# Navigating the winding road to carbon mitigation

Harvesting data on each asset's performance is the key to building a portfolio-wide carbon reduction strategy

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The reality of climate change is no longer up for debate. From historically high temperatures in Antarctica to coral bleaching on the Great Barrier Reef and unprecedented droughts worldwide, extreme weather events are daily reminders of our planet's precarious state. In its latest report, the IPCC urged immediate action to prevent greenhouse gas emissions from peaking past 2025 and limit global warming to 1.5°C. It's time to act, and act quickly.

It is clear that the built environment has a critical role to play. Buildings generate greenhouse gas emissions, both through their construction and use. The materials used in construction, such as concrete, steel and glass, are manufactured, transformed and transported – all processes that emit large quantities of greenhouse gas. Once standing, buildings generate hefty emissions from their use of electricity, as well as natural gas.

For this reason, it is incumbent upon all developers, investors and landlords to develop robust environmental, social and governance (ESG) strategies. A successful ESG strategy starts with getting a clear picture. Your first move is to measure climate performance for each tenant, building, fund and so on, then compile merit orders for each portfolio. As the saying goes: "What gets measured gets managed."

Unfortunately, the road towards carbon mitigation is long and winding. Not all technical, energy and activity data belong to the owner, but rather to tenants, property managers, and service providers, whose consent is a prerequisite to data collection. And when it comes to data, many actors are loath to share what they often see as a strategic asset.

Understanding the different types of energy used on site, the metering plan and the areas served – common and private – means involving those who know and manage the building. Setting up the collection and centralisation of building data is an essential investment, one that takes time but will save time in the long run.

If we've learned one thing after nearly 10 years supporting ESG deployment strategies in real estate, it's the importance of setting priorities and moving forward slowly but surely. Having consistent, relevant information is the key to developing reliable KPIs. Armed with a strong understanding of their portfolios, asset managers can set priorities and focus efforts on those showing the weakest performance or highest risk.

Generally speaking, there are five ways to lower greenhouse gas emissions: reduce need, for instance by influencing user behaviour; improve maintenance of equipment; optimise the regulation of lighting, heating, ventilation and AC equipment; replace existing equipment with more efficient equipment; and reinforce building insulation to lower heating needs.

Some efforts call for advanced technology like AI solutions, which can use data to suggest savings actions automatically and remotely. For example, in advanced countries, most buildings have remotely readable meters providing in-depth time series that, once analysed with proper algorithms, offer actionable insights.

But common sense, low-tech solutions play an important role as well, and cutting $CO_2$ emissions by 90% to 95% also calls for some good old-fashioned behaviour modification; perhaps we can live with the knowledge that 5% to 10% of any given group will be dissatisfied with the temperature in their office building, whatever the temperature.

And although technology has multiplied equipment's energy efficiency, these savings have been massively cancelled out by the multiplication of uses. For example, current smartphones are hundreds of times more efficient than late-1990s models, but their consumption and battery capacity has ballooned.

## Tackling embedded carbon

Then there is the small matter of accounting for embodied carbon. For example, in assessing the $CO_2$ cost of replacing a heat pump or boiler, you'll look at embodied carbon in items like equipment manufacturing (metal, electronics, energy of manufacturing plants, etc) but also the transportation involved in equipment delivery and the emissions linked to installation. Once everything is accounted for, you can estimate the GHG

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emissions avoided and calculate the carbon ROI.

Rounding out your investment approach often requires engineering support for on-site technical audits, especially with projects like replacing equipment or changing insulation. But once you've defined priorities, chosen investments and identified savings measures, you'll need continued outside support.

For asset managers, the challenge is integrating ESG criteria into wider business processes to internalise the ESG reflex, particularly the net zero reflex. This means taking ESG and climate change into account across all endeavours: evaluating an asset acquisition; establishing capital expenditure plans; monitoring asset performance; contracting with property managers; attracting and welcoming new tenants; choosing qualified net zero project managers and general contractors, and so on.

One key challenge in devising successful portfolio policies is aligning stakeholder interests. Property managers, in-house or external, are the cornerstone of a strong net zero investment strategy, and already play a key role in terms of building insights and tenant relations. Paying close attention to the renegotiation of their contracts and/or incentives is highly important.

Once the best laid net zero investment plans are in place, asset managers must prioritise and monitor their implementation. Since 2005, we've seen the emergence of building labels, with almost every major economy adopting its own standard: BREEAM in Great Britain, HQE in France, LEED in the US, PASSIV'HAUSE and DGNB in Germany, Minergy in Switzerland and so on.

Initially geared toward construction, these labels have evolved to address building operations. They have been helpful in several ways: raising awareness in the real estate and construction sectors, promoting communication among actors and providing a readable reference for tenants. But their broad scope and disparity, combined with inconsistent/unsustainable performance levels over time, have made them essentially a race for medals. Although constantly evolving and far from obsolete, these labels are now refocusing on less exhaustive goals.

Starting in 2010, the emergence of observatories for energy, climate, ESG and sustainable building performance has allowed market players to compare themselves to each other, to positive effect. The BBP in Great Britain, the OID in France, EnergyStar in the US, GRESB in the Netherlands, ECORE in Germany… these new groups offer platforms for real estate actors looking to compare the performance of buildings or funds.

Beyond the evangelising role, these observatories have led to the market's first benchmarks. But with data that's annual, declarative and not very detailed, the limits of this system soon became apparent. It's hard to push for action when you're within the average, and even more so without knowing if different building types are taken into account.

Since the onset of the 2020s, however, new standards have emerged to encourage action: CRREM in Europe, the Climate Change Committee in Great Britain, the Tertiary Decree in France, and the finance sector's SBTi initiative. Carbon reduction pathways are the irrefutable reference point today, setting science-based standards based on a methodological approach.

More than just a set of regulations to meet, or a way to appease and attract stakeholders, these standards have a real impact on the value of assets and portfolios. Markets expect assets will be held to increasingly strict ESG requirements, and straying from the path of decarbonisation will lead to devaluation. The risk of this 'brown discounting' and associated 'stranded assets' have begun to eclipse the issue of green premiums.

So, real estate actors have been getting to grips with the stakes of decarbonisation and the need for climate resilience. The sector is facing a real revolution, with uncharted territory ahead. That said, today's reality represents an exceptional opportunity for the real estate sector. With the right efforts and smart investment, we can be a force for good around the world. ■

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## About Deepki

**Founded in 2014, Deepki has developed an SaaS solution that uses data intelligence to guide real estate players in their net zero transition. The solution leverages customer data to improve assets' Environmental, Social and Governance (ESG) performance and maximise asset value. Deepki operates in over 41 countries, with over 250 team members across offices in Paris, London, Berlin, Milan and Madrid. The company serves clients including Generali Real Estate, SwissLife Asset Managers and the French government, helping to make their real estate assets more sustainable at scale. In March 2022, Deepki raised €150m in a Series C round of funding which was jointly led by Highland Europe and One Peak Partners. Other investors include Bpifrance, through its Large Venture fund, and Revaia.**