

An evolving asset class





Infrastructure is rapidly evolving and lays claim to being one of the fastest-growing asset classes over the past decade. The compound annual growth rate in assets under management (AUM) has averaged 16% over this period to reach more than USD1.1 trillion last year (according to Pregin data).

Even with this upward charge, the demand for modern, resilient infrastructure far outpaces current investment. This has left a precipitous global infrastructure gap that will need to be filled over the next two decades, especially in middle and lower income countries. The investment required stands at a staggering USD15 trillion through to 2040, according to the Global Infrastructure Hub.

In response, private financing is increasingly stepping in to bridge the gap, with institutional investors, dedicated infrastructure funds and other private capital firms, as well as diversified asset managers, expanding their allocations. A case in point – BlackRock, the world's largest asset manager by AUM, paid USD12.5 billion to acquire Global Infrastructure Partners earlier this year.

Secular drivers are accelerating this trend. The global energy transition, spurred by net zero commitments, is leading to unprecedented investments in renewables and energy efficiency projects. Digitalisation is another disruptive force, with the expansion of data centres, 5G networks and smart infrastructure drawing significant capital – capital expenditure on data centres alone is expected to rise by 30% in 2024, propelled by the AI boom, according to analysts Omdia. Additionally, the need for increased core infrastructure investments, such as transportation networks and utilities, remains and continues to attract interest. Energy security, too, has come to the fore as a key driver in the years since Russia launched its full-scale invasion of Ukraine.

This exclusive research, produced in conjunction with Infralogic, aims to provide a global pulse check and roadmap for navigating this dynamic asset class. This report distils insights from senior executives across multiple regions, offering a 10-point guide to the current landscape, its key opportunities and emerging risks.

In capturing the latest trends and investment strategies, this report is an essential resource for both seasoned infrastructure investors and those who may only now be adding the asset class to their portfolios or into their fund management business.

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Key findings

1 | Fundraising and investment intentions

Almost three-quarters (70%) of respondents expect their level of infrastructure fundraising to increase over the next 24 months, with 30% anticipating a substantial increase. Furthermore, 77% of respondents plan to boost their infrastructure investments in both volume and value, suggesting that total AUM is set for further growth in the near term.

2 | Energy transition is a primary driver

The global push towards decarbonisation is one of the most significant drivers of infrastructure investment. Nearly 54% of survey respondents identify the energy transition as a main catalyst for investment, with renewables and energy efficiency projects leading the charge. This trend is expected to continue, driven by global climate commitments and supportive policies.

$3 \mid \text{The unstoppable rise} \\ \text{of digital infrastructure}$

Digital infrastructure is rapidly becoming a focal point for investors, with 36% of respondents citing digitalisation as a primary investment driver. The expansion of data centres, cloud computing and AI is driving significant capital flows, particularly in developed markets such as Europe and North America.

4 | Scouting for regional investment opportunities

Despite broader regional instability, the Middle East has emerged as the most attractive region for infrastructure investment, with 60% of respondents viewing it as highly attractive. Countries like the United Arab Emirates (UAE), Saudi Arabia, and Qatar are compelling due to their political stability, ambitious infrastructure development plans and wealth derived from oil and gas revenues. Ambitious projects such as Saudi Arabia's Vision 2030 and the UAE's renewable energy initiatives are drawing significant interest. Other markets including Australia and Canada are also held in high regard.

5 | Healthcare and social infrastructure deficit

The COVID-19 pandemic highlighted significant deficits in healthcare and social infrastructure. In response, 35% of total respondents expect increased investment in these sectors in Asia Pacific (APAC) over the next 24 months. However, outside of that region, healthcare, education, and social (HES) infrastructure is viewed as less of a priority compared to energy and digital projects.

6 The sustainability imperative

Sustainability and environmental, social and governance (ESG) considerations are becoming increasingly significant in infrastructure investment strategies, with 47% of respondents expecting ESG's importance to grow significantly in the next two years. This trend is particularly strong in Africa and APAC, where investors are integrating sustainability and ESG criteria to meet stakeholder demands, influenced by the progress being made in the EU's policymaking.

7 | Enduring appeal of core assets

Investors are drawn to core infrastructure assets for their stability and predictable cash flows. Two thirds (66%) of respondents plan to increase their exposure to core-only assets, potentially signalling a shift away from the riskiest extremes of core-plus strategies.

8 Global tensions cast a shadow

Geopolitical risks remain a top concern for infrastructure investors, with 35% of respondents citing these as the biggest potential impediment to investment. Regulatory complexity and supply chain disruption also pose significant challenges, particularly in regions such as Europe and North America.

9 Risk mitigation strategies

To tackle the array of risks identified, investors rely on proactive asset monitoring and management and independent experts to inform their decision-making. At least two-thirds of respondents across all regions employ these strategies, to protect their investments from downside risks.



Following a challenging year for infrastructure investment in 2023, driven by a high interest environment and geopolitical uncertainty around the world, investors seem to be excited by the asset class again. With over two thirds of our survey group expecting increases *in investment over the next* couple of years, we look to be on track to continue the *impressive performance that* has historically been attached to infrastructure. Much of this excitement is driven by the demands of a changing world in the form of energy transition and the exponential growth of our digital world.



Alison Fagan
Partner, Head of
Infrastructure Funds
Manchester

Methodology

In Q2 2024, Infralogic on behalf of DLA Piper, surveyed 102 senior executives who have invested in infrastructure within the past 24 months. The respondent group featured executives from around the world, with at least 15 survey participants representing each of the following regions: Africa, APAC, Europe, the Middle East, North America and South America.

The survey included a combination of qualitative and quantitative questions, and a series of interviews conducted with participants. Results were analysed and collated by the Inframation Group, and all responses are anonymised and presented in aggregate.



The last few years have presented the infrastructure asset class with both huge challenges – such as the pandemic, energy crisis, geopolitical tensions and higher interest rates – and also huge opportunities, including energy transition, digitalisation and governments' need for private sector funding to help meet their infrastructure and energy aims. It is a testament to the resilience and growing maturity of the asset class that investors' appetite remains strong and those involved in the sector are adapting to the major trends impacting it.





Martin Nelson-Jones
Partner, Global Chair of
Infrastructure, Construction
& Transport
London



Infrastructure: Into the mainstream

Infrastructure has experienced one of the most remarkable growth stories of any asset class over the past decade. And, according to our respondents, that trajectory is set to continue.

From 2015 to 2022, the infrastructure asset class witnessed an exponential expansion, a confluence of tailwinds pushing it into the mainstream.

In 2015, the infrastructure M&A market recorded 551 deals valued at USD148.5 billion.

By 2022, these figures had skyrocketed to 2,105 deals worth USD658.4 billion, representing increases of 282% in volume and 343% in value.

This impressive growth was fuelled by a favourable zero-interest rate policy (ZIRP) environment, which made borrowing for large-scale critical projects more attractive.

Additionally, the emergence of core-plus assets expanded the definition of infrastructure, bringing new opportunities to the table such as renewables and telecoms towers, both of which are drawing closer to core. The push for global energy transition and the attendant rapid growth of renewable energy production, coupled with the rise in AI and data as the new currency, are lasting trends that only serve to attract more long-term capital.

Simultaneously, the increasing participation of private equity firms expanding into this adjacent asset class is adding further available capital and should serve to drive up investment.

However, 2023 marked a reversal in the ascent. While still historically strong, dealmaking activity dampened compared to the previous record year. The number of transactions decreased by 14.5% to 1,800, and total M&A value fell by 43.7% to USD370.8 billion. This decline can be attributed to several factors including high interest rates and tight debt markets an escalation in geopolitical tensions and a wider pullback in private markets that is most evident in a slower leveraged buyout market.

Yet, it appears that 2023's downturn may only be temporary. While not yet on track to reach 2022's peak, 2024's deal performance demonstrates the sector's resilience. With 909 deals valued at USD281.6 billion (as of August 2024), this year looks set to match 2023 on a value basis.

Looking ahead, there's cautious optimism for a continued rebound. Stabilising interest rates, more realistic valuations, the unstoppable digitalisation wave and the pressing need for renewable energy infrastructure are expected to support activity. Moreover, the estimated USD286 billion in dedicated dry powder, as well as private equity's growing interest in the sector, indicates unprecedented growth lies ahead.

A bright future

Our research indicates that LPs and GPs believe that the asset class's fundraising prospects are bright at this juncture, based on their own plans to invest and manage capital.

of respondents anticipate an increase in their infrastructure fund investment and fundraising activities over the next 24 months

30% expect this increase to be substantial.

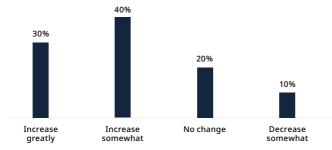
Certainly, there is real-world evidence to support this optimism. Fundraising, which hit a multi-year low of USD90 billion in 2023 (a 49% year-on-year fall according to Pregin data) is due a rebound amid a broader recovery in private markets. Private equity giant KKR made headlines in August 2024 after mentioning on its Q2 earnings call that it has achieved a USD10 billion first close for its latest infrastructure fund. Global Infrastructure Investors V. In the mid-market, H.I.G. Capital closed its maiden infra vehicle in June on USD1.3 billion, as part of a broader trend of traditional private equity firms making inroads into the asset class. Overall, according to Infrastructure Investor data, USD46.7 billion of private infrastructure capital was raised in H1 2024, more than double compared to the same period the year before (USD18.7 billion).

of respondents plan to ramp up their infrastructure investments in both volume and value over the same period, compared to the previous two years.

This alignment between fundraising expectations and investment intentions signals not only the growing interest in infrastructure capital allocation and capital formation opportunities among both LPs and GPs, respectively, but a recognition of the deployment opportunity in the sector in light of the pervasive and persistent infrastructure gap. It suggests that fundraising will translate into imminent action, potentially accelerating deal volumes and intensifying competition for prime assets across various infrastructure sub-sectors.

Moreover, traditional LPs are increasingly taking matters into their own hands by making direct investments and co-investments outside of and alongside funds. For example, in 2022, CDP Equity, which is part of Italy's sovereign wealth fund, led a consortium alongside Blackstone Infrastructure Partners and Macquarie Asset Management to acquire an 88% stake in Autostrade per l'Italia, one of the largest toll road operators in Europe. This marked a significant step into direct infrastructure investment, aiming to improve the management and safety of Italy's roads while supporting the country's economic recovery.

How do you expect the level of your fundraising to change in the next 24 months compared with the previous 24 months?



Beyond core

Core-plus and value-add strategies, which occupy the risk-return spectrum between traditional core assets and higher-risk opportunistic plays, continue to attract investor attention. These assets typically target returns of around 15% or more, approaching those of private equity. In some cases these offer the familiar, stable features that make infrastructure attractive, including renewables projects with long-term off-takers secured under Power Purchase Agreements (PPAs) or feed-in tariffs. Other so-called core-plus assets lack these characteristics - such as low obsolescence or a 'natural moat' protecting the asset. Projects like data centres, for instance, are subject to intense market competition and may perform more like tech investments, but without the potential for black swan returns.

This diverse range of assets presents opportunities to benefit from emerging demand trends, and for operational improvements and technology upgrades, appealing to investors seeking enhanced yields without venturing too far up the risk curve.

With interest rates having risen from their historic lows, investors are compelled to seek higher returns while still benefitting from inflation protections. Our research bears this out, with more than half (52%) of respondents stating that their IRR targets increased by 100-200 basis points over the past three years, albeit that is less than the rise in interest rates over the same period.

Raising debt

On the debt side of the equation, investors are anticipating that private placements/institutional credit will play an ever-greater role in the infrastructure space. This mirrors a broader trend across private markets. In private equity, funds have become increasingly reliant on this source of credit amid a pullback in syndicated leveraged loan and bond markets. This is similarly playing out within infrastructure, although private placements provided by insurance companies and pension funds have been a long-term feature of the market. However, we are increasingly seeing more dedicated

infrastructure debt funds. For example, Brookfield Asset Management last year closed its third global infrastructure debt fund, raising over USD6 billion. The vehicle is billed as the world's largest private infrastructure debt fund and more than doubled the size of its predecessor.

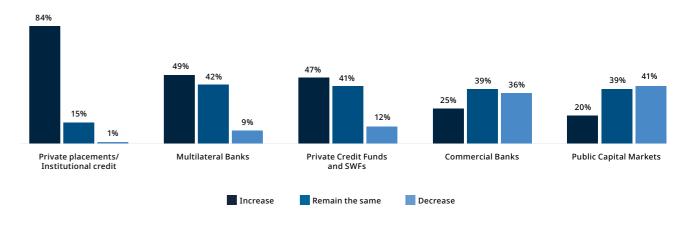
Between 76% and 89% of respondents from all regions expect to see an increase in access to private placements/institutional credit over the next 24 months.

41%

of respondents surveyed anticipate access to public capital markets to decrease. **39**%

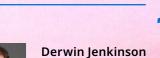
believe it will remain the same. Perhaps the most notable exception to that trend is capital markets financings of data centres, a trend established in the US which has only recently emerged in Europe. This is driven by ever increasing deal sizes.

Do you expect access to the following sources of finance to increase or decrease over the next 24 months?



66

Banks continue to be the main source of acquisition finance. But institutional lenders and credit funds are also providing a vital source of capital, whether for longer term financings of mature assets, supporting infrastructure platforms, or providing bespoke financings to support high growth investments, including at the fund level.





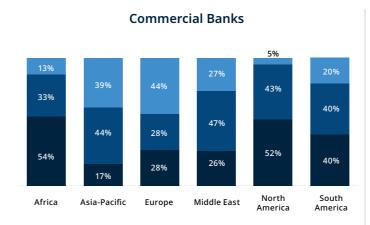
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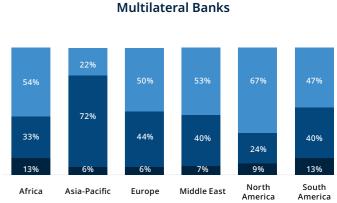
Partner London "We think the private debt trend will continue, but it has typically been unable to provide undrawn flexible facilities such as revolving credit facilities, for example," says an infrastructure fund manager. "If you want to avoid inefficient cash reserves or cash drag for contingent liabilities, then there's a place for banks in serving that particular need. So I think we'll also see banks continue to specialise in that shorter term, construction-focused debt."

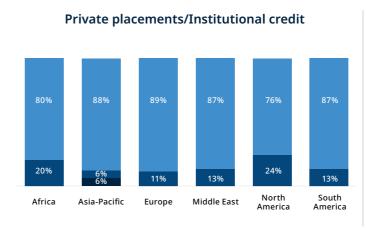
The increasing reliance on institutional credit among infrastructure funds stems from the greater flexibility of terms (particularly tenor) and structure this debt offers, allowing funds to tailor financing to specific transaction needs – often alongside commercial banks. Private placements help access deep pools of liquidity but avoid the delay and disclosure associated with public offerings in the capital markets. The trend varies across geographies and it is noteworthy that commercial banks feature more prominently in European transactions. Both commercial banks and institutional investors increasingly seek to develop strategic relationships with infrastructure funds to support their investments across the portfolio.

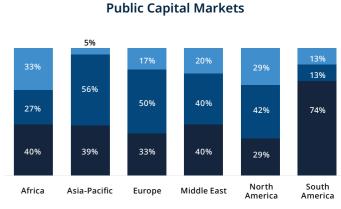
Finally, though the data is less transparent due to commercial sensitivity, the use of fund financings is becoming more sophisticated. Originally this was a relatively standardised product, primarily aimed at providing liquidity for investments. However, the market has evolved with more complex and diversified products being used to structurally enhance or extract returns for the funds and/or the GPs specifically. Similarly, preferred equity is being widely used in the US and may become more common in other jurisdictions.

Do you expect access to the following sources of finance to increase or decrease over the next 24 months?

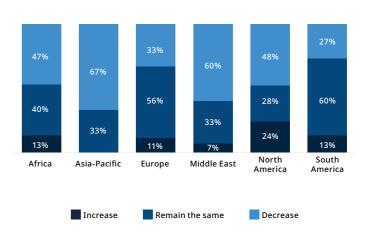








Private Credit Funds and SWFs





Amanda Woods

Chief Investment Officer of
Amber Infrastructure, outlines
the vast USD15 trillion global
investment opportunity driven by
the three Ds of decarbonisation,
digitalisation and demographics.
She also discusses the industrywide challenge the asset class
faces in achieving return targets
in a high-yield environment, and
the need to proactively manage
geopolitical risks in today's
volatile world.



How would you summarise the current state of the private infrastructure market in terms of investment opportunities and investor demand for fund exposure?

AW: The global infrastructure gap is massive
– around USD15 trillion according to the G20's
Global Infrastructure Outlook. This gap is
expected to keep growing, driven by the three Ds:
decarbonisation, digitalisation and demographic
change. Governments are increasingly supporting
infrastructure through more progressive industrial
policies that are driving the green transition.

However, a key challenge is balancing the need for greenfield infrastructure with investors' demand for yield, especially to keep pace with government debt yield increases over the last couple of years. This can be achieved by balancing portfolio exposure to greenfield assets, which may have initial yield compression but provide a return uplift as they move from construction to operation, with brownfield investments that generate immediate yield. Of course, that mix depends on a fund's mandate and investors' risk appetite. Some LPs are more focused on capital growth rather than yield.

Given that yields on government treasuries are high by recent standards, how do you achieve higher yields on infrastructure investments that maintain the historical returns delta over "risk-free" assets?

AW: Achieving higher yields in this environment is about finding the right opportunities that offer differentiation and access to alpha. We focus on proprietary and bilateral deals – those that aren't available to everyone which are driven by relationships and therefore we can avoid expensive auction processes. In addition, aligning with government policies where there is strong support for infrastructure projects can help. It's about finding opportunities in regions with significant infrastructure gaps and government backing, which makes those projects more viable and potentially higher-yielding.

Decarbonisation is a major secular trend. Where do you see the biggest opportunities and how is Amber Infrastructure capitalising on this trend?

AW: Decarbonisation isn't new – it's been a focus for more than 20 years, especially in Western Europe. Amber started its first energy efficiency and decarbonisation funds in 2011. These funds blend public and private capital to invest in decarbonisation infrastructure. We've mobilised over a billion in capital through such initiatives. In less developed markets, like Central & Eastern Europe (CEE), the opportunity lies in addressing the gap in clean energy, which is closing rapidly but still present. There, local renewables developers and independent power producers are scaling up quickly. In Western Europe, opportunities lie in more complex greenfield projects, like nuclear or utility-scale battery storage, to balance the grid amid planning constraints and legacy infrastructure challenges.

Digital infrastructure has become a hot asset class. Where do you see the opportunities and what challenges are associated with them?

AW: Amber has focused on the fibre and data centre spaces within digital infrastructure, both characterised by rapid growth and expansion. This suits our active asset management strategy. We first entered the sector in 2017 by launching the UK's first fibre focused investment fund, the National Digital Infrastructure Fund (NDIF) in partnership with the UK government and private investors to roll out ultrafast broadband. The challenge is scaling these investments, which requires highquality management, strong business propositions and achieving EBITDA positivity. Rising interest rates, higher capital costs and scaling challenges, particularly access to capital, are the key obstacles. We are also involved in data centres in Australia and CEE, where we see opportunities for modular growth and expansion.

What types of assets are you looking to invest in to capitalise on demographic shifts?

AW: Demographic shifts are driving demand for healthcare and social infrastructure, especially in ageing and fast-growing populations. This has been a core focus for us but the challenge lies in the fragmented opportunity sets and rising costs, which can deter investors. We're seeing more government focus on these areas, with social and affordable housing becoming a crisis point that requires significant investment. Where the risk-return profile is attractive and procurement processes are well-structured, we continue to invest. For example, Ireland is showing promise with its social housing infrastructure pipeline, while New Zealand has been particularly fertile ground for new opportunities.

Geopolitical risk is a clear concern for investors. How can this be mitigated?

AW: We have several external advisors that we work with. It tends to be very market-specific and sometimes geographic-cover specific, and they will help, depending on the opportunity, across all aspects of the investment process, whether it be identification of potential opportunities or the due diligence, or they may assist on board directorship if they have that particular expertise. Where geopolitics has been most relevant for us is in CEE. It's a complex region in which to do deals in light of the conflict in Ukraine and its wider effects, but you're also dealing with multiple countries and sometimes different currencies. We benefit from active asset management, specialism and a local presence and network. To an extent that is supported by partnerships, both with special advisors, with people on the ground, with the public sector and some of our investors. We have a number of development finance institutions that invest in our funds and the network of access that they afford us is also helpful for mitigating geopolitical risk.

Key driver 1: The road to energy transition

The decarbonisation journey continues apace and is seen as a major catalyst for future investment in the infrastructure space.

The global energy mix is undergoing a rapid transformation. The International Energy Agency (IEA) has urged governments to support several pillars for action, including tripling renewable energy capacity by 2030. At present, this capacity looks set to reach 7,300 GW by 2030, with an implied run rate of 2.5 times current levels being achieved by then. Even if countries under their current policies do fall short of reaching the IEA's goal, it's clear that this is a market in a pronounced growth phase.

The revised Renewable Energy Directive (RED), adopted in 2023, raised the EU's binding renewable energy target for 2030 to at least 42.5%, with an aspirational goal of reaching 45%. The US is even more ambitious, with the country hoping to achieve 100% renewable electricity production by 2035. This lofty target was announced as part of President Biden's climate agenda, which also includes reducing greenhouse gas emissions by between 50% and 52% from 2005 levels by 2030 and achieving net zero emissions by 2050. This initiative is supported by multiple policy measures and significant investments, many of which are outlined in the Inflation Reduction Act.

The inexorable push towards decarbonisation of the energy sector not only involves increasing the share of renewables in the energy mix but enhancing energy efficiency and adopting carbon-mitigation technologies such as carbon capture and storage (CCS). Unprecedented volumes of capital will be required to make the transition, which spells a vast opportunity for infrastructure investors. The IEA estimates that to achieve net zero emissions by 2050, annual investments in renewable energy need to triple to around USD4.5 trillion by 2030. This is roughly equal to the entire market cap of Hong Kong's stock market.

54%

of respondents predict the energy transition to be a key driver for infrastructure investment over the next 24 months.

Indeed, with the exception of Africa, where conventional energy is expected to attract the most capital in the short term, investors in all regions rank renewables either first or second for the highest expected investment across all infrastructure segments.

"Infrastructure investment needs to increase to support the energy transition. Governments are introducing new renewables projects to achieve this and that will drive greater investment in the coming years," says the managing director of a US pension fund.

Within renewables itself, the already-well-established solar photovoltaic (PV) and onshore wind sub-sectors are set to attract the most investment, with 61% and 58% of respondents pointing to these, respectively. Battery storage ranks third (41%), closely followed by hydroelectric (38%). These are the most established renewable technologies and are leading the charge in reducing global CO2 emissions, offering viable alternatives to conventional power generation. Meanwhile, the UK's National Grid has announced a GBP16 billion Great Grid Upgrade, which will be particularly important for connecting PV and offshore wind to consumers. Therefore, regulated income is backing this switch-over.

Solar in particular is benefiting from rapidly declining costs and scalability. The cost of PVs has decreased by more than 80% over the past decade, making it one of the most competitive sources of electricity. This is being supported by incentives such as the Investment Tax Credit included in the Inflation Reduction Act, which is helping the expansion of utility-scale and small-scale solar installations.

Charged up

Meanwhile, investments in battery storage are ramping up and are set to exceed USD50 billion in 2024, according to the IEA, highlighting the importance of reliable storage solutions as the share of variable renewable energy sources increases.

Battery systems are essential for maintaining grid stability and reliability, especially as the proportion of intermittent energy from renewable sources increases. These systems provide critical management services such as frequency regulation, peak shaving, and back-up power, making them indispensable for energy systems that are becoming more reliant on renewables as a growing part of the energy mix.

Continuous advancements in battery technology, including improvements in energy density, cost reductions, and longer lifespans, are expected to drive further investment. This, in turn, is being made possible by innovations in battery materials and manufacturing processes, making storage more efficient and cost-effective.

Government policies and incentives are significant drivers of investment in this field. In the US, for example, the Inflation Reduction Act has provided substantial funding to support the deployment of these technologies. Similar policies in Europe and China are expected to further boost investment in the segment.

From an investment perspective, batteries and other energy storage tend to be a more complex asset class compared to conventional renewable generation, such as the solar PV and wind sub-sectors. This partly reflects the fact that energy storage assets often come with more complex revenue stacks, relying on multiple streams to maximise revenues.

"For all of the energy generated, the storage provisions have to remain optimum. Especially investments into utility-scale battery projects, which will be much higher in the coming years," says the managing director of a private equity firm in the US.

Although this represents a sizeable investment opportunity, unlike wind and solar energy assets, which typically have more straightforward revenue models primarily based on PPAs or feed-in tariffs, energy storage assets frequently depend on a mix of revenue streams. These include wholesale power arbitrage, the Balancing Mechanism, frequency response services and the Capacity Market. Energy storage assets must continuously manage and optimise between these various streams to maximise profitability, requiring far more dynamic and complex management than the relatively static revenue models of traditional renewables.

The conventional investment alternative

While the energy transition is a focal point for infrastructure investors, conventional power generation has not been put on the back burner just yet.

Renewables are benefiting from dramatic cost reductions, onshore wind and solar PV now being cheaper than new coal-fired power plants almost everywhere in the world and less expensive than existing plants in many countries.

But meeting global demand would be impossible without continued investment in to conventional power sources. These are crucial for maintaining energy security, a fact that was laid bare in Europe with Russia's full-scale invasion of Ukraine, which significantly disrupted gas supplies to the continent. This has forced countries to reassess their energy strategies, emphasising the importance of a diversified energy mix that includes both renewable and conventional sources to avoid mass supply disruptions.

This is notable in Germany, whose Energiewende initiative aims at shifting from conventional energy to renewable sources, improving energy efficiency and cutting greenhouse gas emissions. However, the industrialised nature of its economy and heavy energy demand means it remains reliant on conventional options like gas and coal. This is a dynamic situation that is reflected in different approaches across countries. In the UK, for example, the Labour government has proposed a moratorium on new North Sea oil and gas licenses, which has been criticised by some who argue it could jeopardise energy security by reducing domestic production and increasing reliance on imports.

This underscores the persistent tension between immediate energy needs and long-term sustainability goals, a challenge that varies by country and context.

Although conventional energy generation faces increasing scrutiny due to its inherent ESG risks, including climate impacts and regulatory opposition, it ranks highly among investors. More than a third of our sample (37%) mark assets related to oil and gas exploration as their single biggest investment priority among conventional energy assets, and 75% say these feature among their top three.

This is balanced with strong interest in evergreen energy distribution and transmission assets, which 76% of respondents identify as among their top three focus areas in the conventional energy infrastructure space. This emphasis underscores the critical need to modernise grid infrastructure to meet growing demand and better integrate intermittent renewable energy sources.

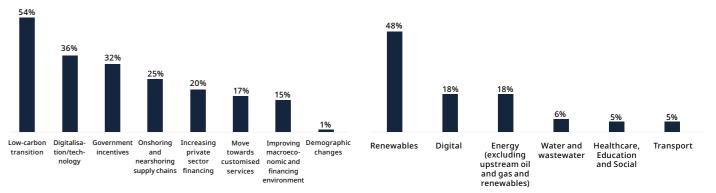
"Grid enhancements and transmission projects are given more importance now. Countries are planning to enhance their scale of distribution and improve distribution to remote locations as well," says the managing director of a US pension fund.

The rise of localised energy distribution models will require substantial investment in upgrading grids' capabilities to enable more responsive and resilient networks. Investors' focus on grid modernisation will support the evolution of both the energy mix and distribution systems.

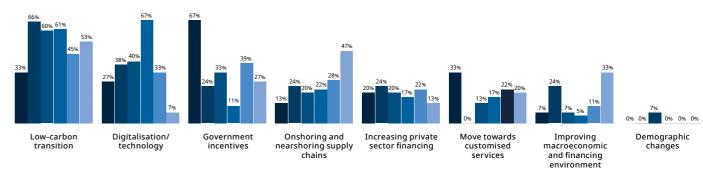
By simultaneously supporting the upgrade of grid capabilities and maintaining conventional energy supplies, investors are hedging against potential disruptions while positioning themselves for long-term shifts in the energy market. This balanced approach reflects a pragmatic strategy for navigating the ongoing transition while also accounting for the reality of rising global energy demand.

Which of the following factors will be key drivers of infrastructure investments over the next 12-24 months? (Select top two)

Which of the following sectors offer the greatest opportunities for infrastructure investment globally over the next 24 months? (Select one)



Which of the following factors will be key drivers of infrastructure investments over the next 12-24 months? (Select top two)

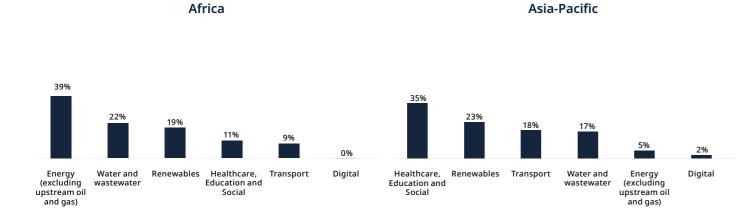


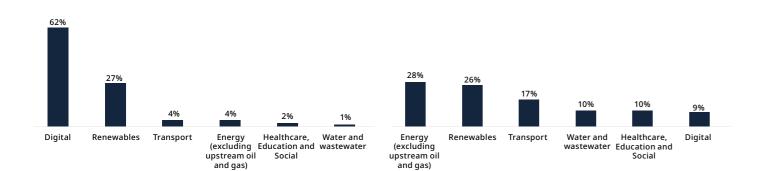


Which sector will see the most investment in the next 24 months in each of the following regions? (Select one sector for each region)

Europe

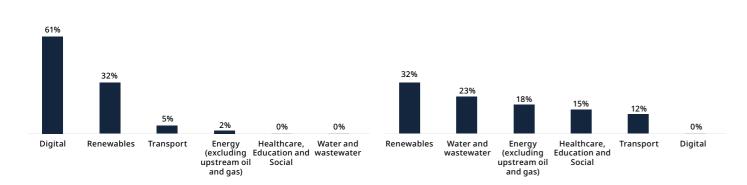
North America



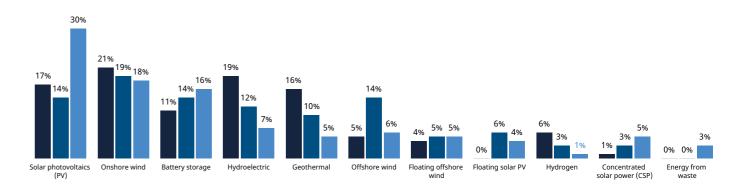


Middle East

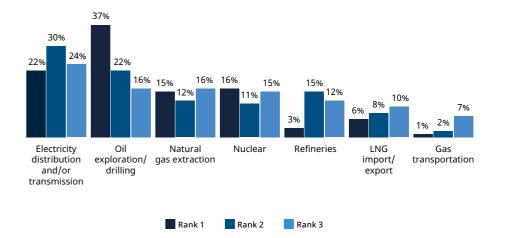
South America



Which of these types of alternative energy will attract the most investment globally over the next 24 months? (Select top three and rank 1-3, with 1 being the most important)



Which of these types of conventional, non-renewable energy will attract the most investment globally over the next 24 months? (Select top three and rank 1-3, with 1 being the most important)



Key driver 2: Digital watch

The concerted global effort to achieve net zero may have a front seat at the expansion of infrastructure as an asset class, but digitalisation is a catalyst that must not be overlooked.

More than a third (36%) of respondents view digitalisation as a primary driver for investment, second only to the renewable transition. This is particularly pronounced in Europe, where an overwhelming

of respondents in the region expect digitalisation to be among the top two drivers of infrastructure investment over the next 12-24 months, surpassing the energy transition in terms of importance.

Digital infrastructure covers a gamut of asset types, ranging from data centres and telecoms towers to submarine cables and fibre to the premises, all of which enable digitalisation.

Scanning the horizon for investment opportunities, 18% of survey participants globally see digital-related projects presenting the greatest potential in the next 24 months. It follows then that expectations are high that capital will flow in this direction. On this point, investors are the most optimistic about activity in developed markets. In Europe and North America, digital infrastructure is expected to see the greatest investment, selected by 62% and 61% of total respondents respectively. In contrast, the figure is far lower for APAC and the Middle East, with only 2% and 9% of total respondents respectively believing this is where the biggest investment volumes will accrue over the next two years.



Digital infrastructure as an asset class is still a new category for many funds, and it is rapidly evolving. Whereas it was not long ago that terrestrial fibres were receiving a lot of attention the focus has now moved to other areas, such as data centres.





Mike Conradi Partner London

Data with destiny

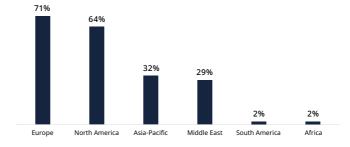
Recent research bears this out. In the first five months of 2024, global data centre investments reached USD22 billion to secure the second-largest investment year in the past decade, following 2023's current full-year record of USD36 billion. North America is maintaining its lead, accounting for 62% of global data centre transaction value in 2023 and 69% of investments up to April 2024, with the US taking the largest share. Europe has shown a notable surge, increasing its value share from 6% in 2022 to 20% in 2023, and as high as 29% up to April this year.

This investment trend is closely tied to the rapid expansion of cloud computing services and the ongoing adoption of AI, which require immense data storage and computer resources.

65% of respondents believe that within digital infrastruct digital infrastructure, it is data centres that will attract the most capital over the next 24 months. Global technology giants such as Google and Microsoft, which have a strong presence in both the US and Europe, are investing heavily in expanding their data centre capacities to meet escalating demand.

The scale of this digital transformation is staggering. The global cloud market is projected to grow from USD445 billion in 2021 to USD947 billion by 2026,

Which region/s will see the greatest increase in the use of technology in infrastructure projects over the next 24 months? (Select top two)

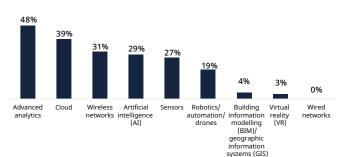


with North America and Europe leading this growth. AI technologies, which require robust data processing capabilities, are further driving the need for advanced centres. One market that is capitalising on AI especially well is the Nordics, which have developed a particular aptitude to training large language models (LLMs). Besides the region's usual investment credentials, including political stability and a highly-educated workforce with significant experience in digital innovation, the Nordics also benefits from an optimal energy mix - two-thirds of Nordic electricity production is renewable, with lower costs for energy-hungry AI companies.

Government initiatives are playing a crucial role in supporting these investments. The EU's Digital Europe Programme and various US infrastructure acts are ensuring the development of robust, secure and advanced digital infrastructure. These policies are creating a favourable environment for technological innovation and require immense investment.

As one managing director of a US private equity fund notes: "The level of digital transformation is bound to bring about dynamic changes in the infrastructure industry. Data is infused into all models, allowing decisions to be more objective and this will spur investment into critical assets."

Which types of technology will most transform the delivery and operation/maintenance of infrastructure over the next 24 months? (Select top two)



Applying tech to infrastructure

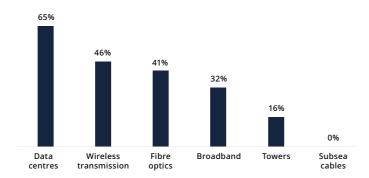
The transformative potential of technology in infrastructure delivery and operation itself is becoming increasingly evident. Digital twins represent virtual replicas of physical assets that can simulate real-world conditions to optimise performance and predict issues before they occur. For example, the UK's Digital Twin Hub facilitates collaboration across sectors to enhance infrastructure planning and management, leading to increased efficiency and reduced costs.

Meanwhile, AI and advanced data analytics are improving project management, predictive maintenance and operational efficiency. For instance, analytics are increasingly used to optimise traffic flow in urban areas, manage energy consumption in smart grids and enhance the safety and efficiency of public transport systems. In addition, surplus heat from data centres is being increasingly harnessed in Europe, where district heating schemes incorporate this spare energy to supplement grid power and support urban heating infrastructure, exemplifying the circular use of resources in modern digital infrastructure.

"Automation can be applied widely to infrastructure operations. Repetitive tasks can be handled by technology for greater cost-efficiency, enabling teams to focus on their core jobs," says the managing director of a Swedish private equity firm.

The transformative potential of technology in infrastructure delivery and operation is widely recognised in developed markets. Respondents anticipate the greatest surge in technology adoption in infrastructure projects over the next 24 months to be in Europe (71%) and North America (64%). And it is advanced analytics and cloud computing that are expected to lead on this front, with 48% and 39% of global respondents identifying these as the most transformative technologies for infrastructure delivery.

Within the digital sector, which asset classes will attract the most investment globally over the next 24 months? (Select top two)

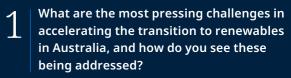






James Doyle

CEO of Australian renewable energy developer and asset owner Energy Bay, shares his perspective on the evolving landscape of renewables infrastructure. He discusses the opportunities and risks of the Australian market for investors, the critical upgrades needed to support a sustainable energy future, as well as the bottlenecks to growth.



JD: The biggest challenge in Australia, which is also a global issue, is the network connection process. We mostly operate in the behind-the-meter space, which involves connecting renewable energy sources like rooftop solar directly to the property. The process for obtaining network approvals can be lengthy, taking anywhere from two to 12 months. This is particularly challenging when you're installing significant capacities, like 3-5MW of rooftop solar. We often face delays in receiving approvals and this forces us to take a risk-based approach. Government regulation and increased capacity and resourcing for distribution networks would help streamline this process.

Another key challenge is the development approval process for new battery installations. Since batteries are a relatively new asset class in Australia, councils are still evaluating their own internal requirements. This includes determining the appropriate locations for batteries, distance from buildings and fire safety requirements. A standardised approach across states and councils would help speed up these approvals.

How is digitalisation impacting infrastructure investment and how is this intersecting with the proliferation of renewables?

JD: Digitalisation is transforming infrastructure significantly. For example, in Australia, data centres are becoming big players in renewable energy. They often underwrite new utility-scale assets, which helps drive the development of new renewables projects. This is beneficial not only for their social license but also for meeting their sustainability targets.

Additionally, the infrastructure built for the redundancy of data centres can be repurposed for other uses. For instance, new substations and connection points for data centres can also support co-located battery installations. This maximises the use of the existing infrastructure and allows for better integration of renewables, balancing supply and demand more effectively.

Why is Australia considered an attractive market for infrastructure investors?

JD: Australia is seen as a stable and resource-rich country, which makes it attractive for infrastructure investors. The country understands infrastructure well because of its significant role as a global supplier of resources. However, a key risk is that while Australia has abundant resources, the price for local consumption is often set by the global market. During global crises, such as the recent energy crisis, this can mean high local prices despite having plenty of supply domestically.

On the upside, renewable energy, like rooftop solar, is not as easily exported. It can offer a buffer against fluctuating global prices. As businesses and homes invest more in self-generation through renewables, they can reduce their exposure to global price volatility.

What key infrastructure upgrades are necessary to support a higher share of renewables in Australia's energy mix

JD: Battery storage and enhanced transmission infrastructure are crucial. While Australia has vast potential to generate renewable energy due to its ample space for wind and solar farms, the challenge is connecting these resources to where the energy is needed. More transmission lines and storage capacity are required to address the intermittency of renewables – ensuring supply meets demand even when it's not sunny or windy.

Smart load management can also help. For example, electric vehicles (EVs) can charge when there is excess renewable energy and household appliances can be programmed to run at times when renewable generation is high. This kind of demandside management will be critical as the share of renewables in the grid increases.

Is there much of a domestic battery storage market in Australia and is it something the government is supportive of?

JD: There is growing interest in domestic battery storage and the government is supportive. However, it largely comes down to price competitiveness. Most batteries are currently imported – but given that many of the raw materials for batteries are sourced from Australia, there is potential

for local processing and manufacturing. Whether Australia can do this as cost-effectively as other countries remains to be seen.

In terms of policymaking, streamlining the development approval process for battery storage, possibly through federal or state regulations rather than at the council level, would help accelerate deployment. Currently, requirements can vary significantly between locations just a few kilometres apart, creating unnecessary hurdles. Standardisation across jurisdictions would provide clarity and encourage more investment in storage solutions.

What specific renewables technologies will have the biggest impact on Australia's energy mix over the next five to 10 years?

JD: Rooftop solar will continue to play a significant role due to Australia's favourable conditions – abundant sunshine and existing subsidies.

Batteries, including those in EVs with vehicle-to-grid technology, will also be important as they provide storage and grid stability. The challenge is reducing the costs of batteries and integrating them with existing infrastructure to optimise their use.

How do you see the renewables sector in Australia evolving?

JD: Australia is somewhat of a testing ground for integrating high levels of intermittent renewable energy into the grid. Market dynamics will need to adapt, such as moving towards shorter trading windows to better accommodate the variability of renewables. Close collaboration between developers, network operators and policy-makers will be key to ensuring the right technologies are deployed efficiently. And as high-emission assets are phased out, the gap must be filled quickly with renewables to prevent price spikes and ensure energy security.

PART 4

Regions in the spotlight

While most regions maintain some attraction for infrastructure investors, there are several standouts.

Distinct regional preferences emerge from our research, with the Middle East highlighted as the most attractive destination for future infrastructure investment.

91%

of respondents find the Middle East either very or fairly attractive for infrastructure investment over the next 24 months. 60%

see it as very attractive for investment over the next 24 months, the highest rating among the 10 countries and regions evaluated.

This stands at odds with the ongoing tensions in the region, which have escalated since this survey was conducted in the second quarter, Iran in August threatening a military response to Israel. It goes without saying that geopolitical risk is running high in this part of the world. However, the region is also vast and highly diverse. Gulf Co-operation Council (GGC) nations in particular benefit from political stability, considerable oil revenues and a firm commitment to building out their infrastructure.

Respondents' optimism is underpinned by ambitious economic reforms and strategic initiatives. Saudi Arabia's Vision 2030 plan, which aims to diversify the economy away from oil dependency, is driving massive investments. The Giga Projects such as NEOM, a USD500 billion smart city, and the Red Sea Project focusing on luxury tourism and environmental conservation, exemplify this commitment.

Low-carbon energy is a key focus in the Middle East's infrastructure development. The UAE's Mohammed bin Rashid Al Maktoum Solar Park and Saudi Arabia's Al Dhafra PV2 solar project are among the world's largest. Oman has an ambitious green hydrogen programme, and the UAE is said to be planning its second nuclear power plant, after the region's first came online in 2021. This demonstrates the region's commitment to reducing carbon emissions and expanding beyond its reliance on conventional energy sources for government revenues and to meet rising demand.

Aligning with this, in November 2022 BlackRock partnered with Hassana Investment Company, the investment arm of the General Organization for Social Insurance in Saudi Arabia, to launch a USD15 billion infrastructure fund. More recently, Mubadala Investment Company, one of the UAE's largest sovereign wealth funds, teamed up with Stonepeak Infrastructure Partners to explore opportunities in energy transition and digital infrastructure in the Middle East and further afield.

Canada also stands out, with 91% of all respondents believing it presents either a fairly or very attractive investment opportunity, the same reading for the Middle East though with a lower turnout (38%) saying it is highly attractive. The country's stable political environment, robust economic fundamentals, and focus on sustainable development contribute to its appeal. Canada is expanding its renewable energy capacity with notable investments in wind, solar, and hydroelectric power, driven by its commitment to achieving net zero emissions by 2050.

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Despite the global push towards renewables, Canada's oil and gas sector remains a significant part of its economy. Investments in improving the efficiency and environmental performance of these projects continue to attract interest from investors looking for stable returns in the energy sector. Major cities such as Toronto and Vancouver are also enhancing their public transit systems to support sustainable urban development. Projects like the Ontario Line in Toronto and the Broadway Subway Project in Vancouver are examples of how Canada is enhancing its infrastructure to support sustainable urban development.

Australia rounds out the top tier, with:

74% of respondents finding it attractive,

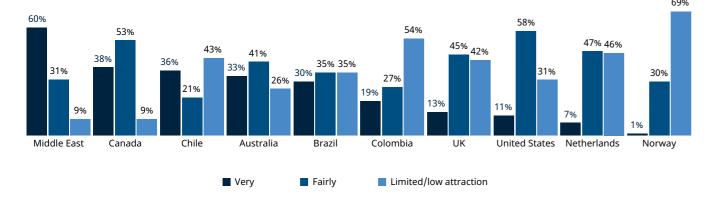
The country's resilient economy and significant government infrastructure spending underpin its appeal. Australia is investing heavily in rail infrastructure, with projects like the Melbourne Metro Tunnel and Sydney Metro set to enhance urban mobility. The domestic data centre market, meanwhile, is expanding, driven by increased demand for digital infrastructure. Projects like NEXTDC's S3 data centre in Sydney and the Sydney Mega Metro Logistics Hub

highlight the growing appeal of data centres and logistics as hot asset classes.

The country is also rapidly expanding its renewable energy capacity, aiming to generate 50% of its electricity from renewables by 2030. Projects like the Sun Cable in the Northern Territory, which aims to be the world's largest solar energy infrastructure project, and the Marinus Link, a proposed underwater electricity connection between Tasmania and Victoria, are attracting private capital as they seek to integrate renewable energy across regions.

The Star of the South off the coast of Victoria is expected to become one of the largest offshore wind farms in the Southern Hemisphere, contributing significantly to the government's low-carbon energy goals. Australia is also becoming a key player in carbon credit markets, with projects focused on reforestation, soil carbon, and other sustainable land management practices that generate carbon credits, positioning the country as a significant contributor to global carbon offset initiatives.

How attractive are the following countries/regions for infrastructure investment over the next 24 months? (Select one answer for each country)



The healthcare, education and social deficit

The global pandemic thrust the need for social infrastructure into the spotlight. However, outside of the APAC region, most investors do not see it as an imperative – could they be missing out?

Deeply entrenched demographic pressures have overstretched healthcare systems around the world for decades. The COVID-19 pandemic further exposed this major deficit, which is being compounded by advances in medicine. Novel treatments for chronic diseases, including gene and cell therapies, often require specialised infrastructure and outpatient care facilities to meet needs that existing infrastructure is often ill-equipped to address. Many governments have faced significant challenges in delivering on their mandate, highlighting the need for urgent investment. It comes as little surprise then that within the healthcare, education, and social (HES) infrastructure sub-sector,

79% of respondents expect healthcare specifically to attract the most investment over the next 24 months.

However, there are strong regional biases. Over a third (35%) of respondents globally believe that in APAC, HES-related sub-sectors will see the most infrastructure investment over the next 24 months, scoring above renewables (23%). This is well ahead of the expected investment into HES assets in other, more developed parts of the world. For example, a mere 2% of respondents overall expect HES investment in Europe to supersede other infrastructure sectors in the region and no respondents whatsoever expect this to be the case in North America.

This reflects several factors, including the strong competing interest in energy and digital projects in developed markets, where the need for HES upgrades is also less pressing. Moreover, there are fewer HES opportunities in these markets. Many HES assets are already well-established, publicly funded, or operated under long-term contracts, leaving limited scope for new private investment. Regulatory environments are often more stringent, and public

sector involvement remains strong, especially in sectors like healthcare and education, where privatisation is politically sensitive.

The focus on both healthcare investment and APAC is driven in large part by aging demographics and the increasing prevalence of chronic diseases putting pressure on existing services. According to the World Health Organization, China has one of the fastest growing aging populations in the world. By 2040,

28% of the country's population is projected to be over 60 years also declining fertility rates and longer life expectancy.

This demographic shift is evident in many developed countries, such as Japan and South Korea, as well as the US and across Western Europe. Coupled with the rising incidences of chronic conditions such as diabetes, heart disease and cancer, it demands major investment in healthcare infrastructure, including the construction and modernisation of hospitals, longterm care facilities and specialised treatment centres.

However, APAC is highly diverse and the opportunity set in each of its constituent markets looks vastly different. China's approach is largely state-driven and while there are opportunities for private investment, they are often tightly controlled, with complex regulatory requirements and a preference for local over foreign capital.

Conversely, Australia has a well-established and mature market for public-private partnerships (PPPs) and social infrastructure investment, especially in healthcare and education. The country has a strong track record of involving private capital in social infrastructure projects through transparent and well-regulated PPP frameworks. Robust legal protections and government support make it an appealing destination for institutional investors seeking long-term, reliable returns.

The 'E' and 'S' of HES

Healthcare may be a priority, but the remaining components of HES are not to be overlooked. The sudden shift to remote learning during the COVID-19 pandemic highlighted the lack of adequate connectivity in many regions. Schools worldwide struggled to adapt, emphasising the need for investments not only in physical school buildings but also in digital education platforms and technologies. APAC's emphasis on education infrastructure investment, particularly in countries like China, stems from the recognition that a well-educated workforce is crucial for sustained economic growth and competitiveness in the global market.

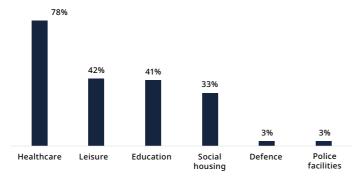
In Australia, the picture is different. Education infrastructure projects receive less attention in the federal budget. Instead, there is a greater focus on aged care and the National Disability Insurance Scheme (NDIS). The Australian government is allocating significant funds towards upgrading aged care facilities, enhancing workforce capabilities, and integrating advanced technology into the sector. This emphasis is being spurred by the country's aging population and the need to improve care standards following findings from the Royal Commission into Aged Care Quality and Safety, published in February 2021.

Housing, public spaces and welfare services are equally critical. Investment in this infrastructure sub-sector reflects a broader understanding of the importance of social stability and quality of life in driving sustainable economic development. This is essential for addressing social inequalities and ensuring inclusive growth to avoid unrest.

A real-world example is the nascent Build-to-Rent (BTR) sector in Australia, which is increasingly incorporating social housing mandates as part of its development framework. Recent draft legislation introduced in 2024 requires that at least 10% of dwellings in BTR projects be designated as affordable housing, rented at no more than 74.9% of comparable market rents. This initiative aims to address the broader housing crisis by ensuring that a portion of these new developments cater to low and moderate-income earners.

The increasing priority placed on social criteria in investment decisions shaped by sustainability and ESG considerations could drive more focus on HES infrastructure globally. Investments that contribute to social good are becoming more attractive to investors who are looking to meet sustainability goals and respond to increasing demands from stakeholders for responsible investment practices.

Within the healthcare and social sector, which of the following will attract the most investment globally over the next 24 months? (Select top two)





Healthcare, education and social infrastructure is crucial to the normal functioning of any society and, whilst there is an undeniable need for it, it is clear investors are seeing varying levels of success in this sector. In some ways, this is unsurprising given that these are possibly the most emotive of asset classes. However, Governments cannot afford to close the door on private sector investment and should consider whether to refresh their approaches in this sector to increase investment appetite in these critically important assets.



Maria Pereira Partner London "

PART 6

The sustainability imperative

A sharp convergence between infrastructure and ESG factors is underway. Investment in climate resilience is becoming crucial as the impacts of climate change become more evident.

Modernising energy infrastructure systems to enhance sustainability, resilience, and efficiency aligns closely with government ESG targets, encompassing not only the expansion of renewables and decarbonisation but also broader considerations such as social impact, governance and climate adaptation.

However, defining what constitutes an 'ESG-friendly' infrastructure investment is complex.

While decarbonising the grid is viewed as progress, the production processes for technologies like batteries, wind turbines and solar panels often involve significant environmental and social risks, such as high water usage, carbon-intensive manufacturing and labour practices in mining critical minerals. This complicates the assessment of how 'green' or sustainable these projects truly are. The ESG impacts of conventional energy projects, such as natural gas or coal-fired plants, however, are more straightforward and better understood, given the longstanding experience in measuring their environmental and social footprints.

From a fund investor perspective, progress is being made to ensure capital is allocated more strategically. Europe's Sustainable Finance Disclosure Regulation (SFDR) requires detailed disclosures at both the fund manager and fund product levels, including Principal Adverse Impact (PAI) statements on how investment decisions affect sustainability factors. This regulation works in tandem with other EU sustainability frameworks, such as the Corporate Sustainability Reporting Directive (CSRD) and the EU Taxonomy, ensuring a cohesive approach to sustainability reporting. For infrastructure investors, SFDR is a boon that improves transparency by introducing stringent reporting requirements, strengthening risk management and investor trust.

This convergence is echoed in the responses of senior executives across various regions, highlighting sustainability and ESG's growing influence on investment strategies and decisions. For example, nearly half (47%) of respondents globally anticipate a substantial increase in the importance of sustainability and ESG factors over the next 24 months.

In Africa, this trend is especially strong.

67% of respondents based in Africa foresee a great increase in the importance of ESG considerations,

7% expect a moderate increase.

56% of investors in APAC anticipate ESG considerations to play a far greater role in their infrastructure investment strategies and

39% expect some increase.

This compares with 39% of respondents in Europe and 43% in and North America say that the importance of ESG considerations will increase greatly in their investment strategy, reflecting these markets' longer history with sustainable investment, while their peers in emerging economies are accelerating their adoption of ESG guidance to meet global standards and investor requirements.

Africa's rapid economic growth and abundant natural resources present a unique opportunity for sustainability and ESG integration, yet the pace of adoption lags behind other regions due to structural and financial barriers. The continent experiences substantial underinvestment in renewable energy and other sustainable infrastructure sectors. From 2000 to 2020, only 2% of the USD2.8 trillion invested globally in renewable energy was directed towards Africa, according to the International Renewable Energy Agency, highlighting a significant gap in funding for sustainable projects.

This shortfall is exacerbated by the continent's high infrastructure financing needs, estimated at up to USD170 billion annually, with an annual financing gap of approximately USD108 billion, according to African Development Bank group president, Dr Akinwumi Adesina. It stands to reason that as this gap is closed and capital is increasingly directed towards sustainable projects that help to meet the continent's fast-rising energy demands, ESG will become further embedded into the asset class in the region.

Supply dilemmas

While renewables are central to the global push towards decarbonisation, the sector is not without its own sustainability and ESG challenges, particularly in the upstream supply chain. The expansion of battery storage technologies, though essential for integrating renewable energy into the grid, poses a growing tension between sustainability goals and how the mining/extractives industry supplies critical minerals to the market. The mining of battery minerals such as lithium, cobalt, and rare earth elements often occurs in regions with weak environmental regulations and problematic labour conditions, posing significant ethical and environmental dilemmas. The comparative paucity of investment in sustainable mining practices reflects a broader challenge: aligning the extractive demands of renewable energy technologies with the sector's overarching sustainability objectives.

Similarly, the manufacturing of PV panels often involves complex supply chains that are vulnerable to social and environmental issues, such as labour rights abuses, high carbon footprints from manufacturing processes, and significant water usage. These concerns are amplified by the sourcing of critical materials like polysilicon, much of which is produced in regions with questionable labour practices, raising social and governance risks for investors.

To ensure that the energy transition is truly sustainable, there needs to be greater focus on improving the ESG standards within these supply chains and increasing investments into responsible sourcing initiatives and recycling technologies, a conundrum that is yet to be solved.

Fund commitment

Our survey reveals a unanimous commitment to sustainable infrastructure investment. All 102 respondents reported that their firms already either manage or invest in at least one dedicated sustainable infrastructure fund. This universal adoption underscores just how quickly sustainability and ESG have become a strategic imperative for fund managers and their investors.

In the broader asset management space, including open-end and exchange-traded funds (ETFs) in addition to the closed-end funds typical of private markets, capital has been flowing into Article 8 products, classified under SFDR.

In the EU, Morningstar data show these "light green" vehicles netted EUR44 billion in new inflows in H1 2024 versus EUR107 billion for "grey" Article 6 funds that do not integrate sustainability considerations into their investment processes. That said, "dark green" funds are severely lagging, posting net negative flows this year due to record withdrawals. This underperformance is partly driven by the increasing number of funds crashing out of Article 9 status, primarily due to the stringent reporting requirements that many find impossible to meet. Fund managers struggle to comply with rigorous disclosures around sustainability impacts and outcomes, particularly as the SFDR sets high standards for data transparency and accountability that are difficult to maintain consistently.

The challenges may eventually become a reality in the US. In addition to proposing rules requiring public companies to disclose climate-related risks, the US Securities and Exchange Commission is also targeting investment funds, particularly those that market themselves as environmentally sustainable or ESG-focused. In May 2022, the regulator proposed new rules that would require such funds to disclose how they incorporate ESG into their investment processes, with the aim of stemming greenwashing by ensuring claims made by fund managers are substantiated by clear, consistent, and comparable information.

Moreover, in some cases fiduciary obligations curtail ESG-aligned investment. In the US, anti-ESG restrictions in "red" states have led to prohibitions on investing in funds that prioritise sustainable and ESG factors, forcing GPs to adjust their strategies or risk being excluded from lucrative state pension mandates. Conversely, "blue" states and the EU mandate pro-ESG reporting, pushing GPs to demonstrate robust sustainability credentials and align their investments with climate and social goals. This conflicting regulatory environment creates a precarious balancing act for GPs, who must thread the needle between meeting the fiduciary requirements and ideological restrictions of varying jurisdictions. The result is an increasingly fragmented market where GPs must strategically tailor their sustainability and ESG approaches based on geographic regulatory demands, often developing dual reporting standards to comply with both antiand pro-ESG frameworks.

Overall, our findings reveal a paradoxical landscape for sustainable infrastructure investment. Though our survey respondents are committed to sustainability-and ESG-focused funds, they continue to be frustrated by regulatory obstacles. Transparency and disclosure requirements are increasingly rigorous, and fund managers must navigate disparate and occasionally conflicting regulations across different jurisdictions. As the industry continues to evolve, adapting to these multifaceted challenges will be crucial as governments and investors try to define what exactly "ESG-friendly" infrastructure looks like.



Amidst an increasingly complex geopolitical landscape, infrastructure investments are more essential than ever in tackling the world's most pressing challenges. By bridging gaps in connectivity, promoting decarbonisation, and advancing digital infrastructure, infrastructure investment funds will be pivotal in financing the next wave of global economic growth. These investments will not only address immediate infrastructure needs but also lay the groundwork for a sustainable and resilient future.





Data gathering

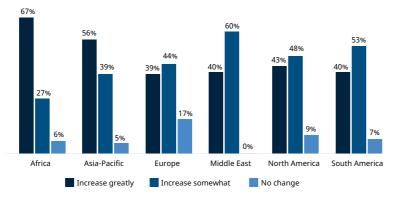
ESG data is notoriously tricky, so much so that S&P Global decided to discontinue its quantitative ESG scoring system last year. The move was motivated by challenges related to data consistency, comparability, and the moving target that is ESG criteria. Accurately capturing and quantifying ESG factors in a standardised score across diverse industries and regions is extremely complex. This decision reflects a trend towards more nuanced ESG assessments.

The effectiveness of integrating sustainability and ESG into investment strategies hinges on data quality and availability. In our research, there are notable regional variations in how informative respondents find ESG data. In APAC and Europe,

83% of respondents find ESG data about infrastructure project about infrastructure projects very informative, suggesting access to robust datasets. Conversely,

of South America-based respondents find the data only somewhat informative, highlighting the need for higher quality data to improve transparency and better inform investment decisions.

How will the importance of ESG considerations to your infrastructure investment strategy change over the next 24 months?



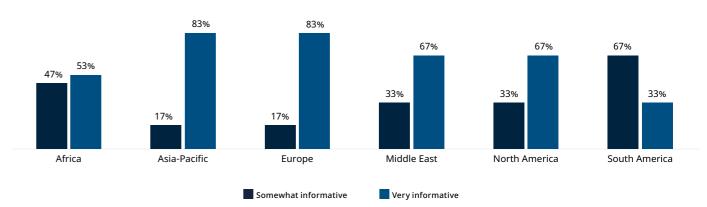
Do you have one or more dedicated sustainable infrastructure investment funds?



Weighing impact

Complexities around ESG data and measurement mirror the broader ethical and environmental challenges faced by the renewable energy sector, especially in the upstream supply chains of battery storage and solar panel manufacturing.

In general, how informative do you find available ESG data about infrastructure projects?





A journey to the core

Infrastructure investors are increasingly gravitating towards core-only assets. This sector offers predictable and stable long-term revenue streams and lower associated risks, though infrastructure sub-asset class definitions are in flux.

Core assets, such as regulated utilities, toll roads and essential service facilities, are characterised by their mature, well-established nature and steady revenue streams. A key attraction is these assets' inelastic demand, their usage remaining consistent regardless of economic fluctuations, ensuring reliable income with minimal volatility. Nevertheless, some volatility can persist, causing fluctuations among some asset classes. In the UK, for instance, the water sector has been through a period of disarray over the last couple of years, calling into question its core credentials. But in ideal circumstances, core assets serve as a defensive inflation hedge, with, for example, service contracts often linked to an inflation index or equivalent metrics.

According to our respondents:

42%

currently hold core-only assets

66%

plan to increase their exposure to them.

Core-only infrastructure is especially attractive for pension funds and insurance companies as it allows these institutional investors to match their long-term liabilities with a predictable return profile that also benefits from low correlation to traditional asset classes such as equities and bonds.

Traditionally, regulated assets such as utilities, water, and transport networks were considered lower risk due to predictable cash flows backed by regulatory frameworks. However, rising concerns about regulatory risk – stemming from increased political intervention, changing regulatory standards, and potential retroactive policy changes – are altering this perception. In contrast, GDP-related infrastructure assets, such as ports, toll roads, and airports, which are more directly linked to economic performance, are increasingly viewed as offering higher growth potential and/or lower long-term risk despite their inherent cyclical risks.

Investors are now weighing increasingly-unpredictable returns on regulated assets against the potential volatility and higher yield opportunities presented by GDP-linked assets. This shift is particularly pronounced as inflationary pressures and geopolitical factors lead to concerns about future regulatory adjustments, including price caps, tariff revisions, and more stringent environmental compliance. Consequently, some investors are recalibrating their portfolios to strike a balance between the two.

Another recent dynamic is the convergence of returns between core and core-plus, which has the potential to tilt investor demand towards more traditional infrastructure exposure. "In recent years, focus has shifted away from traditional core and there's a lot of dry powder in the core-plus market," says the chief investment officer of an infrastructure fund manager. "There's some convergence there, both in terms of definition but also in terms of return. And I think if investors are looking for long-term stability and they want predictable cash flows, they should be looking at core as there's some dislocation right now in some of the asset pricing. It's possible to find very attractive assets for higher returns than we've seen for many years in that part of the market as funds have grown larger and moved further into core-plus."

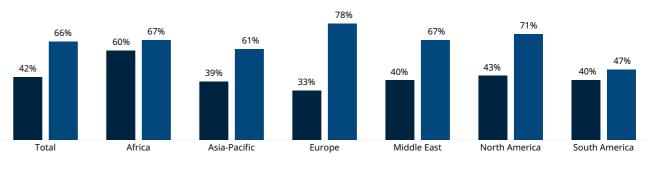


Core infrastructure will continue to attract pools of capital focused on that strategy but the attractiveness of regulated, rather than contracted or GDP-linked return profiles, across sectors and geographies will be directly correlated to the regulatory outlook. As has been seen in various territories and sectors, including in UK utilities, that regulatory outlook can easily become politicised and unpredictable.



Steven BryanPartner
London

Percentage that hold core only assets vs. percentage that plan to increase core only assets



Currently hold core-only assets

 \blacksquare Plan to increase hold core-only assets



Jon Phillips

Chief Executive of the Global
Infrastructure Investor
Association, offers insights into
the challenges and opportunities
facing infrastructure investment
worldwide. From the complexities
of achieving net-zero goals to
the vast potential of emerging
markets, Phillips provides a bird's
eye view of the current state of the
industry and its prospects.



What actions must governments take to provide certainty around policy to support investments that will push toward net-zero goals?

JP: Governments need to develop well-thought-out and joined-up strategies, which are currently in short supply. There are a lot of announcements and consultations, but little cohesive strategy on which investors can rely. We need clarity on which sectors and technologies governments will back.

There's also a need for clear rationale behind market interventions. For instance, the roles of entities like GB Energy and the UK's wealth fund need to be better defined – are they there to de-risk private sector investment, or to make their own investments?

Additionally, we need more honest conversations with the public about the costs of the net-zero transition. Governments have promoted a future scenario of meeting climate targets without fully explaining the implications for consumers and taxpayers.

Where have you seen public-private partnerships (PPPs) be successful, and what lessons can be learned?

JP: Australia and Canada stand out as countries that have successfully implemented PPPs. They have intelligent public sector clients as well as effective private sector delivery mechanisms. The UK pioneered the PPP model but has recently turned away from it.

The motivation for using PPPs is crucial. The best reason is to leverage private sector skills in project delivery, operations, and innovation – not just as a source of finance. You need intelligent parties on both sides for the model to work effectively.

In the US, there are pockets of excellence in implementing PPP models, with states like Virginia leading the way. However, there is no consistently applied model across the country. The default approach to infrastructure funding in the US relies on municipal bonds or waiting for federal funding to flow down. This established method can make it challenging to shift toward new models like PPPs. As a result, when federal funding doesn't come through, some infrastructure projects simply don't get built, contributing to the poor state of roads, bridges, and airports in parts of the country.

What can be done to close the infrastructure gap in emerging markets?

JP: The infrastructure gap in emerging markets is already being addressed. Many investors are setting up offices in places like Singapore as a staging post for the Asian market. There's recognition of the huge growth opportunity, particularly in countries like India.

While there are traditional concerns about political stability and corruption, investors are finding ways to mitigate these risks, often by partnering with local entities that have market knowledge and relationships.

Interestingly, emerging markets have the opportunity to leapfrog more established markets in terms of technology and construction techniques. They can build state-of-the-art infrastructure from scratch, rather than having to retrofit outdated systems.

What are the most significant opportunities and risks for global infrastructure investment over the next three to 10 years?

JP: Opportunities include the increasing recognition that governments need private sector partners to deliver infrastructure renewal, given the high levels of public debt. The aging population in many countries will also drive more investment in infrastructure as pension funds seek stable returns.

The digital revolution, including artificial intelligence (AI), presents a massive opportunity, but it needs to be managed responsibly. The energy-intensive nature of technologies like AI could potentially conflict with net-zero goals, creating new environmental and social challenges.

While there may be short-term policy fluctuations, the overall direction toward net zero is likely to continue as climate change impacts become more apparent. Successful investors will need to develop a deep understanding of local markets and stakeholder dynamics to navigate these challenges effectively.

Risky business

While infrastructure investment has grown exponentially in the past decade, challenges and risks – both general and specific to the asset class itself – persist.

The fractious nature of international relations can have a major bearing on the success or failure of infrastructure development, particularly given the strategically sensitive nature of these assets. There are countless examples of geopolitical pressures upending projects, to the detriment of investors.

US sanctions on the Nord Stream 2 pipeline imposed under the Trump administration were designed to reduce European reliance on Russian gas, delaying the project's completion. Starting with the National Defense Authorization Act (NDAA) in December 2019, which targeted companies involved in the construction, work was halted as Allseas, the primary contractor, withdrew from the project. While some sanctions were waived under the Biden administration, citing national interests, others remained in place. These actions have had a profound impact on the timeline and development of the Nord Stream 2.

Of course, conflict would eventually break out in Ukraine in 2022. The blockade and shelling of ports, particularly in the Black Sea, have crippled the country's shipping capabilities. The Antonivskyi Bridge over the Dnieper River in Kherson, a key strategic crossing, was heavily damaged by Ukrainian forces to slow Russian advances. The Zaporizhzhia Nuclear Power Plant, Europe's largest nuclear power station, has also been at the centre of intense military activities.

The situation in the Middle East also highlights the intersection of geopolitics and infrastructure challenges.

Saudi Arabia's efforts to build nuclear reactors, partly to meet its future potable water demands, have been delayed by the region's instability. The ongoing conflict has impacted critical project timelines, and as of July 2024, the tender deadline has passed with no news on a revised date. This delay underlines the broader risks that regional tensions pose to infrastructure projects

Similarly, in the APAC region, rising tensions in the Taiwan Strait and South China Seas are creating uncertainty for shipping routes vital to global trade. The militarisation of these waters and frequent military drills have raised concerns about potential disruptions. As is the case in the Middle East, any escalation could severely impact shipping, causing delays, rerouting of vessels, and increased costs for international trade.

Uncertainty surrounding recent global geopolitics is clearly playing on the minds of investors. Over a third of respondents (35%) say that geopolitical risks are among the two biggest impediments that could constrict infrastructure investment over the next 24 months, the leading response by a distance. This is followed by supply chain risk, high barriers to entry and regulatory complexity, all receiving 21% of votes.

"Companies are finding it increasingly challenging to mitigate the impact from geopolitical and supply chain risks. It is affecting the progress made on projects, which magnifies risk exposure for investors," says the managing director of a firm in Africa.

Regional risk profiles

Breaking perceived risk exposure down to the regional level, investors take a very different view on developing markets compared with more established markets. In the Middle East, politics and the climate are each cited by 47% of respondents as being the region's most serious risks, with climate issues being brought into sharp focus during the hosting of COP28 in Dubai last year.

Two-thirds (67%) of respondents in South America highlight political risk in the region, followed by concerns around bribery and corruption (33%). Under former President Andrés Manuel López Obrador's administration, the Mexican government actively reversed the liberalisation of energy reforms implemented by his predecessors. In March 2021, a new electricity reform law was passed, prioritising the dispatch of power generated by plants operated by the Comisión Federal de Electricidad, a stateowned company. The move significantly undermined the investments made by foreign and private companies in the renewable energy sector, leading to legal challenges and heightened uncertainty.

Only Africa-based respondents put financial risk overall as the highest-ranked option around investment in their own region's infrastructure, receiving 40% of this cohort's vote. This is understandable in light of the region's challenges. Despite being one of the more developed economies on the continent, South Africa faces high borrowing costs and credit rating downgrades, which have increased the financial risks associated with infrastructure investment. In Nigeria, the government's dependence on oil revenue has led to instability, affecting its ability to finance projects without accruing unsustainable debt.

Risk perception is far more evenly split in APAC, owing in large part to its broader spread of developed and developing nations. Respondents based there are relatively mixed on the biggest investment risks, citing technology, financing, climate and regulation in equal measures, each receiving a 33% vote.

These diverse developing market concerns stand in stark contrast to risk perception in both Europe and North America, where respondents are very much on the same page.

of respondents in Europe cite technology risk as their top concern for infrastructure investment in the region.

cite security risk.

of respondents in North and security risks.

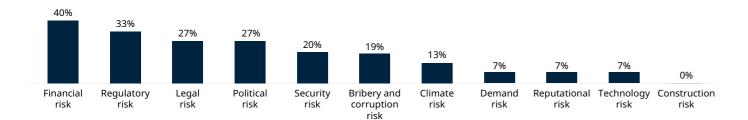
The prominence of these concerns reflects anxieties about the rapid pace of technological change, including the potential for technologies to become redundant or fail to meet performance expectations. This is particularly relevant in Europe and North America, where investors are heavily focused on digital infrastructure and renewables to meet the ongoing digitalisation wave and energy transition. There is a palpable wariness over committing capital to technologies that might not deliver the anticipated returns or keep pace with evolving standards.

Which factors will constrain private investment in infrastructure over the next 24 months? (Select top two)

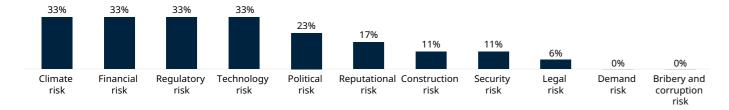


Which of the following types of risk are most significant for infrastructure investments in the region in which you are based? (Select top two)

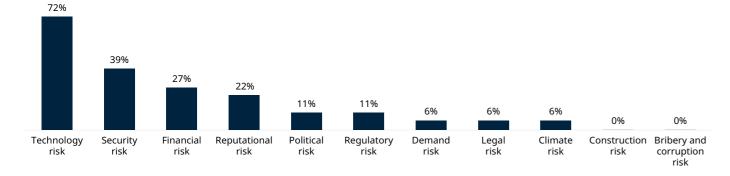
Africa



Asia-Pacific



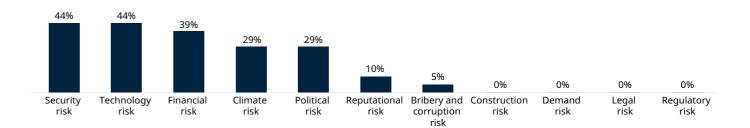
Europe



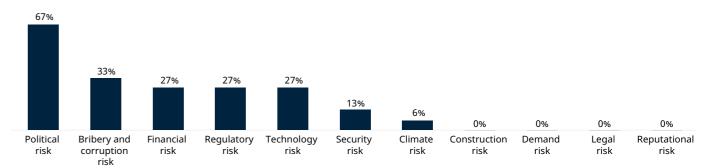
Middle East



North America



South America





PART 9

Tackling a risky business

Investors are using a range of mitigation strategies to tackle risk, predominantly proactive asset management and third-party advisors.

A whole host of measures are available for investors to mitigate against the spectrum of risks they face when investing in infrastructure.

These include financial strategies such as credit default swaps and financial guarantees, which are commonly used by respondents across regions.

At least two-thirds of respondents from all regions also say they always use proactive asset management as a risk mitigation strategy. This can include everything from the basics of investing in a mix of asset types and locations to spread risk to maintaining open lines of communication with key stakeholders, including government agencies.

In addition, fund managers and their portfolio companies focus on operational steps, such as maintaining a comprehensive and up-to-date inventory of all assets, including their condition, performance history and criticality. And they conduct regular inspections and assessments to evaluate the physical condition of assets using drones, sensors and Internet of Things devices.

Milestone payments are another popular approach to structuring investments, regardless of jurisdiction.

"The use of proactive management and monitoring practices has always been helpful in identifying key areas of risk. If work is not going according to plan, we can identify reasons for deviations, and drive teams to fix these on time," says the partner of a private equity fund in Brazil.

This sentiment is echoed by a counterpart in the US, who notes: "Proactive asset monitoring strategies are employed to understand the progress being made over a period of time. It is crucial that we track progress and communicate with the necessary parties when needed."

Independent experts are used by the majority of respondents across the various regions. Two-thirds of investors (67%) in both Europe and the Middle East always call on third-party advisory support, as do 62% of those in North America. The lowest rate is found in South America, where 53% always use independent experts, but even then the remaining 47% use them some of the time. No investors in any region forego this third-party support altogether.

This approach is fundamental because infrastructure developments are high-stakes projects, where budgeting failures and construction delays can eat away at returns. Investors need objective assessments of project feasibility, design, and implementation, free from internal biases that might exist within the project team or other stakeholders. This impartial perspective helps identify potential flaws or areas of improvement that might otherwise be overlooked by those actively involved in the project.

The use of government support is less widely embraced. Direct financial backing through grants and subsidies to lower the investment hurdle on infrastructure projects can be an effective way of mitigating risk. Subsidies for renewable energy projects are also a common policy that help make investments in solar and wind power more attractive by offsetting high upfront costs. In North America, 38% of respondents cite government support as a risk mitigator they always seek. Nearly half (47%) of respondents in South America also always depend on this as a risk mitigator. And although this is less common in Europe (28%) and rarer still in the Middle East (20%), Africa (20%), and APAC (11%), all respondents call on government support at least some of the time.

There is a broad spectrum of other risk mitigators available. For instance, project financing structures that take on the first loss piece can make the remaining credit stake more attractive and investable by reducing the perceived risk for other investors. Carbon credit programmes are another key form of support, incentivising investments in renewable energy and emissions reduction projects by providing financial rewards tied to carbon savings.

The introduction of the EU Carbon Border Adjustment Mechanism represents a significant policy shift, imposing a carbon equalisation tax on imports from countries with less stringent carbon regulations. This measure aims to level the playing field for European producers and encourages global companies to invest in renewable technologies, indirectly supporting green infrastructure investments.

Joint ventures and other collaborative investment structures are also widely used as a risk-sharing mechanism. By partnering with local entities, governments, or other private investors, companies can reduce exposure to any single risk factor, gain better access to local knowledge, and share both the financial and operational burdens. These structures are particularly common in complex markets where navigating regulatory landscapes and securing local support are critical to project success.



The increase in non-traditional infrastructure assets being included *in infrastructure portfolios has* come in for criticism, but it is also a source of portfolio diversification that could pay dividends as quality core assets continue to be sought by a expanding pool of institutional capital. We also see digital infrastructure playing a role in monitoring and improving performance of infrastructure assets in the near to medium term. Market impact strategies by sovereign governments are also going to create opportunities to buy and sell risk for market participants - decarbonisation regulation being one obvious area.

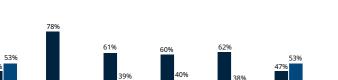




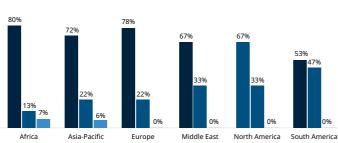
Emma KendallPartner
Brisbane

How frequently do you utilise each of the following risk mitigation strategies in the region in which you are based?



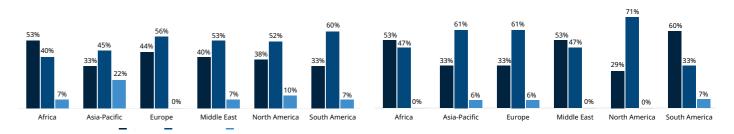


Credit default swaps on counterparties

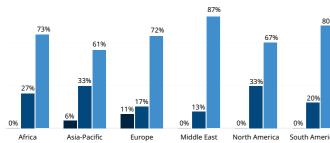


Offshore financing/investment structures, joint venture investing

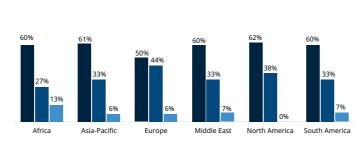
Hedging (For example: On currency, interest rate, power and commodity)



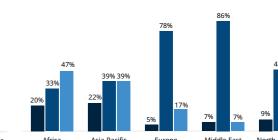
Political risk insurance



Milestone payments

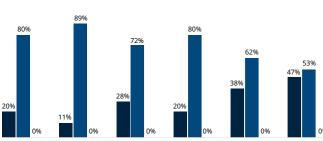


Use of independent experts

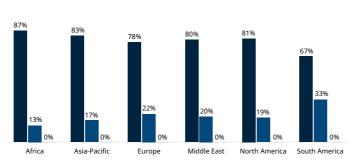




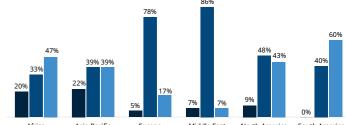




Proactive asset monitoring/management



Use of jurisdictions with bilateral investment treaties



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Lord Hutton of Furness

Chair of the Association of Infrastructure Investors in Public-Private Partnerships (AIIP) shares his views on the current state of play of public-private partnerships (PPPs), significant regulatory developments and how UK infrastructure investors can overcome the challenges currently facing the UK market.

Given your experience in both government and the private sector, how would you assess the current state of the public-private partnership (PPP) space, particularly in light of global infrastructure needs and the evolving investment landscape?

LJH: Public-private partnerships are at a pivotal moment in the UK. From the 1990s to the present day, the UK's three decades of experience with PPPs has given us achievements to celebrate and lessons to reflect on. The scale of investment that PPPs enabled to take place in the UK in the early 2000s should not be forgotten. Over 700 schools, hospitals, transport projects, defence infrastructure and other forms of social infrastructure were built using private capital under the Private Finance Initiative (PFI). Now, with a poor fiscal inheritance and a commitment not to raise taxes, the new government may wish to consider a model that could help achieve similar results.

In your capacity as chair of the AIIP, in what ways do you hope the organisation can support the development of PPP-related initiatives and infrastructure policy in the UK?

LJH: To set the conditions for the development of any new PPP initiatives in the UK, we first have to take a good look at the state of the existing industry. Investors are facing challenges that have been decades in the making. Throughout the 2010s, local authority budgets were squeezed while annual PFI charges stayed the same or increased with inflation. This has given rise to an atmosphere of mistrust and for some projects, the use of adversarial contract management practices. By raising these issues, alongside promoting the many projects where public and private sectors work well together in the longterm interest of their asset, we hope to broaden public understanding of the PFI industry to develop a more sustainable future for PPPs in the UK. We recently published a major report, which sets out the challenges facing the PFI industry and the path forward to their resolution.

How have regulatory developments to date, both in the UK and internationally, affected the attractiveness of PPPs?
Would you highlight any specific policies that should be adopted to better facilitate infrastructure investment and attract private capital?

LJH: Restoring the ethos of partnership to the UK's PFI industry should be our first priority. As we highlighted in the report, investor appetite for any new PPP model will be contingent upon the state of the existing industry. An adversarial and drawn-out program of expiry and hand-back of PFI assets to the public sector could have implications for the longterm future of social infrastructure investment in the UK. Accordingly, government regulation to promote the principles of relational contracting, negotiating towards long-term solutions in good faith, would be welcomed by the AIIP. The independent White Fraiser Report, commissioned by government in 2023, recommends a "reset" solution for each project. We are keen to see this proposal driven forward to definition and delivery, by government working in partnership with industry.

Perhaps the most important trend in infrastructure investment is the transition to a low-carbon economy. What role can PPPs play in better facilitating decarbonisation and supporting green projects?

LJH: The UK government's commitment to reaching net zero by 2050 and the broader imperative on industry to play our part in the green transition, is a fantastic example of the achievements that can be made when project companies and contracting authorities come together in service of a common goal. Since the UK's net zero target post-dated most PFI contracts, there were no pre-existing contractual mechanisms to guide progress. The progress that has been made to date, particularly in decarbonising the operations of health, education and corporate office assets, is testament to the benefits of collaborative contract management.

Some PPPs have, in the past, been criticised for a lack of transparency and being poor value for money in the long-term relative to traditional public financing, among other concerns. How can these criticisms be addressed while still leveraging the strengths of PPPs to meet infrastructure needs?

LJH: There is no doubt that the thirty-year history of PPPs in the UK has seen its fair share of challenge and criticism. Indeed, the PFI model was cancelled by the Conservative government in 2018 for being poor value for money. However, there is another side to the story. As budgets for the maintenance of social infrastructure including schools and hospitals were cut throughout the 2010s, the contractual nature of PFI ring-fenced the funding for these assets, which were shielded from the most severe impacts of austerity.

The value for money of each project depends in most cases on the scope of services agreed by public and private sectors when the contract was drawn up. There will be important decisions to make, should we see a renaissance of PPPs in the UK and the emergence of a new model. I have no doubt that this government is well placed to make a considered judgement regarding the quality of social infrastructure that we would like to fund, and can afford to maintain, over the next twenty to thirty years.

What are the greatest challenges currently facing infrastructure investors in the UK? How can these challenges be mitigated, and what opportunities do they present for the future?

LJH: The greatest challenge facing our investors is, luckily, one that has a clear solution. To put the focus back on the long-term interests of the assets themselves, ahead of the complex process of contract expiry and hand-back, public and private sectors must come together to negotiate solutions for each contract in good faith. We cannot let the problems of the past affect the future of PFI projects in the UK. Taking action now, collectively, would not only save these projects from a difficult and expensive period of adversarial negotiations and contractual disputes. It would lay the foundations for a renaissance of public-private partnerships in the UK. Thirty years ago, Britain was a trailblazer in the field. By returning to the ethos of partnership at the heart of PPPs, we can be so again.

PART 10

Conclusion: Where do we go from here?

The growth in infrastructure investment over the past decade has been nothing short of extraordinary. Or as The FT put it in a recent editorial: 'Infrastructure: From investment backwater to USD1 trillion asset class.' But in a volatile world, the question now is: Where do we go from here?

Infrastructure is an evolving asset class. The confluence of secular trends such as the global energy transition, digitalisation and a heightened focus on sustainability and ESG present both opportunities and challenges for investors.

The global push towards net zero emissions is a primary catalyst drawing capital into funds. As countries strive to meet their climate commitments, there is an unprecedented need for investment in renewable energy projects, energy efficiency measures and low-carbon technologies, such as carbon capture and storage (CCS). This shift both supports environmental goals and promises the stable and attractive returns for which the infrastructure asset class is best known.

Digitalisation is an equally transformative force. The rapid expansion of cloud computing, AI, and the attendant demand for data storage are driving significant investments in digital infrastructure. Data centres have emerged as a critical asset class in their own right, attracting immense capital expenditures from global technology giants and infrastructure funds alike. Not only that, the integration of advanced analytics, AI, and digital twins is enhancing the efficiency and reliability of infrastructure projects, making them still more attractive to investors.

Fund managers fully understand the scope of the opportunities that lie before them. We also see that extensive measures are being taken to protect their downside risks. But there is always more that can be done. Balancing investments across core and core-plus assets, multiple jurisdictions and between regulated versus unregulated assets helps mitigate risk. Core assets provide stable returns, while coreplus and opportunistic investments can augment these returns with a manageable degree of risk.

Third-party expertise, from legal through to operational support, is also a must-have. Impartial advice is critical for understanding potential downsides that are unique to particular infrastructure asset sub-classes, not to mention region and country-specific considerations.

While this is already a well-accepted practice, a large minority of fund managers appear to be overlooking the value of impartial advisory support at least some of the time.

Meanwhile, the growing appetite for responsible investment should see more capital flow into ESG-centric infrastructure funds. The groundwork laid by SFDR in Europe is a template for other regions, increasing transparency and helping investors to allocate their capital more strategically. Regulatory developments such as the SEC's proposed rules targeting ESG funds are crucial in addressing greenwashing concerns and ensuring that claims made by fund managers stand up to scrutiny.

As monetary conditions ease, many expect interest rates to settle at a level higher than in the post-global financial crisis, pre-pandemic ZIRP era. This calls for a more active approach to portfolio management. The increasing transparency will help investors better align their decisions with their sustainability and ESG goals while keeping their returns requirements top of mind.

We will continue to see sustained demand for infrastructure, the port in a storm in a carefully constructed portfolio.



Infrastructure remains an innovative and exciting asset class that has, yet again, responded to global change effectively and is evolving into an even stronger proposition for investors as the sector responds to the increasing need for high quality assets across jurisdictions





Alison Fagan
Partner, Head of
Infrastructure Funds
Manchester

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