



Building biodiversity For a better world

*The true value of nature cannot be overestimated.
To future proof the urban environment
we must put nature on the balance sheet.*



Building biodiversity

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What the experts say



"The Natural History Museum is delighted to have Workman join us as a partner for The Urban Nature Project. With Workman's support we are another step closer to creating an unparalleled green space at our site in South Kensington that will act as a springboard for a national movement which aims to address the disconnect between UK people and nature. Workman's commitment to sustainability is embedded throughout both their property management and building consultancy services. This mirrors the Museum and Urban Nature Project's ambition to build a more sustainable future, where both people and planet thrive. We look forward to working with them as the project progresses, sharing expertise and championing urban biodiversity through both our practices."

Dr Douglas Gurr
Director of the Natural History Museum



"Fifty-one billion is how many tonnes of greenhouse gases the world typically adds to the atmosphere each year. Net zero is where we need to get to. This means cutting emissions to a level where any remaining greenhouse gas releases are balanced out by absorbing an equivalent amount from the atmosphere. One way to do this is by planting trees, which soak up CO2 through their leaves."

Bill Gates
Technologist and Philanthropist



"We consider species to be like a brick in the foundation of a building. You can probably lose one or two or a dozen bricks and still have a standing house. But by the time you've lost 20% of species, you're going to destabilise the entire structure. That's the way ecosystems work."

Donald Falk
Professor, University of Arizona



"The natural world is under threat as never before. The Natural History Museum's Urban Nature Project opens the door for young people to fall in love with the nature on their doorsteps and develop a lifelong concern for the world's wild places. Nature isn't just nice to have - it's the linchpin of our very existence, and ventures like the Urban Nature Project help the next generation develop the strong connection with nature that is needed to protect it."

Sir David Attenborough
Broadcaster and environmentalist



"The economic impacts of climate change are mounting. Since the 1980s, the number of extreme weather events has tripled, causing a five-fold increase in property destruction, and that's just the amount that's insured. Coastal flooding is projected to rise by 50% by the end of the century, threatening assets currently worth 20% to 25% of global GDP. Estimates suggest that over the balance of this century, climate change could cause the equivalent of a decade of no economic growth. In other words, climate change is the curse that keeps on taking."

Dr Mark Carney, United Nations Special Envoy for Climate Action and Finance



"We are proud to partner with the Natural History Museum at a time when biodiversity in the urban environment has never been more intrinsic to the success of the people within our towns and cities. Workman believes that biodiversity can and should form an integral part of the urban landscape, and therefore the Urban Nature Project is the perfect platform from which to achieve both our ambitions."

David Workman
Senior Partner, Workman



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Putting nature on the balance sheet

Why biodiversity matters to people and business

Biodiversity is not an optional extra. Without biodiversity, there is no life. What's more, it has the potential to support the global economy. A focus on biodiversity in the built environment could create more than \$3 trillion in business opportunities and 117 million jobs globally by 2030. So says the World Economic Forum's *Future of Nature and Business Report*.

What is biodiversity?

Biodiversity means all the different types of life found in one place, anywhere across the planet; from plants to animals, fungi to micro-organisms. It includes the habitats in which they all live and need to survive. Each of these life forms work together in ecosystems to maintain the delicate balance that makes up the natural world. Biodiversity and these ecosystems support everything that humans and all life forms need to survive: food, clean water, medicines and shelter.

What impact will biodiversity loss have?

There has never been a greater risk and more pressure on the planet's biodiversity than human impact over the past 50 years. According to the WWF's 2020 Living Planet Report, global populations of mammals, fish, birds and reptiles have declined

by an average 68% since 1970. Three quarters of land and 65% of ocean environments have been significantly and negatively impacted by overfishing, deforestation, and pollution. Humans rely on trees and shrubs to absorb air pollution in urban areas; not only do plants and trees produce oxygen; they also store carbon by literally sucking it out of the atmosphere. Indeed, the UN Environment Programme discovered that nature can deliver carbon reductions of at least 30% by 2030, if biodiversity is protected and enhanced.

Why does it matter to the economy?

The world's population now stands at 7.6bn. It is expected to reach 8.6bn by 2030 and 9.8bn by 2050, with 68% of us living in urban areas. Today, more than half of the world's population lives in cities, with an estimated 1.5 million additional people per week expected to migrate to cities until 2030. While cities account for up to 80% of global GDP, they are also responsible for 75% of carbon dioxide emissions and are among the main factors in air and water pollution, according to the UN. In the UK, 80% of the population live in urban areas, and this is projected to rise to 92% by 2030, leading to larger cities and more challenges for wildlife.

This means towns and cities are rapidly becoming where most people will experience nature. Therefore these are key places to protect the UK's biodiversity. As the world emerges from the pandemic crisis, finding ways to increase urban resilience while improving the lives and wellbeing of urban residents will be critical to boosting economic confidence. Buildings already account for 30% of global energy consumption and 28% of energy-related carbon emissions. However, cities also fuel the global economy and are, therefore, crucial to the economic and social recovery from COVID-19.

Initiatives such as beekeeping and rooftop allotments increase biodiversity.



Building biodiversity what are the rules?

The issue of biodiversity loss has been driven increasingly higher up the property industry agenda by a mixture of legislative pressure, market forces, investor concern and client demand. This is driving companies towards identifying and reporting on their environmental and social impacts, including biodiversity. By embracing sustainable practice, the property industry has an opportunity to lead the discussion, working together to ensure the future of UK biodiversity.

Here, we summarise the regulatory and legislative outlook, and how it affects the property industry.

The Dasgupta Review

Released in February 2021, The Economics of Biodiversity: The Dasgupta Review calls for nature to be valued as an asset, just as produced capital (roads, buildings and factories) and human capital (health, knowledge and skills) are viewed as assets. The report, which was commissioned in 2019 by HM Treasury and will inform legislation, has been supported by an advisory panel drawn from public policy, science, economics, finance and business. It calls for a financial system that channels financial investments – public and private – towards economic activities that enhance the world's stock of natural assets, encouraging sustainable consumption and production activities. Governments, central banks, international and private financial institutions, says the report, all have a role to play.

Environmental aspects of the UK-EU Trade and Cooperation Agreement

The UK-EU Trade and Cooperation Agreement (TCA), signed on 30 December 2020, sets the framework for future collaboration between the UK and the EU in key areas, including the environment. The UK and EU have committed not to lower the overall level of environmental protection and climate protection in a way that impacts trade or investment. There are specific commitments in terms of greenhouse gas reductions and maintaining a system of carbon pricing.

Boris's Ten Point Plan for a Green Industrial Revolution

In November 2020, PM Boris Johnson's ten-point environmental plan included protecting and restoring the natural environment, including a pledge to plant 75,000 acres of trees every year, along with developing new green technology and making the City the new "global centre of green finance". Johnson has said he wants to use the G7 Summit in June and COP26 climate talks in November, both being hosted in the UK, to "build back better" from the coronavirus pandemic and "create a greener, more prosperous future".

Biodiversity Net Gain

Biodiversity Net Gain is already part of the National Planning Policy Framework (NPPF), although there is no specified percentage for the gain. The aim is to restore and enhance nature through "biodiversity net gain" ensuring that new developments are delivered in a way which protects and enhances nature, delivering thriving natural spaces for local communities. This requirement is already being met or surpassed by several market leaders. And with a number of local planning authorities looking to achieve improvements of 20%, green initiatives need to be at the heart of developers' plans.

The forthcoming Environment Bill

The addition of nature to the built environment is set to become a long-term legally binding national planning requirement under the forthcoming Environment Bill (currently going through the parliamentary process and expected to receive Royal Assent in mid-2021). New developments will be required to enhance biodiversity by a mandatory 10%, a net gain requirement change expected from 2022/2023. This net gain will be required to be maintained for a period of at least 30 years, although it is thought that developers will have the option of off-site projects within registered habitat banks. Other aims of the Bill include targets on air quality, water-flow control and outdoor recreation. It contains a number of provisions which will affect regulated businesses and its progress should therefore be closely monitored to ensure continued compliance.

The London Urban Greening Factor

The Urban Greening Factor (UGF) is a major policy initiative within the London Plan. It is intended to guide boroughs on the amount of greening in major developments. The aim is for more than 50% of London to be green by 2050. This will be achieved through planted roofs and walls, street trees, parks and gardens, forming a green infrastructure network, helping to control pollution, reduce flood risk and cool the city, reducing urban heat-island effect.

Unsplash



Greenspiration... ...from the leaders in urban nature

In the wake of the pandemic, the green space around us is being treasured like never before. With 56.2% of the global population now living in cities, the need to usher nature into the built environment has never been felt so keenly. Here we showcase a few inspirational biodiversity projects that are leading the way on urban greening.

"Fall in love with nature on your doorstep" The Natural History Museum's Urban Nature Project

Situated in an area of high traffic-related air pollution, the Natural History Museum is to transform its five-acre outdoor space into an exemplar of urban wildlife research, conservation and awareness. It forms part of the Urban Nature Project, an initiative which Workman is proud to be partnering with, which aims to re-engage people across the UK with urban wildlife and the wider natural world. Sir David Attenborough has given his backing to the plan: 'The Urban Nature Project opens the door for young people to fall in love with the nature on their doorsteps and develop a lifelong concern for the world's wild places. Nature isn't just nice to have - it's the linchpin of our very existence, and ventures like the Urban Nature Project help the next generation develop the strong connection with nature that is needed to protect it.' As well as redesigning the Museum's gardens in South Kensington, the Urban Nature Project will drive a UK-wide movement to help everyone protect nature in towns and cities.



A slice of the Big Apple in London The Camden Highline

The London Urban Greening factor has inspired a wave of green initiatives in the capital, which has one of the highest levels of air pollution in the UK. The Camden Highline is one such plan. It aims to transform three-quarters of a mile of disused railway line 26ft above Camden into a "park in the sky". The project will turn a disused stretch of railway viaduct into a new elevated park and walking route, connecting Camden Gardens in the west to York Way in the east. The route is 1.2km long, around 8 metres above ground and will bring new local green space to 20,000 people.

Life on the edge Covent Garden's Living Wall

To coincide with the 500th anniversary of Covent Garden, Biotecture was commissioned by Capital and Counties to create a vertical park at the gateway to the area. A living wall wrapped around the corner of Long Acre and James Street was constructed using a steel support framework on the West and North aspects, covering an area around 200sq metres. Delivering high visual impact for anyone coming out of Covent Garden tube station, the planting selection provides both biodiversity and air quality improvements, while also offering habitat for native birds and invertebrates, as well as flowering plants for nectar. A rainwater harvesting system was retrofitted into the basement of the building to irrigate the living wall, following formation of tank rooms to facilitate the installation.



Show me the money Suzhou Industrial Park

China has seen its GDP increase 260-fold, partially through green development. One example is Suzhou Industrial Park, an industrial township developed in the early 1990s through a Sino-Singapore partnership. Today the park accommodates 25,000 companies, of which 92 are Fortune 500, and is home to 800,000 people. Highlights of the park's green growth include the fact that 94% of industrial water is reused, 100% of new constructions are green buildings, energy is dominantly renewable and green spaces cover 45% of the city, offering protection to areas of great ecological function and diverse ecosystems. The park has proved that roof design can increase energy production (through solar panels) and reduce flooding and the urban heat-island effect (through green roofs), while green façades can reduce air pollution by up to 20% and traffic noise by up to 10 decibels. More than a third of the park's GDP is generated by green industries. By combining public sector policies with market mechanisms, the Park has tapped into significant synergies. For instance, to maximise circular models, a central organic waste treatment plant aggregates and transforms the biological waste, sludge and reclaimed water from one set of industries to subsequently deliver organic fertilizer, biogas and biodiesel oil to another set of sectors.



Paint the town green BiodiverCities by 2030

In a bid to create a shared framework for measuring efforts to manage, protect, and conserve biodiversity in cities, the World Economic Forum (WEF) has created a global initiative that will support city governments, businesses and citizens around the world to create an urban development model in harmony with nature: BiodiverCities by 2030.

The WEF is calling for the “regular and long-term integration of efforts and solutions from across the globe” and aims to provide a true measure of success in addressing biodiversity loss and advancing towards nature-positive development in cities. A global commission of 25 thinkers and practitioners has been selected to oversee the direction and progress of this initiative during 2021.



Small is beautiful Tiny Forests

In a space no bigger than a tennis court – around 200 sq. metres – Earthwatch aims to create hundreds of Tiny Forests across urban areas of the UK by 2023. The densely packed native forests, with 600 saplings planted by council staff and volunteers, are able to store carbon, soak up water to reduce flooding, attract wildlife, reduce dust, improve air quality and cut noise pollution. Tiny Forests have already been planted in underused urban spaces in Oxfordshire and Glasgow (pictured), with more to follow in Birmingham, Leicester, Wolverhampton, London and other cities. Planned and designed in collaboration with local stakeholders and the community, the projects encourage engagement and ownership from the outset. Tiny forests are based on forest management methods developed in the 1970s by Japanese botanist Dr Akira Miyawaki. By loosening soil to a meter’s depth and incorporating organic materials to improve the soil’s water holding capacity and nutrient content, rapid growth ensues. As the trees compete for light, they can grow to five metres in just three years. Earthwatch is bringing the scheme to the UK with the help of Dutch organisation IVN Nature Education, which has planted nearly 100 tiny forests in the Netherlands.

Make a little birdhouse

The Western Harbour District of Malmö, Sweden

Twenty years ago, the The Western Harbour District of Malmö, Sweden was little more than 70 hectares (175 acres) of contaminated soil and deserted docklands, following the dramatic decline of the city’s shipbuilding industry. Said to have been the inspiration for London’s Urban Greening Factor, the district was built in 2001 as a model community for a housing exposition, which heralded it as the “sustainable city of tomorrow”. It aimed to be the world’s first carbon neutral neighbourhood, powered by wind and heated by an underground geothermal hotspot. From the outset, each apartment block had to meet a green space factor (GSF), according to a city policy that demanded every development set aside a percentage of its footprint as green space. It initially gave out biodiversity-focused bonus points for anything from tall fruiting trees and potted plants on the roadside, to tiny birdhouses and frog-filled ponds.



The Interview

How biodiversity benefits the urban environment

Workman is a proud partner of the Natural History Museum's Urban Nature Project. An ambitious project that will transform the Museum's five-acre gardens in South Kensington into a welcoming, accessible and biologically diverse green space in the heart of London, and generate an urban nature movement across the UK. The Urban Nature Project will develop the scientific tools and skills urgently needed to monitor, understand and protect urban nature. To find out more, Vicky Cotton, Head of ESG, Workman, spoke to Natural History Museum experts: John Tweddle, Head of Angela Marmont Centre for UK Biodiversity and Sam Thomas, Urban Nature Project Biodiversity Officer.



Vicky Cotton
Head of ESG
Workman



John Tweddle
Head of Angela
Marmont Centre
for UK Biodiversity



Sam Thomas
Urban Nature Project
Biodiversity Officer

VC: Why do we need biodiversity in the urban environment?

Sam Thomas: The COVID-19 pandemic has demonstrated more clearly than ever the value of urban greenspace to those who live in towns and cities, as well as the inequality of access to such spaces. Urban areas are not biodiversity deserts, in fact detailed analysis of four British urban centres (Bristol, Edinburgh, Reading and Leeds) show that over 60% of the total landcover is "green". In a country with some of the least intact biodiversity in the world, urban mosaics of green and blue space – from parks, gardens and semi-natural terrestrial habitats, to rivers, ponds and canals are becoming increasingly important spaces for nature conservation.

VC: What are the big challenges facing biodiversity in urban areas today?

John Tweddle: Urban biodiversity is subject to many pressures. With more than 80% of the UK population currently living in urban areas, set to rise to more than 90% by 2030 increasing population density threatens the loss of green and blue space, and particularly, of brownfield sites; the importance of which has only recently been fully recognised. Alongside increasing population density and associated intensification of land-use, factors such as climate change, pollution, habitat fragmentation and invasive species also pose a significant risk to urban biodiversity.

VC: What are the primary benefits to be derived from increasing biodiversity in urban and built environments?

ST: There is a growing body of evidence that interaction with nature is beneficial for physical and mental wellbeing. The benefits of increasing biodiversity – for example by creating larger, better-connected or new spaces for nature – are not geographically uniform. Studies show a link between socio-economic status, access to nature, and life expectancy. Communities suffering from multiple indices of deprivation can often have more limited access to green space close to where they live than less-deprived communities. This can become a contributory factor to deprivation and reduces their ability to live healthy and active lives.

VC: If biodiversity is not increased in urban environments in the UK, what could be the likely effects / outcomes?

JT: One way in which we are likely to see the effects is through temperature increases, which will undoubtedly be felt particularly strongly in cities due to the urban-heat-island effect. Urban greenspace helps reduce this effect with studies showing that a 10% increase in urban tree cover can lead to temperature reductions of 3-4%. If current climate projections hold true, then the benefits of this localised cooling will become increasingly important over coming decades. Planting appropriate species of trees in



The Natural History Museum's Urban Nature Project, proudly partnered by Workman.

the right places can provide multiple other benefits beside this cooling effect: from supporting populations of other native plants, animals and fungi, to reducing soil erosion and increasing carbon sequestration.

VC: What are the most effective methods by which to increase biodiversity in urban and built environments and are there any low-maintenance options?

ST: Significant positive impacts can be made by integrating measures for biodiversity into government policy and the planning system such as through Green Infrastructure and Biodiversity Net Gain. However, collective and individual action at a more local level is also vital to improving urban areas for biodiversity. Even small actions such as reducing external lighting and decreasing the frequency of mowing can have a rapid and measurable positive impact on local biodiversity. Reducing lighting creates less light pollution, which in turn positively impacts night flying insects and bats, while amending the mowing regime of amenity grasslands can rapidly increase the diversity of flowering plants, pollinators and other insects. Carefully considering how you can improve site management with a suite of low-maintenance

interventions such as these can significantly improve your site for biodiversity. If you manage an office, retail, or business park why not take a walk around your site and think nature? Are there spaces where planting could be improved for pollinators? This could be perennial flowers or tough Mediterranean shrubs such as lavender that require minimal upkeep. Can existing monoculture shrub planting be replaced with mixed native species which could benefit birds with nesting and feeding opportunities? Is there space for a pond, however small? Keep in mind that even small measures are positive for biodiversity and contribute to the connectivity and resilience of urban nature without requiring a lot of budget or time commitment.

VC: Are there any simple solutions for increasing biodiversity inside a building where properties have no outdoor space?

JT: While not inside, the outside of buildings are not without value for nature. Thoughtfully designed buildings have the potential to offer space for nature through green roofs and green walls, or opportunities for nesting birds such as the icon of urban conservation success the peregrine falcon or species that are currently undergoing massive population declines, such as swifts.

10 ways to build biodiversity

Incorporating biodiversity projects into commercial real estate adds social and community value, as well as halting biodiversity loss. In a drive for engagement with the natural world, Workman has created a Biodiversity Toolkit to demonstrate that it's possible to increase biodiversity in even the most concrete of built environments.

It's not too late to make a difference, and here's how...

1 Grow your own: create an allotment

Where there is space, either roof space or corners of vacant external space, consider creating allotments specifically for community groups or occupiers to use. With a continued focus on reducing carbon impact, the Workman team at Prospect Shopping Centre created a rooftop allotment. Having already achieved Gold in the Green Achiever Scheme, the team wanted to encourage groups of green-fingered volunteers to create the first rooftop allotment in Hull, and to help people think about food "from field to fork". The community-led project now boasts more than ten plots where produce is grown and harvested. The team has collaborated with local organisations including homeless charity Hull Harp and community work placement project The Work Company. Through this partnership, bedding plants for summer hanging baskets will be grown in the Centre's allotments, delivering an annual saving of £3k.

2 Get the buzz: get a beehive

Beehives can increase biodiversity, while also providing community links. However, their location must be carefully considered, and specialist risk assessments carried out. At Roaring Meg Retail Park in Stevenage, an area of woodland provided great potential and was confirmed by specialist beekeepers as an appropriate space in which to place two beehives. The woodland was an ideal size for a biodiversity initiative; large enough to support a project that would be of interest to Roaring Meg's new and existing customers, but it was small enough to be managed on a day-to-day basis by the Workman team.

Roof locations can also be an option for beehives, with specialist consultants and beekeepers either providing

a fully managed service or provide set up and support with maintenance regimes. Plus, honey produced by the beehives can be bottled and sold, usually to raise funds for a nominated charity.

3 From gloom to bloom: plant wildflowers

Wildflower projects can range from small patches to large swathes of meadow or corridor. Maintained amenity grassland can be converted into a wildflower meadow through reduction in frequency of mowing and sowing of wildflower seeds. Although this means an initial financial outlay, it reduces annual costs as there is less ongoing maintenance. At Sheffield's Crystal Peaks retail park, a Wildflower Corridor has been created, offering a wide range of opportunities for community green space and biodiversity enhancements. Here, the Workman team has created a legacy project to make significant and quantifiable improvements to the green spaces in and around the Crystal Peaks area. The project, which is ongoing and expanding thanks to Sheffield City Council, has not only enabled Workman to foster relationships between the local authority and the retail park, it has also enabled outreach work with local schools.

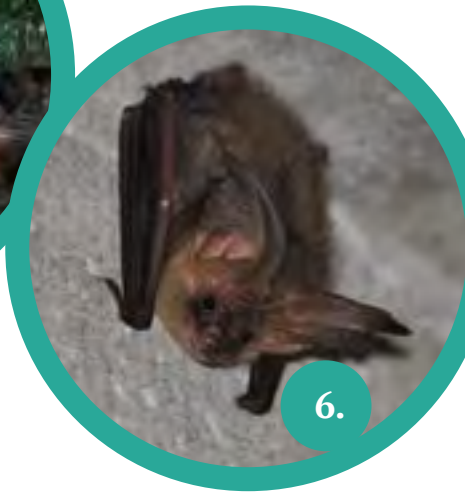
4 Make a creature feature: open a bug hotel or hedgehog hide

Bug hotels, bird boxes and hedgehog boxes can be located around service yards and in landscaped areas, in order to increase wildlife activity. The introduction of wildlife cameras can also allow images to be gained of animals using the area, and these can also help identify and keep track of the types of species living in and around the





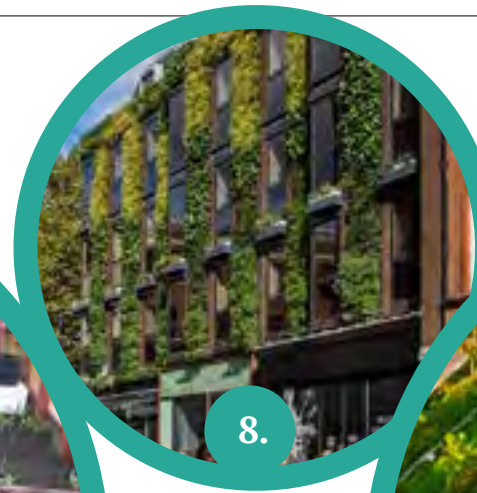
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site, while giving local children opportunities to learn about the importance of bugs, birds and small creatures in the environment. At Central Retail Park in Falkirk, the Workman team created a wildlife garden, and introduced bug hotels, bird houses and hedgehog boxes, which it has used to track the increase in wildlife and bug life in the area. It's often possible to create bug, bird and hedgehog homes completely from natural or waste materials either donated by occupiers or from discarded pallets, bricks, wood and hay, for example. This means materials that would otherwise have been collected for waste get recycled to provide a safe and sheltered habitat for wildlife, increasing the biodiversity in the area while reducing waste costs.

5 Build a treehouse: focus on tree management and log habitat piles

Standing and fallen decaying wood provides an ideal habitat for wildlife. Even just one or two trees and bushes, if kept beyond their natural life, are of great value to insects. These can then provide sustenance for birds, which feed on insects that make their home in old wood. At Birmingham Business Park, the Workman team has created a Woodland Walk development including bird boxes, wildflowers, beehives, and log habitat piles, thanks to a comprehensive tree management programme.

6 Go dark: turn off the lights

Review the lighting regimes currently in place to establish if it is possible to reduce the extent of lighting onsite. Can lighting regimes be rationalised to minimise impact on natural habitats and wildlife? With careful consideration to security, look at creating or extending hours of darkness, outside of trading hours. Ensure that areas that could be used by bats and other wildlife are not illuminated. Undertake checks of installed bat boxes to identify extent of roosting on site and carry out bat surveys to identify species using the site.

7 Let it grow: Create new planting spaces

Where there are no beds or borders (and no opportunity to create them) consider planters. These can be used in the most limited of spaces – outside reception areas or to create natural barriers in car parks – even where there is only concrete space. Central Retail Park in Falkirk is built on an old ironworks and as much of its ground is reinforced concrete, ground planting does not always take. Meanwhile, there are 31 occupiers needing to dispose of non-returnable pallets, old display furniture and even unsold plants. So, in the spirit of the circular economy, simple designs were used for planters, which were lined and filled with compost

ready for growing. Coffee grounds have also been collected from occupiers as soil enrichment. Although the work has taken time, it has been completed at a fraction of the cost of buying new materials.

8 Off the wall: Install a vertical garden

A living wall can be created simply and cheaply on an external wall by planting climbing plants between timber battens. This will encourage insect and bird life. Other forms are more expensive and involve modular sections, but consideration for any type of living wall needs to be given to the direction the wall faces and access to water. The recommendation is to start small and experiment before committing large spaces. Internal living walls are becoming more popular, but need some form of irrigation, which is generally an automated watering system. Light sources also need consideration.

9 Raise the roof: Install a garden roof

Green roofs come with numerous benefits. Not only do they cut energy costs and act as an insulator, they also improve air quality and attract wildlife, thereby increasing biodiversity. But green roofs can vary significantly in cost and approach. They can be

heavy and require varying degrees of maintenance. There are two main types: an intensive green roof which is grown in a thick layer of soil, like a lawn, and needs significantly more maintenance. These are more common where the roof is also used as a terrace/breakout space. These are the heaviest and are generally not added retrospectively without structural design input. Or secondly, extensive roofs are much shallower and generally less green as grasses grow in a shallow gravel/substrate. They require slightly less maintenance (but must be kept tidy) and are lighter. These are generally installed as a biodiversity initiative, rather than as a place for people.

10 Give it up: Donate time or money to local biodiversity projects

Where there are absolutely no opportunities to increase biodiversity levels at a particular retail park, shopping centre or office development, occupiers and site teams can be encouraged to donate time to local biodiversity charities or projects. National opportunities include: www.rewildingbritain.org.uk www.earthwatch.org.uk or find local opportunities within the community around the property.

The Future of Nature and Business Report found that making cities more nature-positive could create **\$3 trillion** annually in business opportunities and **117 million jobs** by 2030.



Today, more than half of the world's population lives in cities, with an estimated

1.5 MILLION

additional people per week expected to migrate to cities until 2030. A global population of **7.6 billion** today, expected to reach **8.6 billion** by 2030 and **9.8 billion** by 2050, with 68% of us living in urban areas.

Our planet's wildlife populations have now plummeted by 68% since 1970, according to WWF's 2020 research, the Living Planet Report.



Biodiversity in numbers

The need to transform the relationship between cities and nature has become ever more urgent, as demonstrated by the figures shown here.

However, it's important to remember that there is a way out, if we make changes now to reduce our carbon impact.

75% of environments on land have been significantly altered by human actions, plus roughly 66% of the marine environment.

If the world carries on with business as usual rather than protecting natural assets, the impact on key services provided by nature, from carbon storage to crop pollination, will cost **\$10 trillion cumulatively by 2050**. In contrast, we would see substantial economic gains (\$US 230 billion by 2050) if we focused instead on sustainable development that helped to protect and restore nature.



While cities account for up to

80%

of global GDP,

they are also responsible for 75% of carbon dioxide emissions and are among the main factors in air and water pollution.



In the UK, 50% of birds, 50% of fungi and 25% of mammals in Britain are at risk of extinction according to the State of Nature report.

The UN's Environment Programme discovered that nature can deliver carbon reductions of at least 30% by 2030 if biodiversity is protected and enhanced. However, at the current rate of deforestation 11% increases in greenhouse gas emissions are predicted annually.



80% of the UK population live in urban areas, and this is projected to rise to 92% by 2030, leading to larger cities and more challenges for wildlife. This means towns and cities are rapidly becoming where most people will experience nature, therefore key places to protect the UK's biodiversity.



Building biodiversity: meet Workman's experts



Vicky Cotton, Head of ESG, Workman

With 24 years' experience in real estate, including 13 in property management, Vicky is extremely experienced and well-educated on ESG in the built environment. Across the full asset spectrum, Vicky's expertise extends from issues around wellbeing in the workplace to increasing biodiversity on site.

Passionate about the environment and sustainable management processes, Vicky has created a Net Zero Asset Plan to lead clients through the process of achieving zero carbon emissions, in line with government targets for 2050, or sooner.

Vicky firmly believes that the climate emergency is one of the greatest threats that the property industry – and indeed the whole world faces; "There is a huge collective responsibility ahead, within a limited timeframe and only one refurbishment cycle away – miss it now, miss it entirely."

Well-versed within the field of environmental and sustainability management within the wider property industry, Vicky has strong relationships with several leading real estate investors, Better Buildings Partnership (BBP) and sustainability consultants.



**Hedley Jones, Head of ESG,
Refurbishment & Development, Workman**

Hedley works with a diverse client base, including leading institutional investors, private property companies and overseas investors. With more than 27 years' experience across all major property sectors, Hedley is passionate about the environment and looks for any opportunity, both personally and professionally, to minimise the impact we have on the planet. Building on his experience delivering successful projects, Hedley is leading the change to more sustainable design, by distilling complex technical engineering data into clear achievable client pathways. Capitalising on the property industry's recognition of the gravity of the environmental situation, Hedley challenges project teams to innovate and consider new opportunities. Hedley is member of Revo with strong retail-sector client contacts, as well as links to many of the leading consultancies in the UK, including Hoare Lea, WSP, Stride Treglown, Fielden Clegg Bradley Studios, Gleeds, Curtins, Clarke Bond, Waterman.

Workman is committed to championing biodiversity in the urban environment. This publication has been created by Workman as part of our Building Biodiversity campaign, designed to highlight the importance of biodiversity, demonstrate ways in which it can be incorporated into commercial real estate, and promote the Natural History Museum's Urban Nature Project, of which we are a proud partner.

