

# Leading the way:

**Sustainability insights from leading built environment businesses**

# UKGBC Gold Leaf Members and this report

Gold Leaf members are organisations aspiring to be sustainability leaders. They typically have ambitious environmental aspirations, and a strong societal purpose. They wish to join UKGBC to enable them to accelerate their adoption of sustainable business practices, and to learn from and challenge one another to be more bold and ambitious.

Our Gold Leaf members have a combined turnover of over £150bn and employ approximately 50,000 staff.

It is our ambition to enable them to demonstrate their commercial success through the leading sustainability practices they adopt. We work very closely with our Gold Leaf members in realising our vision, and they remain our first port of call for advice, collaboration and support.

To find out more about becoming a Gold Leaf member please see our website<sup>†</sup> or contact Alastair.Mant@ukgbc.org

## Clients



## Advisors



## Contractors



## Suppliers



<sup>†</sup> <https://www.ukgbc.org/gold-leaf-members/>

\* These organisations are not included in the statistics, usually because they became Gold Leaf members during the Sustainability 360 Review process

\*\* UKGBC Gold Leaf members at the time of the Sustainability 360 Review

# Foreword



As a charity with a clear and ambitious mission to radically improve the sustainability of the built environment, it's essential for UKGBC to understand our members' commitments and track their continual progress. Through this we can start to gain an understanding of where we need to focus our activities and provide members with the support they require to transform their businesses.

Our Gold Leaf member community represents those aspiring to sustainability leadership. By joining at this level, they give us a mandate to challenge their approach, and encourage the adoption of bold ambitious commitments to change. This report demonstrates that, regardless of the political turmoil in recent times, some of UKGBC's Gold Leaf members are starting to catch up with out of sector sustainability leaders. The trend towards setting long-term science based targets, net positive commitments in relation to carbon and biodiversity, and ambitions to put the built environment at the heart of a circular economy all reflect a powerful collective vision.

At UKGBC, we want sustainable development to become second nature – the obvious and only option for mainstream property and construction activities. With this in mind we aim to influence change amongst professionals, businesses, places and the built environment sector as a whole. Through research like this, we aim to challenge and empower our members and others in the sector to take immediate action. We will continue to convene key stakeholders together for a better built environment.

**Julie Hirigoyen**  
CEO, UK Green Building Council

## Contents

UKGBC Gold Leaf Members and this report	2
Foreword	3
Executive summary	5
1. Introduction	9
2. Climate change	11
3. Resource use	15
4. Nature and biodiversity	19
5. Health and wellbeing	22
6. Socio-economic impacts	25
7. Conclusion	28
9. UKGBC's vision	29
8. References	30

## Executive summary

UKGBC's latest report, Leading the Way - Sustainability insights from leading built environment businesses, highlights the findings of research conducted into the sustainability commitments and performance of 52 Gold Leaf members in August 2017. The main report draws out some of the

key findings from the research, highlights emerging business trends and common themes, provides examples of best practice in the industry, and makes a number of specific recommendations to ensure that the industry accelerates towards a sustainable built environment. The issues researched include:

Theme	Leadership topics researched
 <b>Climate change</b>	<ul style="list-style-type: none"> <li>• Science based targets.</li> <li>• Climate change adaptation.</li> <li>• Embodied carbon.</li> <li>• Renewable energy.</li> <li>• Commitment to net zero or net positive.</li> </ul>
 <b>Resource use</b>	<ul style="list-style-type: none"> <li>• Re-use and elimination of resources.</li> <li>• Circular economy.</li> </ul>
 <b>Nature and biodiversity</b>	<ul style="list-style-type: none"> <li>• Biodiversity strategy.</li> <li>• Net improvement.</li> </ul>
 <b>Health and wellbeing</b>	<ul style="list-style-type: none"> <li>• Health &amp; wellbeing strategy.</li> <li>• Monitoring impacts.</li> </ul>
 <b>Socio-economic impact</b>	<ul style="list-style-type: none"> <li>• Moral or social purpose.</li> <li>• Net positive social impact.</li> </ul>

### Research findings and trends relating to Gold Leaf member commitments

The following section provides a snapshot of the findings across the five themes. It sets out positive progress that UKGBC Gold Leaf members are making in each of the issues researched. The research also highlights areas that require further improvement and progress. For example, addressing the urgency associated with climate change, the challenges associated with diminishing resources and biodiversity and the impact the built environment has on people. Underpinning this analysis are best practice examples taken from across the Gold Leaf membership. This repository of examples will continually grow and serve as a useful reference for learning and awareness raising within the wider industry.



#### Climate change

Positive progress		Areas for improvement
<ul style="list-style-type: none"> <li>79% have set a public carbon reduction commitment.</li> <li>42% have a commitment for climate change risk assessments to be undertaken on all projects.</li> <li>53% of clients are measuring and reducing embodied carbon.</li> </ul>		<ul style="list-style-type: none"> <li>15% have committed to adopt science based targets in the future. One is aiming for net zero energy developments and two are aiming for net positive carbon businesses.</li> <li>13% measure and have set an embodied carbon target, half are clients.</li> <li>35% procure 100% green energy.</li> </ul>
Best practice examples		
<p><b>Bennetts</b> has created a public report to explain the methodologies and targets used for their official Science Based Targets submissions, to share lessons and enable other SMEs to follow in committing to science based targets.</p>	<p><b>Landsec</b> has a science based target to reduce GHG emissions by 40% per square metre by 2030, from a 2014 base-year, achieving an 80% carbon intensity reduction by 2050.</p>	<p><b>Lendlease</b> has a global target for 100% of Lendlease assets, offices and projects to be assessed for climate change impacts and have a resilience and adaptation plan in place by 2020.</p>



#### Resource use

Positive progress		Areas for improvement
<ul style="list-style-type: none"> <li>100% are undertaking some activities aligned to the circular economy model.</li> <li>92% specify some form of reuse and recycled content of materials on a project.</li> <li>48% have a zero waste to landfill commitment.</li> </ul>		<ul style="list-style-type: none"> <li>10% are targeting zero waste and none have a specific reuse target.</li> <li>8% have commitments to apply off-site construction techniques.</li> <li>37% have set (varying levels of) a public waste reduction target.</li> </ul>
Best practice examples		
<p><b>JLL</b> has recently set a high-level target that, 'by 2020, we will support the UK's transition to a circular economy through our services, our workforces and our public affairs activities.'</p>	<p><b>SEGRO</b> deconstructed an entire warehouse and rebuilt it, saving 25% on the cost of a new building and allowed for a 56% reduction of embodied carbon.</p>	<p><b>Skanska</b> has set its Deep Green target to achieve Zero Waste, Zero Unsustainable Materials and Zero Hazardous Materials.</p>



#### Nature and biodiversity

Positive progress	Areas for improvement	
<ul style="list-style-type: none"> <li>54% have a biodiversity strategy in place.</li> <li>21% are committed to delivering no net loss, net gain or net positive biodiversity.</li> </ul>	<ul style="list-style-type: none"> <li>Confusing approaches to net positive and net gain of biodiversity.</li> <li>2 client organisations have commitments relating to net positive or net gain.</li> <li>19% have signed up as members of the Natural Capital Coalition.</li> </ul>	
Best practice examples		
<p><b>Balfour Beatty</b> was the first contractor to achieve a 25% net biodiversity gain in the rail sector on the £6.4m Tanners Hill Project in 2013, using the DEFRA biodiversity metric. The success of this led to Network Rail implementing the methodology on the Thameslink Rail Programme.</p>	<p><b>Barratt Developments</b> is seeking to create a "net positive impact" on biodiversity and ecology across its development portfolio.</p>	<p><b>WSP</b> seeks to achieve biodiversity net gain in all its work.</p>



#### Health and wellbeing

Positive progress	Areas for improvement	
<ul style="list-style-type: none"> <li>61% have a specific health and wellbeing strategy in place.</li> <li>31% have defined health and wellbeing indicators and are tracking their impact.</li> </ul>	<p>25% are monitoring the health and wellbeing impacts of their own office and/or among occupiers and customers.</p>	
Best practice examples		
<p><b>Aggregate Industries'</b> "Healthy You" programme actively encourages employees to lead healthier lives and openly talk about mental health and wellbeing. The company has identified childhood obesity as a major health challenge in one of the communities where they operate and has developed a community engagement programme working with young children to encourage enjoyment in sports activities.</p>	<p><b>Akzo Nobel</b>, replaced over 250 hazardous substances, exceeding regulatory requirements, in response to public concern.</p>	<p><b>British Land</b> has stated a commitment to "create places that promote health, improve productivity and increase enjoyment".</p>



#### Socio-economic impact

Positive progress	Areas for improvement	
<ul style="list-style-type: none"> <li>100% of product manufacturers have committed to contribute positively towards society.</li> <li>37% have committed to contribute positively towards society.</li> </ul>	<ul style="list-style-type: none"> <li>29% have articulated an explicit moral or social purpose as part of the organisations vision.</li> <li>23% of companies have linked their sustainability strategy to the UN Sustainable Development Goals (UNSDG).</li> </ul>	
Best practice examples		
<p><b>Derwent London</b> aims to carry out socio-economic assessments on all major projects once occupied for more than 12 months to establish net impact/benefit of the development.</p>	<p><b>Morgan Sindall</b> adopted the Local Multiplier 3 tool which measures the contribution of its activities towards local economies. The long-term target for Morgan Sindall is to deliver £1.5bn of social value.</p>	<p><b>Wilmott Dixon</b> set a target to 'enhance the life chances of 3000 young people by 2015', which was exceeded by 14%. They have now extended the target to 10,000 by 2020.</p>

# 1. Introduction

This Sustainability 360 Review has demonstrated that UKGBC Gold Leaf members are clearly making progress on this important journey towards a sustainable built environment. Many are setting bold commitments relating to sustainability, but there remains a long way to go if the sector is to address the scale of the challenges captured by UKGBC's State of Sustainability in the UK Built Environment project. The step change required will involve much more mainstream adoption of challenging commitments identified in this research including:

- Set a commitment and adopt science base targets.
- Aim for zero carbon or ideally zero energy or net positive developments.
- Measure and reduce embodied carbon – Scope 3.
- Procure renewable energy or ideally produce onsite renewable energy.
- Aim for zero waste and set bold ambitions around Circular Economy.
- Aim for no net loss biodiversity in developments, ideally net positive.
- Set a health and wellbeing strategy for developments and organisations.
- Measure and track health and wellbeing of occupants.
- Set the organisational vision and values to have an ethical and social purpose.
- Link the organisational strategy to the UN Sustainable Development Goals.

*At UKGBC, we want sustainable development to become second nature – the obvious and only option for mainstream property and construction activities. With this in mind we aim to influence change amongst professionals, businesses, places and the built environment sector as a whole. Through research like this, we aim to challenge and empower our members and others in the sector to take immediate action. We will continue to convene key stakeholders together for a better built environment.*

**Julie Hirigoyen**  
CEO UK Green Building Council

This report highlights the findings from the Sustainability 360 research conducted by UK Green Building Council (UKGBC) into the sustainability commitments of 52 Gold Leaf members<sup>[1]</sup>, who are organisations spanning the UK's construction and property supply chain.

The report draws out some of the key findings of our research; emerging trends are highlighted along with examples of best practice in the industry. A number of specific recommendations for industry are set out to help accelerate progress towards a sustainable built environment.

## Purpose

UKGBC's Gold Leaf membership proposition is targeted at organisations who aspire to sustainability leadership and aim to be as progressive as possible.

The aims and objectives of the Sustainability 360 Review were to:

- Understand the commitments of those member companies that aspire to sustainability leadership
- Measure continual progress and improvement within Gold Leaf member businesses
- Enable members to see how their sector peers are committing to sustainability issues, and shape their evolving strategies accordingly.

## Methodology

This research was carried out in August 2017 based on desk top research of each members' current sustainability report and strategies. It is, therefore, based on publicly available information and in some cases reflects the lack of disclosure or comprehensive sustainability communications within the industry.

## Issues in scope

We undertook our first Sustainability 360 reviews in 2016 and issued the report *Leading the Way*<sup>[2]</sup>. In 2017 we focussed on all 52 Gold Leaf members' *commitments* against the five key themes covered by UKGBC's Vision: climate change, resource use, nature & biodiversity, health & wellbeing and socio-economic impact. For each of these themes, we identified a handful of particularly relevant topics that we consider to constitute business leadership – either specific to property and construction or within the business community at large. These are listed in the following table.

Theme	Leadership topics researched
 <b>Climate change</b>	<ul style="list-style-type: none"> <li>• Science based targets</li> <li>• Climate change adaptation</li> <li>• Embodied carbon</li> <li>• Renewable energy</li> <li>• Commitment to net zero or net positive</li> </ul>
 <b>Resource use</b>	<ul style="list-style-type: none"> <li>• Re-use and elimination of resources</li> <li>• Circular economy</li> </ul>
 <b>Nature and biodiversity</b>	<ul style="list-style-type: none"> <li>• Biodiversity strategy</li> <li>• Net improvement</li> </ul>
 <b>Health and wellbeing</b>	<ul style="list-style-type: none"> <li>• Health &amp; wellbeing strategy</li> <li>• Monitoring impacts</li> </ul>
 <b>Socio-economic impact</b>	<ul style="list-style-type: none"> <li>• Moral or social purpose</li> <li>• Net positive social impact</li> </ul>

### Report structure

We have structured our findings against the five key themes and for each of these we have included:

- The business case for taking action
- Trends in business leadership
- Highlights and strengths within the Gold Leaf membership
- Development opportunities for the sector

## 2. Climate change

### Why it's important

Climate change represents a real and present threat to economic growth, human societies and ecological stability. On the flip side it also represents significant opportunities for business at large, and the construction sector in particular. As illustrated in UKGBC's 2017 State of Sustainability report, 42% of the UK's greenhouse gas emissions came from the built environment at large. 22% arose from the operational and embodied carbon footprint of the built environment, the remainder is from unregulated energy and transport<sup>[3]</sup>.

The COP21 Paris Agreement in December 2015 saw international consensus amongst 175 nation states to limit the average atmospheric temperature increase to well below 2°C. To play its part in reaching the 2°C threshold, we know the built environment must reduce its emissions by a total of 84 GtCO<sub>2</sub> by 2050. This will require all new buildings to be net zero carbon by 2030, and require deep refurbishment of the existing building stock to improve energy efficiency by 2050, as set out in World GBC's own ambitious goals<sup>[4]</sup>.

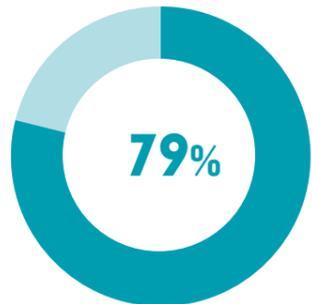
### Business leadership

Leading companies are reviewing their business models to reflect the growing need to adapt to, and mitigate against, climate change, positioning such efforts as an attempt to ensure business viability long into the future. Investors are placing greater emphasis on carbon risk and pricing this into their daily transactions, with some going so far as to exclude carbon intensive assets or businesses from their investment portfolios. As awareness of carbon risk intensifies, this will increasingly be reflected in carbon pricing – be that through taxation, insurance, lending rates or other financial incentives.

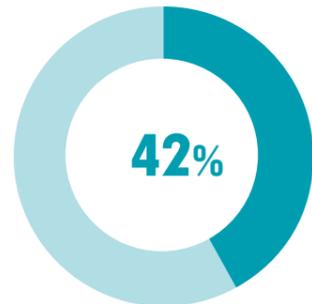
Growing numbers of organisations are adopting science based targets to ensure their decarbonisation trajectory is in line with the global 2°C limit. To meet these targets they are measuring and reducing their Scope 1, 2 and 3 emissions. Many are committing to 100% renewable energy, whether they are installing their own renewables or signing up to green energy tariffs. Organisations that own physical assets have increasingly adopted climate resilient strategies to enable these assets to adapt to extreme weather conditions. A few leading organisations are looking to change their business models entirely so as to become net zero energy or carbon positive and are working to decouple carbon emissions from financial growth. These are all themes researched as part of this review.

### Commitments from Gold Leaf members relating to climate change

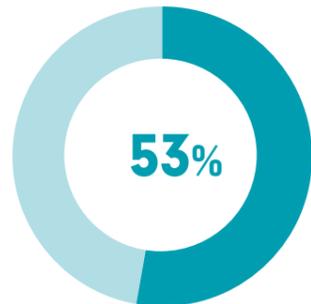
- 6% have so far officially adopted science based targets, which is a noteworthy increase from 2016 when no members had yet adopted science based targets.
- We looked for businesses that have a quantitative carbon reduction target in place, and found that 79% have set a public commitment, and of those, 62% have set a short term (by 2020) carbon reduction target and are measuring their Scope 1, 2 and some of Scope 3 emissions.
- In relation to Scope 3 emissions, of the 19 client organisations, 53% are measuring and reducing embodied carbon and almost all contractors are measuring and reducing embodied carbon.
- 42% have a commitment for climate change risk assessments to be undertaken on all projects, principally the client organisations which are those that own or invest in buildings. 54% submit information to the annual Carbon Disclosure Project (CDP) climate change risk assessment.
- We would expect more members to have set public commitments addressing climate change risks and mitigation measures.



**79%**  
have set a public carbon reduction commitment



**42%**  
have a commitment for climate change risk assessments to be undertaken on all projects



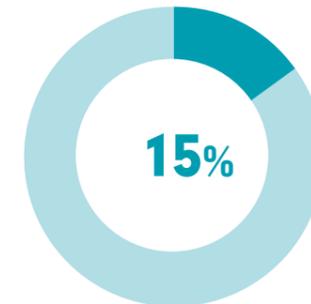
**53%**  
of clients are measuring and reducing embodied carbon

### Development opportunities for Gold Leaf members and, by extension, the sector at large

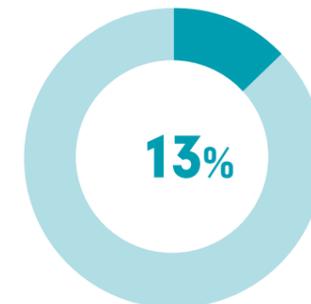
- Whilst we have seen an increase in organisations who have adopted science based targets this year, only 15% of Gold Leaf members have committed to adopting science based targets, and 12% have commented, although not publicly, that they are considering setting science based targets (SBTs). We hope, considering the urgency of climate change and talks at COP23, that all Gold Leaf members will commit to setting SBTs over the coming years to demonstrate their willingness to ensure their own emissions trajectory is in line with a maximum warming of 2°C, or ideally, 1.5°C compared with pre-industrial levels.
- Only 6% of members have achieved carbon neutral operations (using offsets) and 15% have a target to be net zero carbon. Product manufacturers said their products can enable zero carbon buildings to be achieved but none of them are yet taking this one step further and making their business operations zero carbon. 1 member has a target to be a net zero energy business and two are aiming to be net positive businesses. In view of the need for all new buildings to be net zero carbon by 2030, this is clearly an area that members need to renew their efforts in coming years.
- It is surprising to see only 13% of members are measuring and have set an embodied carbon target, half of these being client organisations. Considering the support UKGBC has provided through the embodied carbon awareness raising programme and our recent report 'Developing a client brief'<sup>[5]</sup> we expect to see this increase over the next year. 54% of the Gold Leaf members claim to be providing some form of services around measuring and reducing embodied carbon, almost half of these being contractors.
- 35% of Gold Leaf members state that they procure renewable energy, from a green tariff, for their owned and occupied estates. Considering the cost competitive nature of green tariff providers, we would expect these numbers to increase. Of this group, 17% of members have signed up to the RE100<sup>[6]</sup> or have a commitment to source 100% renewable energy.



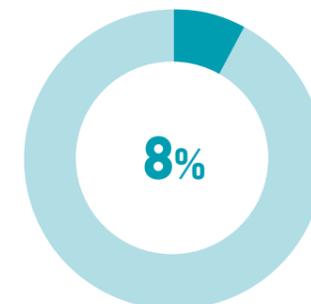
**35%**  
state that they procure 100% green energy from a green tariff, for their owned and occupied estates



**15%**  
have committed to adopt science based targets in the future



**13%**  
measure and have set an embodied carbon target



**8%**  
have a target to be net zero carbon

## Examples of leadership in relation to climate change within the Gold Leaf membership



**AkzoNobel** has recently committed to use 100% renewable energy and become carbon neutral by 2050. AkzoNobel's share of renewable energy currently stands at 40%, with almost half the company's sites around the world having improved their energy footprint in 2016. They have a carbon commitment that aims to use 0% carbon in energy use and 0% waste in its use of materials while also delivering positive social impact.



**Atelier Ten** is a carbon neutral company committed to reducing their overall carbon footprint through energy reduction initiatives and offsetting additional emissions that are unavoidable. Atelier Ten use the programme Clear which is an approved programme under the UK Government's Quality Assurance Scheme for Carbon Offsetting; this ensures their offsets only go to Certified Carbon Reduction projects.



In 2017 **Bennetts Associates** committed to set and adopt science-based targets, the first architectural practice in the world to do so. The organisation has set out to fully understand the scope of its carbon emissions, and to create science-based targets.

Interestingly, alongside the official science based targets submissions, Bennetts has created a public report to explain the methodologies and targets to share lessons and enable other SMEs to follow in committing to science based targets<sup>[9]</sup>.



**Hanson** has an objective to conserve natural resources by avoiding or reusing waste and developing products that have low embodied impacts. To achieve this, Hanson will reduce non-process waste to landfill by 85 per cent; increase cement replacements in concrete to 45 per cent; recycled aggregate in asphalt (excluding filler dust) to 10 per cent and concrete plants recycling surplus concrete to 95 per cent – all by 2020.

The company will also maintain ISO 50001 certification and improve energy efficiency and carbon reduction of production plants and offices; increase the use of renewable energy and waste as fuel; and reduce CO<sub>2</sub> emissions from transport by extending its in-house fleet to gain greater control and optimise distribution. Hanson has completed a nine megawatt solar energy farm at Ketton cement works in Rutland. The installation covers 20 hectares and features 38,544 panels, which will generate enough energy to cover around 10 per cent of the site's annual electricity consumption. The second phase of the solar field was opened in 2015 providing 13MW of electricity over two years<sup>[10]</sup>.



In 2017 **Landsec** became the first property company to set carbon reduction targets aligned to science based targets. The company has a commitment in place to reduce GHG emissions by 40% per square metre by 2030, from a 2014 base-year. This will set the company on the path to accomplish an 80% carbon intensity reduction by 2050 from the same base-year. The company also commits to engage with all main contractors (lead construction partners) to encourage them to set science-based targets by 2023, so that the embodied carbon from key materials can be reduced in line with what is required for a 2°C pathway.



**Lendlease** has a global target for 100% of Lendlease assets, offices and projects to be assessed for climate change impacts and have a resilience and adaption plan in place by 2020. It aims to achieve a net positive carbon standard for Elephant & Castle (E&C) as part of the C40 Climate Positive Development Programme, which will include off-setting as well as energy efficiency. Some housing on the E&C scheme is to achieve the stretching PassivHaus standard and it also has a zero carbon community energy centre based on combined heat and power<sup>[8]</sup>.

## 3. Resource use

### Why it's important

As illustrated in UKGBC's State of Sustainability<sup>[11]</sup> in the UK Built Environment report, the UK economy used 576Mt of materials in 2015, and according to WRAP, the construction and demolition industry accounts for 60% of all materials used and 33% of the waste in the UK. In 2014 this was equivalent to 210Mt of waste from construction, demolition and excavation<sup>[12]</sup>.

The National Building Specification stated that of the 400 million tonnes of materials delivered to construction sites, 60 million went straight to landfill simply through over ordering, misordering or poor handling and breakages<sup>[13]</sup>. Aside from the environmental damage, this also has financial implications.

The challenge is therefore to drastically cut the resources used and wasted by our built environment.

According to the ING Economics Department, the market for a circular economy is growing and it is estimated that over the next 10 years, this will boost economic growth by up to 4 per cent<sup>[14]</sup>. By reviewing 120 case studies across a range of sectors, Accenture has observed that adopting circular economy principles is enabling companies to gain real competitive advantage<sup>[15]</sup>. Shifting to a circular economy model leads companies to innovate, cut out inefficiencies and create added value.

### Business leadership

Leading companies are transforming their business models away from a business as usual, linear approach of creating profit to generate value from more resource efficient and circular processes. This is of course inherently complex and challenging, and frequently requires partnerships across industry sectors.

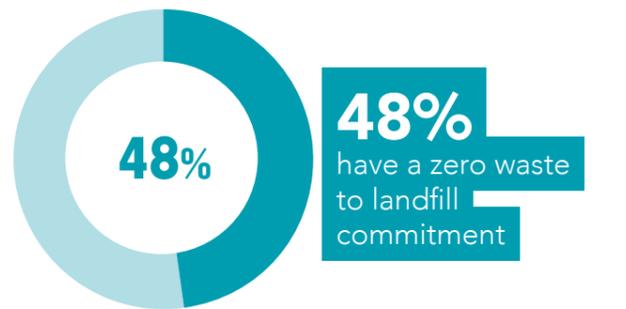
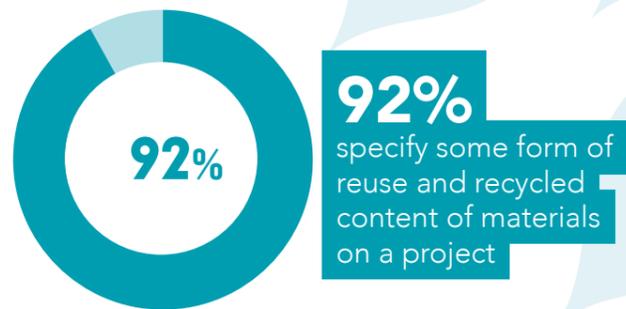
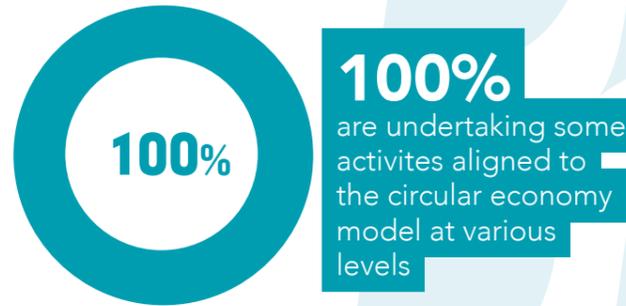
Many practices are being applied to construction that support a resource efficient approach - modular and offsite construction is a tried and tested approach to reducing waste onsite, ensuring that waste is designed out and allowing for design for deconstruction in the inevitable scenario that the building reaches the end of its service life. We are starting to see progressive organisations looking towards becoming zero waste organisations, generating no waste at all. Product manufacturers are looking at take back schemes and retailers are looking at leasing models for products. A more common approach in the construction process is the

reuse of secondary and recycled products in building design which is a cost effective and environmentally sustainable approach when life cycle analysis is taken into account.

Many property investors are pursuing a strategic approach that is in keeping with the circular economic model by focusing on urban regeneration, building retrofit and compact design. Others are actively seeking to prolong asset life by designing for flexible uses and/or dis-assembly and reuse of building components. A step further in this vein would be to promote multi-use assets; flexible lease arrangements; co-living schemes; shared services in multi-let buildings; 'out of hours' uses for offices or even using roof tops, interior walls and external façades for renewable energy generation; vertical or roof top food growing. At a more advanced stage, the built environment would be conceived as part of an urban ecosystem that is interconnected, co-operative and recycles resources in perpetuity – fully eliminating the concept of 'waste'.

### Commitments from Gold Leaf members relating to resource use

- 100% of Gold Leaf client organisations are undertaking at least some activities which are aligned to the circular economy model at various levels and are taking actions to optimise resource use in building construction and/or operations. And 58% of clients are carrying out initiatives to increase the reuse of waste, although haven't set specific commitments.
- 92% specify some form of reuse and recycled content of materials on a project, which is considered a cost effective way of replacing cement content, low carbon and uses less virgin materials.
- 48% have a zero waste to landfill commitment in place.



### Development opportunities for Gold Leaf members and, by extension, the sector at large

- Members have a varied, and slightly confusing approach to resource use, applying different terminology to indicate they are looking to use resources efficiently and reduce waste to landfill. Terms used include targeting zero or 'nearly zero' waste to landfill, waste neutral, zero waste, zero non recovered waste and more. Only 37% of members have set (varying levels of) a public waste reduction target, ie to reduce the amount of waste produced in the first place. Only 4% of those are looking to phase out hazardous materials, 10% are targeting generating zero waste and none of the firms surveyed have yet set themselves a specific reuse target. Organisations should look to set clear, transparent and ambitious targets towards zero waste.
- 8% of organisations had commitments to apply off-site construction techniques. This number is significantly lower than we would expect as this approach isn't new or complex and is proven to save time and costs.
- Only 10% of members belong to the CE100 group<sup>[16]</sup>, an initiative to promote circular economy thinking. Two members had jointly taken forward a circular building where 'All components needed to be implemented and utilised to their full potential and for the duration of their life cycle, while creating a comfortable and aesthetic environment for the user.' More organisations could look to set challenging and ambitious commitments for circular approaches to buildings.
- Only 3 member organisations have a specific organisational commitment relating to advancing circular economy, although a number of others have statements setting out activity they are taking forward in the area.



## Examples of resource use commitments within the Gold Leaf membership



As part of its Heathrow 2.0 strategy, **Heathrow Airport** is seeking to deliver a resource efficient, zero waste airport and support a circular economy. This will involve changing airport wide culture to value resources and dis-incentivise waste; promoting 'sharing' models to make better use of resources; engaging with the supply chain and ensuring that all tenders for works or products include a circular economy opportunities assessment and influencing business partners' operations to encourage better outcomes for resource management<sup>[23]</sup>.



**JLL** has recently set a high-level target that, 'by 2020, we will support the UK's transition to a circular economy through our services, our workforces and our public affairs activities'. This is helping the organisation focus its activities. JLL became a signatory to BiTC's Circular Office campaign – to learn from others and to collaborate on shared opportunities. JLL will also be proactively working with the wider property industry and running a 'Transforming Real Estate' programme. This will address new sustainability trends emerging over the next two decades<sup>[19]</sup>.



**Laing O'Rourke** - In partnership with Community Wood Recycling (CWR), the firm put more than 450 tonnes of waste timber back into use during the year, helping to fund permanent jobs in the process. CWR is a network of UK-based social enterprises that provides a wood collection service, while giving disadvantaged people employment and training opportunities<sup>[21]</sup>.



**Skanska** has set its Deep Green target to achieve Zero Waste, Zero Unsustainable Materials and Zero Hazardous Materials. The commercial development units in Europe are aiming to only develop Green and Deep Green projects by 2020 - with Deep Green making up 20 percent of their project portfolios.

In 2015, Skanska delivered its first Deep Green project in the UK. The Bentley Works facility in Doncaster is built from sustainable sources, generates its own energy, harvests water and has a near zero carbon footprint. No hazardous materials were used and zero waste was sent to landfill during construction<sup>[18]</sup>.



In 2014, to allow new access roads, **SEGRO** deconstructed an entire warehouse and rebuilt it at the Cambridge Avenue unit on its Slough Trading Estate. The steel frame, concrete beams and slabs were reused, as was the lift. The project is estimated to have saved SEGRO 25% on the cost of a new building and allowed for a 56% reduction of embodied carbon<sup>[25]</sup>.



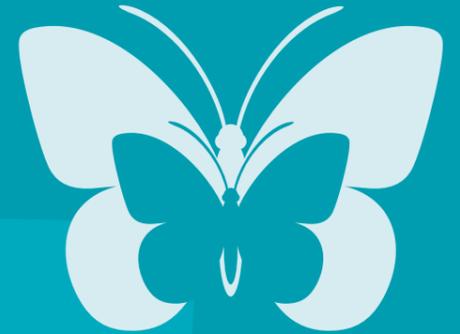
Having recently signed up to the Ellen MacArthur Foundation CE 100, **The Crown Estate** will embark on a three-year partnership to embed the principles of the circular economy across the business and its activities. Building on existing initiatives, which have enabled 98% of waste diverted from landfill on current developments and the development of a waste consolidation programme across the central London portfolio, The Crown Estate is seeking to identify further opportunities to apply circular economy practices as part of its strategy to deliver a carbon-free, waste-free business by 2030<sup>[26]</sup>.

## 4. Nature and biodiversity

### Why it's important

Biodiversity is a fundamental component of natural capital, the world's stocks of natural assets (among them soils; air; water and all living organisms) from which we derive ecosystem services. Ecosystem services are the foundation of human society, directly supporting the well-being of every human population in the world. They supply us with food, fresh water and clean air; they provide protection from natural disasters, regulate our climate, pollinate our crops and support our health and wellbeing.

At a global level, The Living Planet Index, which measures biodiversity abundance levels, shows a persistent downward trend, and natural capital being eroded faster than it can be replenished. The UK has lost significantly more wildlife over the long-term compared to the global average, and 56% of species declined between 1970 and 2013 and further impacts can be seen in the UKGBCs State of Sustainability report<sup>[28]</sup>. Notable falls in the number of insects and other invertebrates, which have a vital role in pollination services and in maintaining soil health, besides keeping ecosystems in balance, are particularly worrying.



**56%**  
of species  
declined between  
1970 and 2013

### Business leadership

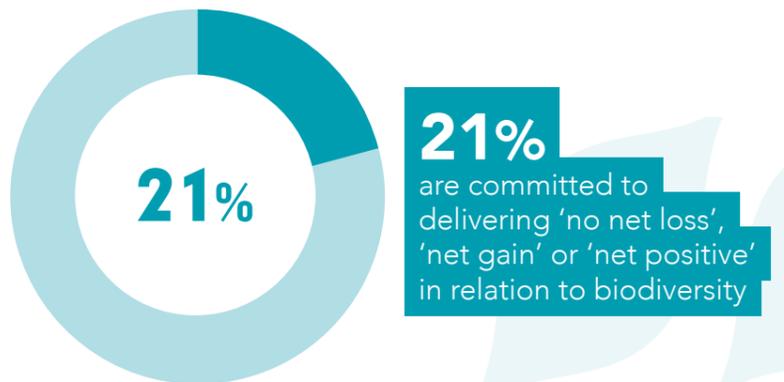
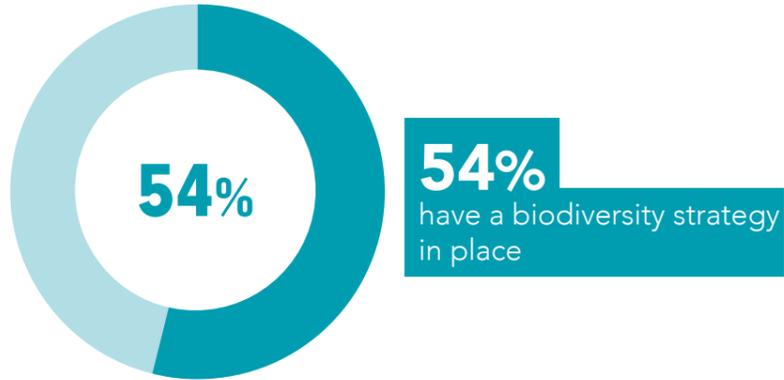
Leading companies are developing 'ecological thinking' as a way of doing business. They use biomimicry principles to inform product design and seek to develop supply chain models and operational practices which result in 'no net loss' or are inherently restorative to the natural environment. Leading product companies are taking forward sustainable solutions to product design and developing products that enables polluting waste to be harvested from the oceans for reuse in their manufacturing process.

Others are pursuing 'net gain' or 'net positive' approaches to biodiversity by firstly minimising negative impacts and secondly compensating for those impacts by restoring biodiversity on, near or off-site. Some are looking at a hierarchy approach based on avoidance, minimisation, restoration, and offsets where appropriate. Other companies donate sales profit towards the protection of biodiversity.

With a focus on biodiversity and business risk, some companies have developed natural capital accounting tools to integrate biodiversity considerations into decision-making processes.

### Commitments from Gold Leaf members relating to nature and biodiversity

- Among the 52 Gold Leaf Members reviewed, 54% have a biodiversity strategy in place and 21% are committed to delivering 'no net loss', 'net gain' or 'net positive' in relation to biodiversity.
- Biodiversity is most consistently addressed among the client sub-group, where 74% of client organisations have a strategy in place and 47% have commitments to 'no net loss', 'net gain' or 'net positive' outcomes.
- 35% have committed to no net loss and 13% have set net positive targets.



### Development opportunities for Gold Leaf members and, by extension, the sector at large:

- Of the five key themes, members hadn't set their commitments as high or consistently in relation to biodiversity compared with other themes. Approaches to net positive and net gain of ecological areas are also unclear and inconsistent.
- 2 clients have set out specific commitments relating to being net positive or having a net gain and 1 advisor has set a commitment to support clients in becoming net positive.
- 19% have signed up as members of the Natural Capital Coalition, which brings together leading global initiatives and organizations to harmonize approaches to natural capital, promotes a shift in behaviour that enhances rather than depletes natural capital, and supports the evolution of an enabling environment that both aids natural capital thinking and integrates it into other initiatives and works to conserve and enhance nature and biodiversity.



### Examples of biodiversity commitments within the Gold Leaf membership

#### Balfour Beatty

**Balfour Beatty** was the first contractor to achieve a 25% net biodiversity gain in the rail sector on the £6.4m Tanners Hill Project in 2013, using the DEFRA biodiversity metric. The success of this led to Network Rail implementing the methodology on the Thameslink Rail Programme<sup>[34]</sup>.



**Barratt Developments** is seeking to create a "net positive impact" on biodiversity and ecology across its development portfolio and reported 172 hectares of wildlife habitat created or retained in 2016. Barratt Developments has a national partnership with RSPB which enables the organisation to embed nature friendly design and planting across developments. Through this partnership, Barratt Developments has engaged customers and residents more effectively around the benefits of nature<sup>[32]</sup>.



**GVA** is one of the first property advisers to link the planting of trees in the UK to its own office operations. GVA works with the UK's leading woodland conservation charity, the Woodland Trust which enables tree planting at various locations across the UK. In 2015 GVA supported the 'Woodland Carbon' mitigation scheme, where every kg of CO<sub>2</sub> from the energy used in its offices was mitigated by planting new trees, the equivalent of five football pitches<sup>[31]</sup>.



**M&S'** Cheshire Oaks store delivered a net increase in site biodiversity by carrying out significant pre-construction ecological works; planting 228 trees; creating and enhancing wildlife habitats through swale and wildflower planting, installing bird and bat boxes and creating green walls. The site now features 88 individual plant species and is frequented by 17 different bird species<sup>[33]</sup>.



**Saint-Gobain** has set an objective to "promote the preservation of natural areas on the sites as far as possible". The company's Biodiversity Policy is currently being prepared for publication in 2017 based on mapping exercise undertaken in 2016. Saint-Gobain's Placoplatre quarry in Corneilles, France, was awarded an Emerald for an exemplary project in the biodiversity category following the restoration of 60 hectares, previously dedicated to gypsum mining, in order to create various ecosystems<sup>[29]</sup>.



**WSP** seeks to achieve biodiversity net gain in all its work. WSP guided Network Rail through the process of measuring biodiversity losses and gains on the Thameslink project, following a 'mitigation hierarchy' approach. The team examined an area closely to measure existing biodiversity levels and then baselined the whole route using DEFRA's biodiversity metric. Impacts caused by the Thameslink upgrade work were first mitigated, with compensation and offsetting pursued as a last resort. WSP also developed the Thameslink 'Delivering Biodiversity Benefits' Policy and Procedure, and ran training courses for Network Rail staff and its supply chain. As a result Thameslink is the first Network Rail Infrastructure Project to achieve net positive gain for biodiversity, and was named by DEFRA as a demonstration project as part of its national pilot test on biodiversity offsetting<sup>[30]</sup>.

# 5. Health and wellbeing

## Why it's important

A report from Firstcare in 2017 shows that workplace absence is costing the UK economy £18bn in lost productivity<sup>[35]</sup>. What is more, workplace absence has been steadily rising since 2011 – having been previously in decline since 2003. Based on current trends, it is predicted that the cost of absence will increase to £26bn in 2030. Poor mental health is cited as a critical factor; as it now accounts for the majority of workplace absence. Considering the additional fact that staff costs typically account for about 90% of operating costs, this makes the business case for investing in employee health and wellbeing at a corporate level even more compelling.

The built environment itself has a significant role to play. Whilst it cannot influence the full range of complex factors that contribute to individuals' health and wellbeing, it is now widely documented that community and building design – external and internal – do count. The World Green Building Council's research has provided overwhelming evidence that the design of an office has a material impact on the health, wellbeing and productivity of its occupants, and that single design features, such as high levels of natural light, good ventilation or biophilic design features can have positive impacts on mental and physical health. Within the urban community, design that facilitates walking and cycling; the provision of green space; cultural and outdoor recreation amenities and access to fresh, nutritious produce have the same effect.

## Business leadership

Many leading companies are integrating health and wellbeing aspects as a core part of their business to ensure staff have the support and environments to optimise their health, wellbeing and productivity. Beyond the workplace, companies such as product manufacturers, developers and advisors are all ensuring they can deliver the products and services to positively contribute towards healthier homes, shops, schools and the wider built environment.

Those leading the way are providing support mechanisms to keep employees moving, engaged and happy. Examples include edible gardens, sports facilities, quiet and collaborative spaces, standing desks, plants and lighting that mimics natural daylight, onsite wellness and healthcare services, fitness centres, nutrition-focused cafés, 'play' zones and flexible working options.

High quality office space is designed to create optimal indoor air quality, acoustics, biophilia, thermal comfort, and visual comfort. These are all integrated as enabling factors in developing healthy office design. On top of this, companies who are ahead of the curve are measuring the impacts of office space on staff's happiness, productivity, absenteeism and as a result saving costs for a company.

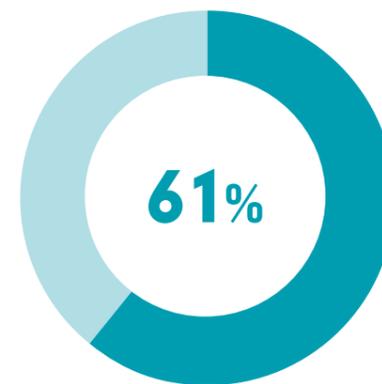


## Commitments from Gold Leaf members relating to health and wellbeing

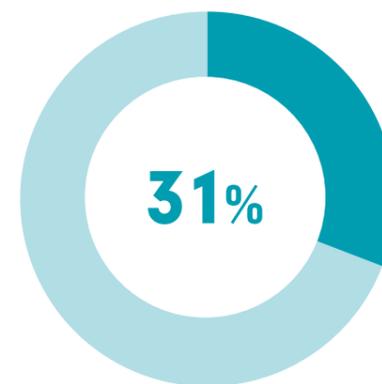
- 61% have a specific health and wellbeing strategy in place and 31% have defined health and wellbeing indicators and are tracking their impact.
- Of the 19 companies within the clients sub-group, 100% have at least some commitments in relation to health and wellbeing and 84% demonstrate that they have a strategy in place.
- 46% have a corporate strategy in place that focuses on improving employee health and wellbeing; whilst 40% of companies are committed to delivering a 'healthy' built environment through their developments, products and/or services only 27% demonstrate that they are doing both.

## Development opportunities for Gold Leaf members and, by extension, the sector at large:

- Across the Gold Leaf membership we are seeing companies commit to including health and wellbeing as part of their own office refurbishments. 25% are monitoring their health and wellbeing impact either within their own office and/ or among occupiers and customers. Performance measurement in this area should be more advanced, and we would expect more companies to be committing to ongoing measuring and monitoring.
- Within the client community, only 19% of companies show a balanced focus between committing to improving the health of their own employees and the occupiers and customers they serve; 37% focus exclusively on their impact through the built environment and 16% are predominantly concerned with their own employees.
- 46% demonstrate a corporate strategy focused on improving employee health and wellbeing; whilst 40% of organisations are committed to delivering a 'healthy' built environment through their developments, products and/or services. Only 27% demonstrate that they are doing both. Considering the research relating to cost implications of staff productivity and absenteeism, we would expect more members to measure and set commitments relating to improving occupiers health and wellbeing.



**61%** have a specific health and wellbeing strategy in place



**31%** have defined health and wellbeing indicators and are tracking their impact

## 6. Socio-economic impacts

### Examples of health and wellbeing commitments within the Gold Leaf membership



**Aggregate Industries'** "Healthy You" programme actively encourages employees to lead healthier lives and enables managers and their teams to talk openly about mental health and wellbeing. The company has also trained up mental health first-aiders. Beyond their own workforce, Aggregate has identified childhood obesity as a major health challenge in one of the communities where they operate and has consequently developed a community engagement programme working with young children to encourage enjoyment in sports activities<sup>[36]</sup>.



**BRE** has announced a new project that will test the effects of biophilic design on office occupants. BRE is undertaking the refurbishment of an existing office building that will enable occupants to be monitored whilst they work. The 'living lab' will be the UK's first live research workspace to measure the health and well-being benefits of biophilic design, exploring how products, materials and internal configurations affect occupants<sup>[38]</sup>.



**British Land** has stated a commitment to "create places that promote health, improve productivity and increase enjoyment". The company has set targets to 'develop and pilot a retail wellbeing specification', 'define and trial a methodology for measuring productivity in offices' and 'research and publish on how development design impacts public health outcomes', among others. British Land used the World GBC Offices Framework to inform the refurbishment of its own head office, incorporating several key health and wellbeing principles. This resulted in 99% of staff finding their refurbished office an 'enjoyable environment to work in' compared to 69% before<sup>[40]</sup>.



**Cundall's** office at One Carter Lane reflects the firm's belief that great design should inspire a creative, healthy and collaborative workspace. It is the first project in the UK and Europe to achieve WELL Certification through the WELL Building Standard™. The space was designed by Studio Ben Allen and includes R&D areas in the form of an 'Acoustic Lab' featuring Cundall's Virtual Acoustic Reality (VAR) - Oculus Rift technology and a 'Green Lab' for continued research into biophilia and indoor air quality testing. All materials and finishes were selected for low or zero TVOC, formaldehyde and toxic content. A ventilated green biowall and living natural timber structures also feature as part of the design. The organisation has reported lower sick days and increased staff satisfaction<sup>[39]</sup>.



**Standard Life** has been investigating the health and wellbeing impact of a building in which it is both tenant and landlord by collating data on staff turnover and absenteeism, monitoring and benchmarking indoor air quality and noise, carrying out a Leesman survey and conducting a gap analysis against the WELL standard. The learning outcomes from this project are informing how Standard Life can enhance occupier health, wellbeing and productivity across its investment portfolio.

### Why it's important

Businesses generate significant socio-economic impacts: by building supply chains; creating employment; investing in people and communities; creating buildings and infrastructure; developing and enabling access to products and services; advancing technology and contributing taxes, among other outcomes, they have a bearing on the standard of living experienced by individuals and communities. At the same time, socio-economic conditions are a major factor in determining business success, especially over the long-term.

Whilst businesses can undoubtedly create very positive social impacts, the last decade has witnessed a lowering of trust in business as a "force for good". In the wake of the global financial crisis and persistent revelations around tax evasion, executive remuneration and unethical business practices, big business is increasingly seen to operate at society's expense. Furthermore, companies are often accused of failing to tackle – if not

even exacerbating – major social challenges from social mobility, (un)affordable housing and inequality to obesity and digital stress.

Conversely, businesses with a social purpose – or those which focus on creating social value – have demonstrated that they can connect better with customers; nurture committed and creative personnel and maintain higher levels of trust at a time of unprecedented stakeholder scrutiny and social media activism. Companies with a strong social purpose tend to see higher employee engagement, which has been found to translate into outperformance in year-on-year changes in net income and stock earnings per share<sup>[41]</sup>. Seeking solutions to social and environmental challenges can be a catalyst for innovation that opens up new market opportunities; whilst promoting sustainable products can boost sales growth and customer loyalty as consumers are increasingly driven to purchase responsibly<sup>[42]</sup>.



### Business leadership

Leading companies are driven by an embedded sense of moral purpose. They show a deeper understanding of society's challenges and inspire a shared commitment to generate positive social outcomes, not just in relation to the bottom line. This approach turns the business as usual model on its head and focuses its efforts on people and doing good. Those leading the way have commitments in place around supporting disadvantaged groups into employment, improving the health and happiness of society and fundamentally shifting towards educating the next generation in the skills to create a better built environment.

### Commitments from Gold Leaf members relating to socio-economic impacts

- 100% have programmes for community and philanthropic activities.
- 100% of product manufacturers have committed to contribute positively towards society. This is interesting as only 37% of all Gold Leaf members have made a similar business-wide commitment although many of these firms have programmes for community and philanthropic activities.
- Positively, 84% of client organisations iterate a clear commitment to deliver positive social impacts. This covers a diverse range of themes, from enhancing quality of life in local neighbourhoods to investing in apprenticeships; preserving the UK's cultural heritage to supporting communities in the global supply chain; value of contracts with local suppliers; affordable homes completed and investment in specific community projects. However, the lack of available benchmarks or consensus around metrics used, makes it difficult to compare the social impact that each company has.

### Development opportunities for Gold Leaf members and, by extension, the sector at large:

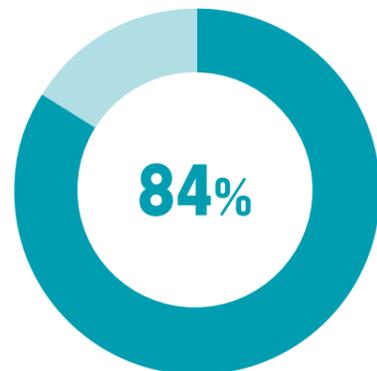
- 29% have articulated an explicit moral or social purpose as part of the organisation's vision. The approaches to this vary quite significantly in terms of structure and scale, although they have many common features. The predominant focus areas are:
  - Education and skills development
  - Helping people into employment

We would expect more UKGBC members to review their vision and values to ensure they have an ethical or social focus. This will help differentiate them and set them apart as leaders from those operating within "business as usual."

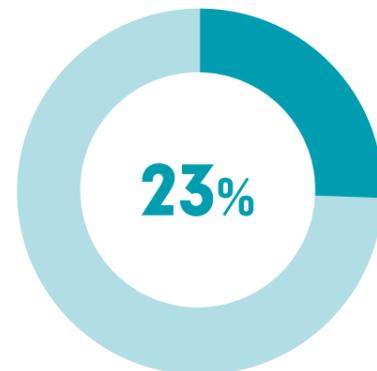
- 23% have linked their sustainability strategy to the UN Sustainable Development Goals which is low considering the ambitions set by the UN and its 2030 Sustainable Development Agenda.
- At least four companies are pursuing Social Return on Investment (SROI) studies at a project level and we believe that many more are planning to, which we encourage.



**100%**  
of product manufacturers have committed to contribute positively towards society



**84%**  
of client organisations communicate a clear commitment to deliver positive social impacts



**23%**  
have linked their sustainability strategy to the UN Sustainable Development Goals

### Examples of socio-economic impact commitments within the Gold Leaf membership



**AECOM's** Corporate Responsibility platform – Blueprint for a Better World – encompasses its three pillars; 'to deliver access to safe and secure infrastructure to those who need it most, to create opportunity for the leaders of tomorrow and to protect our planet so that, together, we can realize our dream of a better world'. Through these pillars, AECOM focuses on applying its specific expertise to support a wide range of causes. These include clean water and sanitation, clean energy, public spaces, homelessness and housing for displaced, veterans employment and mentoring (in select markets), STEM education and design thinking, vocational training/reskilling for adults, economic opportunity for women. For example, the AECOM Millennium Project is a UK registered charity focused on the relief of poverty, hardship and distress among children in developing countries throughout the world. At least 95 percent of the nonprofit's proceeds go directly to helping children.



**Canary Wharf Group (CWG)** has deeply embedded socio economic and community affairs programmes in its core business. Some examples include:

- £3 million invested in community projects and activities
- 41% of its spend was on local businesses - since 1997 CWG has spent over £1.4 billion on local businesses
- 32 schools in Tower Hamlets now have a 'Code Club' due to sponsorship
- 118 work experience placements hosted - 380 local students taken part in the Code First: Girls programme at Level39 since 2013
- CWG and Tower Hamlets Further Education Fund supported 93 people to take vocational training courses costing over £130,000<sup>[44]</sup>



**Derwent London** aims to carry out socio-economic assessments on all major projects once occupied for more than 12 months to establish net impact/benefit of the development. Since 2013 the organisation has operated a unique community fund which supports grass-roots community projects across London, with more than £350,000 invested by 2016<sup>[43]</sup>.



**Morgan Sindall** has adopted the Local Multiplier 3 (LM3) tool which measures the contribution of its activities towards local economies. The long-term target is to deliver £1.5bn of social value, and short- and medium- targets are to significantly increase the number of projects using LM3 so that it can measure the long-term target as accurately as possible.

In 2016, Morgan Sindall developed the tool further to enable predictions of local economic benefits before a project starts on site and to monitor the social as well as economic impact of its projects, such as the diversity of its supply chain<sup>[46]</sup>.



In 2013 **Wilmott Dixon** set a target to 'enhance the life chances of 3000 young people by 2015', which was exceeded by 14%. They have now extended target to 10,000 by 2020. They are approaching this through programmes to target youth unemployment and social exclusion and deliver community transformation. Some concrete examples? In 2016 the company published a Social Value Report which seeks to capture the impact of their activities in quantitative and qualitative terms.

## 7. Conclusion

This Sustainability 360 Review has demonstrated that UKGBC Gold Leaf members are clearly making progress on this important journey towards a sustainable built environment. Many are setting bold commitments relating to sustainability, but there remains a long way to go if the sector is to address the scale of the challenges captured by UKGBC's State of Sustainability in the UK Built Environment project. The step change required will involve much more mainstream adoption of some of the challenging commitments we have reviewed as part of this research including:

- Set a commitment and adopt science based targets
- Aim for zero carbon or ideally zero energy or net positive developments
- Measure and reduce embodied carbon – Scope 3
- Procure renewable energy or ideally produce onsite renewable energy
- Aim for zero waste and set bold ambitions around Circular Economy
- Aim for no net loss biodiversity in developments, ideally net positive
- Set a health and wellbeing strategy for developments and organisation
- Measure and track health and wellbeing of occupants
- Set the organisational vision and values to have an ethical and social purpose
- Link the organisational strategy to the UN Sustainable Development Goals.

### Sustainability 360 Review

*"At UKGBC, we want sustainable development to become second nature – the obvious and only option for mainstream property and construction activities. With this in mind we aim to influence change amongst professionals, businesses, places and the built environment sector as a whole. Through research like this, we aim to challenge and empower our members and others in the sector to take immediate action. We will continue to convene key stakeholders together for a better built environment."*

**Julie Hirigoyen, CEO**  
UK Green Building Council

*"Thanks for creating this Sustainability 360 report. I think the review is fair and the pointers as to where we could focus more attention is reasoned and useful; we will review these and consider how we can make progress in these areas."*

**Martin Fahey, Head of Sustainability,**  
Mitsubishi Electric

*"As a result of the UKGBC Sustainability 360 review we made the decision to join the UN-Climate Neutral Now framework in addition to our existing commitments to science-based targets. This means we will be offsetting our emissions and becoming carbon neutral from 2017. Holding members to account, and encouraging them to go further and show more leadership, is an incredibly valuable part of what UKGBC does."*

**Ben Hopkins, Bennetts Associates**

*"The UKGBC's Sustainability Review gave us welcome new insights and we will use them to stretch ourselves as a business. We want our estate in London to work harder for its communities and all Londoners by adapting. That will require buildings and places evolve in response to changing needs and the environment. Delivering on our ambitious sustainability targets will be key."*

**Emily Hamilton,**  
Sustainability Manager,  
Grosvenor Britain & Ireland

## 9. UKGBC's vision

A sustainable built environment is one that enables people and planet to thrive by:

- Mitigating and adapting to climate change
- Eliminating waste and maximising resource efficiency
- Embracing and restoring nature and promoting biodiversity
- Optimising the health and wellbeing of people
- Creating long-term value for society and improving quality of life

The UKGBC vision of sustainability is comprised of social as well as environmental factors and we believe that these are integral to a financially successful built environment industry.

# 8. References

- 1 <https://www.ukgbc.org/members-directory/?members-sectors=&members-type=Gold+Leaf+Member&members-name=>
- 2 <https://www.ukgbc.org/sites/default/files/UK-GBC%20Leading%20the%20way%20FINAL%20WEB.pdf>
- 3 <https://www.ukgbc.org/climate-change/>
- 4 <http://www.worldgbc.org/advancing-net-zero>
- 5 <https://www.ukgbc.org/ukgbc-work/embodied-carbon-practical-guidance/>
- 6 <https://www.theclimategroup.org/RE100>
- 7 <https://www.berkeleygroup.co.uk/about-berkeley-group/our-vision/operations>
- 8 <https://www.lendlease.com/us/company/sustainability/our-progress/resilience-and-adaptation/>
- 9 <https://www.bennettsassociates.com/news/climate-neutral-now/>
- 10 <http://www.hanson-sustainability.co.uk/en/waste-and-raw-materials>
- 11 <https://www.ukgbc.org/ukgbc-work/state-sustainability-built-environment/>
- 12 <https://www.ukgbc.org/resource-use/>
- 13 <https://www.thenbs.com/knowledge/construction-waste-and-sustainability>
- 14 [https://www.ing.nl/media/ING\\_EZB\\_Financing-the-Circular-Economy\\_tcm162-84762.pdf](https://www.ing.nl/media/ING_EZB_Financing-the-Circular-Economy_tcm162-84762.pdf)
- 15 Accenture, 'Circular Advantage: Innovative Business Models and Technologies to Create Value in a World with Limits to Growth' (2014)
- 16 <https://www.ellenmacarthurfoundation.org/ce100>
- 17 [http://www.mitsubishielectric.com/company/environment/policy/ev2021/index\\_print.html](http://www.mitsubishielectric.com/company/environment/policy/ev2021/index_print.html)
- 18 <https://group.skanska.com/sustainability/green/how-we-define-green/>
- 19 <http://transformingrealestate.jll.co.uk/why-transform/imagining-circular-office/>
- 20 <https://www.arup.com/news-and-events/news/the-circular-building-the-most-advanced-reusable-building-yet>
- 21 [http://www.laingorourke.com/~media/lor/files/annual-review-2015/laingorourke\\_2015annualreview\\_sustainability.pdf](http://www.laingorourke.com/~media/lor/files/annual-review-2015/laingorourke_2015annualreview_sustainability.pdf)
- 22 <https://canarywharf.com/wake-up-and-smell-the-coffee/>
- 23 [https://www.heathrow.com/file\\_source/Company/Static/PDF/Communityandenvironment/heathrow-2-0.pdf](https://www.heathrow.com/file_source/Company/Static/PDF/Communityandenvironment/heathrow-2-0.pdf)
- 24 <https://www.standardlifeinvestments.com/SREIP.pdf>
- 25 <http://www.segro.com/media/press-releases/2014/06-05-2014>
- 26 <https://www.thecrownestate.co.uk/news-and-media/news/2017/the-crown-estate-joins-the-ellen-macarthur-foundation-s-circular-economy-100-programme/>
- 27 <https://blog.tatasteelconstruction.com/tata-steel-wins-award-for-circular-economy-thinking/>
- 28 <https://www.ukgbc.org/biodiversity/>
- 29 <https://www.saint-gobain.com/en/commitments/saint-gobains-csr-commitments>
- 30 <http://www.wsp-pb.com/PageFiles/n/82078/WSP%20UK-Sustainability-Report-2016.pdf>
- 31 <http://www.gva.co.uk/about-us/environmental-stewardship/>
- 32 <http://www.barrattdevelopments.co.uk/~media/Files/B/Barratt-Developments/documents/sustainability-report-2016.pdf>
- 33 <https://corporate.marksandspencer.com/blog/stories/mands-cheshire-oaks-store--biodiversity>
- 34 <https://www.balfourbeatty.com/media/195817/sustainability-report-2015-single-pages.pdf>
- 35 <https://www.astutis.com/workplace-absence-costs-uk-economy-18bn.html>
- 36 <https://www.aggregate.com/sustainability/reports-and-policies/2016-sustainability-report>
- 37 <http://report.akzonobel.com/2016/ar/?c=chapter-key-figures>
- 38 <http://bregroup.com/services/research/the-biophilic-office/>
- 39 <http://www.cundall.com/Services/Health-and-wellbeing.aspx>
- 40 <http://www.britishland.com/sustainabilityvcb>
- 41 See Towers Perrin, "Employee Engagement Underpins Business Transformation," 2009, and Ernst & Young, who more recently claimed that large institutional shareholder's successful interventions in corporate social responsibility increased share price by an average of 4.4% a year ([http://www.ey.com/Publication/vwLUAssets/EY\\_-\\_Value\\_of\\_sustainability\\_reporting/\\$FILE/EY-Value-of-Sustainability-Reporting.pdf](http://www.ey.com/Publication/vwLUAssets/EY_-_Value_of_sustainability_reporting/$FILE/EY-Value-of-Sustainability-Reporting.pdf))
- 42 Deloitte, 'Social purpose and value creation: The business returns of social impact', 2016. Unilever has also found through its own research that over half of consumers 'already buy or want to buy sustainably'. Furthermore, according to a study by Nielsen in 2015, fifty-five percent of global online consumers across 60 countries say they are willing to pay more for products and services provided by companies that are committed to positive social and environmental impact (<http://www.nielsen.com/content/dam/niensglobal/dk/docs/global-sustainability-report-oct-2015.pdf>)
- 43 [https://www.derwentlondon.com/uploads/downloads/Derwent\\_London\\_Sustainability\\_Report\\_2016.pdf](https://www.derwentlondon.com/uploads/downloads/Derwent_London_Sustainability_Report_2016.pdf)
- 44 <https://group.canarywharf.com/wp-content/uploads/sites/2/2017/06/canary-wharf-group-annual-sustainability-report-2016.pdf>
- 45 <http://sustainability2016.carillionplc.com/better-communities.html>
- 46 <http://sustainability.morgansindall.com/our-total-commitments/working-with-communities>
- 47 [http://www.interserve.com/docs/default-source/about/interserve\\_sustainabilities\\_2016.pdf](http://www.interserve.com/docs/default-source/about/interserve_sustainabilities_2016.pdf)

## Contributors

The "Leading the Way" report was principally researched by a team at UKGBC - Anna Surgenor, Miriam Abbott and Julie Hirigoyen.



UK Green Building Council  
The Building Centre  
26 Store Street  
London WC1E 7BT

T 020 7580 0623  
E [info@ukgbc.org](mailto:info@ukgbc.org)  
W [ukgbc.org](http://ukgbc.org)

