The real estate leader's guide to decarbonizing your portfolio

From science-based targets to net-zero commitments, how to start reducing carbon emissions and keep your commitment to climate action

Moving forward on climate goals remains a challenge for even the most enthusiastic and committed organizations. Even with strong leadership support behind you, moving targets are everywhere. Amid increased scrutiny and market pressure, real estate leaders face a crowded and fragmented ESG space and a confusing array of regulations, pathways and metrics. One thing is for certain: The work of reducing carbon emissions must be done now.

What's missing is a common understanding of how to successfully measure and reduce carbon emissions within the built environment. That's the next critical step needed for organizations to truly reduce their carbon footprints and advance their overall sustainability efforts. But many simply don't know where to begin.

This guide offers implementation strategies to help you measure carbon, track it on an ongoing basis and decarbonize your buildings to achieve your ESG goals. To help you get started, we can help you craft a sustainability strategy built for action.

Whether pursuing science-based targets or a net-zero commitment, there is strong momentum to achieve the Paris Agreement's goal to reduce greenhouse gas emissions substantially. The race is on to limit the global temperature increase in this century to 1.5°C (or 2.7°F) above pre-industrial levels.

The vast majority of organizations understand what's at stake. In the near future, most land regions will continue to experience more hot days – especially in the tropics. By limiting the earth's warming to 1.5°C, roughly 14 percent of the population will be exposed to severe heat waves at least once every five years.

Step 1

Step 2

Step 3

Step 4

Step 5

Commercial real estate has an enormous opportunity to help the world mitigate the worst-case scenarios of climate change. With real estate accounting for nearly 40% of the world's carbon emissions and energy typically accounting for 20% to 40% of a building's annual operating costs, the success of your organization's sustainability plan hinges on your ability to reduce the carbon emissions of your portfolio.

Recognizing that a variety of targets and commitments exist, and that global initiatives must be adapted for local contexts, we can provide the technology, data and expertise to help you along every step of your sustainability journey: from creating the overall strategy, to helping you baseline and benchmark, to executing all of the complex technical work that sits within your action plan.

What should you be measuring?

Start with these key environmental metrics to make the most impact:[1]

- Energy reductions
- Energy use intensity
- Waste reduction and diversion
- Carbon emissions

Key terms

Operational Carbon: The greenhouse gas emissions associated with energy used to power a building. It includes but is not limited to lighting, plug loads, heating and cooling, and cooking. Operational carbon is typically calculated using location specific emission factors that convert the energy consumption of a building into a carbon emission value.

Embodied Carbon: The sum of greenhouse gas emissions released during the following life-cycle stages of a building material: raw material extraction, transportation, manufacturing, construction, maintenance, renovation, and end-of-life.

Whole-life Carbon: Operational carbon + embodied carbon.

Carbon Neutrality: Organizations that are carbon neutral offset the same amount of carbon that they emit into the atmosphere using some other means, such as switching to renewable energy sources or investing in carbon offset projects like planting trees or wetlands restoration.[2]

1. *www.us.jll.com/en/views/checklist-measure-and-report-on-your-sustainability-program*
2. *www.cnet.com/home/energy-and-utilities/what-does-carbon-neutral-mean*

Step 1

Step 2

Step 3

Step 4

Step 5

How to measure and reduce carbon in the built environment

Step 1: Baseline your portfolio's emissions

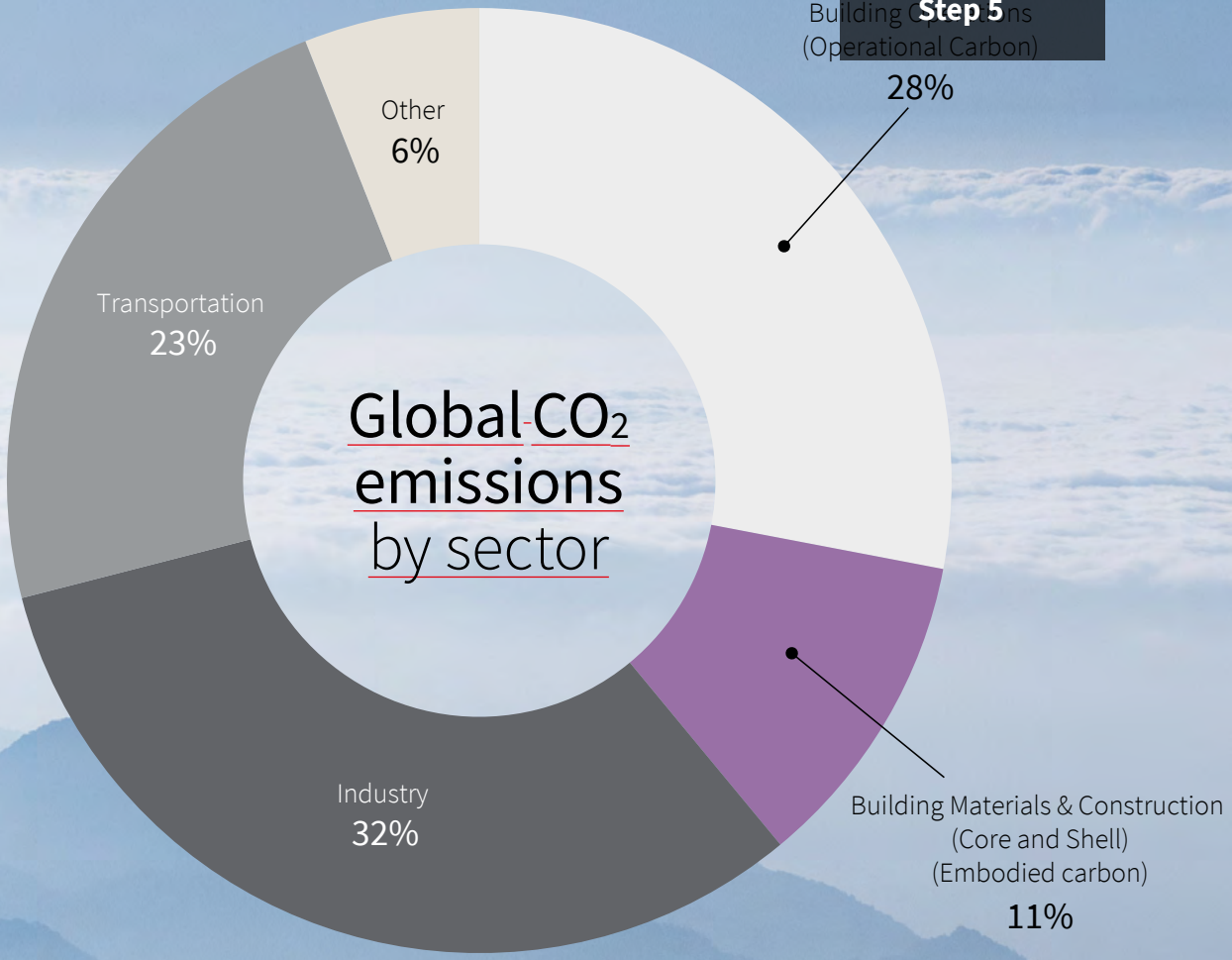
Step 2: Compare your current performance to the industry benchmark

Step 3: Find a framework for success

Step 4: Implement a central database to track and compare data

Step 5: Refine your KPIs to achieve maximum impact

The built environment has a big role to play as the single largest emitter of carbon—ahead of industry and transportation



Source: Global Alliance for Buildings and Construction, 2021 Global Status Report
https://architecture2030.org/buildings_problem_why

Understanding carbon emissions

Step 1
Step 2
Step 3
Step 4
Step 5

Breaking down an organization's carbon footprint for buildings

Three categories of emissions:

Scope 1

Direct, on-site emissions (usually due to burning fuels) on-site/by fleet

Scope 2

Emissions associated with energy/utility purchases to operate the business (includes electricity and steam)

Scope 3

Emissions from value chain related to all other company activities (not directly controlled by the company itself)

Calculating the emissions from leased office space

It's often unclear how tenants and landlords should categorize the carbon emissions of leased office space. Is the carbon that's generated the responsibility of the property owner or the occupier? Whether you categorize these emissions as Scope 1, 2 or 3 is dictated by the type of lease in place, as well as the organizational boundary. See the breakdown below:

Allocating emissions from leased assets - lessor's perspective

	Type of leasing arrangement	
	Finance/Capital Lease	Operating Lease
Equity Share or Financial Control Approach Used	Lessor does not have ownership or financial control, therefore emissions associated with fuel combustion are Scope 3 and use of purchased electricity is also Scope 3.	Lessor does have ownership and financial control, therefore emissions associated with fuel combustion are Scope 1 and use of purchased electricity is Scope 2.
Operational Control Approach Used	Lessor does not have operational control, therefore emissions associated with fuel combustion are Scope 3 and use of purchased electricity is also Scope 3	Lessor does not have operational control, therefore emissions associated with fuel combustion are Scope 3 and use of purchased electricity is also Scope 3

Source: gresb.com/nl-en/2017/05/23/whose-carbon-is-it

The ESG space is more complex, crowded and fragmented than ever before

Recent regulations

SEC Disclosure Rules Focus on Climate-related Financial Risks

The EU Sustainable Finance Disclosure Regulation Enters into Force
Monday, March 22, 2021

New Zealand to compel banks, insurers on climate disclosures

NYC strengthens Climate Mobilization Act building requirements

Mandatory TCFD disclosure moves closer in UK

Frameworks

GRESB · SASB · GRI · CRREM · CDP · PRI Principles for Responsible Investment · TCFD

Organizations are grappling with a deluge of regulations, commitments, frameworks, certifications, tools, technologies and beyond

Commitments

SCIENCE BASED TARGETS · RACE TO ZERO · WORLD GREEN BUILDING COUNCIL · NET ZERO ASSET MANAGERS INITIATIVE · THE CLIMATE PLEDGE · Paris... 10 years Early · RE 100

Certifications

LEED · INTERNATIONAL WELL BUILDING INSTITUTE · ENERGY STAR Portfolio Manager · fitwel · BEAM 建築環保評估協會 · BREEAM

Step 1
Step 2
Step 3
Step 4
Step 5

The crowded ESG space

Organizations must contend with a confusing array of regulations, commitments, frameworks, certifications and other terms as they strive to reduce their carbon footprint. In Europe, the guidelines to net-zero are outlined in legislation. The European Union (EU) implemented the Sustainable Finance Disclosure Regulation (SFDR) in 2021, setting specific rules for how and what sustainability-related information financial advisors and financial market participants need to disclose.

In the built space, the EU has proposed mandatory energy efficiency upgrades for all buildings and for all new construction to be net-zero by 2030. These draft laws are part of the EU's Green Deal, which aims to transform its economy within three decades.[3]

The US currently lags behind many other nations but is gaining momentum. In March 2022, the Securities and Exchange Commission (SEC) proposed rule changes that would require the inclusion of certain climate-related disclosures in corporate registration statements and periodic reports, including information about climate-related risks that could have a material impact on their business. The required information about climate-related risks would also include disclosure of greenhouse gas emissions.[4]

The absence of a comprehensive federal strategy in the US has caused many states and local municipalities to take on carbon reduction in their own back yards. In late 2021, the Boston City Council adopted amendments that strengthened the Building Energy Reduction and Disclosure Ordinance. This move required large buildings to track and disclose their greenhouse gas emissions and to use audits and energy efficiency upgrades to achieve emissions-reduction goals in the next several years. In New York City, the Climate Mobilization Act's Local Law 97 requires all buildings larger than 25,000 square feet to meet ambitious carbon reduction targets.[5]

To ensure you are following the right guidelines and the most up to date federal, state and local regulations, it's important to seek out a partner that can help you craft a carbon reduction strategy that meets your organization's unique goals and aspirations – from the local market to the global market and everywhere in between.

3. www.theguardian.com/environment/2021/dec/14/eu-urged-to-rachet-up-green-energy-standards-for-buildings
4. www.sec.gov/news/press-release/2022-46
5. www1.nyc.gov/site/sustainability/legislation/climate-mobilization-act-2019.page#:~:text=The%20centerpiece%20of%20the%20Climate,meet%20ambitious%20carbon%20reduction%20targets.

Science-based Targets and Net-Zero Commitments

Among the various targets that companies can set to pursue their sustainability goals, two terms are often mentioned: science-based targets and net-zero commitments.

While similar in their end goals, they do not mean the same thing. They differ in their scope and in the mitigation approaches they allow. As a real estate leader, it's vitally important to know what target you've committed to and what that means for your organization.

Here's a breakdown of the two terms:

Science-based targets

Targets are considered 'science-based' if they are in line with what the latest climate science deems necessary to meet the goals of the Paris Agreement to limit global warming to well-below 2°C above pre-industrial levels and pursue efforts to limit warming to 1.5°C. The SBTi (Science Based Target initiative) is a global partnership that champions science-based target setting and officially approves these targets. To be considered a science-based target, it must be approved by SBTi.

The SBTi requires companies to set science-based targets based on emission reductions to be achieved through direct action within their direct operations and value chains. Science-based targets do not allow carbon offsetting. Also, the SBTi requires that companies set ambitious targets to reduce Scope 3 emissions if they represent more than 40% of the company's overall footprint.

Net-zero commitments

In the simplest terms, a net-zero commitment is an aim to become carbon neutral (removing or offsetting the same amount of carbon that is emitted into the atmosphere) by a certain date.

A net-zero carbon target differs from a science-based target in that offsets can be used to reach zero – and these offsets can be utilized at the corporate, portfolio, or building level. That means the scope of each approach to net-zero can differ. Also, with net-zero targets, companies are at their own discretion when it comes to reporting Scope 3 emissions, which are not directly controlled by the company itself.

As more and more organizations make net-zero commitments covering a range of different scopes, timelines, and pathways – often not underpinned by climate science – the SBTi set out to develop a consistent and objective approach to net-zero targets: the Net-Zero Standard.

JLL is a Net-Zero Standard organization

With the help of experts and industry partners - including JLL - the SBTi developed the Net-Zero Standard to provide organizations with a clear framework to bring their net-zero plans in line with climate science. It includes guidance, criteria and recommendations organizations need to set net-zero targets consistent with limiting global temperature rise to 1.5°C.[6]

The Net-Zero Standard is the first global science-based standard to guide organizations setting net-zero targets and encourages them to follow the principles of the mitigation hierarchy. Effectively, this means that companies should prioritize actions and strategies to achieve emissions reductions before engaging in neutralization.

The SBTi defines "beyond value chain mitigation" as action or investments that fall outside of a company's value chain. This includes activities that avoid or reduce greenhouse gas emissions, and those that remove and store greenhouse gases from the atmosphere.[7]

After helping create Version 1.0 of the Net-Zero Standard, JLL has applied this new framework for net-zero target setting to our own business, which was approved by the SBTi in October 2021.

6. www.worldgbc.org/thecommitment
7. sciencebasedtargets.org/resources/files/Beyond-Value-Chain-Mitigation-FAQ.pdf

How to measure the carbon emissions of your real estate portfolio

Step 1:
Baseline your portfolio's emissions

Before you can start reducing your carbon emissions, you must first determine exactly what makes up your organization's carbon output. A first step is to measure how and when carbon is emitted based on the three groups or 'Scopes' using the Greenhouse Gas (GHG) Protocol, an international standard for reporting.

A sufficient baseline clearly states what buildings are in scope, is transparent about the proportions of actual versus estimated data and focuses on maintaining quality data.[8] It will likely include measuring your monthly utility bill expenses, energy usage, equipment efficiency, water consumption, recycled waste versus landfill waste, and carbon emissions across operational carbon and embodied carbon (see key terms). And it captures all fuel types, establishes a sufficient baseline year that all reductions are based on, and establishes a repeatable collection process.

Your projections will also need to account for things such as energy efficiency improvements, renewable energy supply acquisitions, major renovations to existing assets, and other relevant factors.

You'll want to measure emissions across these scopes during the most recent representative year for your organization. Because of COVID-19 disruptions, 2020 may not be a good representative year for your baseline.

Correctly categorizing your emissions into scope levels will give you an accurate assessment of your organization's carbon footprint and help you prioritize action steps towards your sustainability goal. Putting carbon emissions into these buckets also makes them easier to understand.

Baselining data can take time – especially if you need to uncover data that hasn't been tracked across your portfolio before. The complexity increases depending on your building types, lease types, and where the data comes from.

Step 1

Step 2

Step 3

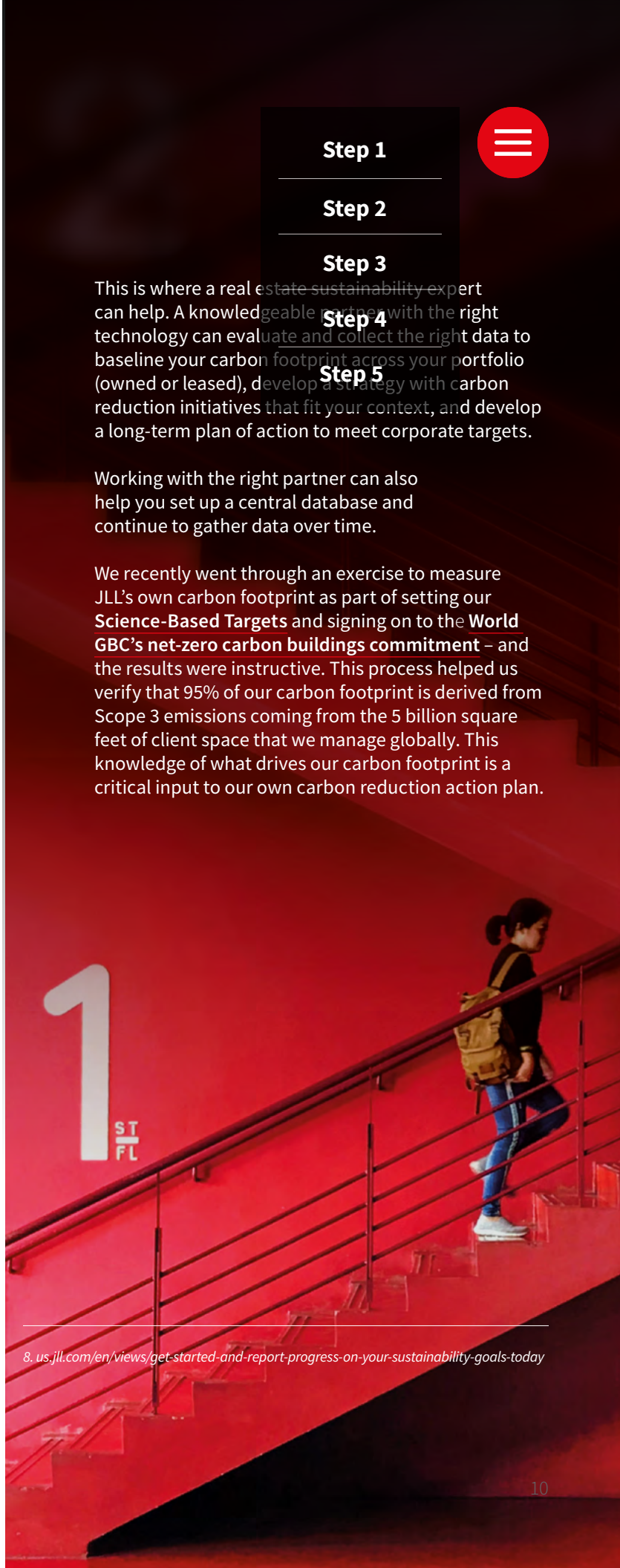
Step 4

Step 5

This is where a real estate sustainability expert can help. A knowledgeable partner with the right technology can evaluate and collect the right data to baseline your carbon footprint across your portfolio (owned or leased), develop a strategy with carbon reduction initiatives that fit your context, and develop a long-term plan of action to meet corporate targets.

Working with the right partner can also help you set up a central database and continue to gather data over time.

We recently went through an exercise to measure JLL's own carbon footprint as part of setting our **Science-Based Targets** and signing on to the **World GBC's net-zero carbon buildings commitment** – and the results were instructive. This process helped us verify that 95% of our carbon footprint is derived from Scope 3 emissions coming from the 5 billion square feet of client space that we manage globally. This knowledge of what drives our carbon footprint is a critical input to our own carbon reduction action plan.

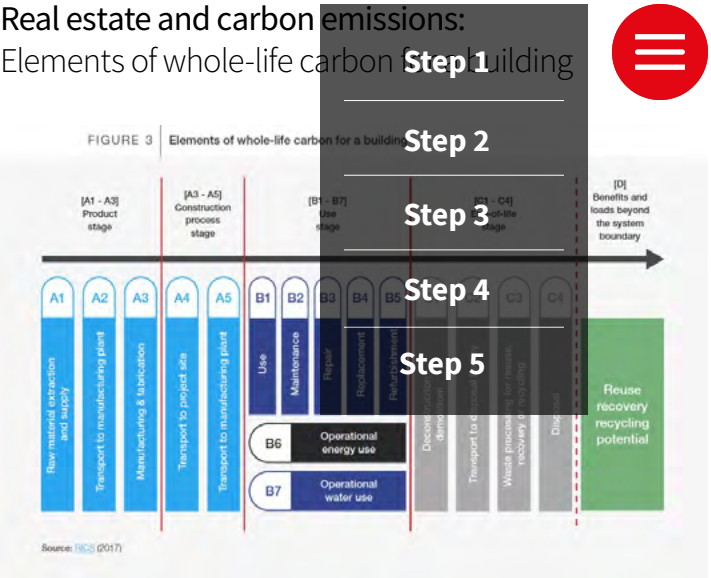


8. us.jll.com/en/views/get-started-and-report-progress-on-your-sustainability-goals-today

Baselining Tips:

- **Categorize your emissions using the three scopes from the Greenhouse Gas (GHG) protocol.** This protocol will help you understand where you're at so you can identify carbon hot spots and data gaps and prioritize your efforts.
- **Along with the three scopes, break down your portfolio by the age, condition of the asset, and building type.** Some newer properties may need tweaks to existing operating systems to make them more energy efficient. Others may need to be refurbished with new interiors and lighting and updated HVAC equipment to get them on the path to net-zero carbon reduction. Also, sealing the exterior "building envelope" will ensure that heating and cooling don't escape.
- **Office buildings may provide immediate opportunities for energy efficiency efforts, but specialized facilities like data centers or manufacturing hubs are likely to use the most energy.** Portfolio size, occupancy, staffing, weather, energy conservation measures, and utility rates will impact energy spend and emissions.
- **Review the current state of your equipment.** This covers everything from air conditioning and heating systems to lighting or vehicle fleets. To budget, you will need to set a baseline for how systems and equipment are performing today and where you have planned upgrades. Then, compare this against your carbon reduction goals to decide what upgrades and changes need to happen now or in the future. From there, you can back into the costs associated with the necessary upgrades, and map out budgets, resources, timing and estimated savings. The best plans are multi-year and tied directly to your goals.

Real estate and carbon emissions:
Elements of whole-life carbon for a building

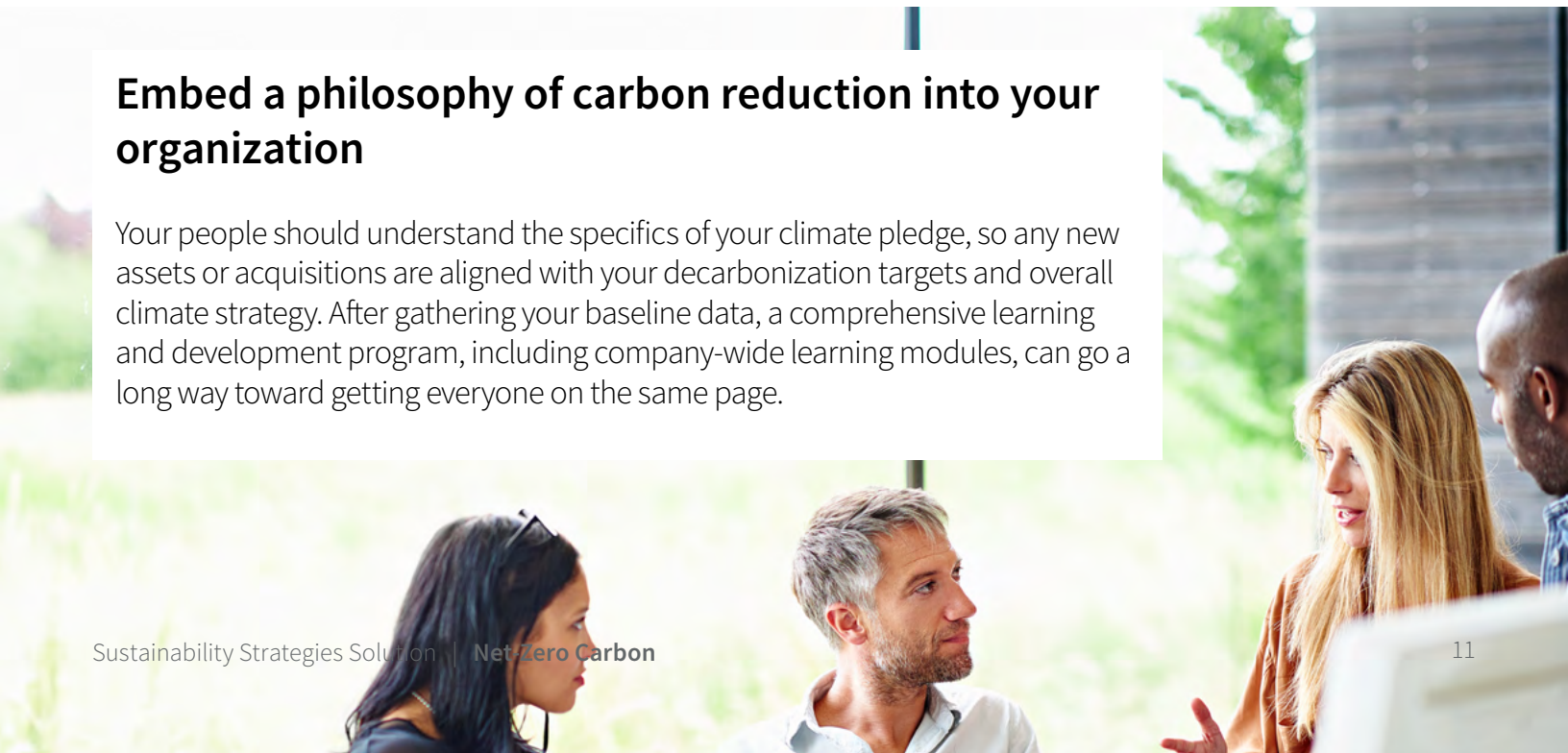


The Green Building Principles

JLL partnered with the World Economic Forum to create **10 key principles to ensure a holistic approach to decarbonizing buildings**. These steps outline how organizations can deliver on their carbon pledges, and they fully complement any existing targets and commitments. Together, the Green Building Principles represent a framework that would enable a real estate portfolio to be considered net-zero carbon.

Embed a philosophy of carbon reduction into your organization

Your people should understand the specifics of your climate pledge, so any new assets or acquisitions are aligned with your decarbonization targets and overall climate strategy. After gathering your baseline data, a comprehensive learning and development program, including company-wide learning modules, can go a long way toward getting everyone on the same page.



Carbon emissions and greenhouse gases (or GHGs)

Know the difference between these two commonly used terms

Carbon dioxide isn't the only type of gas causing global warming. Other gases such as methane, nitrous oxide and even water vapor all play a part. Because carbon emissions is the primary contributor to rising temperatures, it's often used to describe all greenhouse gases. But using the two terms interchangeably is incorrect, and more importantly, it can cause confusion when tracking emissions data. Here's a primer on the differences between carbon emissions and greenhouse gases.

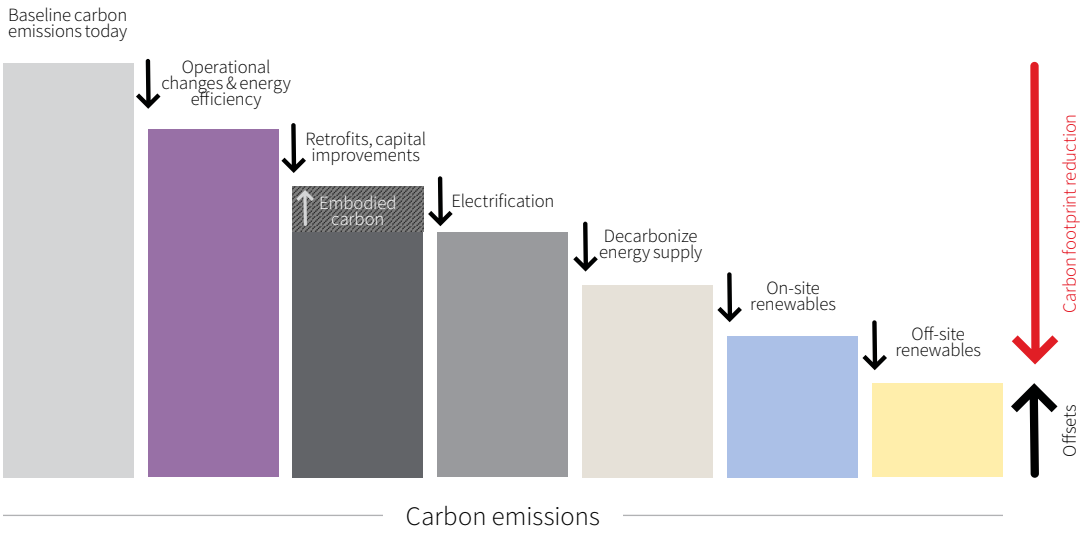
In the simplest terms, greenhouse gases (or GHGs) are any gases found in the earth's atmosphere that can trap heat. Different gases contribute to climate change in different ways. For example, carbon dioxide is released through several natural processes, including plant respiration and human breathing, as well as through the burning of fossil fuels. These gases don't absorb a great deal of heat on their own. But the massive influx of carbon dioxide pumped into the atmosphere since the dawn of the Industrial Revolution in the 1800s, and the fact that it takes thousands of years to dissolve, have rightfully put the reduction of carbon emissions on center stage.

Methane is released mostly through cattle farming and landfills. It doesn't contribute to global greenhouse gas emissions at the same level as carbon dioxide, and it only remains in the atmosphere for 10 years or so, but it absorbs around 28 percent more heat than carbon dioxide over the course of a century. That explains why the reduction of methane in the atmosphere has become a priority.

Water vapor is by far the most widespread type of greenhouse gas. And while it increases as the atmosphere warms, it only lingers for a few days and therefore isn't a significant contributor to climate change.

When discussing the reduction of greenhouse gases from your real estate portfolio, you can consider the reduction of carbon emissions from the heating and cooling and operation of your buildings and the actions of your employees. Other actions, like starting a compost program to minimize waste sent to methane-producing landfills, would also reduce your greenhouse gases, but not factor in your reduction of carbon dioxide.

Pathway to carbon reduction for real estate



Once your emissions are calculated for a baseline year, they need to be projected out to your target year. This graph represents a sample pathway. Your specific path will evolve over time.

Step 2:

Compare your performance to industry benchmarks

Once you've gathered your portfolio's baseline carbon emissions, comparing your data against other companies in your industry will help you better understand the current standards in the market and identify where to focus your efforts.

There are a variety of benchmarks for operational energy and embodied carbon – including both peer and best-in-class metrics – available to support and compare against your own emissions baseline. However, one of the big challenges with benchmarking is determining what economic and other activities are sufficiently similar among companies so the same benchmark can measure them.

It is relatively easy to benchmark Scope 2 operational carbon, or the energy used to power your buildings, versus your peers. Comparing Scope 1 emissions, which focuses on the carbon generated by a company's own manufacturing or other industrial processes, is more difficult to determine. One option is to benchmark against companies engaged in similar economic activities that produce similar products or services.[9]

Because of the difficulty of pinpointing effective and reliable benchmarks, you'll likely need some help. It's essential that you work with a partner that understands your industry and has access to data sources and platforms like **CDP, a non-profit disclosure system** that helps organizations manage their environmental impacts. Regardless of how you benchmark your baseline carbon footprint, we recommend that you compare your carbon output and performance against industry benchmarks at least annually.

9. newclimate.org/wp-content/uploads/2017/05/pmr-technicalnote-benchmark_web.pdf

Step 3:

Find a framework for success

The frameworks you use to reduce your carbon output are the bridge between where you are now, and where you want to go. They'll guide your data management and reporting approach as you continue to measure and reduce your portfolio's carbon output over time. But choosing the right framework depends on several factors, including your business type.

It can be helpful to know what factors your peers use. And most importantly, what factors will resonate most with stakeholders. For example, well-known frameworks such as the United Nation's Sustainable Development Goals (UNSDG) and the independent Global Reporting Initiative (GRI) are typically appealing to large corporate customers who may expect you to participate in net-zero initiatives as a supplier. Going through a formal stakeholder mapping and analysis exercise can help you understand what your stakeholders care about and inform your decision.

There is an accepted definition of a net-zero carbon building (one that produces onsite or procures enough carbon-free renewable energy to meet its operational needs annually). But there is no standard in terms of the actual energy use that constitutes a net-zero carbon building or the amount of embedded carbon that is considered acceptable. Another challenge is the potential disconnect between the carbon reduction targets of building owners and occupiers. With so many competing opinions on how to get to net-zero carbon, a real estate partner is uniquely positioned to determine the right path for your portfolio.

That's exactly what JLL did for a Fortune 500 global investment advisor. After identifying our client's unique challenges, we helped formulate a comprehensive plan to get the company on the path to net-zero. We started by mapping the carbon emissions of the company's standing assets, debt portfolio, developments, and corporate offices, establishing clear goals starting with years 1-5 and then continuing with years 5 and onwards.

Near-term milestones for years 1-5 include: achieving 30% energy intensity reduction, capturing 50% of tenant data, and developing net-zero business plans and onsite renewable assessments for all buildings.

Step 4:
Implement a central database to track and compare data

Once you know what you need to measure and the frameworks you'll use for reporting, your next step is to determine how you'll gather the data you need to measure performance over time.

You can't manage what you can't measure. When collecting data on the carbon emissions of your portfolio, the right technology platform can help centralize it, streamline processes around reporting, identify opportunities to improve performance and provide sub-targets to keep you on the right path. Of course, some organizations will want to have a platform in place to inform their baseline carbon numbers and help them benchmark against their peers.

That's why every **JLL sustainability program is powered by Canopy**, our proprietary sustainability tech platform that enables you to measure, manage and report on sustainability performance. If you're still using spreadsheets or legacy tech systems, now is the time to upgrade to a new system that makes it easier to both report your data and get it ready to submit to frameworks.

The most commonly captured data relates to environmental impacts such as energy use, greenhouse gas emissions, water and waste. By implementing a centralized data and analytics platform built for real estate, you can automate, aggregate, and make sense of how your real estate is performing and identify opportunities for future improvement.

For example, using Canopy, we helped our clients in 2020 **reduce CO_2 emissions by 194 million pounds**, measuring sustainability performance across nearly 50,000 buildings representing 750 million square feet of space, which tracked to **more than $300 million in energy cost savings**.

Our global scale and reach enable our clients to standardize sustainability measurement and reporting across their portfolios. Drawing on a database of more than 120 million regional greenhouse gas emissions factors, Canopy provides the precision needed to provide a complete look into how you're performing today – along with insights to help you manage and measure performance over time.

Another factor when choosing a technology partner: The ability to provide the right data, in the right way, to a variety of different stakeholders. As a corporate real estate leader, you need to gather data for your annual sustainability reporting, your external reporting standards, and the day-to-day reporting required to manage your own performance against your internal targets. Make sure you're prepared to tell your story, the way it needs to be told, for all of these important audiences.

Step 5:

Refine your KPIs to achieve maximum impact

By measuring and tracking your sustainability performance, and gaining actionable insights from those activities, you'll know how you're progressing toward your goals and where to adjust along the way. The idea is to implement a program built on fully leveraging where the data and those insights are telling you to take action. That way, you can ensure you're measuring the right things and provide valuable data to report progress back to your internal and external stakeholders. And if your goals change, you can leverage that data to push your carbon reduction efforts to the next level.

For example, after a Fortune 10 global healthcare company had achieved its initial 15% energy reduction goal, they worked alongside JLL's experts to broaden their goals to include addressing carbon, water and waste. During this time, the client was also focused on right-sizing their real estate portfolio. As the client continued to expand their operational footprint and real estate portfolio, their site renovation program, which helped make their new spaces fit for purpose, grew in parallel.

In the end, the client exceeded their carbon emissions target by 1.5X, reducing emissions by 4,893 metric tons over three years.[10] See complete results here:

Category	Target	Results
Energy reduction	Reduce energy consumption by 20 million kBtus over 3 years (equivalent to a 1-2% reduction each year)	Delivered more than 2x the target, reducing consumption by 42.99 million kBtus from 2016-2018
Carbon reduction	Reduce their emissions by 2,900 MT over 3 years	Delivered more than 1.Sx the target, reducing emissions by 4,893 metric tons over 3 years
Water reduction	Identify sites where water usage falls outside of LEED guidelines	JLL evaluated water consumption across the portfolio, identified 30+ sites where consumption exceeded LEED guidelines, and implemented multiple water-related projects to improve interior water use
Waste reduction	Understand baseline waste rates and use this insight to set appropriate targets	JLL conducted a waste and recycling assessment in 2017, to help the client establish a baseline, understand diversion rates and quantify contamination potential. In 2018, we implemented a waste and recycling pilot program.

10. us.jll.com/en/client-stories/global-healthcare-client-achieves-sustainability-goals-three-consecutive-times

We're on an ambitious journey, too

JLL can help you determine the best pathway to reduce your carbon footprint because we're going through the experience ourselves. Our global footprint and significant investments in people and technology dedicated solely to real estate sustainability services demonstrate our unwavering commitment to the cause, both for our organization and our clients. Last year, we achieved a major milestone when the Science Based Targets initiative (SBTi) formally approved the JLL net-zero 2040 target as "certified to Net-Zero Standard."

As part of our goal, we commit to making an absolute reduction of carbon emissions in our total footprint of 51% by 2030 and 95% by 2040. Our net-zero target covers our entire GHG inventory. Those buildings JLL manages on behalf of clients are our most significant source of emissions, and account for 96% of JLL's total emissions footprint.

Our strategy is predicated on reducing almost all of our baseline emissions: only then will JLL offset residual emissions. We have committed to offset no more than 5% of our 2018 baseline.

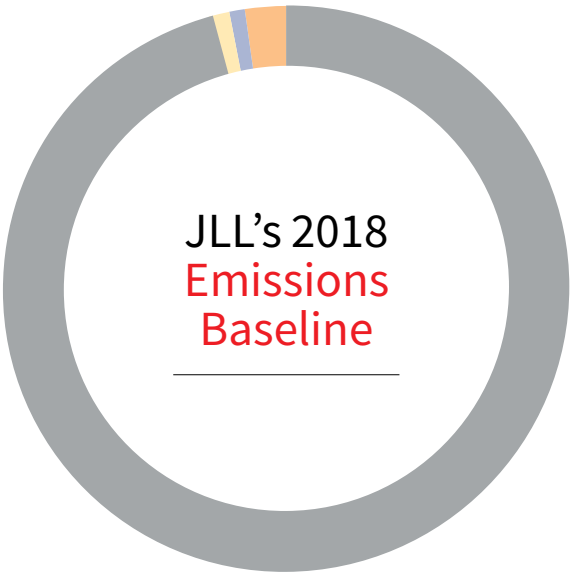
Like so many other companies, our challenge is to close the gap between our ambitions and our actions. Here's what we're doing so far:

- Using our own technology via Canopy, we're clearly defining and tracking our carbon footprint to develop a better understanding of what is driving it.
- Our first task has been to collect and refine our emissions data; improving data accuracy remains our priority. Absolute emission reduction pathways are being calculated across all categories in all three scopes to enable us to measure progress against five-yearly milestones.
- Acknowledging the challenges we are facing and engaging senior leadership to help overcome them.
- Engaging and educating our whole organization in our sustainability goals instead of relying on a few individuals to drive progress.
- Working closely with our clients to support them in delivering their own ambitious climate goals, helping to develop and action sustainability strategies, improving the energy efficiency of their portfolios, and making use of renewable energy wherever possible.

Our journey to net zero

JLL is committed to reducing our emissions and doing our part to achieve the 1.5°C (or 2.7 °F) target needed to avert the worst outcomes of global warming.

Step 1
Step 2
Step 3
Step 4
Step 5

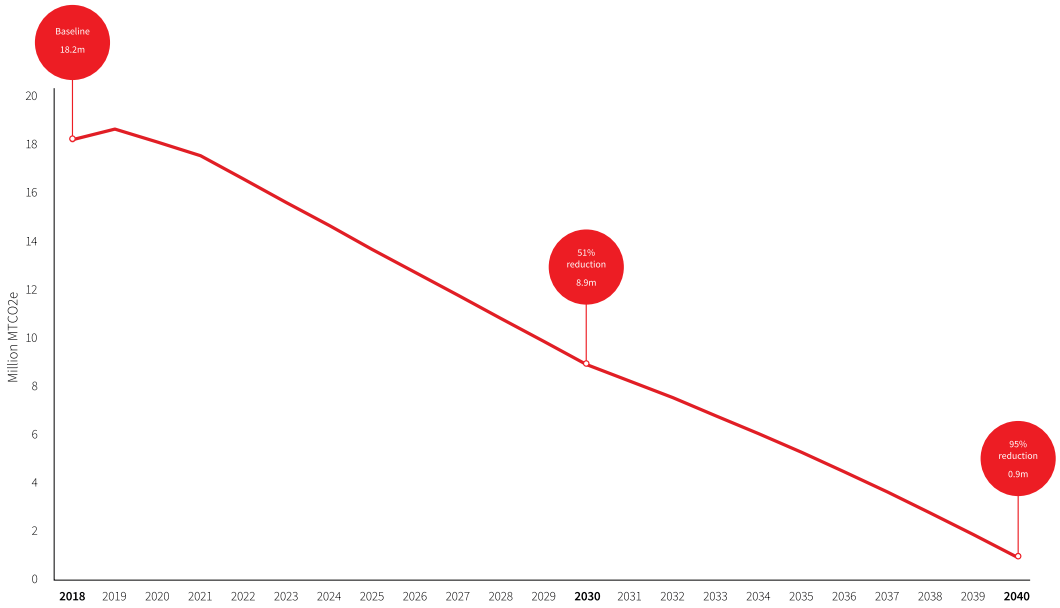


- **96.4% – 17,547,735 mt CO_2e** Client emissions
- **2.2% – 409,397 mt CO_2e** Supply chain
- **0.6% – 100,451 mt CO_2e** Employee Commuting and homeworking
- **0.4% – 76,740 mt CO_2e** Business travel and hotel use
- **0.2% – 31,164 mt CO_2e** Vehicle fleet
- **0.2% – 30,614 mt CO_2e** Office space
- **0.1% – 10,654 mt CO_2e** Other emissions

JLL's science-based net-zero target

JLL commits to reach net-zero greenhouse gas emissions across the value chain by 2040.

Our near-term target: JLL commits to reduce absolute scope 1, 2 and 3 emissions by 51% by 2030 from a 2018 base year.
Our long-term target: JLL commits to reduce absolute scope 1, 2 and 3 emissions by 95% by 2040 from a 2018 base year.



Since the publication of the first draft of Net-Zero Criteria, the SBTi has been going through a process of refining and clarifying the terminology used within the standard. As part of this refinement process, the SBTi has renamed "interim science-based targets" to "near-term science-based targets" and included a more specific term – "long-term science-based targets" – for emission reduction targets in line with net-zero. The chart (left) displays our near-term and long-term science-based target trajectory.

Our headline actions

Step 1
Step 2
Step 3
Step 4
Step 5

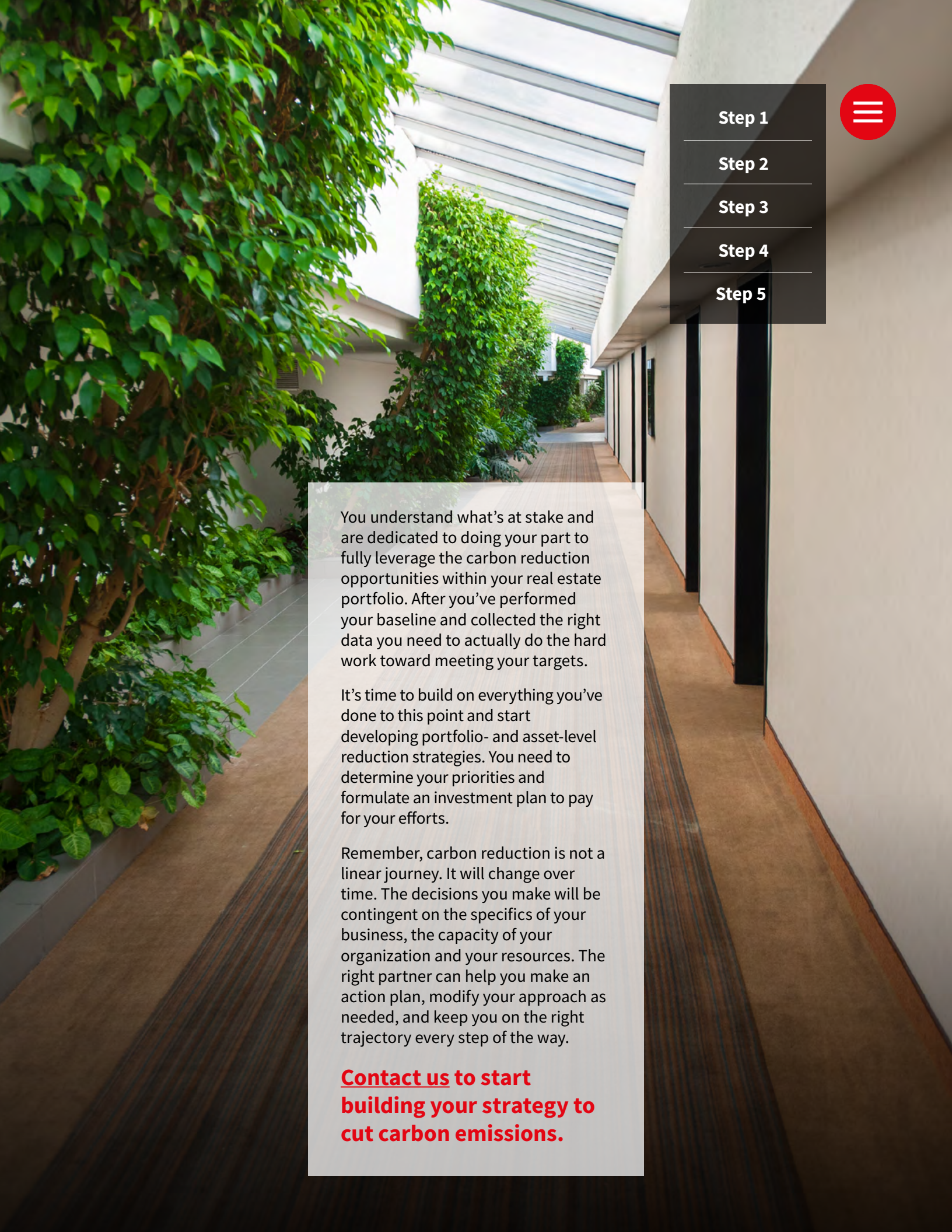
Activity	Office space	Vehicle fleet	Clients
Emissions scope	1, 2, 3	1	3
2018 baseline emissions (mt CO_2e)	30,614	31,164	17,547,735
Reduction activities	JLL has committed to achieving net-zero carbon emissions from the operation of our offices by 2030. We will achieve this by improving energy efficiency in the buildings we already occupy and by renting offices that meet high-energy efficiency standards, and enhancing further with our fitout specifications. Where possible, we are moving our offices onto renewable energy from credible sources. Where renewable energy is not directly available, we are purchasing Renewable Energy Certificates (RECs) or equivalents. We will address any residual emissions through the purchase of high-quality carbon offsets, although we intend to keep any such purchases to a minimum.	In support of our net-zero target, JLL anticipates achieving 100% EV across our global vehicle fleet by 2032. We have significant vehicle fleets – most of which are used to carry out our engineering services – operating in the United States, Europe, Middle East and Africa (EMEA). We are currently in the process of shifting our fleets away from combustion engines and toward electric vehicles and other low-emissions technologies.	Our partnership with our clients is fundamental to delivering net-zero, as over 96% of our emissions arise from the consumption in those buildings we manage on behalf of our clients. For JLL to be successful in achieving net-zero by 2040, we need to support all clients in their own climate action journeys. These partnerships are a key pillar of our business strategy. Much like the approach to tackling emissions in our own office space, we will help clients set their strategies, drive energy efficiency in their buildings and increase the uptake of renewable energy they are consuming. To support these aims, we are making significant investments in technology solutions and scaling up our sustainability service capabilities, such as JLL Sustainable Operations.

Activity	Business travel and hotel use	Supply chain
Emissions scope	3	3
2018 baseline emissions (mt CO_2e)	76,740	409,397
Reduction activities	JLL is working to better understand the reduction pathway for our business travel impacts. We keep evolving our internal policies to eliminate unnecessary business travel. If the travel is unavoidable, we direct employees to use less impactful modes of transport wherever possible. In support of these policies, we continue to invest in technology solutions and provide options to support flexible working practices. As part of our global real estate strategy, we prioritise office locations that are accessible by public transportation to ensure our people can get to work in a way that is both low-cost and sustainable.	Our Global Sustainable Procurement Framework will continue to be key to embedding sustainability across our extensive supply chain and demanding more from our contractors. We will strengthen our collaboration with suppliers to set shared targets and Key Performance Indicators, gather data to accurately measure emissions reductions, and develop solutions. Where we are making use of data centres, we will work with suppliers to ensure that they are supplied by renewable energy wherever possible.

Activity	Employee commuting and homeworking	Other emissions
Emissions scope	3	3
2018 baseline emissions (mt CO_2e)	100,451	10,654
Reduction activities	While employee commuting and homeworking activities are difficult to address, JLL will continue incentivizing the use of public transit and other low-carbon transportation options. We expect additional emissions reductions to be achieved from increased renewable energy use and more clean and efficient vehicles.	This category includes all emissions which fall outside our major areas of activity. This includes emissions associated with the transport and distribution of electricity and fuel as well as those associated with JLL's waste footprint. As we implement new procedures into other areas of our business, we expect to see these emissions to decrease as well. Any residual emissions will be addressed through the use of high-quality offsets.

Carbon offsetting

Through our commitment to net-zero, JLL has pledged to limit any offsetting activities to no more than 5% of our 2018 baseline, which equates to approximately 910,000 mt CO_2e. We will seek to minimize our use of offsets as far as is practicable. Within this threshold, and upon the achievement of our long-term target, any unabated emissions will be neutralized. Where we must use offsets to achieve our goal, we will ensure that we are choosing quantifiable, real, permanent, and socially beneficial options in line with best practice at the time of purchase.



You understand what's at stake and are dedicated to doing your part to fully leverage the carbon reduction opportunities within your real estate portfolio. After you've performed your baseline and collected the right data you need to actually do the hard work toward meeting your targets.

It's time to build on everything you've done to this point and start developing portfolio- and asset-level reduction strategies. You need to determine your priorities and formulate an investment plan to pay for your efforts.

Remember, carbon reduction is not a linear journey. It will change over time. The decisions you make will be contingent on the specifics of your business, the capacity of your organization and your resources. The right partner can help you make an action plan, modify your approach as needed, and keep you on the right trajectory every step of the way.

Contact us to start building your strategy to cut carbon emissions.