



Gresham House

Specialist investment

What is
Sustainable
Infrastructure?



Traditionally, the infrastructure asset class has been associated with real asset investments in well-trodden sectors that produce long-term predictable cash flows often with inflation protection.

However, as the importance of championing low-carbon economies grows in order to protect and restore the environment, the definition of infrastructure has expanded - what we define as sustainable infrastructure - to include real asset investments that play a significant role in achieving the nation's sustainability goals.

As a result, demand for sustainable infrastructure is experiencing strong growth, providing an opportunity to source real-asset investments that benefit from these social and environmental macro tailwinds, while still enjoying infrastructure investment characteristics.

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It's surely our responsibility to do everything within our power to create a planet that provides a home not just for us, but for all life on Earth.

Sir David Attenborough

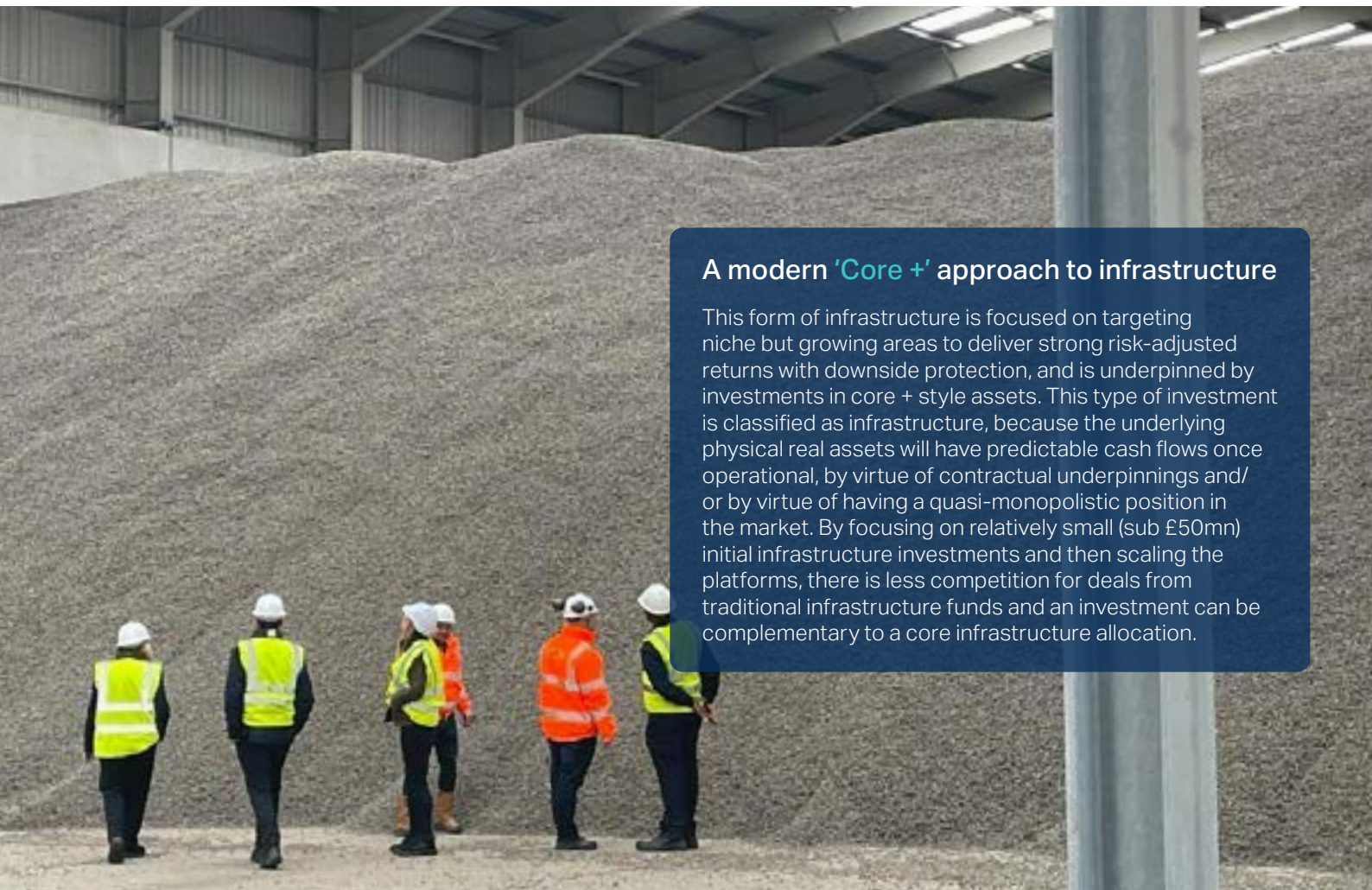
Why should a UK pension fund have exposure to UK sustainable infrastructure

In the face of an escalating planetary crisis, the urgent need to address climate change and overuse of the planet's finite resources has never been more apparent.

This requires a profound transformation of our infrastructure industries and land use, necessitating significant investment in new clean technologies, sustainable infrastructure, and a revolutionary approach to the products and services we consume. The urgency of this investment is not solely grounded in environmental stewardship but extends to economic resilience, public health and global ecosystem security. Whilst technology may alleviate some of these challenges, there exists a multi-trillion-pound opportunity to deliver the new physical products and services urgently needed to enable us to live in a more sustainable way.

An investment in sustainable infrastructure can:

- Deliver financial return whilst delivering a positive impact
- Deliver contractual cashflows (once assets are operational)
- The 'core +' style is complementary to a core infrastructure allocation
- Support UK job creation and business expansion in regional areas
- Provide exposure to innovative solutions in the UK producing measurable sustainability outcomes aligned with United Nations' Sustainable Development Goals ("UN SDGs")



A modern 'Core +' approach to infrastructure

This form of infrastructure is focused on targeting niche but growing areas to deliver strong risk-adjusted returns with downside protection, and is underpinned by investments in core + style assets. This type of investment is classified as infrastructure, because the underlying physical real assets will have predictable cash flows once operational, by virtue of contractual underpinnings and/or by virtue of having a quasi-monopolistic position in the market. By focusing on relatively small (sub £50mn) initial infrastructure investments and then scaling the platforms, there is less competition for deals from traditional infrastructure funds and an investment can be complementary to a core infrastructure allocation.

Our approach



Mission: We intentionally scale real asset businesses that are good for investors because they are good for people and planet

Vision: We aim to solve societies' most difficult challenges by partnering with the smartest people and capital to make great investments

At Gresham House, we take a modern approach to sustainable infrastructure investing and have identified six sub-sectors that sit within this modern definition:

- **Decarbonisation** - infrastructure that enables the lowest cost migration to clean energy in harder to abate industries
- **Regeneration** - restoration of nature and biodiversity enhancement through 'nature-based solutions'
- **Digital inclusion** - infrastructure to provide better access, connectivity and productivity for all parts of society
- **Resource efficiency** - infrastructure that can make better use of our finite natural resources
- **Waste solutions** - infrastructure providing circular solutions to convert waste into valuable products
- **Health & Education** - infrastructure to improve access to high-quality, specialised health and education

We believe these sectors offer attractive opportunities from a financial return and impact perspective:

Financial: these sub-sectors represent the distillation of the various macro tailwinds requiring trillions of pounds of new investment, thereby supporting strong prospects for growth in new real asset-based sustainable solutions. This backdrop catalyses attractive exit opportunities and likely resultant yield compression as the sectors mature.

Impact: these sub-sectors have the potential to deliver intentional and positive impact, clear additionality and demonstrable carbon reductions with anticipated outcomes well aligned to the UN SDGs.



Human exploitation of the planet is reaching a critical limit. We cannot continue to pollute the atmosphere, poison the ocean and exhaust the land.

There isn't any more available.

Physicist, Stephen Hawking

Our beliefs

Impact drives returns

These relatively new sectors, and the businesses that sit within them, can be actively shaped from the outset to create business models where the environmental and social solutions create quasi-monopolistic market positioning. As these platform businesses scale, this then drives more impact, and therefore returns.



Deal-size focus

We have identified a funding gap for platforms with an initial investment in the sub-£50mn scale, and in particular in the £10mn-£40mn initial deal-size range. This is due to there being a reasonably well funded sub-£10mn Enterprise Investment Scheme (EIS) and Venture Capital Trust (VCT) driven investment market in the UK, and a large universe of potential funders once the deal size exceeds £100mn.



Market opportunity

There is a material and urgent need for market intervention through the construction of new infrastructure to provide the new sustainable products and services required within these specific sub-sectors:

- **Decarbonisation** - since 2015 fossil fuel projects have received over four times more international development funding than air quality projects.¹ McKinsey predicts that for the global economy to reach net zero by 2050, it will require about \$27tn, or \$9.2tn per year, to be invested in new physical real assets.²
- **Regeneration** - restoration and conservation of our natural resources and ecosystems are critical as nature underpins economic activity - WWF sets the annual value of the benefits from nature globally at an estimated \$125tn³ - yet the UK has failed to reach 17 out of 20 UN biodiversity targets agreed only 10 years ago⁴ and the finance gap to secure key nature-related outcomes in the UK is estimated to be £56bn over the next 10 years.⁵
- **Digital inclusion** - digital exclusion is inextricably linked to wider inequalities in society and is more likely to be faced by those on low incomes, people over 65 and disabled



\$125tn

estimated annual value of the benefits from nature globally

people, while the benefits are large with a return of almost £10⁶ in economic, societal and environmental benefits achieved for every £1 invested in digital inclusion in the UK.⁵

- **Resource efficiency** - land and water are two of the planet's most precious resources and are under tremendous stress to keep up with growing populations across the globe. Vertical farming has the benefit of using over 99% less land than traditional farms while using up to 95% less water⁷ to produce the same crop. Similarly, plant-based meat production can cause 30%-90% fewer greenhouse gas emissions, uses 72%-99% less water, and results in 51%-91% less nutrient pollution in aquatic systems.⁸

- **Waste solutions** - on land, humans typically waste about one third of all food produced, which has a value of over £21.8 bn a year in the UK alone⁹ and around 80% of materials in landfills could have been recycled.¹⁰ While at sea, 66% of ocean area is impacted by human activities, including from fisheries¹¹ and pollution, and by 2050 the seas will contain more plastic than fish.¹² We need to find circular solutions to protect our ecosystems as well as preserving finite natural resources.
- **Health & Education** - as well as being likely to lead to better wages, higher levels of education are linked with better health, wealth and even happiness. In the UK, only 57% of children who are eligible for free school meals are assessed as having a good level of development, compared with 74% of children from better off households¹³. Similarly for healthcare, the unequal access to good quality services is magnifying, particularly given that as life expectancy increases so do the number of chronic and long-term illnesses across the population. In the UK, around 1.6 million people over the age of 65 do not have the level of care they need¹⁴, while it is estimated that over 6 million older people by 2030 will have a limiting long-term illness or disability¹⁵.

Additionally, there are major drivers that continue to create commercial opportunities for new sustainable infrastructure, which include:

Sustainability demand pull

Consumers continue to demand products and services that either reduce or mitigate their environmental impact and/or contribute towards a positive social or environmental outcome.

Regulatory push

Governments and regulators are encouraging, change to reduce emissions or social challenges and work towards targets. UK policy is supportive of more sustainable infrastructure, spanning almost every ministerial department and industry, and varies from increasing renewables capacity and boosting food security, and future-proofing the national digital infrastructure network.

Innovation

Modern technologies and shifting economic fundamentals are creating opportunities for new classes of infrastructure that utilise fewer scarce resources, unlocking a whole suite of previously impossible new products and services that allow humanity to live in a more sustainable way.

1. Clean Air Fund - The state of Global Air Quality Funding 2022

2. McKinsey & Company - The net-zero transition - January 2022

3. World Wildlife Fund website - Valuing Nature

4. UK Parliament - Biodiversity in the UK: bloom or bust, 30 June 2021

5. Green Finance Institute - The Finance Gap for UK Nature, 2021

6. Local Government Association - Tackling the digital divide, 3 November 2021

7. : Farmdeck.com - Is vertical farming the future of farming?

8. The Good Food Institute - Plant-based meat for a growing world, 2019

9. Waste and Resources Action Programme (Wrap) - UK Food Waste & Food Surplus - Key Facts, November 2023

10. Wastecare - 9 shocking statistics about waste, 21 August 2019

11. UN Environment Programme - Facts about the nature crisis and IPBES

12. World Wildlife Fund - Will there be more plastic than fish in the sea? & Ellen MacArthur Foundation, 2016

13. The IFS Deaton Review, 13 September 2022

14. NHS Confederation, 22 September 2023

15. mha.org.uk - Facts & stats about older people

Place-based investing and sustainable infrastructure



There continues to be cross-party consensus towards trying to find ways to improve 'left behind' areas of the country.

The new Labour government has stated they will evaluate innovative place-based impact investing models to crowd in more private finance to fund development of cities and regions¹⁶

16. Financing Growth, pg 9: labour.org.uk/wp-content/uploads/2024/01/Financing-Growth.pdf.

In addition, investing in UK infrastructure is aligned to the Mansion House goals for investment in unlisted UK companies, helping meet the Government's mission of supporting job creation, and business expansion in regional areas which means investors have an opportunity to fund the urgent need for new infrastructure.

Indeed, Gresham House's Sustainable Infrastructure strategies have already created over 2,500 new jobs across the UK, putting prosperity into many new 'left behind' locations.

We believe that UK-based sustainable infrastructure is an effective part of a return seeking portfolio, as well as an important source of income and diversification whilst supporting wider societal and environmental goals.

Summary

The consequences of unabated greenhouse gas emissions are manifesting in extreme weather events, rising sea levels, disruption to ecosystems, as well as causing broader socioeconomic challenges.

This decade is the most pivotal moment in history to take positive action and is our last opportunity to mitigate and minimise the challenges of global warming that cause irreversible damage to the planet and human life.

The urgent need for new holistic solutions for these under-invested and harder to abate sectors is clear.

Gresham House are well positioned to deliver a diversified portfolio of core + infrastructure assets balancing risk and returns.



We are the first generation to feel the impact of climate change and the last generation that can do something about it.

President Barack Obama

An investment in sustainable infrastructure can:

- Deliver a financial return because of the impact of the underlying assets
- Deliver contractual cashflows (once assets are operational)
- The core + style is complementary to a core infrastructure allocation
- Support UK job creation and business expansion in regional areas
- Provide exposure to innovative solutions in the UK producing measurable sustainability outcomes aligned with UN SDGs.

To find out more about Sustainable Infrastructure and how an allocation could help you meet your financial and sustainability objectives please get in touch with:



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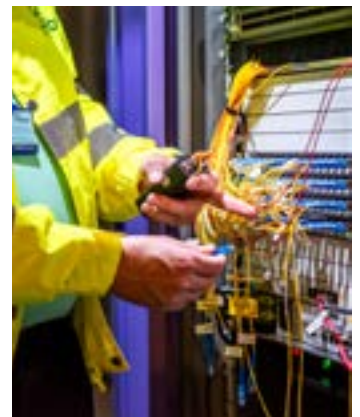


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