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FOREWORD



The importance of focusing on sustainable outcomes for built assets and infrastructure has never been more critical. The latest data projects that the world will exceed the 1.5°C global warming limit stated in the **Paris Climate Agreement, within** the next 10 years. With the built environment still accounting for 40% of global emissions, there is an immense responsibility to build and operate more sustainably.

Meanwhile, there is pressure to keep pace with economic and societal growth. Urban populations are expected to grow by 2.5 billion by 2050, as people pursue career opportunities, higher living standards and better connected communities. This means an unprecedented number of residents, office workers and infrastructure service users with their own unique demands. From energy efficiencies that tackle rising energy costs, to biodiverse spaces and healthier buildings that promote better air quality, the demand for resilient and efficient built assets is paramount. Achieving this, at pace and scale, will require a fundamental transformation in how we design, construct, and manage our built environment.

Asset and portfolio managers are perhaps the most uniquely placed to combat this challenge. Their direct influence on building operations, coupled with a remit for compliance, enables them to set the direction for sustainability, both on the ground and by influencing strategic decisions at board-level.

However, the path forward is far from clear. From green building certifications and renewable energy integration to data-led technologies and circular economy principles, the scope of sustainable solutions is vast and continually evolving. When properly harnessed, these solutions can combine environmental and financial advantages, including strengthened resilience. competitive advantage, reduced operational costs, increased asset value, and improved risk management.

With this report, we wanted to get to the heart of how asset managers are meeting the climate challenge and where they can combine commercial aspirations with sustainable outcomes. This includes their motivations for creating sustainable assets, where they are investing, and what opportunities they are looking to in the future. This analysis of findings highlights the areas of success, learning and opportunity across different locations and sectors.

The built environment's response to the climate crisis will be critical. By embracing sustainability, we will create a built environment that meets the needs of tomorrow and safeguards the well-being of our future.



James LowGlobal Head of Responsible Business, Mace

INTRODUCTION



As the built environment stands at the crossroads of rapid urbanisation and the immense risk posed by climate change, the imperative for sustainable assets has never been clearer. The journey towards a resilient and efficient built environment will safeguard the future of built assets and minimise liability.

Mace, in collaboration with our research partner Censuswide, conducted a global survey of 4,000 portfolio and asset managers across the UK, USA, UAE and Hong Kong.

These markets were selected due to the presence of global megacities (London, New York, Abu Dhabi and Hong Kong City) that have ambitious pipelines for development and mature building ecosystems.

Our aim was to gain a better understanding of where asset management professionals and their businesses are on their journey with environmental mitigation. We looked at some of the greatest obstacles to change and, crucially, where professionals may focus their attention to create sustainable portfolios.

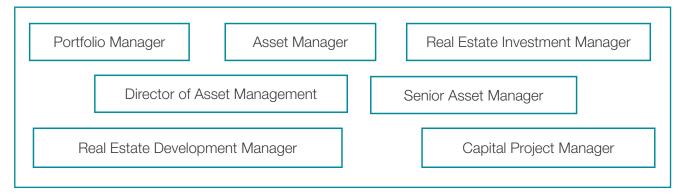
The results paint a mixed picture. One that suggests asset managers are extremely comfortable in meeting the demands of regulatory requirements for sustainability, yet the majority are not yet implementing decarbonisation strategies on their programmes.

Additionally, most businesses have substantial resources working specifically on sustainability but still feel that improving the quality of green skills is high on the agenda.

What is abundantly clear is that the time for tangible action is now. Asset managers must seize the opportunity to create a resilient, efficient, and environmentally friendly built

environment that meets the needs of today and safeguards assets for the future.

We segmented by seven common job titles



Respondents came from 14 sectors

> Finance

> Architecture	
	> Architecture
> Defence > Infrastructure > Retail & Leisure	> Defence
> Education > Justice > Technology	> Education
> Energy > Local Authority > Transport	> Energy

> Manufacturing

KEY FINDINGS

Global results

20%

are actively implementing sustainability or decarbonisation strategies.

41%

voted Data and AI as the most important areas of investment to deliver sustainable portfolios.

37%

disclose via SASB standards for sustainability reporting.

<10%

are motivated by the expectations of building occupants and end users.

57%

feel very able to keep pace with environmental regulations and reporting requirements.

Market results

A wide variance of responses across the world have demonstrated who is leading the way.

73%

of US asset managers motivated to create more sustainable assets to secure finance (vs 54% globally)

Hong Kong is...

33%

less likely than the global average to be motivated by securing financing (21% vs 54% globally)

69%

of UAE asset managers feel 'Very Able' to keep pace with regulations and reporting (vs 57% globally)

Hong Kong respondents are...

10%

more likely to believe green skills are the most important area for driving sustainable portfolios (30% vs 20% globally)

52%

of UAE asset managers back data and Al as the most important area to create sustainable portfolios (vs 41% globally)

Sector results



The range of sector responses show clear industry specific challenges.

Sectors implementing sustainability strategies:



Sectors motivated to be sustainable to secure financing:

Global average (54%)

Energy Defence (Highest 58%

Sectors backing Data and AI as a priority investment area for sustainability:

Global average (41%)

Local Authority (Lowest) Technology (Highest) 55%

Sector's ability to keep pace with sustainable regulations and reporting:

Global average (97%)

Education (Least able)

Infrastructure (Most able) 100%

1. THE CURRENT STATE OF PLAY: WHERE ARE ASSET MANAGERS NOW?



Understanding the route to sustainable assets means unpacking the current state of play. With many global environmental targets promising to achieve outcomes between 2030 and 2050, there is an increasing recognition that the response to the climate crisis lacks urgency.

There has been progress globally on mandating sustainability targets. The EU has introduced Corporate
Sustainability Reporting Directive (CSRD), while in the USA state legislators have imposed disclosures on businesses that meet revenue and size criteria. A sign of good intent, but policies like these are slow to implement and only guarantee the quality of reporting, not the quality of

performance. It is inevitable that businesses will resort to ticking the box, with little incentive to exceed expectations. In this context, making the leap from targets and strategies to actions is essential, but not easy.

This is clearly evidenced by our respondents. When asked where their businesses are on their sustainability journey, just a fifth globally answered that they are actively implementing a sustainability or decarbonisation strategy. Most it seems are in earlier stages of strategy development, mapping priorities, or establishing decarbonisation pathways.

Maturity across markets

Looking at specific markets, 33% of UAE asset managers are also at this initial stage of strategy development, just ahead of the USA (32%) and the UK (31%). Whilst Hong Kong businesses seem to be slightly more mature,

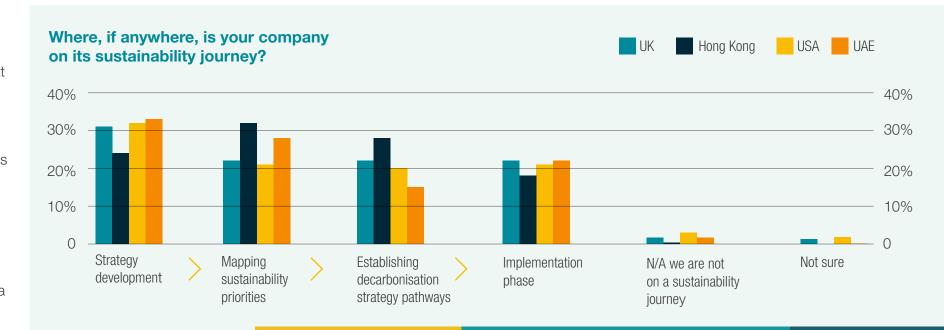
with the largest proportion of responses at the 'priority mapping' phase (33%), they were in fact the lowest rated of all markets in terms of implementing sustainable action, at 18%.

The UAE response, that a third were now setting strategies, is unexpected, given that in 2023 a survey of 200 companies across Middle East and North Africa (MENA), conducted by the World Economic Forum found that just 12% of businesses

had a net zero target and just 6% had established roadmaps to decarbonise. Such a leap forward will be supported by the recent scale and vision of mega projects currently underway in the region, many of which are targeting ambitious sustainability performance, such as Al Bahr towers and Masdar City – both in Abu Dhabi. Although the largest companies in the region may have made this rapid progress, it is expected that for smaller and

mid-sized asset developers the transition will be more gradual.

Returning to Hong Kong, if this whole process from goal setting to action can be considered a maturity curve, then Hong Kong is somewhere in its adolescence. Responses show that it is well ahead of other markets in establishing sustainable priorities and mapping decarbonisation pathways, but ultimately still struggling the most to convert into action.





This ability to get off the mark better than other regions could be explained by the numerous government incentives to ESG financing, including the GSF Grant Scheme and Qualifying Debt Instrument (QDI). Legislation has also gone a level further to promote urban sustainability specifically, with many initiatives supporting green spaces and maintenance in Hong Kong's urban planning and design.

Despite all of this, there are clearly factors blocking the next step of driving greener buildings forward. Certainly, the density of city spaces in the region makes effective retrofitting of assets highly complex without disruption to neighbouring structures. This issue could be combated by adoption of offsite manufacturing and prefabrication (read about Mace's own methods of more sustainable construction through our Construction 2 Production (C2P) approach). This involves offsite production and other measures to reduce embodied carbon of emissions intensive buildings materials such as concrete and steel. Solutions like this can also mitigate the other common barrier that asset

managers, the world over, face: the perceived upfront cost of sustainable building.

When examining responses by

Stalling sectors

sector, the picture is similarly stark in showing how few businesses are achieving sustainable outcomes. Taking the Justice sector as an example, just 6% of our respondents said they were implementing a sustainability strategy, followed by Education (10%). The only outlier was Local Authority with almost a third of respondents actively implementing (12% ahead of the global average). This could be explained by multiple factors. Firstly, the public accountability of local authorities places added pressure on programmes and projects to make good on their sustainability objectives and deliver peoplefocused outcomes. Additionally, the longer-term vision of public projects, such as the UK New Towns programme or the Hudson Tunnel infrastructure programme in the USA, often involve rigorous urban planning that fit sustainable objectives and respond to societal needs.

Bigger isn't better

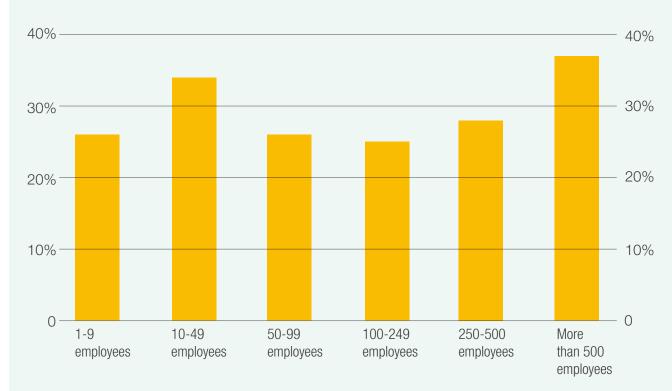
Larger businesses of over 500 employees are mostly at the earliest stage of strategy development (37%). On the one hand understandable with the complexity of operating at scale, on the other, alarming with the increased resources and disclosures expected of large organisations.

Overcoming the barriers to implementation is the number one priority to driving more sustainable assets. Every moment not spent actively reducing emissions deepens the scale of the climate crisis.

37%

of larger businesses are still developing strategies To see a substantial majority of asset and portfolio managers seemingly far from bringing their commitments to life impresses the absolute need for credible guidance and measurable performance targets that enable these businesses to make consolidated progress.





2.MOTIVATIONS FOR PROGRESS



The obvious answer to why anyone should seek to create more environmentally friendly assets is that it is the right thing to do. With the built environment still contributing approximately 40% of global emissions, there is no alternative but to act if we are to unlock a healthier, more resilient world.

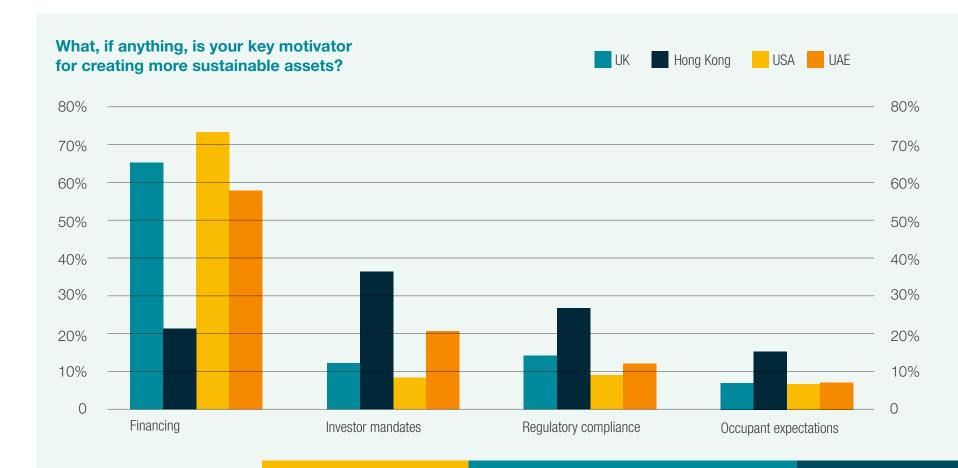
Extreme weather events, accelerated by climate change, put homes and critical infrastructure under threat all over the world and a lack of adaptability can render built assets obsolete. There is both a human and financial risk to developments that do not factor in resilience. Yet beneath this guiding principle, what are the specific drivers pushing sustainable buildings up the agenda of portfolio managers?

We asked our asset managers what their greatest motivator was for creating more sustainable assets out of the following options.

Financing: the process of providing funds for business activities, making purchases, or investing.

Investor mandates: specific guidelines or instructions that dictate how a pool of assets should be managed.

Regulatory compliance: the process by which organisations ensure that they adhere to relevant laws and policies governing their operations. Occupant expectations: the criteria that built asset end users require or see as essential for their buildings or infrastructure.



Financial levers

Perhaps unsurprisingly for asset management, it was 'Financing' which took the top spot at 54%. The USA in particular see this as the key motivation, with 73% providing this response. The outlier here was Hong Kong, where only 21% gave this response, with 36% choosing 'Investor mandates' in its favour. It is interesting that asset managers are largely looking within at their own business needs, ahead of external investor and other stakeholder priorities.

The fact that financing (54% globally) ranked far ahead of regulatory compliance (15% globally) is encouraging. This group see the importance of sustainability in gaining commercial advantages and unlocking capital to deliver their projects. Even countries such as the Kingdom of Saudi Arabia, which are heavily reliant on oil and gas, are now rapidly diversifying their economy and assets in line with Vision 2030 and UN Sustainable Development Goals. Between 2018 and Q.4 2024, assets managed under sustainable funds have almost tripled, from \$1.3 trillion in 2018, to \$3.5 trillion. With this ever-expanding economic opportunity, asset

managers evidently don't want to miss out and regulation no longer has the sole function of applying pressure to create sustainable portfolios.

Occupant demands

Financing is an important step in motivating the creation of greener built assets. However, securing investment alone does not guarantee the quality of sustainable outcomes for building users and surrounding communities. In order to have the maximum impact for people and planet, the occupants must be engaged at the earliest point. Yet less than 10% of respondents are motivated by the expectations of building occupants and end users, going as low as 7% of respondents prioritising this in the USA.

This goes back to the unique position of asset managers in the building ecosystem. Their broad web of stakeholders includes direct contact with tenants and owners, creating a platform to advocate for sustainability and respond to demands for healthier buildings. The data suggests that there is not enough collaboration and alignment between asset owners and tenants.

PANORAMA ST PAUL'S: SUSTAINABILITY AT THE HEART OF CITY SPACES



As a delivery consultant and construction business, Mace is seeing unprecedented levels of occupant influence across many of our projects when it comes to sustainable measures. Being aligned from the outset on creating healthier and more sustainable spaces allows us to deliver the maximum impact at every stage of a project lifecycle.

Panorama St Paul's, the former British Telecom headquarters was an ageing asset amidst the hyper-competitive office landscape of the City of London's 'square mile'. However, it's prime location and potential was a draw for HSBC to become the new tenant. HSBC is ambitious in its pursuit of net zero operations and has further emphasised its commitment through a climate transition plan. This means it requires adaptable, energy efficient office space that minimises embodied and operational carbon.

Through close collaboration with our client, Orion Capital, and incoming tenant on contractual sustainability objectives, Mace was able to advocate for circular economy principles.



The results were:

80%

of the core building structure was retained, saving hundreds of tonnes of carbon.

1,500

tonnes of Portland stone was reused on the building's façade.

50%

reduction in the site's carbon fooprint was achieved overall.

Early understanding of occupant expectations allowed for innovative approaches to sustainability that continued to accumulate over time, resulting in an environmentally conscious space which supports the needs of staff, the business and the surrounding community.

When occupants actively seek and support sustainable practices, it creates a powerful internal motivation for change, leading to continuous progress in developing sustainable assets.



3. THE CHALLENGES OF REPORTING



There is divided opinion on the ideal frequency of developing and updating sustainable policies and standards. Many believe that adaptability is essential, as our understanding of climate science evolves all the time. However, it is also cited that sustainable regulations and best practices are launched at a pace that is prohibitive to consolidated focus towards environmental goals.

Our survey found that globally there is high engagement with multiple disclosure/reporting frameworks. Specifically, many businesses are producing one or more of the following:

Separate ESG reports

43%

SASB standard reports

37%

TCFD reports

37%

Other disclosures such as CDP

36%

Add to this replicative reporting requirements of the many independent standards and frameworks emerging in every region and it is easy to see how duplication of efforts and fatigue could become a factor.

Despite this, among the asset and portfolio management community, keeping up with changing and evolving legislation and reporting requirements does not seem to be a major issue. When asked how able they felt keeping pace with new environmental regulations and reporting requirements, 97% answered either 'Somewhat Able' or 'Very Able'. When segmenting by job roles within our respondents, Capital Project Managers lead the pack, with two-thirds saying they felt 'Very Able' to keep up, when compared with Portfolio Managers at 48%.

It was the UK that had the lowest number of 'Very Able' responses (43%), a significant drop from the global average (57%). While different markets have their own regulatory quirks, the UK arguably has among the busiest pipelines of mandatory and voluntary disclosures. The UK has faced additional challenges as a result of dissolution from the European Union, in turn providing less certainty as it consults on mandating EU legislation such

as Corporate Sustainability Reporting Directive (CSRD) and Carbon Border Adjustment Mechanism (CBAM).

Security vs sustainability

When it comes to capability in responding to regulations, breaking down further to individual sectors. Defence respondents had a net 'Able' response of 83% (global avg. 97%) and a 'Very Able' response of just 17% (global avg. 57%). In the case of the defence sector. there are unique challenges that could explain this. Principally. the imperative of maintaining national security often trumps other considerations, including sustainability. Moreover, the inherent confidentiality and security measures associated with the sector can limit the transparency of disclosures and data transfer, complicating reporting efforts.

Education not top of the class

Similarly, Education had a net 'able' rate of 83% and, more troublingly, 18% felt unable to keep up, compared to a mere 2% globally. This could be attributed to resource constraints and the broad

stakeholder web educational institutions are faced with. Whilst these figures still reflect that the majority of asset managers in this sector are comfortable with regulatory changes, the notable disparity suggests a greater struggle to prioritise sustainable disclosures.

Whilst a substantial number of asset and portfolio managers evidently have a firm grasp of the gamut of environmental reporting frameworks, there are still areas where some cannot effectively meet the demands of disclosing sustainable performance. Without adoption of regulations and standards that facilitate seamless and consistent

KEFLAVIK AIRPORT: PURSUING SUSTAINABILITY ON ICELAND'S LARGEST EVER INFRASTRUCTURE PROGRAMME

Aviation as a sector plays such an important role in the climate challenge, with immense scrutiny of emissions and complex operating environments. However, airport owners must also create vital travel hubs and deliver seamless passenger experiences through stellar infrastructure.

As Iceland's largest airport, Keflavik faces this exact challenge, to act as the gateway for tourism and a crucial hub for commerce in the North Atlantic. It is set to be achieved by expanding an East pier and creating an all new North terminal, aiming to accommodate 14.5 million passengers each year. Alongside such growth, the airport needs to reduce the overall operational carbon output by 99% by 2030 and deliver biodiversity improvement and social value to surrounding communities.

Mace provides programme management and sustainability services to ensure robust compliance and detailed goal setting to work towards this ambitious target and broader ESG aspirations. Through our collaboration we have, to date, supported the following outcomes:

- 100% renewable energy generated on site through zero carbon geothermal energy.
- Neutrality from the <u>ACl's</u>
 <u>Airport Carbon Accreditation</u>
 programme achieved.

The importance of realistic and practical recommendations, based on our experience from similar aviation projects, was crucial to setting the ball rolling on longer-term ESG targets.



4. IS TALENT THE ANSWER? INVESTING IN EXPERTISE

When it comes to advancing the greening of portfolios, having skilled resource and broader understanding of how each employee can contribute to sustainability is crucial. In terms of specialised personnel, over 40% of respondents globally claimed to have sustainability teams of between 50-100 people and just 1.5% claim to have no in-house sustainability team.

America riding the climate policy rollercoaster

In the USA, 3% of asset managers said they do not have an in-house sustainability team. A small proportion, but nonetheless twice the global average and could be construed as diminished investment in green talent. Of course, the fluctuating political landscape in the USA has seen a varying prioritisation of climate change. Thus, businesses may understandably have deemed investing in green expertise a risk, lest a shift in policy render their teams surplus to requirements.

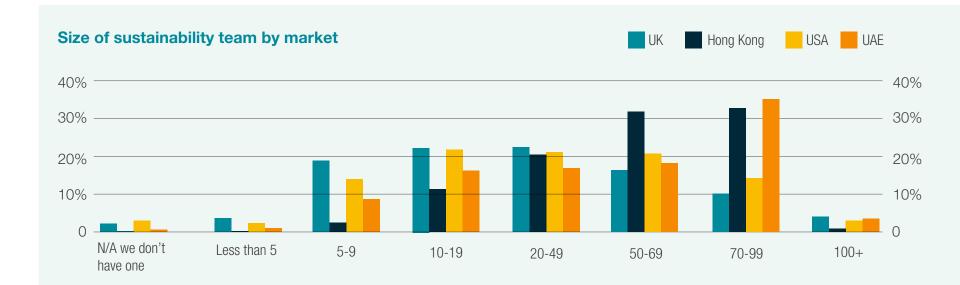
Embedding sustainable expertise in operations

Sectors which tended to have smaller teams included Technology (5%), the Public Sector (6%) and Manufacturing (6%). Considering the complexity of all these sectors' estates and the immense emissions output that sites such as data centres and manufacturing plants can have, it is concerning to see their reduced resource. Yet, this same complexity of operations can make integrating sustainability expertise difficult, particularly for manufacturers who must consider the whole

supply chain ecosystem. The reality, beyond all these issues is that budgetary constraints limits headcount in all departments and organisations will often prefer smaller and more agile sustainability teams. But how can such teams deliver impact at portfolio and business level?

The solution is to shift mindset from treating sustainability as a niche issue, that only a few dedicated professionals are responsible for tackling, to an organisational priority. There will always be the need for sustainability champions, of

course, with the knowledge and experience to set the direction. At Mace, we believe that 'every role is a carbon role' and that means that sustainability is embedded into every job description, internal process and career journey. For such a vital issue it is not just specialised talent, but enterprise upskilling that will allow businesses of all sizes to move the needle on a sustainable built environment.



5.UNLOCKING THE FUTURE



For the reasons outlined previously, talent is, or should be, a towering theme in the world of sustainability and **ESG.** Industry and government around the world are beginning to recognise how crucial it is to build a green-skilled workforce, as environmental considerations become embedded in every role - much like digital skills continue to be valued. But is this recognition enough at the present moment?

When asked what they believed were the most important areas of investment to deliver sustainable portfolios, data and Al was the runaway leader, with 41% of the vote, eclipsing standardised reporting frameworks (21%), green skills and talent (20%) and decarbonisation technologies (15%). The UAE in particular are backing data and Al, with 51% of those surveyed placing it first.

Confidence in digital technology is unsurprising, given how AI has been heralded as a panacea for productivity, innovation and connectivity. The potential

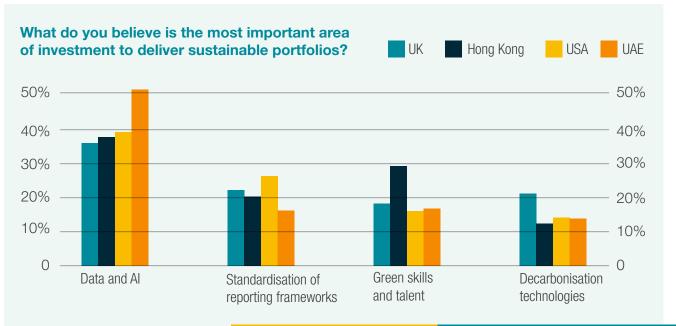
applications for sustainability are undeniable; optimising resource use, predictive maintenance, monitoring environmental conditions and even sustainable urban planning. However, there are concerns that the immense consumption of energy and utilities that large Al models demand would represent a step backwards for climate impact.

Even without the immediate sustainability risks of Al infrastructure, data-led technology is limited without the resource and expertise needed to implement its use and interpret

its insight. This connection seems to be understood by our respondents from the energy sector, an industry for which Al is set to have transformative impact on its emissions via smart arid management. This is the application of Al and automation to manage demand and consumption based on weather predictions, renewable energy availability and consumer habits. With solutions like this already impacting the energy sector, it would be logical for data and Al to be at the top of the list for energy asset managers. Instead,

they are the most emphatic supporters of green skills with 35% naming this as the priority for investment – 15% ahead of the global average.

Technology without know-how is a critical misstep. It is essential to not only invest in advanced technologies but also to cultivate a workforce capable of leveraging these tools effectively. This dual approach - prioritising both cutting-edge innovation and the development of green skills - will ultimately drive significant progress toward sustainable practices across sectors. Only through such integrated efforts can businesses hope to achieve meaningful environmental impact.



CONCLUSION: PAVING THE PATH TO A SUSTAINABLE FUTURE



The journey towards a resilient, efficient, and environmentally friendly built environment is not just a trend but a fundamental transformation. It is clear that asset managers have grasped how key sustainable assets are to the future of their businesses, with financing as the greatest motivator.

More must be done to factor occupant needs into early decision making, to build assets and infrastructure that delivers a positive legacy for communities and the environment.

In a complex regulatory landscape, most feel able to keep up with requirements, but the same majority still are not delivering measurable outcomes. Legislation clearly does not do enough to prompt consolidated action, enabling businesses to meet minimal requirements. There is an opportunity to embrace global frameworks such as ISSB that seek to rationalise reporting efforts across geographies and adopt specific standards, for example the UK Net Zero Carbon Building Standard, that provide concrete evidence that buildings conform to net zero. It is critical for collective action that standards are consistent. transparent and intuitive.

There is no shortage in the quantity of sustainable personnel in asset management firms, but they are often operating in siloes, without sustainable objectives embedded into business-critical decision making. The answer is enterprise upskilling that allows everyone in a business to understand how they can influence sustainability. Through training resources and integration of green metrics into performance evaluation.

The growth of green skills does go hand in hand with more digitally enabled asset management. Quality of data and analysis equals quality of outcome. Comprehensive data on assets is needed to understand the opportunities for efficiency and AI will support predictive maintenance and trends. What will unlock the most far-reaching outcomes for greener portfolios is the union of technology with strategic thinking.



Keflavik Airport, Iceland

Asset managers are in a pivotal position to drive the transformation towards sustainable assets. By prioritising sustainability, they can enhance both environmental and financial performance. Embracing tangible decarbonisation solutions such as circularity, investing in green skills and being prepared for the data enabled future will lead to greener and more risk resilient portfolios. Swift and bold action now will create a healthier built environment in the future.

GET IN TOUCH

Mace is dedicated to delivering climate resilient programmes and projects for our clients and their organisations. Our sustainability colleagues around the world combine global thinking with local execution. They understand the local drivers and regional regulations their clients face and draw upon global expertise within Mace to develop and deliver the right sustainability outcomes for their business.

If you enjoyed this report and have any questions regarding its insights, or are looking for support with your sustainability and ESG strategy, you can contact experts from across our global hubs:



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