants; carbon emission; compulsory inspection on clean production; biological and environmental contingency plans; violation of biological and environmental rules; interim report on environmental disclosure and so forth.²

For the real estate sector, the MOHURD issued the Carbon Emission Calculation Standard in 2019 to specify the definition, scope, emission factors and calculation method for buildings. In 2021, MOHURD issued an announcement on the national standard General Specification for Building Energy Conservation and Renewable Energy Utilization³, which will take effect from April 1, 2022 as a compulsory project construction specification. Key progresses include setting clear, mandatory standards for carbon emission intensity and energy saving rates, and taking building carbon emission calculation as a mandatory requirement.

Opportunities and challenges in the real estate industry

These requirements create both opportunities and challenges for real estate asset managers: Opportunities for product differentiation, not only in relation to the environmental aspect but also with respect to the social impact of real estate projects on people, particularly low-income and vulnerable populations in need of support and stability; and challenges,

when it comes to real estate asset data gathering to meet these disclosure requirements and in identifying the necessary resources and expertise for effective integration of sustainability risks in their due diligence policies and processes.

Along with the real estate asset managers there is an ecosystem of investors, financiers, partners such as property and facility managers, as well as external providers of real estate products such as project developers and suppliers of building materials that constitute the real estate value chain. Although the requirements directly impacts the real estate asset managers, reporting and transparency in relation to sustainability must be achieved along the entire length of the value chain.

The impact of sustainability risks is determined not only by operating real estate properties, but also by the investment strategies and fund management activities. Fund and asset managers must interact closely with the operating participants of the value chain in order to face the challenges of data gathering and sustainability impact measurement and meet the new disclosure requirements. The requirements creates expectation from every player in the real estate value chain to support the funds' product differentiation and sustainability strategies in their own policies and operating practices.

Certain adverse sustainability impact

indicators are specific to real estate. One indicator is the exposure to fossil fuels through real estate assets, measured as the share of investments in real estate assets involved in the extraction, storage, transport, or manufacture of fossil fuels. The second indicator measures the exposure to energy-inefficient real estate assets. Real estate asset managers will have to look for the appropriate resources and expertise to be able to measure these indicators and make a meaningful disclosure. The lack of consistent and comparable data across countries for benchmarking building performance and setting suitable thresholds for the top performing buildings represent a challenge for the required measurements.

It is therefore essential that real estate asset managers react quickly to face the challenges.

Besides, an analysis conducted by Deloitte China in 2020 on the ESG disclosures of Hong Kong listed companies found that although disclosures on environmental data of real estate sector were relatively mature, social data such as those relating to occupational health and safety remains a shortfall. Real estate participants are therefore recommended to enhance their ESG data mechanism so as to embrace the ESG aspects more comprehensively.

1, http://www.sse.com.cn/lawandrules/sselawrules/stock/main/listing/c/c_20220107_5679269.shtml

2, https://www.mee.gov.cn/xxgk2018/xxgk/xxgk05/202201/t20220110_966488.html

3, https://www.mohurd.gov.cn/gongkai/fdzdgnr/zfhcxjsbwj/202110/20211013_762460.html

Article #2

China and EU's Climate Change Plan What's in there for real estate companies?

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The EU and China represent two of the world's biggest economic areas and largest emitters of greenhouse gas. Their plans, announced July 14, 2021, have long been under discussion and are expected to take years before they are fully implemented. But they are considered by many policymakers to be important steps to fight climate change, although some environmentalists say the proposals don't go far enough.

Climate change objectives and policies in China

In China, with the "Dual Carbon" Goals released on September 22, 2020, President Xi Jinping announced China's climate goal to peak carbon emissions before 2030 and reach carbon neutrality before 2060. The goals demonstrate China's commitment to enhancing its nationally determined contributions (NDCs) and proactive roles in global climate governance. China has also formed the "1+N"⁴ climate policy system to coordinate and implement sector-specific policies under an overarching framework.

On February 14 2019, the NDRC, MEE and five agencies jointly released the Green Industry Guiding Catalogue, prioritizing policy and financial support to sectors: energy saving and environmental protection, clean production, clean energy, ecology and environment, green upgrading of infrastructure, and green services.

The 14th Five-Year Plan period marks a critical time for realizing PRC's environmental policies.

- October 29, 2020: The fifth plenary session of the 19th CPC Central Committee adopted the Suggestions on the 14th Five-Year Plan (2021-2025) for National Economic and Social Development and the Long-Range Objectives Through the Year 2035, which was promulgated in Mar 2021. The Plan specifies roadmap and binding goals to realize carbon emission peak by 2030 and carbon neutrality by 2060. The Plan focuses on carbon intensity control with a secondary focus on total carbon emission control and support qualified localities, key industries, and key enterprises in taking the lead in reaching peak carbon emissions, with a binding target of reducing carbon emission per capita GDP by 18%. It also calls for promoting low-carbon cities construction, 'smart' construction, and using green building materials.
- December 29, 2021: The 14th Five-Year Plan on Soil, Underground Water and Rural Ecology and Environmental Protection aims to enhance protection for rural and agricultural environment and soil/ underground water quality by 2035 with green and low-carbon restoration measures.

Similarly, to support China's abovementioned initiatives, the Hong Kong SAR Government released its Climate Action Plan 2050 in Oct 2021,

announcing its target to achieve carbon neutral by 2050, with the vision of "Zero-carbon Emissions Liveable City Sustainable Development". To achieve this target, Hong Kong's carbon emissions would have to be reduced by 50% before 2035 as compared to 2005 level⁶.

Among the four major decarbonisation strategies in Hong Kong's Climate Action Plan 2050, "Energy saving and green buildings" is considered most relevant to the real estate sector. It aims at reducing the overall electricity consumption of buildings 30% to 40% and 20% to 30% for commercial and residential buildings respectively from the 2015 level by 2050 (with half to be achieved by 2035), through promoting green buildings, improving buildings' energy efficiency and promoting a low carbon lifestyle.

Meanwhile, the Environment Bureau launched the "Carbon Neutrality" Partnership programme in Oct 2021 to gain support from the commercial world for the 2050 carbon neutrality goal. There are 60 partners joining the pledge to support the goal, of which quite a few are from the property development sector. The programme encourages partners to set targets and timetables to support, including but not limited to, renewable energy, green buildings and green transportation.

4, "1" stands for one guidance, "N" stands for numbers of action/implementation plan

5, National Development and Reform Commission, Ministry of Ecology and Environment, Ministry of Housing and Urban-Rural Development, Ministry of Industry and Information Technology, Ministry of Natural Resources, National Energy Administration, and People's Bank of China.

6, <https://www.info.gov.hk/gia/general/202110/29/P2021102900607.htm>

Article #3

Real Estate Investment Management in the light of ESG

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In the current situation, real estate investment managers (REIMs) need to integrate ESG aspects into their long-term strategies in the light of new requirements and changing markets.

Beyond mere compliance, the resulting transparency and comparability of funds and products affords managers new growth opportunities.

To start the journey and achieve a future-proof organization, REIMs should determine their ESG ambition level, and then develop products and align processes accordingly.

How to navigate through the ESG jungle to define and implement a future-proof organization

Over the past years, the relevance of real estate funds with an ESG-focus has increased. While some players managed to establish themselves successfully as sustainable Real Estate Investment Managers (REIMs), others only did little to prepare their organizations for this shift.

Some players dedicated a large part of their recent efforts ensuring the requirement is implemented – which felt more like a box ticking exercise rather than incorporation the ESG potential in their long-term strategy. However, one thing is clear: REIMs must react now to create a profound basis for their future business. Having realized this, the first step includes the definition of an individual ESG ambition level – meaning, REIMs have to define whether and to what extent they aim to integrate ESG criteria across their value chain. These questions go way beyond requirement considerations.

To comply with the Paris Agreement, the global average building energy intensity per square meter must shrink by at least 30% by 2030⁷ – a massive undertaking. Therefore, the sector is in the spotlight of politicians and regulators, experiencing a continuous pressure for mitigation efforts.

REIMs experience extended disclosure expectation from the stakeholders. Enforcing a higher

transparency and setting the criteria for a common definition of activities that are environmentally sustainable, those regulations allow for better comparability of investment products. They set a new pace for the industry, requiring REIMs to align their business.

However, not only regulations drive the industry to shift towards more sustainable and transparent strategies. Two years ago, a study conducted by UNEP FI, Brentall Kennedy & REALPAC among 44 fund managers, asset managers, and REITs representing more than USD 1 trillion assets under management, found 83% of the respondents to experience an increase in investor demand for sustainability performance disclosure⁸ Since then, we saw this trend progressing steadily. Our expectation therefore is that the number of ESG or impact products will rise and that sustainable strategies will accelerate even further, with conventional funds in China being put under pressure as the offer of green funds increases globally.

One thing is clear: to account for this market shift, REIMs must define and implement a sustainable strategy to create a profound basis for their future business. If not, they may suffer from reputational damage and decreasing investor demand. While not suggesting a REIMs offering should purely focus on ESG-impact products, it rather implies that investment managers need to ensure having a clear vision on to what extent they aim to implement

7, Global Alliance for Buildings and Construction (2018), https://wedocs.unep.org/bitstream/handle/20.500.11822/27140/Global_Status_2018.pdf?sequence=1&isAllowed=y.

8, UNEP FI, Brentall Kennedy & REALPAC (2019), <https://www.unepfi.org/wordpress/wp-content/uploads/2019/03/Global-ESG-Real-Estate-investment-Survey-Results.pdf>.

ESG in their products, assets, and their organization.

What we currently see on the market is that many REIMs are trying to establish themselves as "ESG players". In some cases, this is strongly driven by the ambition of labelling products as green, but lacks a clear long-term concept involving the entire organization. With regulatory compliance being the first priority, operationalizing a long-term strategy in some cases falls out of sight. It seems as if some players in the industry dedicate a large part of their efforts to extinguish fires caused by new regulatory requirements and a long-term denial of the topic's importance.

Defining a sustainable ESG-strategy considering a REIMs individual ambition level

To unravel these circumstances, defining a sustainable ESG-strategy on company, product, asset, and data level is key. Preliminary task should be the definition of an individual ESG ambition level, meaning REIMs should define whether and to what extent they aim to integrate ESG criteria across their value chain. Key questions to answer within that stage are:

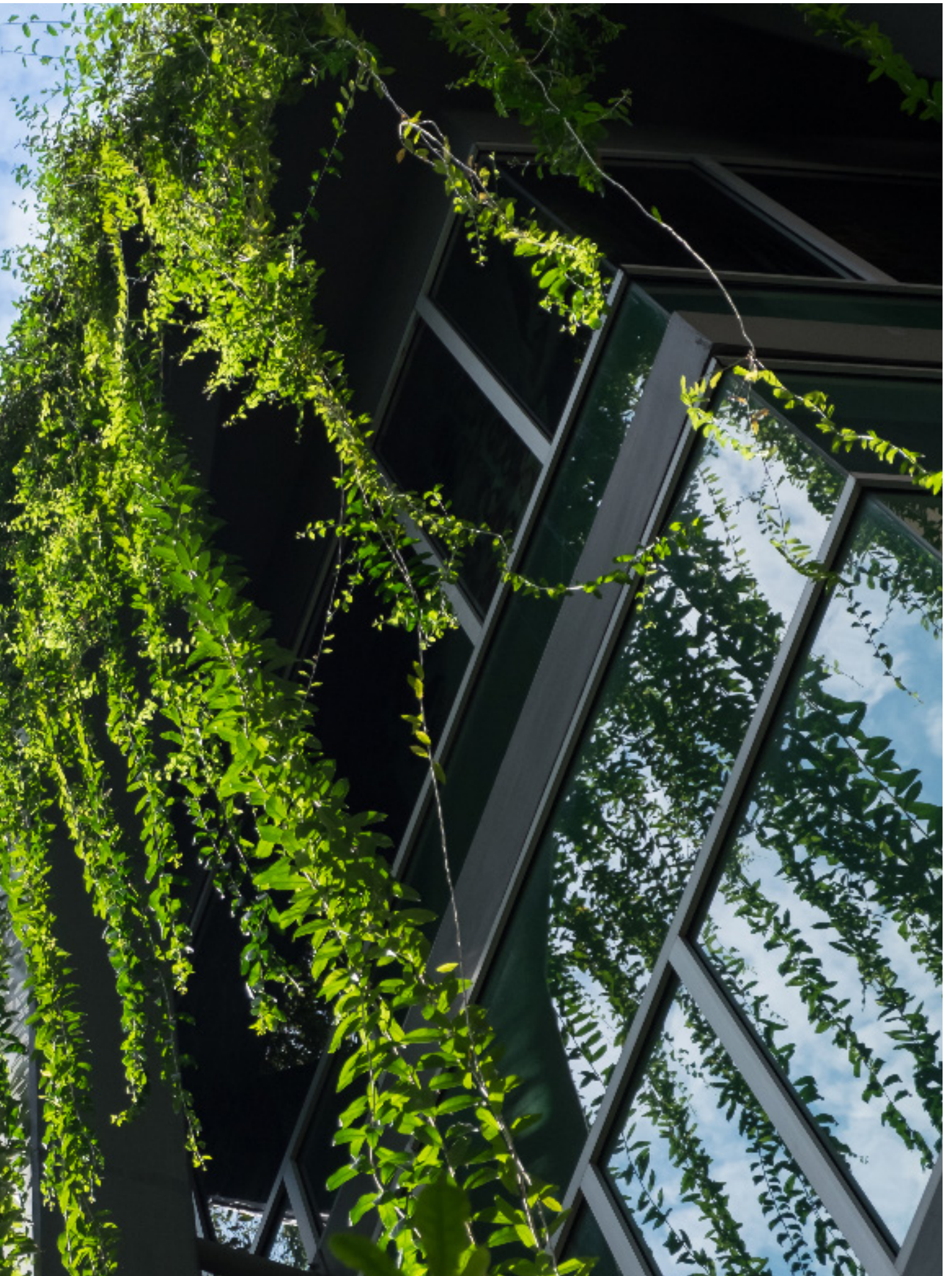
1. Does the REIM want to manage/sell ESG products?
2. Does the REIM want to act solely as an adopter or does the company aspire a pioneering role?

Setting the grounds for strategy implementation

With that being answered, the ESG strategy should be derived in-line with the individual ambition level. This includes the definition of concrete measures across the entire value chain. While players who do not want to focus on managing/selling ESG products only need to comply with certain regulatory requirements, adopters or pioneers should already consider measures that go beyond that. In a second step, defined measures should be prioritized, linked to a realistic timeline, and assigned to resources. Finally, it is key to establish a steering model that enables the measurement of performance and success during and after the implementation.

Altogether, REIMs defining and implementing a concrete ESG strategy will set the grounds for a future-proof organization and gain competitive advantages. We clearly see those with a mature ESG organization increasing their attractiveness to various stakeholders: from employees to investors and tenants. Hence, as REIMs navigate through the ESG jungle the big picture in defining and implementing a future-proof organization should be considered – instead of focusing purely on regulatory compliance.





Article #4

Decarbonization of real estate

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It's time for action

Energy use in buildings for lighting, heating or cooling leads to direct or indirect CO₂ emissions. Building materials also carry embodied carbon resulting from their mining, processing, manufacturing, transportation and installation. With carbon embedded in nearly every phase of building construction and operation companies have to start with their decarbonization program to be able to contribute to China's ambitious goal of 2060 carbon neutrality efforts.

To understand the decarbonization of real estate in further detail, it is important to shed light on the elements of decarbonization in each phase of the real estate life and consider the essentials of a decarbonization strategy and its specifications.

Decarbonization of real estate

Currently, roughly 75% of buildings in the EU are not energy efficient, yet 85–95% of today's buildings will still be in use in 2050. Meanwhile, in Hong Kong, buildings account for around 90% of the electricity consumption, and over 60% of the carbon emission in Hong Kong⁹. Thus improving energy efficiency in existing buildings plays a key role in achieving the carbon-neutrality by 2050. The other key part concerns the construction of new buildings.

If we consider the whole life cycle of a building (approximately 50 years) there are different phases on which companies from the building sector (construction and real estate) must have an influence: design, construction, usage, renovation and demolition.

Furthermore, there are two types of buildings' carbon footprint: operational and embodied. The operational carbon footprint is defined as the amount of greenhouse gases directly generated as a result of building operations. The embodied carbon footprint is associated with the production of building materials and products, transport, and construction processes.

Design and Construction

Carbon efficiency results are significantly related to decisions taken at the design stage.

In China, the government has not specified binding standards or carbon emission control target for green buildings. However, low carbon requirements are embedded in the assessment and rating process. For example, The Assessment Standard for Green Building (GB/T 50378-2019)¹⁰ grades buildings' resource saving performance based on energy consumption saving indicators in regard to water, air conditioning, lighting, and construction materials etc.

To aim sobriety in energy, setting rules on carbon at the design and construction planning stages is key

for China and designers and project planners have multiple options on the table:

- Increase the proportion of bio-based materials (wood, clay, wool and even straw) usually available locally.
- Pay attention to more mainstream materials carbon footprint.
- Think in terms of "Cradle to Cradle" (C2C), using modular techniques, which can reduce up to 40% of the environmental footprint and/or foreseeing the deconstruction phase.
- Lean on BIM technology for more efficiency, and form "material banks for the future" (what material will be available when a building will be deconstructed in 50+ years?).
- Produce energy on site (solar panels, heat pumps, heat networks, etc.) Project owners are already translating these objectives in their specifications. This will only reinforce an already strong demand of green assets from investors. Therefore, this is key in terms of differentiation from competitors.

Usage

Decarbonization of buildings focuses mainly on net zero-emission in terms of facility use. Regarding existing buildings, this status can be achieved through major renovation, renewable sources of energy, "green energy" purchasing, efficient management systems and transition to non-carbon heating and cooling sources. However, carbon efficiency results are significantly related to decision

9, https://www.enb.gov.hk/sites/default/files/pdf/EnergySaving_EB_EN.pdf

10, <http://download.mohurd.gov.cn/bzgg/gjzbz/GBT%2050378-2019%20%E7%BB%BF%E8%89%B2%E5%BB%BA%E7%AD%91%E8%AF%84%E4%BB%B7%E6%A0%87%E5%87%86.pdf>

taken at the design and planning stage. But there are numerous things that can be done besides of these phases.

First, considering life cycle perspective, a major issue is to use the facility for as long as possible, assuming good energy efficiency status. Sometimes, a good solution is to find another use for existing buildings without major renovations and adaptations. This reduces the carbon footprint of the construction and reconstruction process.

Second, increase the intensity of the building's usage. Indeed, many buildings have only one function (i.e., offices or housing), therefore, they are only partially used during the day and night. Considering that the coatings of buildings are significantly improving, transferring heat or cold through smart ventilation systems from office to housing at night could generate vast energy savings.

Third, one of the most rapidly developing branches of technology is the Internet of Things (IoT). It has the potential to reduce the cost of consumed energy by controlling the lighting and temperature of rooms that are currently not occupied. The system allows to control the basic functions of the building from the mobile phone or tablet from anywhere. The central units can be adapted to the occupiers' needs, so that when they are outside the property, unnecessary installations are switched off and before arrival the building is being prepared again. However, the owners are the key link in the decarbonization process. They

are the ones who make most of the decisions related to the design of the building as well as its subsequent use. That is why raising their skills in managing their properties and the knowledge and awareness of decarbonization are so important.

Renovation

"Only little of buildings undergo energy efficient renovation every year, so effective action is crucial to making China carbon-neutral by 2060".

If owners don't take into consideration the wholeness of each energy savings deposit at the beginning of renovation project (e.g., addressing simultaneously roofing and attic, ventilation, windows, heating and hot water, walls, floors, and airtightness) many problems can arise.

Real estate companies need to consider decarbonisation strategies that cover the entire life cycle of assets.

It is essential to address both operational and embodied carbon footprints.

Companies should embrace a holistic strategy of decarbonization, energy optimization, and circular economy that covers all lifecycle phases, including design, construction, use phase, renovation, and demolition.

An emissions reporting and reduction commitment of industry leaders would be desirable, ideally in accordance with standards and tools.

As for Hong Kong, although construction waste increased by about 17% in 2020, its recovery rate rose from 92% in 2019 to 94% in 2020, resulting in a drop of about 13% in the quantity disposed at landfills¹¹. Such decreasing trend has been remained since 2016, demonstrating the success of Hong Kong in diverting C&D waste away from landfills. In China, the 14th Five-Year Circular Economy Development Plan¹² aimed to have 60% recycling rate for multiple utilization purposes by 2025 (which has reached 50% by 2020).

Public Policies are already or will soon be taking these goals into consideration as they translate the will of China in their respective regulations. In the meantime, asset managers should start preparations for a complete and efficient renovation strategy.

Decarbonization strategy and management

As outlined previously, operational and embodied carbon footprints are the two types of carbon footprint in a building. The operational part is directly generated by all building operations. The embodied part is associated with the production of building materials and products, transport, and construction processes. Good practice in this area should be based on circular economy principles. That emphasizes the importance of decisions taken at the design and planning stage, which affect both new and existing buildings.

11, <https://www.wastereduction.gov.hk/sites/default/files/msw2020.pdf>

12, http://www.gov.cn/zhengce/zhengceku/2021-07/07/content_5623077.htm

This requires action on building energy policies, technology choices and energy efficient measures. Proper building management and facilitate maintenance is an important activity during the operational life of a building, because at this stage it is possible to offset lifetime greenhouse gas emissions. Recommended actions in this area are the adoption of energy performance tools, systems and standards enabling evaluation, monitoring and energy management. Investors need to understand how the identification and assessment of climate-related risks is integrated into existing risk management processes. Regulatory and emerging requirements (e.g. emission limits) as well as other relevant factors related to climate change should be taken into account.

Thus, a commitment by industry leaders to report and reduce emissions should be made in accordance with international standards and tools, such as Science Based Targets, Carbon Disclosure Project or Net Zero Carbon Building Commitment, the GRESB initiative, the CRREM tool, or the ACT initiative and GHG Protocol. Investing in new technologies is essential to managing transition risk as well. Changes in demand and the subsidy of regulatory measures to sustainable investments significantly affect investors earning potential and appropriate risk management. Producers and suppliers of building materials are also responsible for the size of the embodied carbon footprint. They should strive to

maximize the use of renewable energy sources in production and transport and to adapt their business models to the principles of a circular economy. Communication on climate change, which involves educating, informing, warning, mobilizing or inspiring, is another issue that needs to be significantly emphasized. Proper stakeholder identification, active management and communication can define project success and contribute to rapid emergence of new solutions.

Strategy recommendations

Make no mistake, the race has already started. China has set the relevant rules and will continue to reinforce them. Real estate industry should adapt business to the following strategies as an expected approach to fulfill multiple sustainable objectives:

- Be compliant with regulations and guidelines.
- Detect early on new opportunities to control the cost of building operations and to stay one step ahead of your competitors.
- Attract investors whose appetite for green assets is far from being satiated.
- Reinforce your employer brand to maintain your attraction towards new talents.

Based on current experience in cooperation with clients across a range of sectors including the construction and real estate industries, it is evident that defining

both the level of decarbonization ambition as well as specific decarbonization targets and roadmaps is a key activity within the broader business and strategic context of corporate development and transformation. The level of accepted climate ambition and the expected speed of decarbonization will impact the level of costs as well as the level of opportunities and risks, market and reputation for the real estate companies. An entity's strategic approach will have major impact on future business.

Many entities are at a "crossroads", because they must make strategic decisions in the face of uncertainty and consider (on a risk-reward basis) which side they will decide to focus on – e.g. attaining gains or mitigating risks connected with climate transformation and physical risks.

There are two major basic climate scenarios driving targets and decarbonization initiatives. An entity may choose the "compliance path" – plan minimum effort to be aligned with national neutrality plans and other regulatory obligations to line up with the level of ambition of Chinese Net Zero 2060. Alternatively, companies will drive to be among the "leader's ambitions" who are moving faster toward carbon neutrality, valuing the market and reputational opportunities arising from the common good of limiting climate change more highly than the risks associated with the technological and cost constraints of the transition.

Article #5

ESG data management in the real estate industry

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Strategies for ESG transparency and compliance require solid data foundations, and this is why real estate companies should strive to establish a single data model and define key ESG metrics. However, collecting, harmonizing and aggregating real estate ESG data entails a number of challenges:

The variety of asset types and technologies deployed in properties for tracking data (e.g. energy consumption) increases the complexity of data integration across the portfolio.

Different calculation methodologies, metrics and indicators used across jurisdictions imply a step of transformation to align the raw data collected from different assets and from different countries to one single data model.

The picture is complicated further by the partly qualitative nature of social and governance metrics as opposed to mainly quantitative environmental metrics, making it difficult to derive unified ESG KPIs. At the same time, managers should be able to drill down from KPIs to individual assets and identify the ESG impact each asset has at portfolio level.

ESG - yet another data management challenge for the real estate industry?

ESG challenges are becoming a higher priority for businesses across the real estate sector, making data management more important than ever. Achieving a single data model and defining the key metrics for ESG are issues real estate players can no longer afford to ignore.

With both real estate investors and regulators demanding more sustainability disclosures, players in real estate investment management ("REIM entities") – from property development and/or investment companies to REITs and real estate asset managers - need to focus their efforts on the related data

management challenges. This includes agreeing to a single data model and defining key ESG metrics with the aim of achieving uniform, transparent reporting on ESG performance. There are three key areas to address: the complex nature of real estate investment platforms (both in terms of structure and jurisdiction), a lack of maturity in data management and the need for robust technology solutions.

The complex nature of real estate investment platforms

Investment strategies in real estate are more complex than asset classes such as private equity, which have much leaner structures. The different layers, jurisdictions and actors on real estate investment platforms pose challenges when it comes to retrieving environmental, social and governance (ESG) data for reporting purposes.

With real estate assets, actors and vehicles domiciled in different jurisdictions, entities such as TopCo, HoldCo, PropCo, joint ventures and others are subject to different regulations and standards.

This layering and diversity accentuate the challenges faced by REIM entities required to report on their ESG performance.

Collecting the necessary data is not the only difficulty they face - data harmonization and aggregation promises to be even more challenging.

Data collection

One difficult aspect of collecting data for ESG reporting is the variety of asset types (i.e., commercial, residential, hotel, logistic, retail, office, etc.), which each use a different data management system. The availability of automated data collection and reporting tools is a huge factor here. For example, some offices may be equipped with internet of Things (IoT) technology to monitor energy consumption and other data. When this is integrated with facilities or building management software, businesses will have the ability to measure structured ESG metrics, especially in terms of environmental impact. Other type of assets, especially in the logistics area, may use different software systems, may only offer measurement tools in new builds or may be unable to leverage the same level of technology or to collect data with the same frequency, type and granularity.

The degree of data granularity needed to calculate ESG Key Performance Indicators (KPIs) poses additional challenges. For example, collecting data by unit and for every single tenant is much more complex than collecting asset-level data that disregards tenants. And to ensure the ESG KPIs are consistent, REIM entities will likely have to capture data with the same degree of granularity across the property portfolio.

The disparity between E, S and G metrics also plays a big role in the data collection challenges. According to a recent internal analysis by Deloitte, 45% of the data collected and reported by REIM entities relate to environmental metrics, 37% to social metrics and 18% to governance metrics. Environmental data such as carbon emissions, for example, are more quantitative and therefore measurable, making it much easier to capture and report. Social and governance metrics such as freedom of association or exclusion principles, on the other hand, are more qualitative and declarative, which makes them more difficult to monitor.

Other factors that can complicate the data collection process are the country of origin and jurisdiction of various entities and players, whether it is the assets themselves, related asset-level counterparties (i.e., property managers, agents, suppliers, contractors, tenants, etc.), asset and portfolio managers, investors/limited partners or investment vehicles. Disparities in the disclosure requirements, regulations (e.g., authorization to access and use data) and data security of these jurisdictions may restrict access to information as well as information flows. This is particularly true when ESG reporting requires tenant information and other personal data. Defining data standards, such as the formulas for unit measurement, will also require special attention depending on the

country in question. Lastly, language barriers may make communication and comprehension more difficult when data is shared across borders.

The complex layering of the investment structure and the actors involved at each layer will impact ESG data collection as well. All stakeholders may be using different technology platforms to collect, record and monitor their data. When it comes to integrating data at the portfolio and investment platform level, having a different degree of granularity or a different reporting template may pose problems. It is crucial for REIM entities to define standards for data collection, which will help them and their servicers to clarify, align and ease the process. This will also be a key step in addressing the second challenge: data harmonization and aggregation.

Data harmonization and aggregation

Once REIM entities are able to collect and retrieve data from all the relevant layers in the real estate investment platform, they will face a second challenge: data harmonization and aggregation.

Aggregating and harmonizing qualitative and quantitative data is by nature a complex endeavor. Most ESG data is non-financial and may in some cases - especially for social and governance metrics - be more qualitative than quantitative. This makes it difficult to draw precise

conclusions for the decision making process.

With different calculation methodologies, metrics and indicators used across jurisdictions, there must be a system in place to align the raw data collected from different assets and from different countries into a single data model to derive the ESG KPIs. This is yet another data set for REIM entities to manage, in addition to the effort they are already putting into aligning, monitoring and validating the data they collect for other purposes.

REIM entities should also make sure they have the capacity to drill down from an ESG KPI to the asset level, so that they can identify the impact or weight of each asset for the portfolio as a whole. This highlights how important it will be to trace individual elements of aggregated data points and provide users the possibility to navigate up and down the investment structure at the asset, portfolio and investment platform levels.

Solutions and future opportunities

REIM entities can rely on different types of technology to help address the data management challenges for ESG reporting in the real estate sector.

There are targeted real estate solutions developed to collect ESG data at source, the majority of which are cloud-based software solutions used by asset operators. They rely on templates specifically designed to capture ESG data for the real estate sector, perform basic quality control functions and normalize the data based on a specified data model.

There are also solutions that address broader needs, such as portfolio monitoring tools offering specific modules for ESG data management. These assist with ESG data collection and reporting on the basis of standardized data sets and dashboards that can be customized as needed.

In addition to software solutions, we are also seeing asset servicers start to offer data management services dedicated to ESG metrics.

New technology solutions and data management services are still emerging, and the market is likely to develop and propose further innovative solutions and services in the coming years. This will go hand-in-hand with the changing ESG reporting landscape, as technology providers and asset servicers seize opportunities to answer a growing demand for comprehensive, accurate ESG reporting in the real estate investment sector.

Article #6

RE-thinking Due Diligence - ESG impact on M&A

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In the context of mergers & acquisitions, ESG aspects introduce a new dimension of transaction risk for real estate players, from compliance risk to operational and reputational risk.

Companies should therefore adjust existing ESG due diligence approaches to industry needs and standards, establish appropriate KPIs, review targets and identify ESG red flags.

For targets with utilization phase assets, the focus is mainly on environmental KPIs (e.g. existence of environmental policy, compliance, renewable energy use).

Targets from the project development space may require additional checks on social and governance aspects (e.g. workers' health and safety, anti-money-laundering and anti-bribery policies).

Shedding light on the increasing role of ESG in real estate M&A deals

Evidence is mounting that business performance is impacted by environmental, social and governance factors and recent developments demonstrate that the speed at which those elements become material is increasing. Drivers of this accelerating change are, for example, increasing transparency based on improved data availability around environmental, social and governance (ESG) factors, society's changing expectations as public awareness of social and environmental challenges increases and growing influence of investors as they integrate ESG factors into the core due diligence process. Hence, ESG has found its way to the Mergers & Acquisitions (M&A) business. The real estate industry has been a particular focus of regulatory bodies, primarily as the sector contributes to 36% of EU CO₂ emissions¹³. ESG due diligences provide meaningful insights for investor prior to a transaction. This article sheds light on the general concept of ESG due diligences and its specifications and particularities with regards to the real estate sector.

Shareholders and stakeholders increasingly expect their companies' management to focus on sustainability and contribute to global environmental goals, to act socially responsible and to become more inclusive and diverse. In other words, issues such as human rights violations,

environmental ruthlessness or other ethical infringements can have vast negative influence on business as the companies' actions are increasingly impacting on how their stakeholders interact with and what shareholders demand of them. Consequentially, in the context of transactions, ESG aspects constitute financial and reputational risks. Investors seek for more transparency before signing a deal to avoid potential pitfalls linked to ESG concerns. This growing awareness for ESG amongst investors gives rise to ESG due diligence which is evolving from a niche to a widely known term and required competence in the M&A business.

Especially for deals in the real estate industry, ESG due diligence enjoys increasing prominence as the sector faces being closely monitored by governmental bodies and prudential authorities over its environmental impact. The investment in European assets should not be left unmentioned, as the EU Taxonomy included in Sustainable Finance defines the criteria for ecologically sustainable activities and investments, making the impact of the investors' business on the climate and other environmental criteria transparent.

ESG due diligence takes the China and international regulations into account. Vigilant due diligences highlight red flags and may optionally also assess risks and opportunities and future value creation potential (e.g. cost reductions through increased energy efficiency).

13, European Commission: New rules for greener and smarter buildings will increase quality of life for all Europeans, April 2019

General concept of ESG due diligences

Generally, ESG due diligences analyze the compliance of the targets with China and international regulations as binding frameworks as well as non-codified stakeholder ESG-related norms and expectations. Further, it highlights the environmental, social, and governance status quo of a company.

With regards to the environmental dimension, a due diligence includes the existence of internal policies, responsibilities and management with regards to several environmental aspects (esp. energy, CO₂ emissions, materials, water usage and waste) summarizing the ecological impact of the business model as well as how it interacts with all key environmental stakeholders and works to mitigate its impacts.

The social dimension covers policies and responsibilities concerning social aspects, such as human rights, labor standards, health & safety, diversity and equal opportunities among others.

Finally, the governance dimension constitutes of analyzing the risk management systems, the existence of corporate codes of conduct (anti-bribery, anti-corruption, etc.) and the transparency of board and management decisions and remuneration.

It is of note that the approach to ESG due diligences is not a "one size fits all" approach for all industries. Each industry presents its own array of environmental impact and stakeholder interaction that must be considered. For example, a target in the chemical industry would have a particular emphasis on the environmental factors such as disposal of hazardous waste, whereas for a target in the textile industry the focus may lay on the social factors such as child labor or poverty wages. Hence, ESG criteria need to be selected from a bouquet of KPIs taking industry-specific and target specific factors into account.

KPIs for the real estate industry

For the real estate business with assets in the utilization phase, environmental topics outweigh social and governance KPIs as the industry's impact on the environment stands in the foreground. Due diligences hence may focus on environmental KPIs such as the existence of an environmental policy (and a responsible team), its compliance with national and international regulations, the usage of renewable energy and the existence of monitoring systems and regular disclosure of sustainability reports. Additional focus areas are the age of the buildings, the status of modernization and the recyclability of building materials.

For targets involved in real estate project development, the list of KPIs should be extended to measures of the environmental impact of the construction phase itself, as for example drilling machines are responsible for large parts of particulate matter and noise in urban areas. Moreover, social

KPIs need to include workers' health and safety, such as the exposure to hazardous chemicals or events (floods, fire, etc.), the existence of emergency response plans, trainings, and compliance checks. Especially for the project development business, governance KPIs should include policies in place such as anti-bribery, anti-corruption, and anti-money-laundering.

As time is usually short for M&A decisions, the right selection of KPIs is crucial. Only an analysis of the appropriate measures provides the management and stakeholders with the information needed for making the right decisions. An insightful ESG due diligence hence requires methodological and industry specific expertise.



Article #7

ESG as real estate value driver

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Establishing a sound real estate ESG strategy is key for turning sustainability into a real estate value driver.

Effective risk management across the supply chain contributes to investment resilience (e.g. sustainable construction, building certification), opens up attractive financing conditions and improves financial market access.

Benefits include increased opportunities for growth (also in new markets), improved financials (more resilient balance sheets, stronger cash-flows), and strengthened stakeholder reputation. This in turn increases the chances to attract clients and talents.

Recently, environmental and social issues have become a public and political priority, and as such, of material value for investors. An informed and regular approach to identification and management of ESG impacts shall protect investment portfolios and not only enhance resilience and guard against the risk of accelerated obsolescence and value erosion - and will also provide better financing conditions within a larger pool of new, more responsible capital, attracted to the industry to make a positive ESG impact.

In our global ESG Real Estate Insights series, we have noted that the real estate sector, which generates

approx. 36 percent of GHG emissions and consumes around 40 percent of the total power balance¹⁴, greatly contributes to climate change. The high level of emissions is, among others, a result of using such energy-consuming materials as brick, concrete, steel, etc. However, in 2019 compared to the previous year, CO₂ emissions from the operation of buildings have increased to their highest level yet at around 10 Gt CO₂, or 28 percent of total global energy-related CO₂ emissions.¹⁵ Emission reducing activities are incorporated in the European Green Deal, which goal is for the EU to achieve carbon neutrality by 2050. The emergency of global mega-trends, understood as large-scale social, economic and environmental changes, should make the real estate sector change its approach towards a more sustainable development.

All of these brings us to the key question: What is the value of a sound real estate ESG strategy?

For the real estate sector, the international practice aims at three objectives when it comes to real estate projects: optimizing the use of resources, reducing emissions and waste, and extending the lifespan of assets by adopting a more circular economy approach that, in turn, will allow the subsequent elongation in projects' cash-flows. To this end it is highly desirable to use innovative methods and technologies that effectively extend the life of buildings and/or their components. Finding solutions to

extend the usability of objects, be it with new uses or by upgrading them to extend the current use, allows for greater economy for the investor – who should not always require major renovation or adaptation processes but rather implement an innovative approach. Circularity, considered from the phase of design, significantly improves the economics of a project by allowing the reutilisation of objects or their parts, recycling the resources used in its construction. It even reduces the impact that at the end of the life of an object needs to be considered – as these will incur taxes and costs associated to the demolition of objects, destruction of resources and remediation of the land as the urban and spatial development plans of cities encourage a more human approach to the use of land. Meeting the predicaments of the Triple Bottom Line approach, these solutions do generate economic benefits while reducing environmental and societal impacts.

The adoption of adequate property management practices is crucial in each aspect of its operation as ESG impacts directly depend on measures undertaken by investors, managers, tenants and ultimately even the users, each one at its level of involvement. Proper understanding of the value chain of the properties by all stakeholders will enable the development of effective strategies and drive sustainable change. Defining the ESG strategy with this knowledge will provide the management team with relevant

14, European Commission: New rules for greener and smarter buildings will increase quality of life for all Europeans, April 2019

15, UNEP Buildings Global Status Report. <https://wedocs.unep.org/20.500.11822/34572>

insights to take action – and will also allow them to assess which initiatives will bring the greatest benefit to the entity's operations, i.e., to its shareholders and stakeholders together. Such benefits may include the following initiatives:

Increased effectiveness of risk management over climate change related risks

Risk management efficiency is an important matter affecting the value of real estate. At present, preventing climate change that may jeopardize financial stability is a key challenge and adapting to the already present changes is considered as important. HKEX and SFC, with the recommended framework set by The Task Force on Climate related Financial Disclosures (TCFD), has prepared a set of guidelines to help enterprises and REIMs in the identification of climate change-related risks.

To this end, the early identification of climate change-related risks and the effective adoption of risk management policies and procedures do certainly have substantial benefits. Incorporating these aspects in the ESG vision enables a more favourable long-term strategy in line with the long-term approach in the China Regulations on sustainable finance. To be able to achieve the objectives, many regulations and

directives are continuously being introduced by the authorities and the entities are obliged to know and align to these in order to develop longer-term strategies.

A way to build investment resilience

Tenants, users, investors and buyers represent a considerable power, as they expect not only high-standard buildings, compliant with contemporary market requirements, but also respecting local environmental issues, such as appropriate development of land, space for pedestrians, close proximity of greeneries or public transport. Modern and efficient buildings are attractive for clients and more probable to retain their value if managed in compliance with international standards. The approach affects the housing segment, too, contributing to the growing popularity of sustainable construction.

The decision-making practice regarding supply chain and the selection and sourcing of materials remain a crucial aspect of ESG strategy development. At the beginning of January 2021, around the world there were slightly more than 10,000 verified environmental product declarations, which denoted a 30 percent increase compared to the prior year. As far as building certification is concerned, the entire

project and construction process is verified by an assessor, and then evaluated by the certifying body.¹⁶ Therefore, introducing these ecological solutions such as reduced water or power consumption, high acoustic comfort or ensuring access to daylight, shall decrease operating expenses and improve tenant satisfaction. Further, having considered future risks related to climate change and increased service prices, such measures will affect long-term sustainable performance of these investments.

Entry to new markets and opportunities

Entities that follow sustainability guidelines may benefit from more strategic freedom, easier access to administrative permits and additional growth opportunities by creating new products and services or expanding their business activities in other regions or countries. This can create growth opportunities as well as ease the access to the new markets – leading to new revenue streams.

Meeting investors' needs

The growing interest of international investors in ESG-related data has been observed. Recent environmental and social issues have become a public and political priority, and as such, a material value for investors. According to a 2020 research by GRESB, the share of investors who pay attention

16, EPD Facts & Figures – Eco Platform en (eco-platform.org)



to this aspect has grown by 22 percent, which demonstrates that ESG standards will increasingly affect the valuation of real estate, resulting in greater differentiation in performance prospects between assets with well-aligned ESG credentials and assets which fall short in the eyes of investors and are therefore subject to weaker resilience and value erosion risks.

There are valuable outcomes generated by a robust ESG strategy: more resilient balance sheets, stronger cashflows with longer repayment terms, risk management systems adapted to the new environmental conditions are already developed for the industry, etc. Increasingly additional gains are evident for conscious investors as they manage better new risks, access new capital with better conditions

and profit from better reputation among their stakeholders which, in turn, increases their goodwill and the chances to attract and retain clients and talent. Time will tell on how successful these efforts towards the "greater good" were to provide viable, measurable and long-lasting value for the real estate industry as a whole.

Article #8

ESG criteria in real estate

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While the environmental aspect of real estate is particularly prominent, it is crucial for industry players not to neglect the social and governance aspects in order to embrace a holistic ESG strategy.

Relevant governance factors include compliance with regulations, adequate and transparent remuneration, disclosure, anti-corruption, initiatives, fostering diversity in management, organizational values.

External social aspects include the rehabilitation of public spaces, affordable housing, security in buildings, human rights.

Internal social aspects should also be addressed, e.g. workplace safety, labor practice standards, responsible marketing, and diversity. A corporate culture of ethics, compliance, and integrity is necessary to create a positive long-term impact.

Don't forget "S" and "G" – A holistic approach to ESG

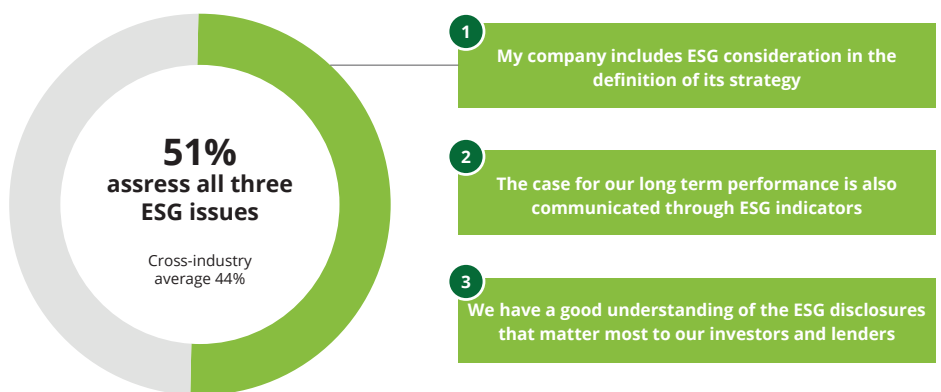
Environmental, social, and governance (ESG) considerations have become increasingly important across the real estate sector. Yet, awareness regarding the three ESG aspects seems to differ across "E", "S", and "G". Since buildings are considered as one of the key factors in climate protection, unsurprisingly, there is often greater emphasis on the "E". Social as well as governance elements tend to receive less attention in the public debate. However, it turns out that both "S" and "G" are also of particular relevance for real estate companies.

Real estate companies consider "S" and "G" as crucial

Undoubtedly, ESG is increasingly turning into an important impact factor in the real estate industry.

According to CFO Survey conducted by Deloitte, most companies already incorporate ESG criteria into their business strategy. About half of the 114 CFOs surveyed from the financial services and real estate industry – a share well above the cross industry average – stated that even all three of the following aspects apply to their company (see fig. 1). Concerning funding opportunities, the aforementioned CFO Survey points out that a better disclosure of environmental issues is perceived as the most promising aspect to enable companies a better access to the capital market. Nevertheless, 30% of financial services and real estate companies – 9% more than the crossindustry average – also consider social and governance elements as crucial (see fig. 2).

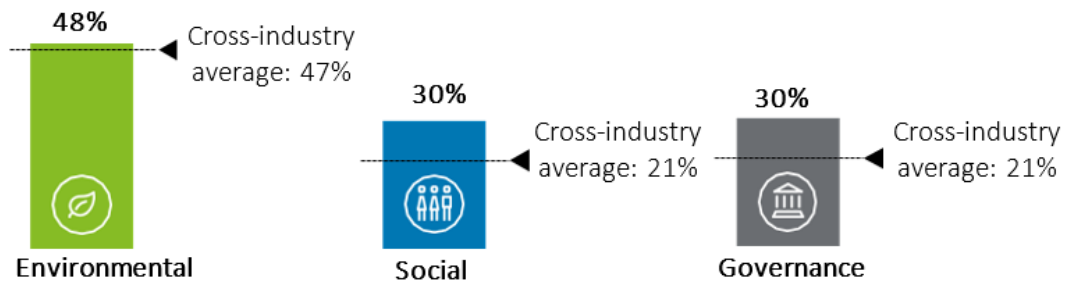
Fig. 1 - Share of CFOs reporting that all of the three given ESG considerations apply to their company



Source: European CFO Survey Spring 2020 - only financial services and real estate companies

17, Participation in the 2020 GRESB Real Estate Benchmark leaps 22% amid accelerating investor demand for ESG data.

Fig. 2 - Share of CFOs reporting in which aspect of ESG they see disclosure improvements as an opportunity for their company to gain better access to capital markets



The observed differences across "E", "S" and "G" are not as pronounced as one might assume given the public debate about ESG issues. So, aside from fostering eco-friendly buildings, increasing the amount of green space or using environmentally compatible energy sources, there are also several critical social and governance impacts in the real estate sector.

Governance factors in real estate

Regarding the "G" in ESG, governance scrutiny is central to companies' ability to continue business operations. While promoting corporate governance can present an opportunity for real estate companies in order to drive long-term value, not addressing governance considerations carries high risks – reaching from penalties and fines to a loss of reputation and market penetration. Governance elements include, among others, compliance with governance rules and guidelines, ensuring adequate and transparent remuneration, promoting transparent disclosure of governance issues, taking action against corruption, fostering diversity in management and governing bodies, as well as establishing and

communicating organizational values. A corporate culture of ethics, compliance, and integrity is the foundation to create a positive long-term impact.

Social factors in real estate

Recently, the "S" in ESG has received growing attention as the COVID-19 pandemic put greater emphasis on the social factor. Since real estate companies have a significant social impact, they should consider the "S" as a value driver. Social aspects in real estate include, for example, participation in the rehabilitation of public spaces, affordable housing, social housing or care centers as well as ensuring security in buildings and assuring human rights. From an internal perspective, social elements may also comprise ensuring workplace safety, fostering high standards in labor practices, responsible marketing, and promoting diversity across the company.

Incorporating social considerations can increase companies' ability to attract talent – especially among millennials. The risk of neglecting social elements can lead to a lack

of reputation, lost work, higher employee turnover, increased operating costs, and may threaten the ability to operate.

Implications for real estate companies

Although environmental issues are of particular importance in the real estate sector, ESG goes beyond an isolated consideration of "E". As described above, the role of social and governance elements should not be underestimated, and low awareness regarding "S" and "G" elements may result in high risks – not only penalties and fines, but also loss of reputation and market penetration. Real estate companies need to adapt to changing investor, consumer and commercial expectations – ensuring the acceptance of their business practices and operating procedures by its stakeholders and the public. A holistic approach to ESG is required in order to establish a successful "ESG-proof" business. This can lead to a greater ability to attract talent, enable reputation gains, and may ensure the social license to operate.



Article #9

Green Leases – In the ESG context

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Green lease agreements are likely to play a bigger role for many real estate actors and may become market standard at some point.

Green lease agreements specify in particular how environmental objectives will be met (climate change mitigation and adaptation, circular economy etc.).

Typical arrangements might incorporate clauses concerning construction, fit-out and maintenance, as well as use, supply and management of buildings, and regulations for data exchange.

Both building owners and tenants should analyse the specific need for sustainable clauses.

Industry standard for the future?

In the international institutional real estate market, green buildings and certificates for green buildings, such as LEED, DGNB, BREEAM, ÖGNI, are already market standard. Due to the already visible impact of the climate change and the ESG regulations, also the green operation of a building and green leases gain increasing importance. This raises the question of what specific practice can be considered in such "green leases".

As for Mainland China, the National Development and Reform Committee (NDRC) of the People's Republic of China issued the first Green Industry Guiding Catalogue in 2019 to provide guidance on the development of green industries, including green construction, building materials and electrical equipment, and so forth. Meanwhile, to offer further support for the development of green projects, the NDRC, MEE and five agencies¹⁸ published the Green Bond Endorsed Project Catalogue to facilitate allocation of capital to green projects.

Green lease agreements gain much attention for international financial market participants (thus, also banks and institutional investors), and companies of public interest, i.e. large, listed real estate companies (with more than 500 employees on an average during a financial year). Green lease agreements are not only relevant for financial market participants that own or rent such properties, but also for financial institutions that finance real estate properties.

As per a survey conducted by JLL Asia Pacific in 2021, approximately 62% of Hong Kong companies are willing to pay a rental premium for sustainability-certified buildings.

For several reasons, green leases are not only relevant for international financial market participants and large, listed real estate companies, but also Chinese market participants. Such reasons are, for example:

1. They expect a higher purchase price when selling the property, or more favorable financing conditions when financing a property
2. They intend to develop the property with the purpose to later transfer it to an international institutional investor
3. They expect higher letting rates, or higher rents when letting premises, as modern, sustainable buildings often attract tenants of a higher income class
4. They voluntarily want to comply with ESG objectives
5. They expect that the scope of possible government subsidy
6. They will have to comply with the relevant requirements if they want to establish or maintain business relationship with international financial market participants and companies of public interest. Thus, "green leases" may be Chinese market standard in the future.

¹⁸, National Development and Reform Commission, Ministry of Ecology and Environment, Ministry of Housing and Urban-Rural Development, Ministry of Industry and Information Technology, Ministry of Natural Resources, National Energy Administration, and People's Bank of China.



What is the content of such green leases?

Green leases are lease agreements that aim to ensure the sustainable construction/fit-out, usage and maintenance of the property. There is no common standard for “green lease”, which clauses might be relevant for a property will to a certain extent depend on the purpose of the lease and the circumstances will have to be carefully assessed.

The most important clauses that might be incorporated in green lease agreements are, for example, the following:

Use, supply and management of the property

Lease agreements might provide for a right of the landlord to supply the building (predominantly) with sustainable energy, such as power, heating, cooling, and to use only sustainable cleaning products. It is very important to regulate this right in the lease agreement, as the cost for such sustainable products and supply might be higher than non-sustainable products, and to specifically regulate that the landlord may charge on to the tenants respective higher cost. Otherwise, the landlord runs the risk that these cost may be challenged by the tenants under the service charge reconciliations. In addition,

an obligation, or at least a best effort commitment of the tenants may be incorporated into the lease agreement to also purchase sustainable energy, such as power, or cleaning products. Leases might provide for an obligation, or best effort commitment of the tenant to (i) separate waste collection to the extent possible, or to (ii) use to the extent possible recyclable products. In order to achieve this goal, it might also be beneficial if the building already provides for facilities for such separate waste collection.

Moreover, regular sustainability workshops between landlord and tenant, and sustainability guidelines for the property might be useful in order to maintain, or improve the sustainability efforts for both, landlords and tenants.

Construction, fit-out and maintenance

Of course, already prior to and during construction of a property, the property owner can foresee a lot in order to facilitate a sustainable use of the property by the tenants: The building might already provide for sustainable heat or cooling facilities, for waste disposal areas that allow separate waste collection facilities to the extent possible. There might, e.g., be storage rooms for bikes and e-bikes, or car parking areas with e-supply facilities.

In respect of core-and-shell lease agreements, there might be an obligation/ best effort commitment of the tenant to equip or fit-out the premises with sustainable products only.

Beyond that leases might provide for an obligation/best effort commitment of the parties to perform maintenance works with sustainable products, and to consider contractors that adhere to certain sustainability standards.

Moreover, it would also be possible that the landlord and the tenant develop a sustainable use concept for these premises. Transparency, data exchange, monitoring Important are also clauses according to which the parties are obliged to exchange data and information, especially regarding

energy supply, water supply and waste disposal, or data for the determination of the CO₂ balance of the leased premises. Moreover, the leases might provide for an obligation to implement monitoring concepts.

Other individual regulations

Depending on the individual situation, there might be other regulations that could be considered in the lease agreements.

How to ensure the enforcement of such clauses?

Thus far, green lease agreements are according to our experience not yet that common in China. Nonetheless, due to the growing importance of ESG criteria, we expect that "green clauses" may be implemented into lease agreements in the future. As already mentioned above, lease agreements might contain obligations by the parties, or merely best effort commitments. Especially such best effort commitments are, however, difficult to enforce.

For example, BEAM Plus, recognised and certified by the Hong Kong Green Building Council (HKGBC), is a leading initiative for assessing building's sustainability performance in Hong Kong. As for China, in 2019, the MOHURD issued the amended Assessment Standard for Green Building (GB/T 50378-2019)¹⁹, assessment criteria

include five "performances": safety and durability, health and comfort, convenience, resource saving, environment liveability. The Standards rates and certifies green building on a scale of 1 to 3 stars. Star-rated buildings are eligible for subsidies and rewards under different regions and provinces' green building encouraging policies. Incentives include: land transfer, land planning, financial subsidies, tax deduction, preferential terms for credit and loans, enterprise qualification, awards assessment, R&D support, and plot ratio etc. These programmes provide a credible rating to buildings which are well-recognised by the market. It facilitates comparison of building performance and thus could be adopted for enforcement of green lease.

Summarizing, as green leases will play a major role in the future, building owners and tenants should analyze the specific need for sustainable clauses, and consider the implementation of such green clauses into their lease agreements. This might have benefits during the use of the building, but also with respect of financing or intended sale of the property.

19, <http://download.mohurd.gov.cn/bzgg/gjzbz/GBT%2050378-2019%20>

<http://download.mohurd.gov.cn/bzgg/gjzbz/GBT%2050378-2019%20%E7%BB%BF%E8%89%B2%E5%BB%BA%E7%AD%91%E8%AF%84%E4%BB%B7%E6%A0%87%E5%87%86.pdf>

[pdf%E7%BB%BF%E8%89%B2%E5%BB%BA%E7%AD%91%E8%AF%84%E4%BB%B7%E6%A0%87%E5%87%86.pdf](http://download.mohurd.gov.cn/bzgg/gjzbz/GBT%2050378-2019%20%E7%BB%BF%E8%89%B2%E5%BB%BA%E7%AD%91%E8%AF%84%E4%BB%B7%E6%A0%87%E5%87%86.pdf)

ESG benefits all real estate stakeholders

As the expert contributions in this report have argued in great detail, ESG aspects pose many intricate challenges to the real estate sector. It is by no means a trivial undertaking to devise and implement industry-specific ESG strategies, to collect data and manage assets accordingly, to ensure regulatory compliance and thrive on the market – all at the same time. Yet while implementing

their ESG initiatives, industry leaders should decidedly keep the bigger picture in mind and realize the inherent value proposition of any ESG transformation. And that value is significant. In spite of the initial hurdles, specific cost and efforts involved, ESG initiatives not only generate a broad range of benefits for the real estate sector itself, but also for all other stakeholders

such as investors, customers and overall society. This aspect is of fundamental importance, as it is society at large that awards an implicit social license to operate to organizations. Real estate players need to build for future growth now by securing that extremely valuable asset for the long term. Now it's time for action!



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