The A-Z of Responsible Investing

From Affordable Housing to Zero Deforestation

nuveen
A TIAA Company

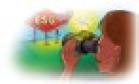




The thinking behind the A-Z

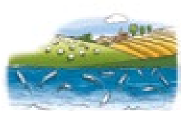

What themes and issues are top of mind for managers, investors and advisors when they think about responsible investing in a real estate context?







PERE teamed up with Brighton-based illustrator Lee Playle at our Responsible Investment Forum Europe event in London to find out.

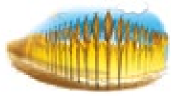
Our idea was to create an illustrated A-Z wall based on suggestions from conference delegates of what each letter in the alphabet could represent, and you will find the results in the pages that follow. The challenge was as much a creative endeavor as a journalistic enterprise. Could our artist succeed in producing 26 illustrations by the end of the forum? Would the resulting illustrated wall adequately encapsulate the breadth of vision of what responsible investing in real estate means?

Ada Arevelo, vice-president of Avanath Capital Partners, an investment firm that owns and operates affordable, workforce apartments in the US, thinks so. “I think the wall is amazing. It’s a great collaborative work that shows just how far we’ve come in the ESG principles in our various sectors.”

Such was the popularity of the A-Z at the forum that we decided to turn it into this mini supplement. No one is claiming the themes we have selected to focus on in these pages – affordable housing, climate change, diversity, health and well-being, energy transition, low carbon economy, quality data and urbanization – are a definitive list of all the issues currently in play in the world of private real estate responsible investing. But there is little doubt that they represent some of the most pertinent sustainability concerns and core agenda items in the real estate investment community at this moment in time ■






Illustrations: **Lee Playle**

ESG is a mainstream issue

Introduction by **Mike Sales**

The past decade has seen ESG issues become a core part of investment decision-making, writes Nuveen's head of real estate and real assets

The Paris Accord, the UN Principles for Responsible Investment, the UN Sustainable Development Goals and the Taskforce for Climate Related Financial Disclosure have played a key part in embedding sustainable thinking into global investment activity. And a significant change is how ESG engagement by investors has risen up the agenda in the last couple of years, particularly for Dutch, Scandinavian and Australian investors. ESG is now a deciding factor in their decisions over where to place capital.

Investors are setting carbon reduction targets and mandating real estate funds to take meaningful steps to reduce carbon and improve the energy efficiency of buildings. It is now common for investors to require funds to participate in GRESB, and in some cases a minimum performance score is specified. Investors are also focusing on climate change resilience, fair wages in the supply chain, tenant activity and the impact of buildings on the health, wellbeing and productivity of occupants.

Tenants are also placing more emphasis on the sustainability of buildings when selecting real estate and we expect this to increase as more corporate occupiers and retailers set their own carbon reduction targets. In the US, 70 percent of our office tenants reported that an ENERGY STAR Rating was important or very important in their search for office space.

Investing for tomorrow

As long-term investors, protecting the sustainability and integrity of investments is part of Nuveen Real Estate's investment approach. We are dedicated to investing in tomorrow's world for the enduring benefit of clients and society. We are preparing for, investing in, helping to create and ready to be part of tomorrow's world. It impacts how we retain our people, how we choose and manage our assets, the places we create and look after, and the partners that we work with.

Fundamentally, by incorporating ESG into investment strategies we are future-proofing the value of our property assets. Focusing on a wide range of ESG issues means that our portfolio is better protected from risk and better placed to take advantage of opportunity. We assess the climate change vulnerability, energy efficiency and exposure to environmental risk at the point of acquisition; then our Sustainable Property Management Requirements are in place to ensure that we improve the sustainability performance of the buildings we own.

The A-Z

We partnered with *PERE* on this A-to-Z initiative to help our clients and industry partners better understand our approach. The A-Z is a compelling snapshot of the responsible investing themes that are top of mind, not only at Nuveen, but for the responsible investment community, our partners and our clients. One of the biggest challenges we have experienced with responsible investing is the inconsistent taxonomy – there is a lot of jargon and terminology used by the industry, which sometimes confuses our clients and partners. Bringing these terms together in such a collaborative and visual way helps us to speak a common language that will ultimately improve communication and drive better investment decisions. ■

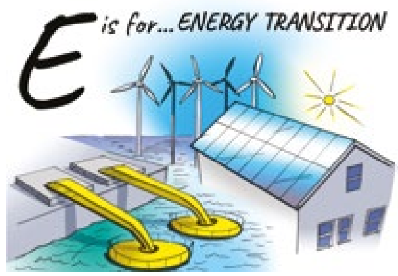
70%

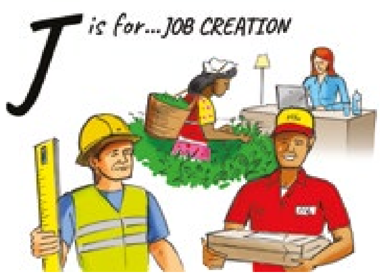
Office tenants reporting that an ENERGY STAR Rating was important or very important

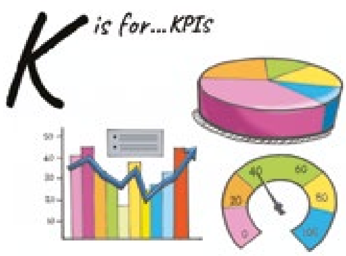
"By incorporating ESG into investment strategies, we are future-proofing the value of our property assets"

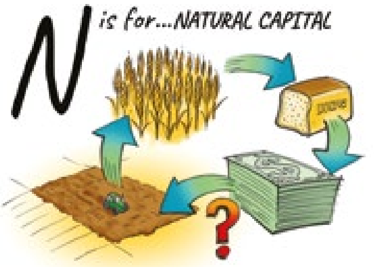
Responsible investing in 26 letters

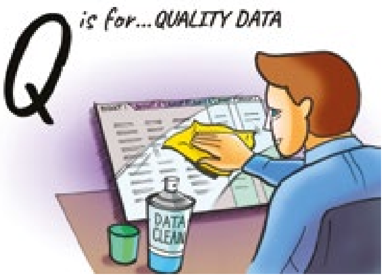
The complete illustrated A-Z guide to the key issues in private real estate

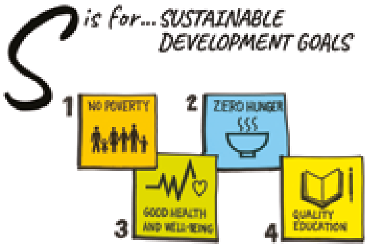


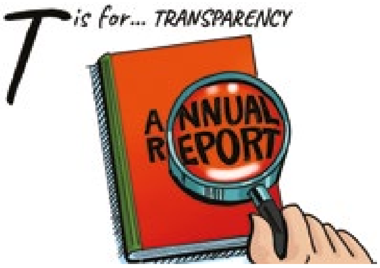


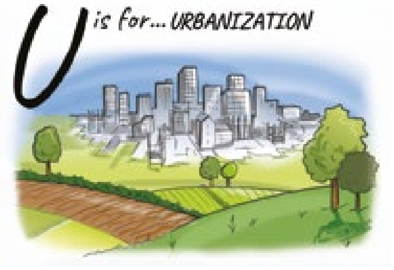


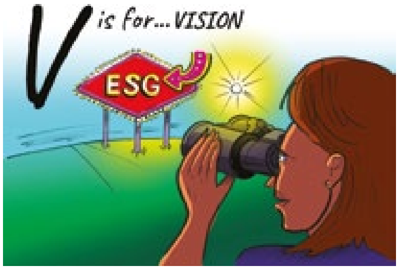












Illustrations: **Lee Playle**

Affordable housing

As this investment case study shows, building homes for lower income tenants is essential to the creation of socially resilient and sustainable communities, and integral to real estate's responsible investment agenda

Housing insecurity is pervasive in the US, with nearly 19 million low-income families living their lives homeless or paying at least half of their monthly income on housing. For such families, having a safe, healthy, affordable home represents much more than just shelter; it is the foundation for access to jobs, good schools, public transit, healthcare and other essential elements of a successful life.

Yet, there is a shortage of 7.2 million affordable and available rental homes for extremely low-income renter households, according to an April 2019 report from the National Low Income Housing Coalition, which found that no US state has a sufficient supply of such housing options.

Enterprise Homes, a non-profit affordable housing developer, is part of the Enterprise Community Partners family of companies. It combines community planning, financing, construction management, and marketing experience to create and preserve high-quality affordable, mixed-income and market-rate housing. Over 30 years, the non-profit has developed more than 6,500 homes throughout the mid-Atlantic region.

In pursuing its mission, Enterprise Homes acts as a balanced and responsible investor, drawing on relationships with public and private financing entities. It takes its fiduciary responsibility seriously, from risk evaluation to the returns – both financial and social impact – to investors.

In 2016, Nuveen formed a joint venture with Enterprise Homes to purchase and preserve the affordability of a 4,000-plus unit housing portfolio in America's mid-Atlantic region. Built and renovated under the Low Income Housing Tax Credit (LIHTC) program, the properties include 27 senior housing communities in Maryland and eight family properties across Pennsylvania and Virginia. The properties' 4,300-plus low-income tenants earn less than 50-60 percent of their area's median income and pay no more than 30 percent of their income on rent. All properties offer social services and many have received quality and energy efficiency upgrades based on the Enterprise Green Community Standards, which promote the health and wellbeing of affordable housing tenants.

Nuveen contributed $50 million to fund the joint venture with Enterprise Homes, sustaining a relationship that stretches back to 1994, when TIAA invested in an Enterprise-created LITHC fund. The new JV represents a rare opportunity for scale in high-quality affordable assets, including a high concentration of senior properties.

Through this partnership, significant affordability benefits have been achieved:

- 3,473 deeply affordable units preserved
- 4,308 tenants housed, all of whom are underserved
- 30 percent or less of tenant income spent on rent
- 22-year extension of affordability restrictions.

Climate Change

Climate change is the health and economic challenge of our time, writes Abigail Dean, Nuveen Real Estate's head of sustainability

Milestones such as the global ratification of the Paris Agreement, and the release of the recommendations from the Taskforce for Climate Related Financial Disclosure have played a key part in embedding sustainable thinking into global investment activity.

For investors, climate change poses a range of risks, intensifying the timeless tension between the desire for short-term gains and the responsibility to preserve long-term value. At Nuveen, it seems obvious that we should invest our clients' money in buildings that are properly 'future-proofed' and that offer the potential for the best returns.

Real estate represents roughly 40 percent of global carbon emissions. Real estate is therefore a part of the current problem, but also part of a potential solution. Improving the sustainability performance of real estate improves the attractiveness of the asset, keeps service charges lower and reduces operational costs for occupiers. With energy prices predicted to rise, and emerging evidence of how a building's indoor environment impacts productivity and wellbeing, a property's sustainability performance is becoming increasingly important to occupiers. That is why Nuveen has set a target to reduce the energy intensity of its real estate equity portfolio by 30 percent by 2030. This puts us at the forefront of meeting the low-carbon economy transition challenge and aligns us with the reductions necessary to meet the Paris Agreement commitment.

We are keen to go further still. Nuveen recently became a signatory of the BBP Member Climate Change Commitment and is in the process of developing a net zero carbon building route map for our buildings, so we can understand the level of investment necessary to bring them to that point over the next 30 years. We are also conscious that the carbon intensity of the grid electricity in different countries and different regions has a significant impact on the carbon footprint of our portfolio. Properties in Paris, where the electricity is almost carbon free, have a much lower carbon footprint than those in Sydney or Chicago for example, where the electricity is generated from more carbon-intensive sources, such as coal.

As our investors become ever more conscious of the carbon intensity of their investment portfolios, the carbon intensity of grids and the ability to use renewable energy will become more significant.

It is critical to ensure assets are well placed to retain their value as we shift to the low-carbon economy. However, we must, unfortunately, also start to incorporate an assessment of the extent to which they are at risk from the physical aspects of climate change. Due to the lag in carbon emissions and climate impacts, certain chronic and acute climate change impacts are in effect 'locked in' over the next 30 years, no matter how successful we are at achieving global reductions in carbon emissions. A world that has warmed by 2 degrees will be a very different place. We must prepare for the inundation of low-level coastal areas, increasingly severe storms, heat stress and wildfires and drought. This will have significant implications for our investment approach in the coming years.

Diversity

The rise of responsible investing has been an important framework for highlighting the issue of diversity in private real estate, writes Andrea Carpenter

Considering our business contributes to shaping the world by building better cities, it is surprising that the importance of diversity has only recently started to properly embed itself into our psyche.

Our drive to ensure that the places in which we operate promote inclusiveness and build open communities with a mix of uses has shown us that we can only achieve this if we come at it with a wide range of voices and experiences.

Putting together a team of people from homogenous backgrounds to work on a project or investment is doing a disservice not only to the outcome for the community where it is located, but to the process of sourcing the best ideas and solutions, as well as the accountability and balance of responsible leadership.

Unfortunately however, we do not yet have a diverse workforce to always meet these ambitions. Women are estimated to make up around 14 percent, and those from a black, Asian and minority ethnicities (BAME) background in the UK are just above 1 percent. It is an issue we need to address by making our current industry more open and showing that we are determined to evolve going forward.

At Women Talk Real Estate, we think raising the visibility of the female experts already doing great work in the industry is one really important and practical way we can start to address this.

Voice and visibility

We help female professionals find speaking opportunities, knowing that the individual visibility they receive helps with business connections, and that if we are all doing this, then we can challenge any stereotypes about what women are doing in this industry and provide more role models for future generations.

In the past two years, we have seen more than 450 invitations to speak sent to more than 220 different women, raising the visibility of not just more women but a wider range of voices.

Visibility has also been an important factor for BAME professionals, with great work being done through organizations such as BAME in Property, which supports talented professionals from all backgrounds.

With fewer BAME professionals, there's also rightly an emphasis on demonstrating the importance of property as a fulfilling career choice for future generations. This really needs to take us into schools, where property as a career needs to be showcased to young people from a wider variety of backgrounds.

We should also remember that our industry is changing, with technology as one of the main driving forces. We not only need people with surveying and financial backgrounds but will increasingly require data and tech specialists. We should use this to help us look beyond our regular cohort of graduates and apprentices each year.

The topic of diversity will not disappear. It is being taken seriously by industry leaders who know that while there is still much work to be done, a responsible and successful business is not possible without it.

Andrea Carpenter is director of Women Talk Real Estate
www.womentalkrealestate.org

Energy transition

Real estate, with one of the highest carbon footprints of any industry, arguably has a greater responsibility to embrace energy transition than most, writes Amy Carroll

In December 2015, history was made in Paris when 195 countries agreed to work together to substantially reduce global warming to a maximum of 2C and to phase out fossil fuels by the end of the 21st century. More than ever, governments around the world are determined to find cost-effective ways to transition to clean energy – and no sector, or economic actor, is immune to public scrutiny.

"In order to meet the commitments in the Paris Climate Agreement to keep global average temperature increase to below 2C, the world needs to transition to a low carbon economy based on low carbon power sources," says Rik Recourt, associate, real estate, at GRESB. "With buildings and building construction responsible for 36 percent of global energy consumption and nearly 40 percent of total direct and indirect CO_2 emissions, the real estate sector has a critical role to play."

Rethinking energy use

Sarah Ratcliffe, chief executive at Better Buildings Partnership, adds: "If we are to have a chance of meeting the scientific imperative to keep global warming within 1.5 degrees by 2050, it will be absolutely essential to transition from fossil fuel-based economies to decarbonized forms of energy production.

"For this to happen, major systemic changes in energy policy, infrastructure and technology are required," Ratcliffe says. "For the property sector, this has three important strands: firstly, reducing the demand for energy by improving the design and energy efficiency of buildings; secondly, moving towards more localized energy production; and thirdly, decarbonizing heat and investing in low or zero forms of energy production, both on and off site."

Real estate investors are increasingly partnering with smart building technology providers in order to improve the efficiency of their assets and to support energy transition. Another area of focus is renewable energy. The cost of onsite solar PV has reduced dramatically in recent years, for example, and is frequently installed at suitable properties.

In California, solar panels have even been mandated on new homes and apartment buildings built from next year, as the state pursues its target of increasing renewable sources to 50 percent of electricity consumption by 2030 and reducing emissions to 80 percent below 1990 levels by 2050.

Indeed, distributed energy systems are an important component of real estate's energy transition journey, encompassing not only renewable energy generation technology, but storage and monitoring solutions as well.

"The real estate industry has a real responsibility to rise to these challenges, as it will likely be one of the biggest financial and societal risks we face," says Guy Grainger, chief executive at real estate advisory firm JLL. "Energy use needs to become smarter. Business practices need to become more sustainable. Waste and water are also critical. In the future, the value of a property will be linked more directly to its operational efficiency in use."

Health and well-being

A new generation of residential tenants and office workers is driving the health and well-being credentials of real estate up the responsible investment agenda. Amy Carroll reports

Amid a growing awareness of environmental impact on health and wellness, more and more buildings are being developed to encourage physical activity, featuring gyms, bike storage and championing stairs over lifts, for example.

"To date, sustainability of the built environment has largely been focused on the carbon footprint of buildings. Given the importance of global real estate for total greenhouse gas emissions, this is both logical and necessary," says PGGM's senior director, private real estate, Mathieu Elshout. "However, sustainability of real estate is a broader topic than greenhouse gas emissions only. People across the world spend approximately 90 percent of their time living, working or playing in buildings."

The impact that the characteristics of buildings can have on health and well-being is only just starting to be measured and, as such, better understood, Elshout adds. "Advances in sensor availability and reduced pricing are helping to give more insight into the effect of building characteristics on factors such as sick leave, productivity and general well-being, but much more work still needs to be done," he says.

Good for the bottom line

Indeed, the hypothesis is that environments which promote health and well-being, drive productivity and reduce absenteeism improve tenants' bottom lines, commanding higher rents and boosting investment returns. But it can be challenging to correlate these 'softer' factors to financial performance while data sets remain immature.

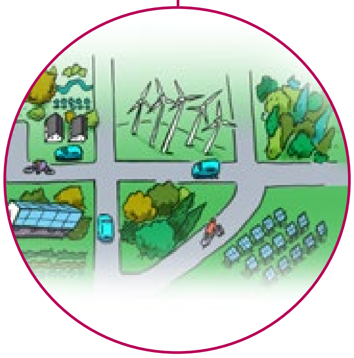
Nonetheless, many managers now view health and well-being as a successor to energy efficiency, which at one time seemed equally nebulous, but is now integral to value creation strategy. Nuveen, for example, is increasingly prioritizing air quality, natural light and the incorporation of plants into buildings, according to the firm's head of sustainability Abigail Dean.

And, in addition to a slew of research from firms like the BRE Group and the World Green Building Council, several international healthy buildings standards have been launched including the WELL Building Standard, with rapid take-up across the sector, according to Guy Grainger, chief executive at real estate advisors JLL.

"The latest innovations are around using smart buildings sensors to track and optimize the indoor environment," Grainger says, but notes that the emphasis has so far been on office buildings, and more needs to be done around healthy housing.

Roxana Isaiu, director, real estate, at GRESB, meanwhile, says health and well-being has become an increasingly important issue for the industry, but a lack of standardization in the strategies being implemented persists.

"While leading companies have comprehensive programs, structured to cover employees, tenants, communities and supply chain, lagging companies still have disjointed, incomplete processes for health," she explains. "Measures for employee health and well-being take priority and include design for social interaction, access to mental and physical healthcare, access to daylight and recreational activities. Going forward, companies should focus on increasing the use of metrics to understand the impact of health strategies on their employees, as well as their tenants and building occupiers."



Low-carbon economy

Shifting to a low-carbon economy is a daunting task, but real estate investors are embracing the challenge, writes Amy Carroll

The real estate sector has been one of the worst carbon culprits, but there is an opportunity for it to lead the way with a radical decarbonization agenda. "Real estate today is a big contributor to greenhouse gas emissions, but it has great potential to transform through energy efficiency, renewable energy sources and by developing new low carbon buildings," says Helena Olin, head of real assets at Swedish pension plan AP2. The World Green Building Council goes further, claiming all properties must have net-zero operating emissions by 2030 if the Paris Agreement is to be fulfilled.

In many respects, real estate managers have no choice but to embark on wholesale decarbonization. Many of the institutional investors behind them have made it clear they will only commit to funds invested in low carbon, or even zero carbon, assets.

In September, the Net-Zero Asset Owner Alliance was launched by a group of the world's largest pension funds and insurers, responsible for more than $2.4 trillion of assets under management. The alliance has committed to carbon-neutral investment portfolios by 2050.

A new initiative funded by Dutch pension plans APG and PGGM specifically aims to help real estate investors develop decarbonization strategies. The initiative will develop 1.5 and 2-degree decarbonization pathways for real estate assets by applying global carbon budgets. "Each pathway will extend to 2050 and will be comprised of annual estimates of building-related carbon emissions and energy performance, aligned with global warming goals as set out in the Paris agreement," explains PGGM's Mathieu Elshout.

Investor pressure, regulation and fiscal incentive will all dictate a low-carbon approach to real estate. European policymakers are leading the charge, but over the past two years more than 100 cities in the US have set climate mitigation commitments, with many already being worked into building codes (and taxes and fees for non-compliant properties).

"California requires all new construction to be net zero by 2030 and Washington, DC requires all large commercial and multifamily new construction to be net zero by 2026," says Billy Grayson, executive director of the ULI Center for Sustainability and Economic Performance. "Developers in these markets are starting to focus more on deeper investments in energy efficiency and exploring the types of on and off-site renewable energy and energy storage they can integrate into their development projects."

Ultimately, net-zero carbon buildings are likely to prove both easier to sell and more attractive to tenants. And increasingly pursuing an aggressive decarbonization agenda will be key to generating returns and avoiding obsolescence. Investors are taking note.

"Property owners are contributing to a low-carbon economy by improving the energy efficiency of buildings, reducing or eliminating direct emissions," says Rik Recourt, associate, real estate at GRESB. "They are reducing indirect emissions associated with purchased electricity and heat, reducing supply chain-related emissions and installing renewable energy. A growing number have pledged to have net zero carbon operating assets by 2030 in line with the challenge laid down by the World Green Building Council."

Quality data

Responsible RE investing requires access to different types of data, reports Amy Carroll

The availability of quality data is essential for informed decision-making. And, as real estate investors increasingly incorporate responsible investment credentials into their manager selection processes, access to standardized and comparable quantitative information is key.

"Quality data is essential for making quality decisions, in real estate, as in all other areas," says Helena Olin, head of real assets at Swedish pension scheme AP2. "One aspect of quality data is to be able to compare sustainability performance. This can be a challenge with real estate as different jurisdictions have different standards."

Emma Storm, associate, data quality and validation, at GRESB, adds: "More and more, investors are using ESG metrics to drive their investment decisions, which means the underlying data needs to be accurate and complete, and reported in a consistent, comparable way. While real estate companies have made great strides to improve the quality of their ESG performance data, there are still limitations to overcome in bringing the quality of non-financial data on par with the quality of financial data."

To determine the physical risk from climate change, for example, PGGM gathers exact longitude/latitude information for the almost 4,000 assets it has had exposure. "This was supplemented by exact climate risk metrics for those locations, providing us with full insight into the physical risk within our overall real estate portfolio," says PGGM's Mathieu Elshout.

Quality data is just as important for real estate managers as it is for their underlying investors, enabling them both to assess future opportunities and drive value within existing assets. "There is data around today to support our investment decision-making that we simply couldn't have accessed a few years ago," says Nuveen's head of sustainability Abigail Dean.

Technological advances, in particular, are supporting the ability to monitor the digital profiles of buildings. It is now possible to use sensors, advanced metering and specialist software to monitor tens of thousands of data points on a real-time basis, ensuring buildings deliver the best environment for tenants, while not using more energy than necessary, says Dean.

But for this to work effectively, mere data retrieval is not enough. "The important step is taking that data, analyzing it and using the results to improve our properties," adds Dean. "Organizations can sometimes get stuck at the data collection stage."

Sarah Ratcliffe, chief executive at Better Buildings Partnership, agrees. "Good quality data is absolutely critical if we are to understand the scale of the sustainability challenges we face," she says. "But the old adage of 'rubbish in, rubbish out' still holds true. This is being made easier by technology, but this needs to be matched with the skills to make data meaningful to everyone from the property manager to the investment manager. It is their decisions and actions that will drive change."

Urbanization

The trend for city living is creating opportunity for investors, but property owners and managers need to ensure assets are resilient for the long term, writes Amy Carroll

According to the United Nations, more than half of the world's population already lives in towns and cities, and this figure is set to rise to 68 percent by 2050, as people migrate from rural to urban areas in pursuit of greater economic opportunities.

"Cities are currently home to four billion people. They are growing rapidly at a rate of around 200,000 people per day," says Guy Grainger, chief executive at real estate advisory firm JLL. "By 2050, when the world's population is forecast to reach ten billion, that means 6.8 billion will be living in urban areas."

Furthermore, while most urbanization is taking place in Africa and Asia, the trend is not restricted to regions with high population growth rates. It is a truly global phenomenon due to more relaxed migration policies and increased connectivity. While this creates opportunities for real estate investors, it also places a great deal of responsibility on managers to ensure the cities they are helping to create are built to last.

Resilient buildings, resilient cities

Three-quarters of the world's carbon emissions and half of the world's waste currently comes from cities, with at least 40 percent of that stemming from real estate. "It is imperative that we strengthen cities' resilience through design, construction and operation of well-connected, functional green buildings and communities, as well as investment in resilient infrastructure that can withstand the challenge of mega trends like urbanization or climate change," says Roxana Isaiu, director, real estate, at GRESB.

Nuveen undertakes a detailed analysis of any urban environment to assess its sustainability credentials before making an investment. "We look at vulnerability to climate change, air quality and how carbon intensive the grid electricity is," says the firm's head of sustainability, Abigail Dean. "We then also drill down into areas such as transport strategy to see how well a city will be able to cope with an influx of people."

Tech key to sustainable urbanization

Technology has a key role to play in responsible real estate, of course, with the advent of smart cities a dominant trend. Innovative urban development and tech solutions are helping secure quality of life and decrease resource consumption to create livable human environments and foster social inclusion. And with the right level of investment discipline applied, Grainger believes the rise of urbanization can be a sustainability force for good.

But it is vital that businesses and policymakers come together to find solutions to provide living, working and amenity spaces that can promote a sharing lifestyle, he explains. "Mixed-used development and placemaking solutions need to be inclusive while satisfying a range of different tastes and price points. And it is crucial to future-proof these developments incorporating new technologies and sustainable elements to ensure they survive the test of time. We need to set new KPIs for business where social value is a material element of achieving economic return."